Hecker Pass Safety Improvement Project

SANTA CLARA COUNTY, CALIFORNIA
DISTRICT 4 – SCL – 152, (PM 0.14/5.20)
EA 2A2500/EFIS 0400000813

Final Environmental Impact Report/Environmental Assessment

Prepared by the
State of California Department of Transportation

The environmental review, consultation, and any other action required in accordance with applicable Federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 U.S.C. 327.

November 2010

General Information About This Document

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04-SCL-152-PM 0.14/5.2
SCH#2009042029
EA 2A2500/EFIS 0400000813

Construct safety improvements along State Route 152, from the Santa Cruz County line, to just west of the Gilroy city limits (post mile 0.14 to post mile 5.20).

FINAL ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL ASSESSMENT

Submitted Pursuant to: (State) Division 13, California Public Resources Code
(Federal) 42 USC 4332(2) (C) and 49 USC 303

THE STATE OF CALIFORNIA
Department of Transportation

11-5-10
Date of Approval

Bijan Sartipi
Director, District 4
California Department of Transportation
NEPA and CEQA Lead Agency

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Summary

The California Department of Transportation (Department) is proposing roadway safety improvements on portions of State Route (SR) 152 from 0.14 miles east of the Santa Cruz County line to 0.17 miles east of Watsonville Road. Figures 1.1-1 and 1.1-2 show the project location and project vicinity. The purpose of the project is to reduce the number of cross-centerline accidents along this highway corridor. Within the project limits, SR 152 is a two-lane undivided conventional east-west highway, located within a rural setting of Santa Clara County. The existing highway consists of two 12-foot-wide opposing traffic lanes with outside paved shoulders that vary from less than 1 foot to more than 8 feet in width. Accidents on this segment of the highway have involved vehicles that cross the roadway centerline. The proposed roadway improvements are designed to improve sight distance on this segment of the highway, thereby reducing the number and severity of cross-centerline accidents.

This document addresses the environmental impacts of a “Build Alternative” and a “No-Build Alternative.” In general, the ”Build Alternative” includes improving the existing lanes and shoulders, overlaying the existing pavement, removing trees, constructing retaining walls to accommodate shoulder widening, and adding a left-turn lane from eastbound SR 152 to Watsonville Road. Within the limits of the project, the improvements would be constructed in five spot locations. The “No-Build Alternative” would not result in any improvements to this portion of SR 152.

This document addresses the potential of the proposed build alternative to have adverse impacts on the environment. Potential impacts and avoidance, minimization, and mitigation measures are summarized in Table S-1.

The proposed project is a joint project by the California Department of Transportation (Department) and the Federal Highway Administration (FHWA), and is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). The Department is the lead agency under CEQA and NEPA. In addition, FHWA’s responsibility for environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried out by the Department under its assumption of responsibility pursuant to 23 United States Code (U.S.C.) 327.

Some impacts determined to be significant under CEQA may not lead to a determination of significance under NEPA. Because NEPA is concerned with the significance of the project as a whole, it is quite often the case that a “lower level” document is prepared for NEPA. One of the most commonly seen joint document types is an Environmental Impact Report/Environmental Assessment (EIR/EA).

Following receipt of public comments on the Draft EIR/EA and circulation of the Final EIR/EA, the Department has taken actions regarding the environmental document. The Department has certified the EIR/EA, issued Findings and a Statement of Overriding Considerations under CEQA, and issued a Finding of No Significant Impact (FONSI) under NEPA. In addition to NEPA and CEQA compliance, the project is subject to other federal, state, and local laws, policies, and guidelines that are addressed in this EIR/EA. Applicable

regulatory consultation or approvals have been completed or may be needed from the following agencies:

Agency	Permit/Approval	Status
United States Fish and Wildlife Service (USFWS)	Section 7 Consultation for Threatened and Endangered Species Review and Comment on 404 Permit	Biological Opinion 81420-2009-F-1058-2 was received by the Department on July 14, 2010, and accepted by the Department on October 19, 2010..
United States Army Corps of Engineers	Section 404 Nationwide Permit with pre-construction notification for filling or dredging waters of the United States.	A Section 404 Nationwide Permit pre-construction notification will be submitted to the Corps.
California Department of Fish and Game	1602 Agreement for Streambed Alteration Section 2081 (b) 0.1Incidental Take Permit Agreement for Threatened and Endangered Species	An application for a 1602 Agreement for streambed alteration and a Section 2081 (b) 0.1 Incidental Take permit Agreement for Threatened and Endangered Species will be submitted to the California Department of Fish and Game during design..
Central Coast Regional Water Quality Control Board	Section 401 Water Quality Certification	An Application for water quality certification will be submitted to the Central Coast Regional Water Quality Control Board

Table S-1. Summary of Impacts and Avoidance, Minimization, and/or Mitigation Measures

Affected Resource	Potential impact of No Build Alternative	Potential impact of Build Alternative	Avoidance, minimization, and/or mitigation measures
Land Use	None	The build alternative would be inconsistent with some elements of the Santa Clara County General Plan related to visual/aesthetic resources. The project would require the acquisition of farmland. The project would require the acquisition of parkland	None
Growth	None	None	None
Community Impacts: Relocations	None	None	None
Community Impacts: Environmental Justice	None	None	None
Utilities and Emergency Services	None	Utility relocations are anticipated during project construction. Further investigation would occur during the project design phase	None
Traffic and Transportation, Pedestrian and Bicycle Facilities	The number and incidence of cross-centerline accidents would not be reduced under the No Build Alternative	Brief, intermittent traffic disruptions would occur during project construction. No permanent adverse impacts would occur	None
Visual/Aesthetics	None	Trees would be removed and retaining walls would be constructed, altering views from the roadway	Recommended measures to minimize visual impacts are described under Visual/Aesthetics (Section 2.1.3.4)
Cultural Resources	None	None	None
Hydrology and Floodplains	None	None	None
Water Quality and Storm Water Runoff	None	Increased impervious area could increase the sediment load in storm water runoff	Appropriate BMPs and measures are described under Water Quality and Storm Water Runoff (Section 2.2.1.4)

Table S-1. Summary of Impacts and Avoidance, Minimization, and/or Mitigation Measures

Affected Resource	Potential impact of No Build Alternative	Potential impact of Build Alternative	Avoidance, minimization, and/or mitigation measures
Geology, Soils, and Seismicity	None	Retaining walls could be subject to damage during a seismic event. Soils within the project area exhibit high levels of erosion, increased impervious area could accelerate storm water runoff, exacerbating soil erosion. Portions of the hillsides in locations 3&4 are historically susceptible to landslides and rock falls	Measures to minimize seismic and soil impacts are described under Geology/Soils/ Seismic/Topography (Section 2.2.2.4)
Hazardous Waste and Materials	None	Potential for presence of aerially deposited lead in soil adjacent to roadway. Potential for lead chromate in yellow roadway striping. Exposure to these contaminants during construction could affect safety and health	Measures to avoid and minimize impacts are described under Hazardous Waste and Materials (Section 2.2.3.4)
Air quality	None	None	None
Noise	None	None	None
Natural Communities	None	Approximately 148 trees would be removed	Measures to avoid natural communities and compensation for tree removal are described under Natural Communities (Section 2.3.1.3)
Wetlands and Other Waters of the United States	None	Approximately 0.013 acres of temporary impacts and 0.011 acres of permanent impacts would occur to waters of the US under the jurisdiction of the US Army Corps of Engineers	Measures to mitigate for loss of wetlands and other waters are described under Wetlands and Other Waters (Section 2.3.2.4)
Plant Species	None	None	None
Animal Species	None	There are numerous special-status animal species that have potential to occur in the project area and could be impacted in various ways through project	Avoidance and minimization measures are described under Animal Species (Section 2.3.3.4)

Table S-1. Summary of Impacts and Avoidance, Minimization, and/or Mitigation Measures

Affected Resource	Potential impact of No Build Alternative	Potential impact of Build Alternative	Avoidance, minimization, and/or mitigation measures
		activities. Refer to the Animal Species section for detailed information	
Threatened and Endangered Species	None	There is potential that California red-legged frog and California tiger salamander could occur within the project area. The project would be likely to adversely affect both of these species	Measures to avoid, minimize, and mitigate impacts to California red-legged frog and California tiger salamander are described under Threatened and Endangered Species (Section 2.3.4.4)
Invasive Species	None	Project construction activities could have the potential to inadvertently spread invasive species if present	Measures to minimize and avoid the spread of invasive species are described under Invasive Species (Section 2.3.5.4)
Cumulative Impacts	None	Areas where development is permissible in the project area are limited, no lands are currently slated for changes in zoning, and no reasonably foreseeable future development projects are known. Therefore, no cumulative impacts as a result of the project are expected	None
Energy	None	None	None
Climate Change	None	None	None

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Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Department) is proposing roadway safety improvements on portions of State Route (SR) 152 from 0.14 miles east of the Santa Cruz County line to 0.17 miles east of Watsonville Road (post mile 0.14 to post mile 5.20). Figures 1.1-1 and 1.1-2 show the project location and project vicinity. The purpose of the project is to reduce the number of cross-centerline accidents along this corridor.

In general, the proposed project includes improving the existing lanes and shoulders, overlaying the existing pavement, removing trees, constructing retaining walls, and adding a left-turn lane from eastbound SR 152 to Watsonville Road.

This project is included in the Fiscal Year 2010 State Highway Operation and Protection Program (SHOPP). It is listed in the Metropolitan Transportation Commission's (MTC's) Transportation Improvement Program (TIP) Amendment #09-27, which was approved by MTC on September 26, 2009, by the Department on September 28, 2009, and by the Federal Highway Administration (FHWA) on October 27, 2009. The TIP Amendment describes the proposed project as being in Santa Clara County, from Hecker Pass to Uvas Creek, and states the project will improve sight distance, upgrade shoulders, and provide minor realignment.

1.2 Purpose and Need

1.2.1 Project Purpose

The purpose of the project is to reduce the number of cross-centerline and run-off-the road accidents along this highway corridor.

1.2.2 Project Need

Within the project limits, SR 152 is a two-lane undivided conventional east-west highway, located within a rural setting of Santa Clara County. The existing highway consists of two 12-foot (ft)-wide opposing traffic lanes with outside paved shoulders that vary from less than 1 ft to more than 8 feet (ft) in width.

1.2.2.1 Roadway Deficiencies

SR 152 within the project limits is in a heavily forested area of rural Santa Clara County. The existing alignment has sharp turns, narrow shoulders in many locations, and steep embankments and vegetation adjacent to the shoulders of the roadway. Truck-trailers over 45 ft long have already been banned from SR 152 between Watsonville and Gilroy since 1986, based on, among other factors, the limited roadway width, winding alignment of the highway, and the number of truck-involved accidents[1]. Adding to the available pullout areas would increase refuge opportunities for disabled vehicles. The inability of emergency response vehicles to use shoulders and bypass stalled traffic to reach disabled vehicles delays their response time.

[1] Department of Transportation, special truck restriction history (http://www.dot.ca.gov/hq/traffops/trucks/routes/restrict-hist-152.htm)

Improving safety along the present location of the highway cannot be accomplished without removal of vegetation, additional side slope grading, and construction of retaining walls and other slope stability measures.

A “clear recovery zone” (CRZ) would be added depending on the conditions along each of the five identified sections of SR 152 within the project limits. The CRZ is provided as a recovery area when errant vehicles leave the traveled way, offering the motorist the opportunity to regain control. A typical CRZ, 20 ft wide on a conventional highway, is an area cleared of fixed objects adjacent to the roadway including trees, utility poles, and signs.

1.2.2.2 State Route 152/Watsonville Intersection

There is no left turn lane pocket at the SR 152/Watsonville Road intersection, so eastbound vehicles back up in the highway lane if a car is waiting to make a left turn onto northbound Watsonville Road. Vehicles wanting to make a left turn can increase the potential for conflicts that may result in cross centerline accidents.

1.2.2.3 Traffic and Accident Data

A number of accidents on this segment of the highway have involved vehicles that cross the roadway centerline. The Department developed a list in 2004 of candidate major collision-reduction projects to the Headquarters of Traffic Safety program coordinator based on results from the Two- and Three-Lane Safety Monitoring program. Because a high number of cross-centerine accidents (CCAs) occurred within this portion of SR 152 during the study period, the Project was submitted and the District’s recommendation was approved by District Headquarters on June 21, 2004.

The average annual daily traffic along this segment of SR 152 as of 2008 is 5,900 vehicles, and is expected to increase to 9,500 vehicles in 20 years, by 2028. An 8-year study period between October 1, 2000, and September 30, 2008, generated detailed information about the number, type, frequency, and causes of accidents along this section of SR 152. The average number of accidents along the study corridor wasere 1.91 per million vehicles, which was higher than the statewide average of 1.49 per million vehicles.

The study found that 29 of the 176 accidents involved vehicles that crossed the centerline. Constructing the improvements proposed as part of this project would create an upgraded facility that would be better able to assist out-of-control motorists from crossing the centerline and would reduce CCAs.

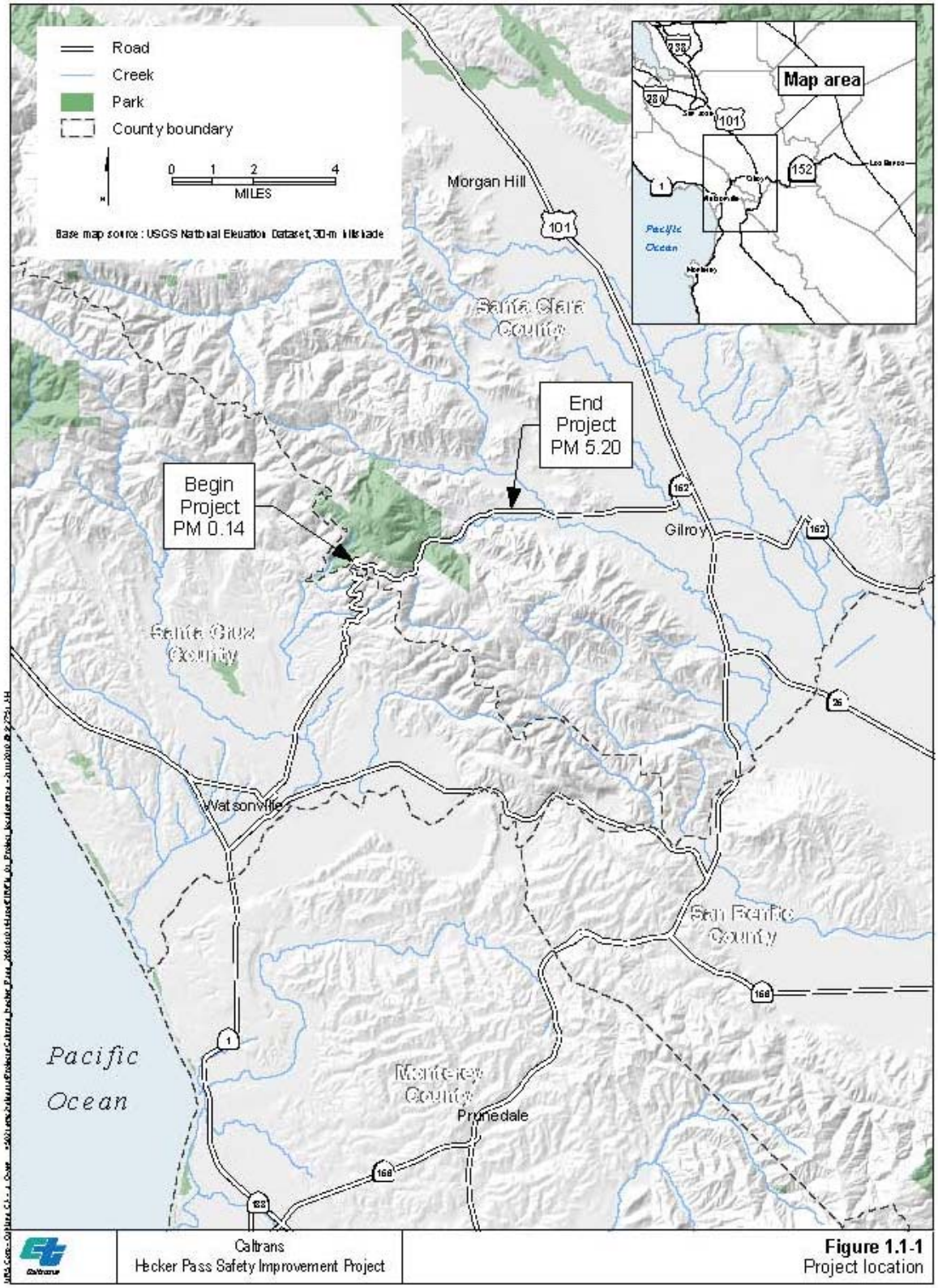

Figure 1.1-1. Project Location

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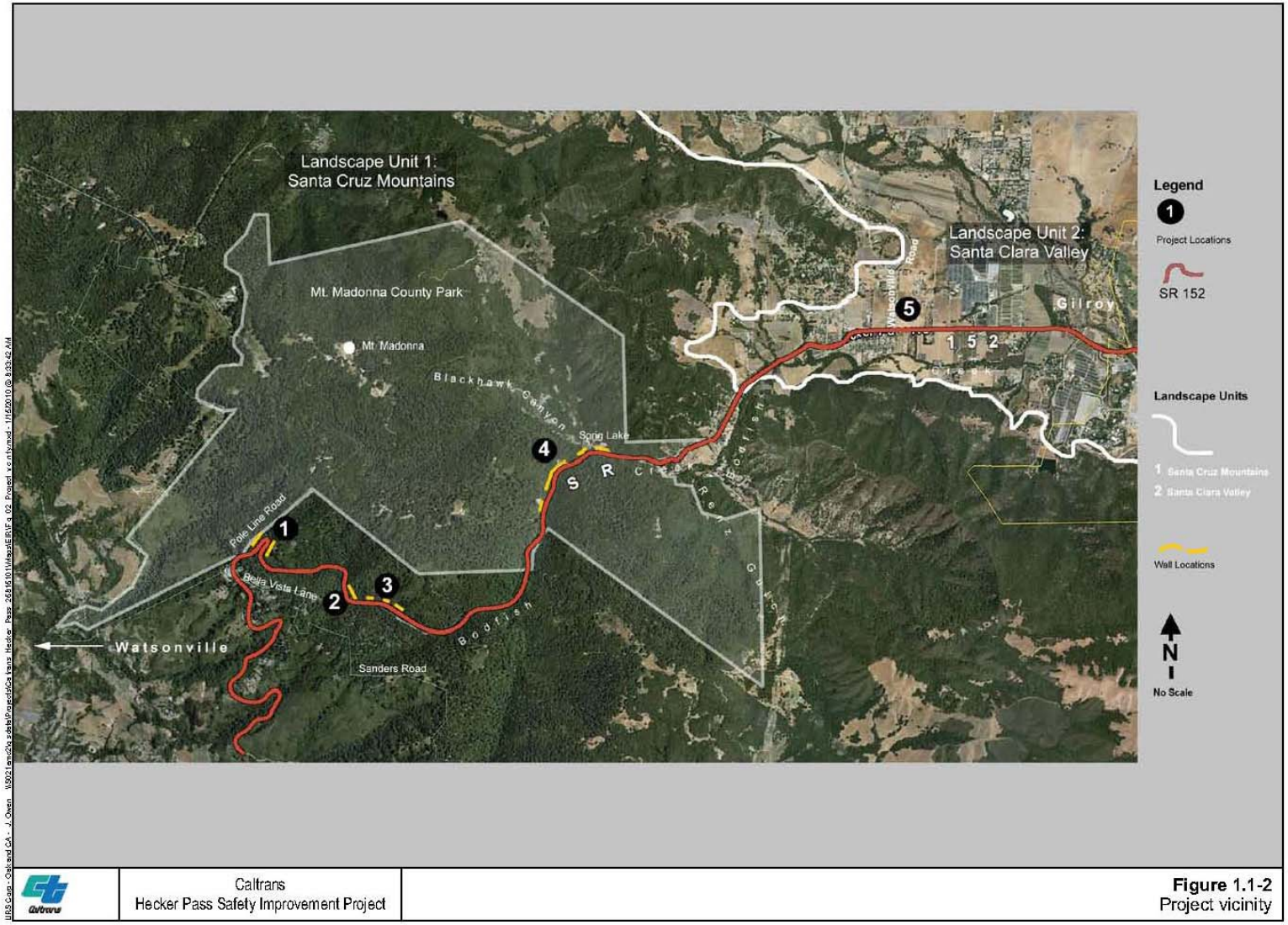

Figure 1.1-2. Project Vicinity

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1.2.2.4 Independent Utility and Logical Termini

As a safety project, the limits were defined based on the . Two- and Three-Lane Safety Monitoring Program. The five locations were identified as having higher than the statewide average number of CCA's. Segment 5 was defined to include adequate dimensions to incorporate the transitions for a new left turn lane pocket at Watsonville Road. The project would not result in any need for future improvements to adjoining highway segments, and would not preclude consideration of similar improvements along other segments of the highway in the future.

1.3 Project Description

This section describes the proposed action and the design alternatives that were developed to improve the safety along this portion of SR 152 reduce the incidence of cross centerline accidents, while avoiding or minimizing environmental impacts to the extent possible. A single "Build Alternative" and the "No-Build Alternative" are the alternatives under consideration and analyzed in this document. The purpose of the project is to reduce the number of cross-centerline and run-off-the road accidents along this highway corridor.

To construct the project, the Department will acquire new right-of-way, permanent easements for future maintenance, and temporary construction easements for construction throughout the project area. Additional details on roadway configurations at various locations throughout the project area are described in the following sections.

1.3.1 Alternatives

1.3.1.1 Build Alternative

The Build Alternative will involve various safety improvements on SR 152 at five separate locations between PM 0.14 and PM 5.20 (Figure 1.1-2):

- Location 1: PM 0.14/0.26
- Location 2: PM 0.94/1.11
- Location 3: PM 1.22/1.47
- Location 4: PM 2.57/3.20
- Location 5: PM 4.77/5.20

Location 1

The existing roadway configuration at Location 1 (PM 0.14/0.26) includes two 12-ft travel lanes with shoulders varying between 0 and 10 ft. This location also includes three existing culverts: two 18 inch (in) corrugated metal pipes, and one 42-in reinforced concrete pipe. At Location 1, the Build Alternative will include:

- Tree removal
- Construct ion of two soil nail retaining walls (vertical masonry slab walls attached into the hillside by soil nails) adjacent to the westbound travel lane. One wall would have an

approximate maximum height of 17.2 ft and an approximate length of 256.8 ft (Wall 1A) and one wall would have an approximate maximum height of 19.2 ft and an approximate length of 207.1 ft (Wall 1B)

- Widening the existing roadway to provide 8-ft wide shoulders
- Modifying/extending existing culverts to accommodate the widened roadway
- Overlaying pavement to improve the roadway superelevation
- Installing warning signs
- Constructing one biofiltration swale (vegetated channel), one biofiltration strip (vegetated grass cover) and slotted drain for a biofiltration swale to remove pollutants from stormwater runoff
- Acquireing approximately 0.12 acres of additional right-of-way on the northern side of the roadway to construct the improvements at this location.

Location 2

The existing infrastructure at Location 2 (PM 0.94/1.11) includes two 12-ft travel lanes with no road shoulders. This location also includes one existing 18-in corrugated metal pipe culvert and one existing 24-in corrugated metal pipe culvert. At Location 2, the Build Alternative willould include:

- Tree removal
- Construction of a soil nail retaining wall adjacent to the westbound travel lane with an approximate maximum height of 29.0 ft and an approximate length of 430.6 ft (Wall 2A)
- Widening the existing roadway to provide 8-ft-wide shoulders
- Overlaying pavement to improve the roadway superelevation
- Installing an 18-in culvert with two drainage inlets at the retaining wall, install one pipe inlet, and modify/extend the existing culvert to accommodate the widened roadway
- Installing warning signs
- Acquireing approximately 0.05 acres of additional right-of-way on the northern side of the roadway to construct the improvements at this location.

Location 3

The existing infrastructure at Location 3 (PM 1.22/1.47) includes two 12-ft travel lanes with no road shoulder. Location 3 has a turnout on the northern side of the road which has a 15-ft shoulder. This location also includes three existing culverts; a 30-in, 36-in, and 18-in corrugated metal pipe culvert. At Location 3, the Build Alternative will include:

- Tree removal
- Construction of two soil nail retaining walls adjacent to the westbound travel lane. One wall will have an approximate maximum height of 11.2 ft and an approximate length of 167.9 ft (Wall 3A) and one wall will have an approximate maximum height of 10.2 ft and an approximate length of 207.8 ft (Wall 3B)
- Constructing a soldier pile wall adjacent to the westbound travel lane with an approximate maximum height of 5.2 ft and an approximate length of 125.0 ft (Wall 3C)
- Widening the existing roadway to provide 0 to 12-ft-wide shoulders
- Overlaying pavement to improve the roadway superelevation
- Modifying/extending the existing culverts to accommodate the widened roadway
- Installing warning signs
- Acquireing approximately 0.07 acres of additional right-of-way on the northern side of the roadway to construct the improvements at this location.

Location 4

The existing infrastructure at Location 4 (PM 2.57/3.20) includes two 12-ft travel lanes with no road shoulder. Two T-intersections in this location on the northern side of the road provide access to the Sprig Lake recreation area parking lot that includes an equestrian staging area, horse trailheads, and a parking lot area. This location also includes seven existing culverts; one 21-in smooth interior plastic pipe/corrugated metal pipe, two 18-in corrugated metal pipes, three 24-in corrugated metal pipes, and one 6-ft by 8-ft high reinforced concrete box culvert. At Location 4, the Build Alternative will include:

- Tree removal
- Construction of five soil nail retaining walls adjacent to the westbound travel lane. One wall would have an approximate maximum height of 31.2 ft and an approximate length of 292.5 ft (Wall 4A), one wall would have an approximate maximum height of 14.2 ft and an approximate length of 57.3 ft (Wall 4B), one wall would have an approximate maximum height of 32.2 ft and an approximate length of 1056.1 ft (Wall 4C), one wall would have an approximate maximum height of 23.2 ft and an approximate length of 584.1 ft (Wall 4D), and one wall would have an approximate maximum height of 12.0 ft and an approximate length of 345.0 ft (Wall 4F)
- Constructing a concrete retaining wall adjacent to the westbound travel lane with an approximate maximum height of 5.0 ft and an approximate length of 204.5 ft (Wall 4E)
- Widening the existing roadway to provide 15-ft wide shoulders
- Overlaying pavement to improve the roadway superelevation
- Modifying/extending the existing culverts to accommodate the widened roadway

- Constructing two biofiltration swales and one biofiltration strip
- Installing warning signs
- Acquireing approximately 0.55 acres of additional right-of-way on the northern side of the roadway to construct the improvements at this location.

Location 5

The existing infrastructure at Location 5 (PM 4.77/5.20) includes 12-ft travel lanes and shoulders varying from 2 ft to 8 ft. There is a T intersection on the northern side where Watsonville Road intersects with SR 152, as well as nine commercial and residential driveways in this location. This location also includes three existing culverts; one 32-in corrugated metal pipe, one 12-in corrugated metal pipe (driveway) and one 42 x 29-in corrugated metal pipe arch. At Location 5, the Build Alternative will include:

- Tree removal
- Widening the existing roadway to provide 8-ft-wide shoulders
- Construction of an approximately 550-ft-long left-turn lane along eastbound SR 152 at Watsonville Road
- Overlaying pavement to improve the roadway superelevation
- Modifying/extending the existing culverts to accommodate the widened roadway
- Constructing four biofiltration swales and one biofiltration strip
- Installing warning signs
- Acquireing approximately 1.20 acres of additional right-of-way on the northern side of the roadway to construct the improvements at this location.

1.3.1.2 Drainage Repairs

Within the boundaries of the five improvement locations, a total of 17 culverts cross under SR 152. The diameters of the culverts range from 12 in to 72 in.

Repairs to the existing drainage culverts include replacing or extending inlets and outlets, extending downdrains to the bank of the creek, and trenching for culvert placement.

1.3.1.3 Utility Relocation

Two utility companies, Pacific Gas and Electric and Verizon, have aerial and underground communications facilities in the project area. Relocation of these facilities is anticipated. The Department is in discussion with these companies regarding the utility relocation.

1.3.1.4 Equipment Staging

The contractor will determine the location of the equipment staging area in coordination with the resident engineer. The resident engineer and the Department technical specialists will work with the contractor to ensure that equipment is not staged in an environmentally sensitive area.

Two potential staging areas have been identified, including the Mt. Madonna Inn Restaurant parking lot (Station [Sta] 417+75), in Santa Cruz County along SR 152, and an area west of Location 5 (Sta 252+00) within the Department's right-of-way north of SR 152.

1.3.1.5 Site Cleanup and Restoration

All construction-related materials would be removed after construction activities are completed. The temporary construction easements and staging areas will be cleaned up, recontoured to original grade, and revegetated with appropriate native species, as necessary. Permanent erosion control, including soil stabilization measures such as hydroseeding and coir netting, will be applied to all temporarily affected project areas to minimize erosion after construction.

1.3.1.6 Estimated Cost

The total project cost of the Build Alternative in the Year 20121 is summarized as follows:

Project Construction Capital	$18.97 M20.5 M
Right-of-Way Capital	$1.2 M
Total Estimated Project Cost	**$20.27 M**

M = million

1.3.2 Transportation System Management and Transportation Demand Management Alternatives

Transportation System Management (TSM) strategies focus on increasing the efficiency of the existing facility without adding additional lanes, while Transportation Demand Management (TDM) strategies focus on reducing vehicle trips. This is a safety improvement project and does not add capacity or affect vehicle trips. TSM and TDM measures are not applicable.

1.3.3 No Build (No Action) Alternative

The No-Build Alternative is being evaluated in accordance with the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) requirements, and offers a basis of comparison with the Build Alternative. The No-Build Alternative will not provide any roadway improvements to SR 152.

1.3.4 Identification of a Preferred Alternative

In May of 2010, the Department formally identified the Build Alternative as the preferred alternative. This decision was made after considering comments from outside agencies, the public, and the internal Project Development Team. In accordance with CEQA, the Department has certified that the project complies with CEQA, adopted findings for all significant impacts identified, and certified a Statement of Overriding Considerations for impacts that will not be mitigated below a level of significance. A Notice of Determination has been filed with the State Clearinghouse that identifies the project's significant impacts, mitigation measures were included as conditions of project approval, that findings were made, and that a Statement of Overriding Considerations was adopted.

TheSimilarly, if the Department, as assigned by FHWA, determined thats the NEPA action does not significantly affect the environment., Tthe Department haswill issued a Finding of No Significant Impact (FONSI) in accordance with NEPA.

Since publication of the Draft Environmental Impact Report/Environmental Assessment (DEIR/EA) in February 2010, the Department has published new guidance on the preparation of EIR/EAs. The new guidance, mainly in the regulatory setting portions of the document, includes changes to the title page, and sections on climate change, wetlands, threatened and endangered species, and water quality. This document has been updated to reflect the new guidance. Changes made to the document are are indicated by a vertical line on the left side of the page.

1.3.5 Alternatives Considered but Eliminated from Further Discussion Prior to the Draft Environmental Document

The existing conditions throughout the project limits restricted the alternatives that could be considered. A screening-level assessment was conducted to determine other potential alternatives. This assessment addressed the potential for widening and improvements on the southern side of the roadway. Widening to the south would not require road cuts and retaining walls, potentially resulting in fewer aesthetic impacts. However, widening to the south would result in greater impacts to Bodfish Creek, including potential fill in the creek and sedimentation, impacts to special-status species, removal of a greater number of trees, and deposition of materials to support the widened roadway, which would also be greater biological habitat and visual impacts. Due to the larger number of potential impacts, widening on the southern side to the roadway was eliminated from further consideration.

1.4 Permits and Approvals Needed

Table 1.4-1 lists the environmental permits, reviews, and approvals that would be required for project construction.

Table 1.4-1: Permits and Approvals Needed

Agency	Permit/Approval	Status
United States Fish and Wildlife Service (USFWS)	Section 7 Consultation for Threatened and Endangered Species Review and Comment on 404 Permit	The Department initiated formal Section 7 consultation with USFWS. A Biological Assessment was submitted June 2009.Biological Opinion 81420-2009-F-1058-2 was received on July 14, 2010, and accepted by the Department October 19, 2010.
United States Army Corps of Engineers	Section 404 Nationwide Permit with pre-construction notification for filling or dredging waters of the United States.	A Section 404 Nationwide Permit pre-construction notification will be submitted to the Corps.
California Department of Fish and Game	1602 Agreement for Streambed Alteration Section 2081 (b) 0.1 Incidental Take PermitAgreement for Threatened and Endangered Species	An application for a 1602 Agreement for streambed alteration and a Section 2081 (b) 80.1 Incidental Take PermitAgreement for Threatened and Endangered Species will be submitted to the California Department of Fish and Game during project design..
Central Coast Regional Water Quality Control Board	Section 401 Water Quality Certification	An application for water quality certification will be submitted during PS&E.

Chapter 2 Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures

The environmental analyses discussed in this chapter are based on supporting technical studies that are not attached to this document. The purpose of this section is to provide a discussion of the affected environment, potential impacts, and avoidance, minimization, and/or mitigation measures. Each analyzed resource area includes a discussion of only the build alternative, the no-build alternative would not involve any construction activities, thus no environmental impacts would occur. The studies performed were based on compliance with CEQA and NEPA, completion of the CEQA Checklist included in Appendix B, and public outreach and agency consultation described in Chapter 4. A list of the technical studies is provided in Appendix G. Copies of the technical studies are available for review at District 4, Office of Environmental Analysis, and 111 Grand Avenue, Oakland, CA 94623-0660.

As part of the scoping and environmental analysis conducted for the project, the following environmental issues were considered but no adverse impacts were identified. Consequently, there is no further discussion regarding these issues in this document.

Growth

The project activities and resulting transportation facility would provide safety improvements that would not alter or affect growth patterns within the project vicinity. The project would not add new travel lanes or additional capacity to SR 152, and would not create any new access to developed or undeveloped lands.

Coastal Zone

The project area is not located within the coastal zone.

Wild and Scenic Rivers

No wild and scenic rivers run through the project area.

Timberland

No timberland production zones are within the project area.

Community Impacts

This is a safety project that willould neitherot affect community character or cohesion, nor change public access, divide neighborhoods, separate residences from community facilities, change the quality of life, or increase urbanization or isolation. The project would not affect any community group, and would not cause disproportionately high and adverse effects on any minority or low-income populations, as per EO 12808, regarding environmental justice.

Relocations and Real Property Acquisitions

The project would not result in any relocations or residential/business displacements. Minor amounts of new right-of-way would be acquired along the highway frontage; this would not result in any adverse impacts.

Utilities/Emergency Services

Relocation of utilities within the project area would be required before construction begins and may include relocating above-ground utilities underground or moving utilities to the opposite side of the roadway from where construction activities would occur. Specific locations and types of utilities would be determined during the project design phase.

The project would not result in any impacts that would affect the movement of or access to emergency services through the project area. Emergency vehicles would be given priority over other vehicles to pass during project construction.

Hydrology and Floodplain

The project would not encroach into a floodplain.

Paleontology

The project would not involve substantial excavation and would not have any effects on paleontological resources.

Air Quality

This project is a safety improvement project that would not increase the roadway capacity. Thus, the project is exempt from an air quality analysis, conformity determination, and Mobile Source Air Toxics evaluation. There would be no adverse effects on air quality.

Noise

This project does not involve construction on a new horizontal or vertical alignment and would not result in any new traffic noise impacts. Brief, noticeable increases in noise levels may be experienced during construction of the project; however, these noise increases would be temporary and would revert to their original levels after construction ends.

Plant Species

Based on the results of focused plant surveys during April through July 2008 and extensive analysis of literature and database results, the Department determined that special-status plant species do not occur in the project area.

Energy

The project involves spot safety improvements. When balancing energy used during construction and operation against energy saved by reducing the frequency of traffic incidents, the project would not have substantial energy impacts.

2.1 Human Environment

2.1.1 Land Use

2.1.1.1 Existing and Future Land Use

Land use as determined by Santa Clara County consists of undeveloped open space at Locations 1, 2, and 3; regional parkland at Location 4 where the project area is within Mt. Madonna County Park; and medium scale agricultural and rural residential land use at Location 5. Adjacent land is undeveloped at Locations 1, 2, 3, and 4, while Location 5 is adjacent to low

density, rural, residential development and several small-scale wineries. No reasonably foreseeable future changes in land use are currently anticipated.

2.1.1.2 Consistency with State, Regional, and Local Plans and Programs

Regional Transportation Programslans

This project is included in the Fiscal Year 2010 State Highway Operation and Protection Program (SHOPP). It is listed in the Metropolitan Transportation Commission's (MTC's) Transportation Improvement Program (TIP) Amendment #09-27, which was approved by MTC on September 26, 2009, by the Department on September 28, 2009, and by the Federal Highway Administration (FHWA) on October 27, 2009. The TIP Amendment describes the proposed project as being in Santa Clara County, from Hecker Pass to Uvas Creek, and identifies its purposes as being to improve sight distance, upgrade shoulders, and provide minor realignment.

State Scenic Highway Program

The affected portion of SR 152 in Santa Clara County is not listed as an eligible State Scenic Highway in the State Scenic Highway Master Plan (Caltrans 2009a). However, Policy R-PR(i) 22 of the Scenic Highways Element of the Santa Clara County General Plan calls for nomination and designation of SR 152 in Santa Clara County as a State Scenic Highway, as discussed in greater detail below.

The four criteria used to determine whether a highway may be designated as scenic are:

- "The State or county highway consists of a scenic corridor that is composed of a memorable landscape that showcases the natural scenic beauty or agriculture of California..."
- "Existing visual intrusions do not significantly impact the scenic corridor…"
- "Demonstration of strong local support for the proposed scenic highway designation."
- "The length of the proposed scenic highway is not less than a mile and is not segmented."

Before a highway such as SR 152 in the project area may be designated as an official State Scenic Highway, it must be added by legislation to the list of eligible State Scenic Highways in California Streets and Highways Code Section 263. Should SR 152 be added to the list of eligible highways, the Department's Scenic Highway Guidelines define a specific process and criteria to determine eligibility of a highway for "scenic" status. These include that not more than one-quarter of the proposed scenic highway may be affected by visual intrusions. Visual intrusions may be natural or constructed elements, viewed from the highway, that adversely affect the scenic quality of a corridor. Examples of visual intrusions are buildings, unsightly land uses, parking lots, advertising, noise barriers, power lines and communication facilities, agriculture, exotic (nonnative) vegetation, clear-cutting, erosion, grading, and the roadway and associated structures themselves. Intrusions are classified as minor, moderate, or major, but in any case not more than one-quarter of the length should be impacted. Existing visual intrusions on SR 152 within Hecker Pass in Santa Clara County are negligible.

Santa Clara County General Plan 1995 - 2010

Countywide policies of the General Plan applicable to the proposed project are restated in the Rural Unincorporated Areas (Book B, Part 3) policies. The following applicable General Plan policies are taken from the Rural Unincorporated Areas Issues and Policies (Denoted as "R" in the policy number):

Parks and Recreation (denoted as "PR" in the policy number) Chapter, Scenic Highways:

R-PR(i) 22

"Add the following highways to the State Master Plan for Scenic Highways and designate them as official State Scenic Highways…b. Hecker Pass Highway (Highway 152); . . "

R-PR 41

"The visual integrity of the scenic gateways to the South County (Pacheco Pass, Hecker Pass, Route 101 south of Gilroy, and a Coyote greenbelt area north of Morgan Hill) should be protected."

The proposed project would potentially be inconsistent with both polices R-PR(i) 22 and R-PR 41. Visual intrusions (retaining walls) from the proposed project would adversely affect the scenic quality of the Hecker Pass Highway, and thus its potential for nomination.

R-PR 46

"Landscaping with drought-resistant native plants should be encouraged adjacent to scenic roads and highways."

The proposed project is consistent with policy R-PR 46. Mitigation measures in Section 2.1.3.4 discuss revegetation with locally native tree species and would thus conform to this policy.

R-PR 47

"Activities along scenic highways that are of a substantially unsightly nature, such as equipment storage or maintenance, fuel tanks, refuse storage or processing and service yards, should be screened from view."

The proposed project would be consistent with policy R-PR 47. Mitigation measures for screening of unsightly roadside equipment and material storage during construction are listed in Section 2.1.3.4.

Resource Conservation (denoted as "RC" in the policy number) Chapter, Scenic Resources

R-RC 96

"2. Limit development impacts on highly significant scenic resources, such as, ridgelines, prominent hillsides, streams, transportation corridors and county entranceways..."

The proposed project would be inconsistent with Policy R-RC 96. Mitigation measures have been included to minimize adverse visual impacts. However, those impacts are anticipated to remain significant.

Strategy #2: Limit Development Impacts on Highly Significant Scenic Resources

"General policies governing allowable uses and densities in rural areas do not preclude the need at times for special policies and measures to conserve scenic resources of special significance,

such as prominent hillsides and ridgelines highly visible from the valley, riparian areas, scenic transportation corridors, and county entranceways. Development of inappropriate design, location, scale, or density can have a disproportionately greater impact upon highly visible, prominent areas, such as ridgelines."

"Major entryways or 'gateways' to the County also deserve special consideration for scenic conservation and signage appropriate to the characteristics of the land and the area in general. For example, the scenic quality of major south County entranceways should be preserved to enhance residents' and visitors' appreciation of the area and its attractions."

"Informational signs compatible with the scenic resources of the area could be used to promote the area's attractions. Sound walls erected to minimize noise impacts along major thoroughfares may not be compatible with the enjoyment of scenic resource. All in all, there are many reasons to be proud of the scenic qualities of the rural areas, further reinforcing the importance of efforts to retain their scenic value."

The proposed project is potentially inconsistent with Strategy #2. Hecker Pass is identified as a major south County gateway in Policy R-PR 41, and would experience significant visual intrusion as a result of the project.

R-RC (i) 36

"Protect the scenic value of the following major County thoroughfares and entranceways through state scenic highway designation, including…b. Hecker Pass (152 west of Gilroy)…"

The proposed project is potentially inconsistent with Policy R-RC (i) 36. Due to their extent, visual intrusions from the proposed project would adversely affect the scenic quality of the Hecker Pass Highway.

R-RC 98

"Hillsides, ridgelines, scenic transportation corridors, major county entryways, stream environments, and other areas designated as being of special scenic significance should receive utmost consideration and protection due to their prominence, visibility, and overall contribution to the quality of life in Santa Clara County."

The proposed project would be inconsistent with Policy R-RC 98. Mitigation measures have been recommended for the proposed project to minimize adverse visual impacts. However, those impacts are anticipated to remain significant.

R-RC 101

"Roads, building sites, structures and public facilities shall not be allowed to create major or lasting visible scars on the landscape."

The proposed project would be consistent with Policy R-RC 101. Visual prominence of uphill, cut-slope retaining walls would be minimized by dark color surface treatment to reduce contrast and reflectivity.

Santa Clara County Countywide Trails Master Plan Update

County Parks, in partnership with other public agencies, is charged with furthering the implementation of the Countywide Trails Master Plan, part of the Parks and Recreation element of the County of Santa Clara General Plan (1995-2010). The following Countywide Trails

Master Plans routes are identified as future planned routes which are adjacent to or within the vicinity of the project area.

Hecker Pass Connector Trails

Route C30 – Designated as an on-street bicycle route within road right-of-way for on-road cycling. This route is located along SR 152.

Bay Area Ridge Trail: Santa Cruz Mountains

Route R5-A – Designated as a trail route within other public lands for hiking, cycling and equestrian use.

Bay Area Ridge Trail: Mt. Madonna-Coyote Lake

Route R5-E – Designated as a trail route within other public lands for hiking, cycling and equestrian use.

Santa Clara Valley HCP/NCCP

A Habitat Conservation Plan/Natural Communities Conservation Plan (HCP/NCCP), the Santa Clara Valley HCP/NCCP, is currently being developed for the Santa Clara Valley, which provides coverage for the City of San Jose, City of Gilroy, City of Morgan Hill, County of Santa Clara, Santa Clara Valley Water District, and Valley Transportation Authority. The Santa Clara Valley HCP/NCCP is intended to identify and preserve important land that provides habitat for endangered and threatened species to enhance the long-term viability of endangered species and to mitigate for environmental impacts associated with planned development and public infrastructure operations and maintenance activities. The 2nd administrative Draft Habitat Plan was made available to the public on June 3, 2009, for which the comment period closed August 3, 2009. The estimated completion date of the Santa Clara Valley HCP/NCCP, including certification of the environmental review and completion of the Final HCP/NCCP, is slated for sometime in 2010 (ICF Jones and Stokes 2009).

Based on a review of the 2nd administrative Draft Habitat Plan (ICF Jones and Stokes 2009), the Hecker Pass Safety Improvement Project addresses the key special-status plant and wildlife species and sensitive natural resources covered under the Santa Clara Valley HCP/NCCP, and is in general compliance with the Habitat Plan in its current draft form.

2.1.1.3 Parks and Recreational Facilities

Mt. Madonna County Park, under the jurisdiction of Santa Clara County, is located adjacent to much of the northern side of the project area (Figure 1.1-2), and portions of the southern side of the project area. This park consists of 3,688 acres dominated by redwood forest characteristic of the Santa Cruz Mountain range. While SR 152 passes through Mt. Madonna County Park throughout the project limits, the only location within the park where project activities would occur is at Location 4.

Construction activities at Location 4 would involve the construction of retaining walls, necessitating the acquisition of a 0.55 acres of right-of-way at the southern boundary of Mt. Madonna County Park abutting SR-152. While parkland would be acquired, therey are no park facilities or amenities that would be taken by the project. Public use and, access and enjoyment of the park would not be impaired by project activities. The park is under the jurisdiction of the Santa Clara County Parks and Recreation Department which administers the county's parks and recreation programs and operates and maintains 287 parks throughout the County. As a Federal

project under the Department of Transportation, this project must comply with Federal law at 49 U.S.C. Section 303, commonly referred to as Section 4(f) of Department of Transportation Act of 1966. Section 4(f) declares the "[i]t is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public parks and recreation land, wildlife and waterfowl refuges, and historic sites".

Section 4(f) specifies that the Secretary [of Transportation] may approve a transportation program or project . . . requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, Sstate, or local significance, or land of an historic site of national, Sstate, or local significance (as determined by the Ffederal, Sstate, or local officials having jurisdiction over the park, area, refuge, or site) only if:

- there is no prudent and feasible alternative to using that land; and
- the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

Acquisition of the 0.55 acres of Mount Madonna County Park at Location 4 would be considered a "use" of a Section 4(f) resource, because parkland would be permanently incorporated into a transportation facility. As previously discussed, a very small amount of the total parkland (0.02 percent) would be acquired and no features, facilities or amenities that would affect recreational uses would be taken from the park. Because of the nature of the impact, the Department has concludedis proposing that this use isbe considered a "de minimis" use of the facility. De minimis impacts on publicly owned parks are defined as those that do not adversely affect the activities, features and attributes of the 4(f) resource. The officials with jurisdiction over the property must provide written concurrence that the project will not adversely affect the activities, features and attributes that qualify the property for protection under 4(f), and the public must be afforded the opportunity to review and comment of the effects of the project on the identified 4(f) resource.

The public was given the opportunity to comment on the effects of the project to the park resources during the comment period for the environmental document, and at the public meeting, held March 24, 2010 at the Gilroy High School library. The County of Santa Clara Parks and Recreation Department was the only entity to comment on potential impacts to the 4(f) resource. Responses to their letter can be found in section 4.3.

The Department explored avoidance, mitigation and enhancement measures to make theFollowing the public review period, the Department will request written concurrence from the Santa Clara County Parks and Recreation Department on the "de minimis" determination. Section 4(f) de minimis finding. In addition to avoiding as much of the park land as possible within the design process, the Department has committed to replacing native trees at a ratio of 3:1, as opposed to the original 1:1 ratio proposed in the DEIR/EA. Further information regarding tree replacement can be found in section 2.3.1.3 of this chapter.

Under Section 4(f), the possibility of a "constructive use" must also be considered. A constructive use can occur when proximity impacts are so severe that the protected activities, features or attributes that qualify a resource for protection under Section 4(f) are substantially impaired. On the basis of the technical studies prepared for this project, it can be concluded

that the project would not involve any type of proximity impacts that would be considered a 'constructive use' of the Section 4(f) resource. The project improvements would not be visible to users from publicly accessible areas, in addition, the project would not cause any long-term or permanentor permanent increases in noise levels, nor would the project restrict access to the Park.

The Department and the Santa Clara County Department of Parks and Recreation held three coordination meetings in 2009 to discuss the proposed project and present information regarding Section 4(f) and the Department's proposal for a "de minimis" determination. The Department received written concurrence of the de minimis use of Mt. Madonna Park from the Santa Clara County Department of Parks and Recreation on August 20, 2010. A copy of this letter can be found in Appendix C. As previously discussed, the Department will request concurrence from Santa Clara County Department of Parks and Recreation on the "de minimis" determination following public review of this environmental document.

Additional information regarding the Section 4(f) regulations can also be found in Appendix C.

2.1.2 Farmlands

2.1.2.1 Regulatory Setting

The National Environmental Policy Act (NEPA) and the Farmland Protection Policy Act (7 United States Code [U.S.C.] 4201-4209; and its regulations, 7 Code of Federal Regulations [CFR] Part 658 require federal agencies, such as FHWA, to coordinate with the Natural Resources Conservation Service (NRCS) if their activities may irreversibly convert farmland (directly or indirectly) to nonagricultural use. For purposes of the Farmland Protection Policy Act, farmland includes prime farmland, unique farmland, and land of statewide or local importance.

The California Environmental Quality Act requires the review of projects that would convert Williamson Act contract land to non-agricultural uses. The main purposes of the Williamson Act are to preserve agricultural land and to encourage open space preservation and efficient urban growth. The Williamson Act provides incentives to landowners through reduced property taxes to deter the early conversion of agricultural and open space lands to other uses.

2.1.2.2 Affected Environment

The California Department of Conservation, Division of Land Resources Protection classifies and maps farmland to track farmland development throughout California. Farmland is mapped into categories ranging from Prime Farmland, which has the best combination of physical characteristics to sustain long-term agricultural production, to Grazing Land, which allows for the grazing of livestock.

Location 5 is the only portion of the project with the potential to affect farmland. The Department submitted a Farmland Conversion Impact Rating form to the National Resource Conservation Service (NRCS). It is anticipated that any farmland used by the project will be negligible, and that no mitigation will be required. The consultation process with the NRCS will be complete prior to approval of the final environmental document.was complete on March 09, 2010, upon receipt and completion of form NRCS-CPA-106. Through the coordination

process it was concluded that farmland required for the project is negligible, with a total score of 91 out of a possible 260, and that no mitigation is required.

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, enables local governments to enter into contracts with private landowners for the purpose of restricting certain parcels of land to agricultural or related open space use. In return, the landowners receive lower property tax assessments based on farming and open space use instead of the potential market value for highest and best use. One parcel with a Williamson Act contract is located within the project area at Location 5.

2.1.2.3 Environmental Consequences

Prime Farmland willould be acquired for construction of the project at Location 5. This portion of the parcel willould be incorporated into the transportation facility and willould no longer be used for agricultural production. This acquisition represents a narrow strip of 1.20 acres of farmland along the highway frontage and would not result in impacts that would preclude agricultural production on the remainder of the parcel or prevent access to the parcel. Further, there is approximately 421,383 acres of inventoried agricultural land in Santa Clara County (as of 2008), and approximately 28,850,836 acres of inventoried agricultural land in the state of California (as of 2006). Because the total acquisition of farmland is minimal in comparison the overall available amount of agricultural land in Santa Clara County and the state of California, farmland acquisition associated with this project willould be a less than significant impact.

2.1.2.4 Minimization, and/or Mitigation Measures

None required.

2.1.3 Traffic and Transportation/Pedestrian and Bicycle Facilities

2.1.3.1 Regulatory Setting

The Department, as assigned by 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 CFR 652). It further directs that the special needs of the elderly and the disabled must be considered in all federal-aid projects that include pedestrian facilities. When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility.

The Department is committed to carrying out the 1990 Americans with Disabilities Act (ADA) 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.

2.1.3.2 Affected Environment

SR 152 serves as a major interconnection route between Route 101 and Interstate 5. Within the project area, SR 152 is a two-lane undivided east-west roadway, located in a rural setting of Santa Clara County. The roadway consists of two 12-ft opposing travel lanes with outside paved shoulders varying from 0 to 10 ft wide.

A number of accidents on this segment of the highway have involved vehicles that cross the roadway centerline. The Department developed a list in 2004 of candidate major collision-reduction projects to the Headquarters of Traffic Safety program coordinator based on results from the Two- and Three-Lane Safety Monitoring program. Because a high number of CCAs occurred within this portion of SR 152 during the study period, the Project was submitted and the District's recommendation was approved by District Headquarters on June 21, 2004.

The average annual daily traffic along this segment of SR 152 as of 2008 is 5,900 vehicles, and is expected to increase to 9,500 vehicles in 20 years, by 2028. An 8-year study period between October 1, 2000, and September 30, 2008, generated detailed information about the number, type, frequency, and causes of accidents along this section of SR 152. . The average number of accidents along the study corridor were 1.91 per million vehicles, which was higher than the statewide average of 1.49 per million vehicles. The study found that 29 of the 176 accidents involved vehicles that crossed the centerline.

2.1.3.3 Environmental Consequences

Brief, intermittent traffic disruptions (lane closures) willould occur during project construction, during which traffic willould be managed by a pilot vehicle or flagger. Access to and from the highway willould be unchanged.

The improvements associated with the build alternative are safety-related and willould not result in any changes to traffic operations along SR 152. The lane configuration and capacity of SR 152 willould be unchanged. Travel times, peak period performance, and level of service willould remain unchanged following construction.

The shoulder and lane widening willould provide additional width within the five roadway segments that would also benefit bicycle use by providing additional clearance from the vehicle lanes. The project does not include bike facilities (e.g., striped bike lanes) because the proposed improvements are limited to the proposed five roadway segments. The necessary width for a bike lane or facility that meets all Department design standards cannot be achieved along the entire highway without substantially greater right-of-way acquisition, slope grading, and retaining walls, which would have greater environmental impacts and costs that are beyond the scope of this project.

2.1.3.4 Avoidance, Minimization, and/or Mitigation Measures

None required.

2.1.4 Visual/Aesthetics

2.1.4.1 Regulatory Setting

NEPA establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings (42 U.S.C. 4331[b][2]). To further emphasize this point, the Federal Highway administration in its implementation of NEPA (23 U.S.C. 109[h]) directs that final decisions regarding projects are to be made in the best overall public interest, taking into account adverse environmental impacts, including, among others, the destruction or disruption of aesthetic values.

Likewise, CEQA establishes that it is the policy of the state to take all action necessary to provide the people of the state "with…enjoyment of aesthetic, natural, scenic and historic environmental qualities." (California Public Resources Code [PRC] Section 21001[b])

SR 152 within Santa Clara County is not listed as an eligible State Scenic Highway in the state's Scenic Highway Master Plan. SR 152 is a Santa Clara County scenic highway, and is also identified in the Scenic Highways Element of the County General Plan as one of several roads to be nominated for State Scenic Highway status.

2.1.4.2 Affected Environment

The information in this section is summarized from the State Route 152 Safety Improvements Project Visual Impact Assessment (Caltrans 2009b). The project is situated in Hecker Pass, an east-west oriented canyon paralleling the stream course of Bodfish Creek, in the southernmost portion of the Santa Cruz Mountain Range. The project area consists of two distinct landscape units: the Santa Cruz Mountains/Hecker Pass (containing Locations 1, 2, 3, and 4) and the Santa Clara Valley (containing Location 5). Each landscape unit has a level of visual sensitivity related to viewer exposure to and from the project area, and the visual context of each landscape unit, as described below and in Section 2.1.3.3. The levels of visual sensitivity to viewer groups are defined as:

Low — Minor adverse change to the existing visual resource (i.e., decline in visual quality), with low viewer response to change in the visual environment. May or may not require mitigation.

Moderate — Moderate adverse change to the visual resource with moderate viewer response. Impact can be mitigated within 5 years using conventional practices.

Moderately High — Moderate adverse visual resource change with high viewer response or high adverse visual resource change with moderate viewer response. Extraordinary mitigation practices may be required. Landscape treatment required would generally take longer than 5 years to mitigate.

High — A high level of adverse change to the resource and a high level of viewer response to visual change. Architectural design and landscape treatment may not fully mitigate the impacts. An alternative project design may be required to avoid highly adverse impacts.

Santa Cruz Mountains/Hecker Pass Landscape Unit

The Santa Cruz Mountains/Hecker Pass landscape unit extends from the western project limit to roughly 0.5 mile east of Blackhawk Canyon where Bodfish Creek diverges south from the highway (approximate SR 152 PM 3.7) and includes Locations 1, 2, 3, and 4. Along SR 152, this landscape unit is scenically highly intact, with little evidence of disturbance and steep slopes containing native mixed evergreen woodland, particularly tall redwood. The tall forest trees visually enclose the roadway and are the only visual image type seen by motorists on the roadway. Fleeting views of Bodfish Creek, which is parallel to and south of the highway, are visible at various locations. The visual character, visual quality, and viewer conditions of the SR 152 corridor are similar throughout Locations 1, 2, 3, and 4.

The Santa Cruz Mountains/Hecker Pass landscape unit is sparsely developed. Viewers in this area consist primarily of motorists on SR 152. Principal off-road, non-motorist, viewers in proximity to the project include residents on Bella Vista Lane above and south of Location 1 at the western terminus of the project corridor, visitors to Mt. Madonna County Park at the main entrance near Location 1, and park visitors at the secondary entrance at Location 4.

Overall, the visual quality of this landscape unit is considered to be high. Viewer sensitivity from the roadway is considered to be high due to the recreational and scenery-focused orientation of most motorists on this section of SR 152. Viewer sensitivity toward the roadway is considered to be low due to the lack of viewer exposure to the roadway.

Santa Clara Valley Landscape Unit

The Santa Clara Valley landscape unit includes Location 5. Although some surrounding land use in this landscape unit includes residential buildings, they are well screened from the roadway behind walls and landscaping. The overall visual scene is dominated by wooded riparian corridors of Bodfish Creek and its tributaries; undeveloped, wooded slopes of the Santa Cruz Mountain foothills at foreground and middle-ground distance; and the historical agricultural character of several surrounding wineries and associated vineyards. Walnut trees line both sides of SR 152 east of its intersection with Watsonville Road.

Location 5 is in a low-density, rural residential neighborhood and is thus visible to adjacent homes. Existing views to and from the road are generally well-screened by community walls, extensive tree screening, and other landscaping.

Overall, the visual quality of this landscape unit is considered to be moderately high. Viewer sensitivity from the roadway is also considered to be moderately high; this landscape unit is less recreation- and scenery-oriented than within the Santa Cruz Mountains/Hecker Pass landscape unit. Viewer sensitivity toward the project area by non-motorists is considered to be moderately high due to the moderate to high level of viewer exposure to the roadway

2.1.4.3 Environmental Consequences

Visual quality is characterized and evaluated in terms of the descriptors *vividness*, *intactness*, and *unity*. Vividness refers to the striking and distinctive quality that makes a landscape powerful and memorable; intactness is the visual integrity of the landscape and its freedom from encroaching elements; unity is the visual coherence and compositional harmony of a landscape. Visual impacts are identified as a combination of the degree of project-related change to visual character and quality (*the visual resource*), and *viewer response* or overall sensitivity and exposure to visual change.

Visually significant features of the proposed project would include the retaining walls and associated features. The proposed roadway widening would have minor visual effects, as discussed by location below. The no-build alternative would not result in any construction activities and would thus have no visual impacts.

Location 1

Before and after visual simulations of the proposed retaining Wall 1A at Location 1 are shown in Figures 2.1-1, 2.1-2, and 2.1-3. Figure 2.1-2 shows the simulated condition immediately after construction, Figure 2.1-3 shows the simulated condition 10 to 15 years after construction, with

anticipated re-vegetation along the top of the wall. Simulations for subsequent locations show the condition 10 to 15 years after construction.

Views from the Road

As shown in the simulations, anticipated visual project impacts from the roadway would include strong contrast with the existing landscape character and a strong decline in vividness, intactness, and unity due to highly prominent visual intrusion of the new retaining walls, accompanying vegetation removal, and installation of crash cushions along the roadway approach toward each retaining wall. Roadway widening and wall construction could require removal of a number of mature maple, madrone, and redwood trees. The resulting loss of tree canopy would represent a moderate decline in vividness in this road segment. The proposed walls with highly conspicuous crash cushions would introduce features of incompatible, artificial visual character and highly dominant scale, with a strong resulting decline in both intactness and unity. Views in this segment of SR 152 are highly enclosed by tree canopy on both sides of the road, which would emphasize the prominence and scale of the retaining walls.

In the context of high viewer sensitivity and high visual exposure, this would represent a high level of adverse change and a significant adverse impact. The retaining walls would incorporate context-sensitive color and texture treatment to reduce potential impacts. A sculpted rock wall texture treatment is depicted in the visual simulations; however, the final selection of texture would be made in consultation with local agencies. Whatever the selected texture, the intent of the treatment is to reduce overall wall contrast, incompatibility of character, and resulting decline in visual quality to the extent feasible.

Non-motorist views toward the project area

Despite the proximity of several homes on nearby Bella Vista Lane in the area south of Location 1, no views of the proposed project area from these offsite locations are evident due to dense intervening forest. Potential impacts to these viewers would thus be negligible.

Similarly, views from Pole Line Road, representing the main visitor entrance into Mt. Madonna County Park, would be entirely blocked by intervening forest and terrain. Park visitors would have views of the project area, but only as motorists passing by Location 1. Once on Pole Line Road, or elsewhere within the park, the proposed project area would not be visible. Potential impacts to visitors within the park would thus be negligible.

Figure 2.1-1. Existing westbound view facing location of proposed Wall 1A at Location 1

Figure 2.1-2. Simulated westbound view showing proposed Wall 1A at Location 1 soon after construction

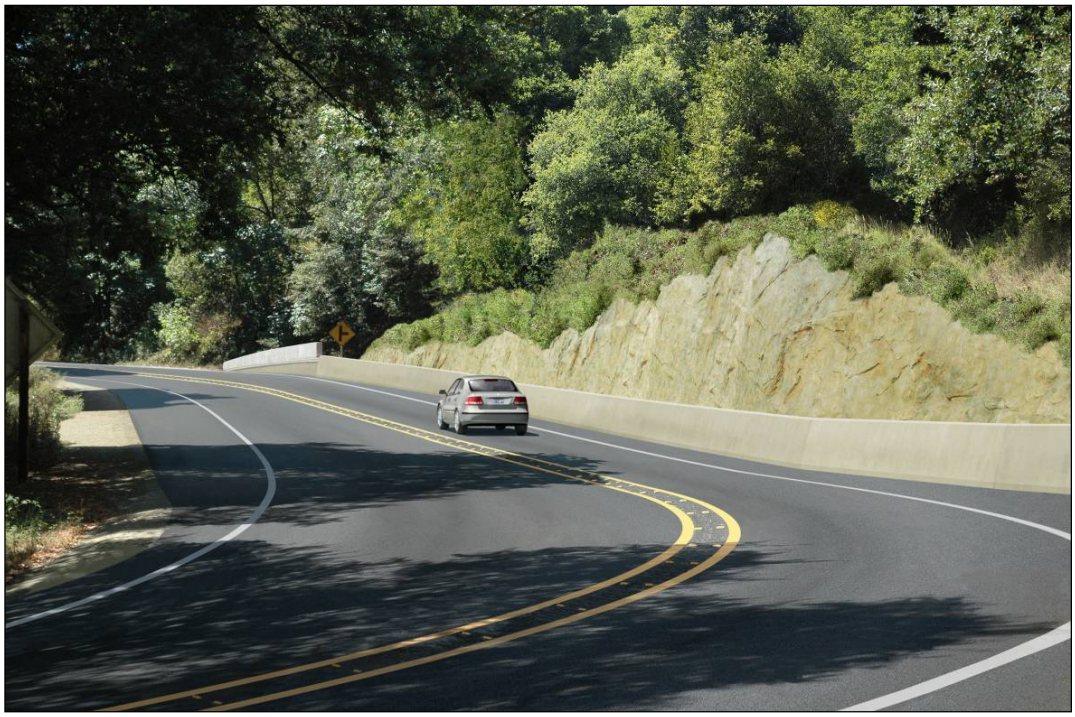

Figure 2.1-3. Simulated westbound view showing proposed Wall 1A at Location 1 with simulated re-vegetation 10–15 years after project construction

Location 2

Before and after visual simulations of proposed Wall 2A at Location 2 are shown in Figures 2.1-4 and 2.1-5.

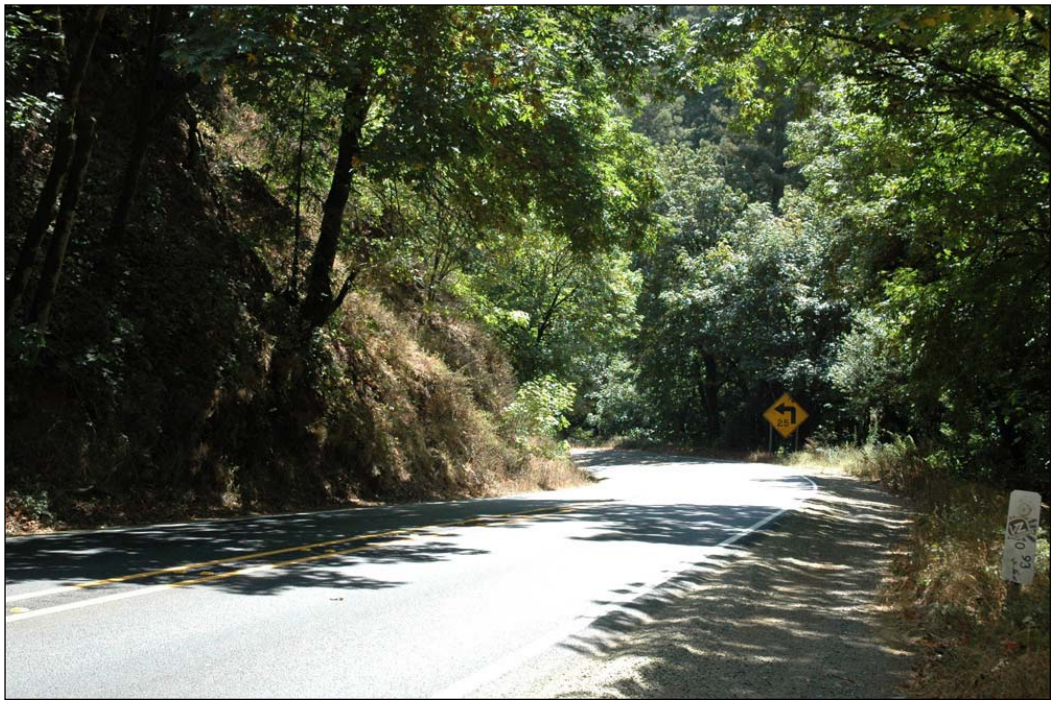

Figure 2.1-4. Existing eastbound view facing location of proposed Wall 2A at Location 2

Figure 2.1-5. Simulated eastbound view showing proposed Wall 2A at Location 2 with simulated re-vegetation 10 to 15 years following construction

Views from the Road

As depicted in the simulations, anticipated project impacts from the roadway willould include strong contrast with the existing landscape character, resulting in a moderate decline in vividness, and strong declines in intactness and unity due to highly prominent visual intrusion of the new retaining wall, and accompanying vegetation removal. Roadway widening and wall construction could require removal of a number of mature maple, madrone, and redwood trees. Context-sensitive wall treatments, including dark-colored staining, willould be applied. Nevertheless, the overall decline in visual quality and in this road segment willould remain strong.

In the context of high viewer sensitivity and high visual exposure, this would represent a high level of adverse change and a significant adverse impact.

Non-motorist views toward the project area

Viewers in proximity to Location 2 include one or more properties on Bella Vista Road and Sanders Road overlooking the highway from the southwest at distances of less than ¼ mile. However, as discussed for Location 1, views from all of the properties in this area would be largely or completely screened by dense intervening forest. Actual exposure to the proposed project area from these properties is thus negligible. Similarly, Location 2 would not be visible from within Mt. Madonna County Park. Adverse impacts on offsite views to the road are thus not anticipated at Location 2.

Location 3

Before and after visual simulations of the proposed Wall 3B at Location 3 are shown in Figures 2.1-6 and 2.1-7 below.

Views from the Road

As depicted in the simulations, anticipated visual project impacts from the roadway willould include strong contrast with the existing landscape character, resulting in a moderate decline in vividness due to tree removal, and strong declines in intactness and unity due to highly prominent visual intrusion of the new retaining walls. Roadway realignment and wall construction could require removal of a number of mature maple, madrone, and redwood trees. Context-sensitive wall treatments, including dark-colored staining, would be applied. Nevertheless, the overall decline in visual quality and in this road segment willould remain strong.

In the context of high viewer sensitivity and high visual exposure, this would represent a high level of adverse change and a significant adverse impact.

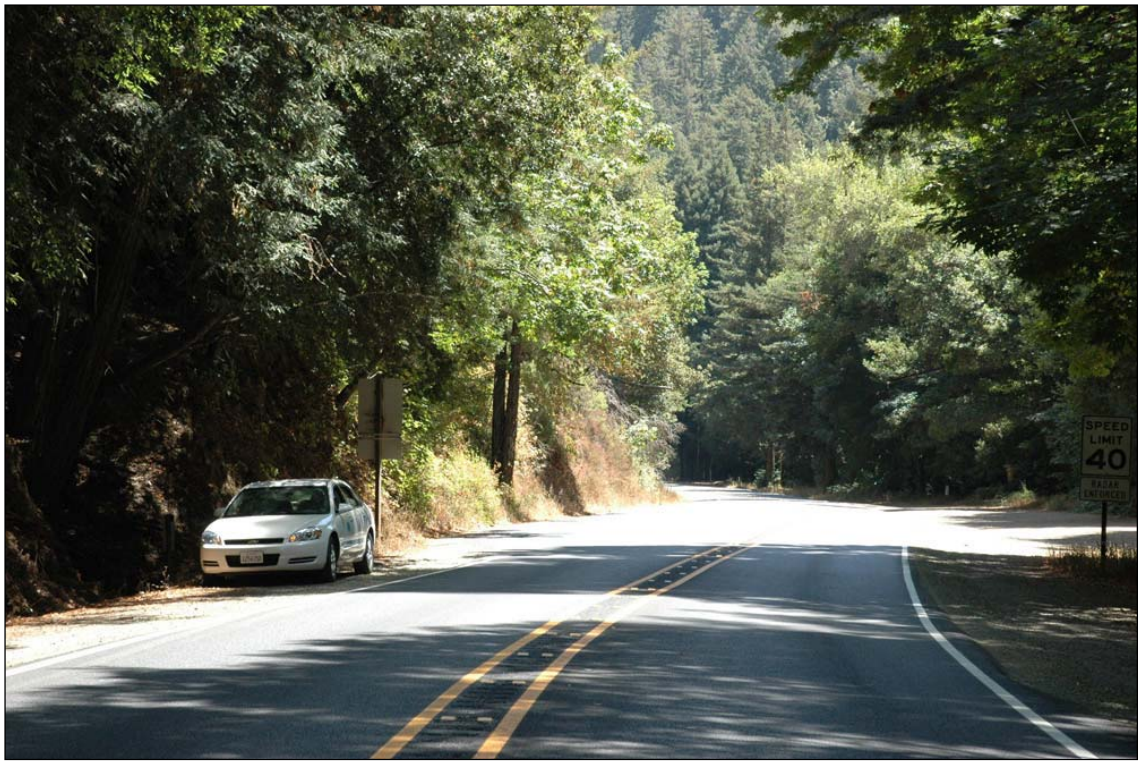

Figure 2.1-6. Existing eastbound view facing location of proposed Wall 3B at Location 3

Figure 2.1-7. Simulated eastbound view showing proposed Wall 3B at Location 3

Non-motorist views toward the project area

Location 3, which is immediately east of Location 2, is within foreground distance of the same residences on Bella Vista Lane and Sanders Road discussed above under Location 2. The same conditions apply as well: the project willould be largely or completely screened by existing forest from these properties. Visual exposure to project features at Location 3 is thus negligible. Location 3 is not visible from within Mt. Madonna County Park. Adverse impacts on offsite views to the road are thus not anticipated at Location 3.

Location 4

Before and after visual simulations of the proposed retaining walls at Location 4 are shown in Figures 2.1-8, 2.1-9, 2.1-10, 2.1-11, 2.1-12, and 2.1-13 below.

Views from the Road

As depicted in the simulations and similar to impacts discussed under Location 1, anticipated visual project impacts at Location 4 would include strong contrast with the existing landscape character, resulting in a moderate decline in vividness due to tree removal, and strong declines in intactness and unity due to highly prominent visual intrusion of the new retaining walls. Roadway re-alignment and wall construction could require removal of a number of mature maple, madrone, and redwood trees. Context-sensitive wall treatments, including dark-colored staining, willould be applied. Nevertheless, the overall decline in visual quality in this road segment would remain strong.

In the context of high viewer sensitivity and high visual exposure, this willould represent a high level of adverse change and a significant adverse impact.

Non-motorist views toward the project area

Views to the road from this road segment are very limited. Potential views from within Mt. Madonna County Park and the vicinity of the park entrance to proposed upslope walls are almost entirely blocked by intervening topography. Tree removal from proposed downslope Wall 4E at the park entrance would be visible from within the park parking lot. At the Mt. Madonna County Park entrance, trees along the highway would be removed; however, large trees and other vegetation on the park (north) side of the creek would remain, maintaining some screening. The wall itself would thus be visible from the parking area, but would be highly filtered by remaining trees and vegetation to its north, and relatively inconspicuous due to its below-grade location. In the context of high viewer sensitivity but limited, moderately low visual exposure, these moderate declines in visual quality as seen from within the park would not be significant.

Figure 2.1-8. Existing eastbound view facing location of proposed Wall 4C at Location 4

Figure 2.1-9. Simulated eastbound view showing proposed Wall 4C at Location 4 with simulated re-vegetation 10 to 15 years following construction

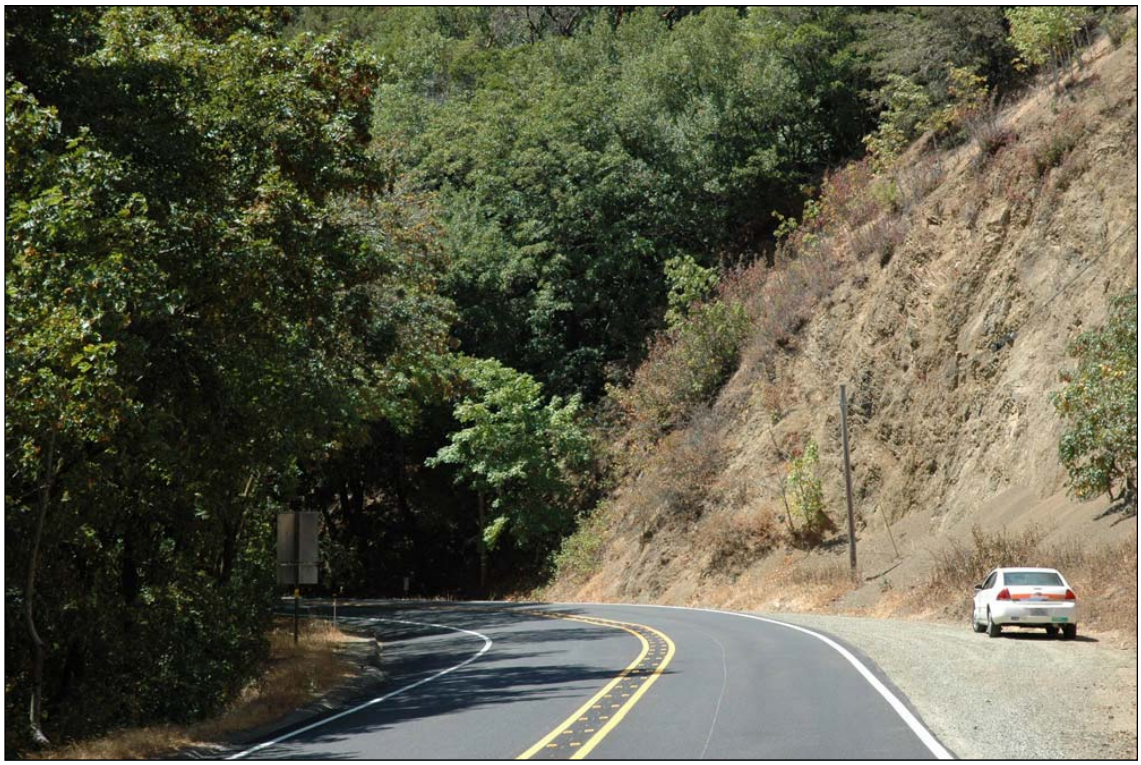

Figure 2.1-10. Existing westbound view facing location of proposed Wall 4C at Location 4

Figure 2.1-11. Simulated westbound view showing proposed Wall 4C at Location 4 with simulated re-vegetation 10 to 15 years following construction

Figure 2.1-12. Existing westbound view facing location of proposed Wall 4D at Location 4

Figure 2.1-13. Simulated westbound view showing proposed Wall 4D at Location 4 with simulated re-vegetation 10 to 15 years following construction

The principal visual impact of the proposed project to park visitors at this location will ould thus be experienced by motorists approaching the park entrance in views from the road, as described above. Outside of the park visitors within the Sprig Lake parking lot, no other off-road viewers are present in the viewshed of Location 4, either within or outside of Mt. Madonna County Park.

Location 5

From a visual standpoint, proposed project actions at Location 5 willould have minor impacts; they willould consist primarily of minor roadway widening, including adding a turn lane at the intersection of Watsonville Road, and creating standard 8-ft shoulders.

Views from the Road

The principal visual effect at this location willould be the removal of roughly 480 linear ft of existing mature walnut trees at the highway shoulder in the southeastern quadrant of the intersection of SR 152 and Watsonville Road. In addition, up to 10 similar walnut trees could be removed in the northeastern quadrant of the intersection. The two groups of trees form a remnant of an allee (double row of trees) lining the highway to the east of the intersection with Watsonville Road. From the perspective of motorists, this would represent a moderate decline in visual quality, but would not significantly alter the visual quality of the viewshed in this location, which would remain intact, rural in character, and moderately high in visual quality. From the perspective of motorists, this moderate decline in visual quality would be an adverse, but not signficant impact.

Non-motorist views toward the project area

The proposed removal of approximately 480 linear ft of mature walnut trees at the southern highway shoulder east of Watsonville Road willould be viewed by two affected properties, including the Rofinella/Thomas Kruse Winery, a locally listed and state-eligible historic landmark, resulting in a moderate decline in visual quality. The tree rows comprise a part of an allee lining both sides of the highway in this segment, and provide visual screening of the highway for the occupants of and visitors to the affected properties, as well as an attractive landscape element. In the context of a presumed high level of sensitivity due to its historic status and use as a visitor destination, this moderate decline in visual quality could nevertheless represent a potentially significant adverse impact.

Removal of up to 10 similar walnut trees on the highway frontage of a residence in the northeastern quadrant of the Watsonville Road intersection, comprising a part of the allee lining the highway in this segment, would have a less adverse effect due to their greater distance from the affected residence. Nevertheless, their loss would cause a moderate overall decline in visual quality as described above. Because residents are presumed to have a high level of viewer sensitivity, this moderate decline could be perceived as a significant adverse impact. In both cases, the affected trees are of modest stature.

Light and Glare

No substantial long-term light or glare impacts would occur as a result of the proposed project. Construction at night could result in glare impacts that interfere with safe navigation by motorists. Walls would be treated to have low reflectively and dark, subdued colors.

Construction Impacts

Construction staging within the highway corridor would be visible from the highway and would cause temporary impacts due to the presence of materials and equipment. Construction activities would have temporary impacts that would be visible to motorists, such as placement of safety barriers and signs, vegetation removal, slope grading, and temporary soil and rock exposure. In the worst case, such impacts would have the potential to be substantially adverse.

State Scenic Highway Program

As described in Section 2.1.1.2, the affected portion of SR 152 in Santa Clara County is not listed as an eligible State Scenic Highway in the State Scenic Highway Master Plan (Caltrans 2009a). However, Policy R-PR(i) 22 of the Scenic Highways Element of the Santa Clara County General Plan calls for nomination and designation of SR 152 in Santa Clara County as a State Scenic Highway, as discussed in greater detail below.

The four criteria used to determine whether a highway may be designated as scenic are:

- "The State or county highway consists of a scenic corridor that is composed of a memorable landscape that showcases the natural scenic beauty or agriculture of California..."
- "Existing visual intrusions do not significantly impact the scenic corridor…"
- "Demonstration of strong local support for the proposed scenic highway designation."
- "The length of the proposed scenic highway is not less than a mile and is not segmented."

Before a highway such as SR 152 in the project area may be designated as an official State Scenic Highway, it must be added by legislation to the list of eligible State Scenic Highways in California Streets and Highways Code Section 263. Should SR 152 be added to the list of eligible highways, the Department's Scenic Highway Guidelines define a specific process and criteria to determine eligibility of a highway for "scenic" status. These include that not more than one-quarter of the proposed scenic highway may be affected by visual intrusions. Visual intrusions may be natural or constructed elements, viewed from the highway, that adversely affect the scenic quality of a corridor. Examples of visual intrusions are buildings, unsightly land uses, parking lots, advertising, noise barriers, power lines and communication facilities, agriculture, exotic (nonnative) vegetation, clear-cutting, erosion, grading, and the roadway and associated structures themselves. Intrusions are classified as minor, moderate, or major, but in any case not more than one-quarter of the length should be impacted. Existing visual intrusions on SR 152 within Hecker Pass in Santa Clara County are negligible. However, visual intrusions (retaining walls) from the proposed project would adversely affect the scenic quality of this portion of SR 152, and thus reduce the potential for its nomination as a State Scenic Highway.

2.1.4.4 Avoidance, Minimization, and/or Mitigation Measures

Avoidance, minimization, and mitigation measures are described by project location below:

Locations 1, 2, and 3

To address the potential impacts of tree removal at these locations, the following tree replacement and revegetation measures will be implemented:

- Minimizing existing tree and forest removal to the greatest possible extent. The limit of work shall be kept to the minimum possible footprint, not to exceed 5 ft from the edge of the retaining wall. Priority shall be placed on preserving existing trees nearest the wall, to preserve views of the forest edge from the road to the greatest extent feasible.
- Tree replacement planting shall be implemented if appropriate to mitigate for major loss of tree canopy, as determined by the project landscape architect.

To address the potential impacts of visual intrusion from the new retaining walls, the following mitigation measures will be implemented:

- Minimizing overall wall height to the greatest extent feasible.
- Using context-sensitive wall texture and color treatment, in consultation with local agencies, to reduce visual contrast and enhance compatibility of visual character to the greatest extent feasible.
- Staining of bottom, safety-barrier portion of walls to reduce overall color contrast and visual intrusion.
- If feasible, walls shall be gutterless and without chain-link safety fence to reduce visual contrast.
- Wherever feasible and consistent with safety, the use of crash cushions at retaining walls shall be avoided to reduce the visual contrast with the natural environment.

Location 4

All avoidance, minimization, and mitigation measures that apply to Locations 1, 2, and 3 also apply to the Location 4. In addition to those measures, the following measures also apply to Location 4:

- To minimize the long-term visual effect of tree removal for Wall 4E, as seen from both inside and outside of the park, tree replacement and other supplemental native vegetation planting should be implemented where feasible adjacent to Wall 4E.
- To minimize the contrast in visual character and decline in visual quality as a result of Wall 4E as seen by park visitors, context-sensitive wall color and texture treatment should be applied. Color shall be dark to minimize contrast and reflectivity; texture treatment such as stacked stone, carved rock, or other similar treatment shall be used to articulate the wall surface and provide a more naturalistic, context-compatible visual character.

Location 5

- Minimization of existing tree removal to the greatest possible extent. The limit of work shall be kept to the minimum possible footprint.
- Where feasible, tree replacement planting shall be implemented to replace the lost tree screening and ‘allee’ pattern at the roadside.

Light and Glare

- Construction activities shall limit all construction lighting to within the area of work and avoid light trespass through directional lighting, shielding, and other measures as needed.

Construction impacts

- Unsightly material and equipment storage and staging shall not be visible within the foreground of the highway corridor to the extent feasible. Where such siting is unavoidable, material and equipment shall be visually screened to minimize visibility from the roadway and to nearby sensitive off-road receptors.
- Construction, staging, and storage areas shall be screened by visually opaque screening wherever they will be exposed to public view for extended periods of time.
- Construction activities shall be phased to minimize the duration of disturbance to the shortest feasible time.
- All areas disturbed by construction, staging, and storage shall be revegetated.

2.1.5 Cultural Resources

2.1.5.1 Regulatory Setting

“Cultural resources” as used in this document refers to all historical and archaeological resources, regardless of significance. Laws and regulations dealing with cultural resources include:

The National Historic Preservation Act of 1966, as amended, (NHPA) sets forth national policy and procedures regarding historic properties, defined as districts, sites, buildings, structures,

and objects included in or eligible for the National Register of Historic Places. Section 106 of NHPA requires federal agencies to take into account the effects of their undertakings on such properties and to allow the Advisory Council on Historic Preservation the opportunity to comment on those undertakings, following regulations issued by the Advisory Council on Historic Preservation (36 CFR 800). On January 1, 2004, a Section 106 Programmatic Agreement between the Advisory Council, FHWA, State Historic Preservation Officer (SHPO), and the Department went into effect for Department projects, both state and local, with FHWA involvement. The PA implements the Advisory Council's regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to the Department. The FHWA's responsibilities under the PA have been assigned to the Department as part of the Surface Transportation Project Delivery Pilot Program (23 CFR 773) (July 1, 2007).

Historic properties may also be covered under Section 4(f) of the U.S. Department of Transportation Act, which regulates the "use" of land from historic properties. See Appendix C for specific information regarding Section 4(f) regulations.

Historical resources are considered under the CEQA, as well as California PRC Section 5024.1, which established the California Register of Historical Resources. PRC Section 5024 requires state agencies to identify and protect state-owned resources that meet National Register of Historic Places (NRHP) listing criteria. It further specifically requires the Department to inventory state-owned structures in its rights-of-way. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the SHPO before altering, transferring, relocating, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the National Register or are registered or eligible for registration as California Historical Landmarks.

2.1.5.2 Affected Environment

Archaeological Resources

The Department prepared an archaeological survey report and historic property survey report in April 2009 in accordance with Section 106 of the NHPA and its implementing regulations. To develop an historic context and assess the sensitivity for intact buried historic and prehistoric archaeological resources, cultural resources site records, maps, and survey reports pertaining to the history and prehistory of the project area were reviewed.

In accordance with both Section 106 of the National Historic Preservation Act and CEQA, the Department delineated an archaeological Area of Potential Effect (APE), comprising all of the area that would be subject to ground disturbance to construct the proposed project. The APE was divided into five discontiguous subsegments conforming to the construction footprint of Locations 1-5, and additional areas for placement of temporary advance warning signs, new right-of-way, and potential construction staging locations. No previously recorded archaeological resources are within the APE, and no previously unrecorded archaeological resources were identified within the APE as a result of a March 5, 2009, field survey.

The California Native American Heritage Commission (NAHC) in Sacramento was contacted on January 28, 2009 requesting a search of sacred lands files and a list of local Native American organizations and individuals that may have information regarding cultural resources

in the area. On February 5, 2009, the NAHC indicated that no known cultural resources or archaeological sites were on file for the project area. The NAHC provided a list of nine Native American parties that may have potential interest in the project. On February 5, 2009, a letter was sent to all of the parties on the NAHC list; on March 4, 2009, receipt of these letters was verified by phone call. Responses were received from the Amah/Mutsun Tribe, the Indian Canyon Mutsun Band of Costanon, and the Muwekma Ohlone Tribe expressing concern about sensitive cultural resources in the area and requesting that a Native American monitor be present during construction. The Department extended invitations to the Amah/Mutsun Tribe and the Indian Canyon Mutsun Band of Costanon for a site visit to discuss potential cultural resources. Responses were not received from either tribe.

Historic Resources

Through the investigation described above, no NRHP-eligible properties were identified within the APE. One historic resource, the Rofinella Winery at 4390 Hecker Pass Road, is a designated Santa Clara County Landmark. This property was found to be eligible under Criteria 1 of the California Register of Historical Resources on the local level for its representation of an early winery developed by Italian immigrants, and is therefore considered an historic property for the purpose of compliance with CEQA.

2.1.5.3 Environmental Consequences

The Department has determined that a finding of no impact is appropriate for the Rofinella Winery at 4390 Hecker Pass Road because only minor right-of-way acquisition along the property's highway frontage would occur at this location. This alteration to the property would not impair the significance of the historical resource, pursuant to CEQA Guidelines 15064.5(b)(3).

In the Draft Environmental Impact Report/Environmental Assessment (DEIR/EA) the Department incorrectly identified the Rofinella Winery as a Santa Clara County Landmark. Following publication of the DEIR/EA, the Department learned that the subject property was instead listed as a resource in the Santa Clara County Heritage Resource Inventory, which is maintained by the Santa Clara County Heritage Commission and the Santa Clara County Board of Supervisors. Because it was thought to have County Landmark status, the Department regarded it as a property subject to Section (f) of the Department of Transportation Act. The FHWA's Section 4(f) policy paper dated March 1, 2005 states "If an historic site is determined not to be on or eligible for the National Register, but an official (such as the Mayor, President of the local historic society, etc.) formally provides information to indicate that the historic site is of local significance, FHWA may determine that it is appropriate to apply Section 4(f) in that case" (see Appendix C for more information on 4(f)).

The minor right-of-way acquisition will affect a row of trees along the highway frontage, and would not affect any buildings or any ancillary structures associated with the winery. At the time, Caltrans had determined that the impacts would be considered 'de minimis' as the principal attributes and features of the property would not be affected. Because the property does not have landmark status and because there has been no request at the local level for its consideration as a Section 4(f) resource, the department does not consider this property as a Section 4(f) resource. It should be noted that the treatment of the property would have been no different had it been determined to be subject to Section 4(f). Because the Rofinella Winery is a

Santa Clara County Landmark, Caltrans has determined that it is a property that is protected under Section 4(f). The minor right-of-way acquisition that would impact the property would affect only a row of trees along the highway frontage, and would not affect any buidings or any ancillary structures associated with the winery. It is those elements that are identified in the Santa Clara County Landmark designation. As such, Caltrans has determined that impacts to the winery would be considered "de minimis" with regards to Section 4(f). Additional information regarding the Section 4(f) regulations can be found in Appendix C.

No other potentially eligible prehistoric or historic properties were identified within the construction limits of the project. Due to the nature of the undertaking, the results of archival research, field survey, Native American consultation, and the modified and disturbed environmental context of the project area, it has been determined that no further archaeological work is required.

2.1.5.4 Avoidance, Minimization, and/or Mitigation Measures

If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to PRC Section 5097.98, if the remains are thought to be Native American, the coroner will notify the NAHC, who will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact the District 4 Office of Cultural Resources Studies so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

During coordination with Native American groups, a Native American cultural resources monitor was requested. The Department will determine whether a Native American cultural resources monitor is required during the design phase of the project based on specific anticipated construction activities.

2.2 Physical Environment

2.2.1 Water Quality and Storm Water Runoff

2.2.1.1 Regulatory Setting

Federal Requirements: Clean Water Act

In 1972, the Federal Water Pollution Control Act was amended, making the discharge of pollutants to the waters of the United States from any point source unlawful, unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The Federal Water Pollution Control Act was subsequently amended in 1977, and was renamed the Clean Water Act (CWA). The CWA, as amended in 1987, directed that storm water discharges are point source discharges. The 1987 CWA amendment established a framework for regulating municipal and industrial storm water discharges under the NDPES program. Important CWA sections are as follows:

- Sections 303 and 304 provide for water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for any federal project that proposes an activity, which may result in a discharge to waters of the United States to obtain certification from the State that the discharge will comply with other provisions of the act.
- Section 402 establishes the NPDES, a permitting system for the discharges (except for dredge or fill material) into waters of the United States. Regional Water Quality Control Boards (RWQCB) administer this permitting program in California. Section 402(p) establishes addresses storm water and non-storm water discharges.
- Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the United States. This permit program is administered by the U.S. Army Corps of Engineers (ACOE).

The objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."

State Requirements: Porter-Cologne Water Quality Control Act (California Water Code)

California's Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. This Act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or otherwise) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the state.

The State Water Resources Control Board (SWRCB) and RWQCBs are responsible for establishing the water quality standards (objectives) required by the CWA, and regulating discharges to ensure that the objectives are met. Details regarding water quality standards in a project area are contained in the applicable RWQCB Basin Plan. States designate beneficial uses for all water body segments, and then set criteria necessary to protect these uses. Consequently, the water quality standards developed for particular water segments are based on the designated use and vary depending on such use. In addition, each state identifies waters failing to meet standards for specific pollutants, which are state listed in accordance with CWA Section 303(d). If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source controls, the CWA requires establishing Total Maximum Daily Loads (TMDLs). TMDLs establish allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

State Water Resources Control Board and Regional Water Quality Control Boards

The SWRCB administers water rights, water pollution control, and water quality functions throughout the state. RWCQBs are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

- **NPDES Program**

  The SWRCB adopted Caltrans Statewide NPDES Permit (Order No. 99-06-DWQ) on July 15, 1999. This permit covers all Department rights-of-way, properties, facilities,

and activities in the State. NPDES permits establish a 5-year permitting time frame. NPDES permit requirements remain active until a new permit has been adopted.

In compliance with the permit, the Department developed the Statewide Storm Water Management Plan (SWMP) to address storm water pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The SWMP describes the minimum procedures and practices the Department uses to reduce pollutants in storm water and non-storm water discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of Best Management Practices (BMPs). The proposed Project will be programmed to follow the guidelines and procedures outlined in the 2003 SWMP to address storm water runoff or any subsequent SWMP version draft and approved.

- **Municipal Separate Storm Sewer System Program**

  The U.S. EPA defines a Municipal Separate Storm Sewer System (MS4) as any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a state, city, town, country, or other public body having jurisdiction over storm water, that are designed or used for collecting or conveying storm water. As part of the NPDES program, U.S. EPA initiated a program requiring that entities having MS4s apply to their local RWQCBs for storm water discharge permits. The program proceeded through two phases. Under Phase I, the program initiated permit requirements for designated municipalities with populations of 100,000 or greater. Phase II expanded the program to municipalities with populations less than 100,000.

- **Construction Activity Permitting**

  Section H.2, Construction Program Management of the Department's NPDES permit states: "The Construction Management Program shall be in compliance with requirement of the NPDES General Permit for Construction Activities (Construction General Permit)". Construction General Permit (Order No. 2009-009-DWQ, adopted on September 2, 2009, will become effective on July 1, 2010. The permit will regulate storm water discharges from construction sites that result in a DSA of 1 acre or greater, and/or are part of a common plan of development. By law, all storm water discharges associated with construction activity where clearing, grading, and excavation results in soil disturbance of at least 1 acre must comply with the provisions of the General Construction Permit.

  The newly adopted permit separates projects into Risk Levels 1 – 3. Requirements apply according to the Risk Level determined. For example, a Risk Level 3 (highest risk) project would require compulsory storm water runoff pH and turbidity monitoring. Risk levels are determined during the design phase and are based on potential erosion and transport to receiving waters. Applicants are required to develop and implement an effective Storm Water Pollution Prevention Plan (SWPP).

  Caltrans Statewide NPDES Permit requires the Department to submit a Notice of Construction (NOC) to the RWQCB to obtain coverage under the Construction General

Permit. Upon project completion, a Notice of Completion of Construction (NOCC) is required to suspend coverage. This process will continue to apply to Department projects until a new Caltrans Statewide NPDES Permit is adopted by the SWRCB. An NOC or equivalent form will be submitted to the RWQCB at least 30 days prior to construction if the associated DSA is 1 acre or more. In accordance with the Department's Standard Specifications, a Water Pollution Control Plan (WPCP) is used for projects with DSA less than 1-acre.

During the construction phase, compliance with the permit and the Department's Standard Special Conditions requires appropriate selection and deployment of both structural and non-structural BMPs. These BMPs must achieve performance standards of Best Available Technology economically achievable/Best Conventional Pollutant Control Technology (BAT/BCT) to reduce or eliminate storm water pollution.

2.2.1.2 Affected Environment

The Department prepared a Water Quality Report (Caltrans 2009d) and Draft Storm Water Data Report (Caltrans 2009e) for this project in 2009. The proposed project is under the jurisdiction of the Central Coast Regional Water Quality Control Board (Region 3), which is responsible for the implementation of the state and federal water quality protection laws and regulations in the vicinity of the project site.

Surface Water

The project area is located within the Pajaro River hydrologic unit and within two hydrologic sub-areas (HSA): the Santa Cruz Mountains HSA and the South Santa Clara Valley HSA. Four water bodies in the project area receive direct infusions of storm water: Bodfish Creek, Blackhawk Creek, and two unnamed springs. Uvas Creek is an indirect receiving water body. Water flows from Bodfish Creek into Uvas Creek at a confluence outside of the project area.

Groundwater

The project area is within the Llagas Creek Groundwater sub-basin of the Gilroy-Hollister Valley Groundwater Basin. The majority of the water supply for Santa Clara County is dependent on groundwater basins.

2.2.1.3 Environmental Consequences

The Department has performed many studies to monitor and characterize highway storm water runoff throughout the state. Pollutants of concern in Caltrans runoff found from the "Final Report of the Caltrans BMP Retrofit Pilot Program," were phosphorus, nitrogen, copper (total or dissolved), lead (total or dissolved), zinc (total or dissolved), sediments, general metals (unspecified metals), and litter. Some sources of these pollutants are natural erosion, phosphorus from tree leaves, combustion products from fossil fuels, trash and falling debris from motorists, and the wearing of brake pads. The proposed project would not increase traffic volumes; thus, pollutants from vehicle traffic are not expected to increase due to the project.

The primary pollutant of concern on the proposed project is sediment. During construction, earth-moving activities such as excavation and grading would result in soil disturbance. Disturbed soils are susceptible to high rates of erosion from wind and rain, and can result in sediment transport via storm water runoff from the project area. Erosion and sedimentation can

cause exceedance of local water quality criteria and may adversely affect biological resources in adjacent waterways.

Construction materials, waste handling, and the use of construction equipment could also result in storm water contamination and adversely impact water quality. Spills or leaks from heavy equipment and machinery can result in oil and grease contamination. Staging areas can also be a source of pollution due to the nature of materials typically stored and used at these sites, including stockpiled soils and other building materials, fuel, oils, and hydraulic fluids. Surface water impacts from pollutants of concern will be minimized by implementation of Best Management Practices (BMPs).

The estimated total disturbed soil area would be 6.4 acres and the increased impervious area would be 3.3 acres. Velocity or volume of downstream flow may increase due to the added impervious areas (roadway widening) for the project.

Soil excavation depth for project activities is anticipated to be a maximum of 6 ft, which is not expected to be deep enough to encounter groundwater. Therefore, project activities would not be expected to impact the groundwater basin. Additional geotechnical investigation would occur during the project design phase to determine the groundwater depth at locations where excavation would occur.

2.2.1.4 Avoidance, Minimization, and/or Mitigation Measures

Section 401 of the Clean Water Act

Section 401 certification will be required for this project. Early discussion will be initiated regarding the handling and disposal of water during the design phase. Although not expected, if groundwater is encountered, it groundwater will be tested for potential contamination as a part of the Hazardous Waste Site Investigation. Proper handling and disposal of the groundwater will be based on the levels of contaminants reported in the Site Investigation Report.

Section 402 of the Clean Water Act

Consistent with the Department's NPDES permit and the Statewide Construction General Permit, BMPs will be incorporated to reduce the discharge of pollutants during construction as well as permanently to the Maximum Extent Practicable. These BMPs fall into three categories, Temporary Construction Site BMPs, Permanent Design Pollution Prevention BMPs, and Permanent Treatment BMPs.

Construction Site BMPs

Given that the anticipated soil disturbance would be greater than 0.4 hectare (1 acre), compliance with the NPDES permit will include the development of a SWPPP. The SWPPP will incorporate appropriate BMPs to control storm water runoff during construction activities. This dynamic document addresses the deployment of various erosion and water pollution control measures that are required commensurate with changing construction activities.

Approved erosion control BMPs are described in the Department's Construction Site Best Management Practices Manual (Caltrans 2003). Temporary erosion control and water quality measures will be defined in detail in the project SWPPP and designated as line items in the project's plans, specifications, and estimates. Temporary silt fence, concrete washout controls, stockpile covers, stabilized construction entrance/exits, and temporary soil stabilizers are some

of the temporary erosion and water pollution control measures that may be used in combination to prevent and minimize soil erosion and sediment discharges during construction.

Permanent Design Pollution Prevention BMPs

Design Pollution Prevention BMPs are permanent measures to improve storm water quality by reducing erosion, stabilizing disturbed soil areas, and maximizing vegetated surfaces. Erosion control measures will be provided on all disturbed areas to the extent feasible. These measures will use a combination of source and sediment control measures to prevent and minimize erosion from soil-disturbed areas. Source controls can use erosion control netting in combination with hydroseeding.

The biodegradable netting is effective in providing good initial mechanical protection while seed applied during the hydroseeding operation germinates and establishes itself. Other forms of source control such as tacked straw may also be used when applicable. Sediment controls such as biodegradable fiber rolls can be used to retain sediments and to help control runoff from disturbed slope areas. These measures will be evaluated for site-specific conditions during the design phase.

Outlet protection and velocity dissipation devices placed at the downstream end of culverts and channels are also Design Pollution Prevention BMPs that reduce runoff velocity and control erosion and scour. The need for these devices for this project will also be further evaluated during the design phase.

Generally, as velocities and volume of flow increase, so could the sediment loading. Effects to downstream flow will be further investigated during the design phase and the use of appropriate Design Pollution Prevention BMPs to address this concern will be considered.

Permanent Treatment BMPs

This project will be required to incorporate treatment BMPs. Treatment BMPs are permanent devices and facilities treating storm water runoff. The Department-approved treatment BMPs are biofiltration swales, infiltration basins, detention basins, traction sand traps, dry weather flow diversions, media filters, gross solids removal devices, multi-chamber treatment trains, and wet basins.

2.2.2 Geology/Soils/Seismic/Topography

2.2.2.1 Regulatory Setting

For geologic and topographic features, the key federal law is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects “outstanding examples of major geological features.” Topographic and geologic features are also protected under the California Environmental Quality Act.

This section also discusses geology, soils, and seismic concerns as they relate to public safety and project design. Earthquakes are prime considerations in the design and retrofit of structures. The Department’s Office of Earthquake Engineering is responsible for assessing the seismic hazard for Department projects. The current policy is to use the anticipated Maximum Credible Earthquake (MCE), from young faults in and near California. The MCE is defined as the largest earthquake that can be expected to occur on a fault over a particular period of time.

2.2.2.2 Affected Environment

A preliminary geotechnical report (Caltrans 2009c) was prepared for this project. This section of Route 152 is a narrow two-lane highway in steep mountainous terrain. The project area is undeveloped and vegetation consists of typical coastal redwood forest. Bodfish Creek flows adjacent to the alignment throughout the project limits. The streambed is a rocky, irregular channel with a steep grade and significant erosion on the banks.

Site Geology and Soils

The geologic units can be classified and specified according to the location of the five sites included in this project, as follows:

Locations 1, 2, and 3
These three locations are in the Sierra Azula block and underlain by two rock units; the siltacious shale and sandstone of Mt. Pajaro, and the sandstone of Mt. Madonna. Soils at these three locations are characterized as Felton silt loam. These soils are well drained and are underlain by interbedded shales and sandstone at a depth of 20 to 30 in. Permeability in the subsoil is moderately slow. Runoff is very rapid and the hazard of erosion is very high. These soils have moderate shrink-swell potential and corrosivity.

Location 4
This location is mostlyprimarily in the Sierra Azula block. The northeastern portion of this location is in the New Almaden block. The rock units consist of volcanic rocks, sandstone and mudstone, mottled mudstone and sandstone of Mt. Chaul, and alluvial fan deposits. Soils at this location are characterized as Felton silt loam, Los Gatos gravelly loam, and Gilroy clay loam. Felton silt loam is described above. Los Gatos gravelly loam is well drained and underlain by metamorphosed shale at a depth of 25 to 50 in. Runoff is very rapid and the hazard of erosion is very high, and it has a moderate shrink-swell potential. Gilroy clay loam is well drained, underlain by igneous rock at a depth of 18 to 36 in. Runoff is rapid and the hazard of erosion is high.

Location 5
This location is entirely underlain by Pleistocene alluvial fan deposits and surrounded to the north and to the south by the Temblor Sandstone of the New Almaden Block. Soils at this location consist of San Ysidro loam and Pleasanton gravelly loam. Both of these soil types have moderate corrosivity, moderate shrink-swell potential, and none to slighta low hazard of erosion.

Seismicity

The project area is within the San Andreas Fault system, which is a complex belt of major fault zones and extremely high seismicity extending roughly northwestward from northern Mexico through western California. The San Andreas Fault is an active fault located 1.09 miles from Location 1 and 4.55 miles from Location 5. The Sargent and Castro Faults are part of the San Andreas Fault system, the Sargent Fault crossing at Location 4 and the Castro Fault crossing approximately 0.3 mile east of Location 4. Both have produced major earthquakes in historic time (documented since 1836).

Slope Stability

There is a past history of landslides within the project area. These landslides and rock fall sites located within locations 3 and 4 are identified in table 2.2-1 below.

Table 2.2-1: Landslide and Rockslide Information by Location

Number	Location Number	Approximate Post Mile	Landslide/Rock Slide Information
1	Location 3	1.45	Slope comprised of landslide debris
2	Location 4	2.58	Toothpick landslide, 1997
3	Location 4	2.68	"Old scar" landslide 1997
4	Location 4	2.84	Old landslide scarp and rock fall problem
5	Location 4	2.9	Minor shallow Landslides

2.2.2.3 Environmental Consequences

There is the potential for fault rupture and strong ground shaking within the project limits during a seismic event. With respect to project activities, this is of concern for the new structures that will be constructed (retaining walls). The majority of the walls that will be constructed will be soil-nail retaining walls, which are moderately sized and flexible. In the event of a strong seismic event, the exterior shotcrete facing of these walls could be damaged but the walls would still be functional, minimizing damage to the roadway facility and hazards to the traveling public. The ground at the project sites is suitable for construction, and structures would be built to minimize damage due to expected ground shaking.

2.2.2.4 Avoidance, Minimization, and/or Mitigation Measures

The field exploration and investigation performed during final project design would included subsurface boring. Laboratory tests may include corrosion, moisture content, density, plasticity index, graduation, consolidation, and triaxial tests. Vertical and horizontal borings werewill be advanced at all sites where fill or walls are proposed. Horizontal borings were drilled are recommended at all soil nail wall locations to determine whether the contractor will have to case the holes for the soil nails.

The soil nail walls and retaining wall at Location 4 may require a fault study, which would likely include trenching to verify the exact location of the Sargent and Castro Faults that cross the project area limit. The strike of the fault is a design parameter for soil nail wall design. Preliminary recommedations were made in the Preliminary Geotechnical Report for all walls at locations 3 and 4 where there is a history of landslides or rockslides. During the design phase addtional site specific information will be collected and analyzed to inform the final design of the walls.

Based on these studies, the proposed retaining walls will be appropriately designed for the site conditions and will be built to minimize damage due to expected ground shaking, rock fall, or landsliding.

Mitigation for the potential reactivation of the landslides and rock fall sites referred to in Table 2.2-1 may include avoidance, different wall type, installation of rock nets and minimizing cut slopes to a maximum of 2:1.

2.2.3 Hazardous Waste/Materials

2.2.3.1 Regulatory Setting

Hazardous materials and hazardous wastes are regulated by many state and federal laws. These include not only specific statutes governing hazardous waste, but also a variety of laws regulating air and water quality, human health, and land use.

The primary federal laws regulating hazardous wastes/materials are the Resource Conservation and Recovery Act of 1976 (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). The purpose of CERCLA, often referred to as Superfund, is to clean up contaminated sites so that public health and welfare are not compromised. RCRA provides for “cradle to grave” regulation of hazardous wastes. Other federal laws include:

- Community Environmental Response Facilitation Act (CERFA) of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety and Health Act (OSHA)
- Atomic Energy Act
- Toxic Substances Control Act (TSCA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

In addition to the acts listed above, EO 12088, Federal Compliance with Pollution Control, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

Hazardous waste in California is regulated primarily under the authority of the federal Resource Conservation and Recovery Act of 1976, and the California Health and Safety Code. Other California laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.

Worker health and safety and public safety are key issues when dealing with hazardous materials that may affect human health and the environment. Proper disposal of hazardous material is vital if it is disturbed during project construction.

2.2.3.2 Affected Environment

An Initial Site Assessment (ISA) (Caltrans 2009f) was completed in August 2009. In conjunction with the ISA, a search of environmental regulatory databases was completed by Environmental Data Resources, Inc. to determine whether documentation exists related to hazardous materials sites or incidents that would warrant further investigation.

A review of regulatory databases revealed no known hazardous materials sites or incidents in the project area. However, a former gas station site at the intersection of SR 152 and Watsonville Road may contain abandoned underground storage tanks.

In addition, any yellow traffic paint, yellow thermoplastic paint/tape, or markings placed before 1990 could contain lead chromate as the pigment.

Aerially deposited lead (ADL) may be present in soils near the roadway, the source of which is primarily the use of lead in gasoline, a practice that was phased out in the mid-1970s. Typically, ADL exists in the top 6 in of soil adjacent to the roadway shoulder.

2.2.3.3 Environmental Consequences

As stated above, the ISA prepared for this project revealed an abandoned gas station at the intersection of SR 152 and Watsonville Road. Additional investigation to determine the presence of underground storage tanks will be conducted to determine whether any potential adverse impacts will occur during project construction.

Any yellow traffic paint, yellow thermoplastic paint/tape, or markings placed before 1990 could contain lead chromate as the pigment, which, if removed during construction, could generate airborne heavy metal debris in excess of the threshold established by Title 22 of the California Code of Regulations.

The ADL level of surface soil along highway corridors can reach concentrations in excess of the hazardous waste threshold, requiring disposal at either a Class I landfill or onsite stabilization. Contaminated soil could be encountered during construction.

2.2.3.4 Avoidance, Minimization, and/or Mitigation Measures

There is a potential for residual ADL in the surface soil. Testing for ADL will be performed during the final design stage. If ADL is found, special handling of the contaminated soil will be required and will include implementing a health and safety plan. If contaminated soil or groundwater is encountered during excavations, all activities involving contaminated soil or groundwater will be planned to comply with regulatory agency requirements. It is estimated that it would cost $200,000 to handle contaminated soil according to regulatory requirements.

Existing yellow roadway striping that would be affected will be tested for lead-based paint. If present, lead-based paint will be handled and disposed of in compliance with regulatory agency requirements.

2.3 Biological Environment

The following sections are summarized from the Natural Environment Study (Caltrans 2009) approved on January 21, 2010.

2.3.1 Natural Communities

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. This section also includes information on wildlife corridors and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

Habitat areas that have been designated as critical habitat under the federal Endangered Species Act are discussed in Section 2.3.4, Threatened and Endangered Species. Wetlands and other waters are also discussed in Section 2.3.2.

2.3.1.1 Affected Environment

Vegetation Communities

Vegetation communities are assemblages of plant species that occur together in the same area, defined by species composition and relative abundance[2]. Four vegetation communities have been identified within the project area: coast live oak forest, purple needlegrass alliance, and redwood forest, in addition to the paved roadway and shoulders and landscaped/agricultural lands. Another vegetation community, coyote brush scrub, is found along SR 152 in the project area, but does not occur within the boundaries of any of the five specific project locations. Table 2.3-1 presents the areas of these communities found at the project locations.

Table 2.3-1: Total Area of Habitats within the Project Footprint (in acres)

Vegetation Community	Project Area Location					Total Area (acres)
	1	2	3	4	5	
Coast Live Oak forest	–	–	–	0.69	–	0.69
Coyote Brush Scrub	–	–	–	–	–	–
Purple Needlegrass/Native Grassland	–	–	–	0.05	–	0.05
Redwood Forest	0.58	0.56	0.57	1.66	–	3.37
Landscaped/Agricultural Lands	–	–	–	–	2.97	2.97
Roadway/Paved/Shoulder	0.11	0.29	0.36	0.35	0.78	1.88
				Total		8.97

Coast Live Oak Forest Alliance – Coast live oak (*Quercus agrifolia*) forests were found in Location 4. Other prevalent tree species common within these coast live oak woodlands are madrone (*Arbutus menziesii*) and California bay laurel (*Umbellularia californica*). The understory included common shrubs such as California coffeeberry (*Rhamnus californica*), toyon (*Heteromoles arbutifolia*), and scattered bunches of blue wildrye (*Elymus glaucus*).

Purple Needlegrass Alliance/Native Grassland – One occurrence of grassland was found at Location 4, surrounded by coast live oak woodland. The grassland contains a relatively high percent cover of native bunchgrasses, possibly the product of restoration efforts by Mt. Madonna County Park staff. Plant species of this vegetation community include purple

[2] The plant communities in the project area were classified using *A Manual of California Vegetation*. (Sawyer, J.O., and T. Keeler-Wolf. 1995. A Manual of California Vegetation. California Native Plant Society, Sacramento, CA.)

needlegrass (*Nassella pulchra*), annual brome species (*Bromus* sp.), coast buckwheat (*Erigonium latifolium*), and tarweed (*Madia* sp.). Many annual forb species are found throughout the grassland area, including species of fireweed (*Epilobium* sp.), geranium (*Geranium* sp.), lupine (*Lupinus* sp.), clover (*Trifolium* sp.), and plantain (*Plantag*o sp.).

Redwood Forest Alliance – Redwood forest is the most common vegetation type found in the project area. Redwood forest is found in Locations 1, 2, 3, and 4. These evergreen forests are characterized by a prominence of coast redwood (*Sequoia sempervirens*). Understory trees and shrubs include tanoak (*Lithocarpus densiflorus*), California bay laurel, California woodfern (*Dryopteris arguta*), California blackberry, and madrone.

Landscaped/Agricultural Lands – All areas in Location 5 have undergone ornamental landscaping or are under agricultural management. Characteristics of these lands include manicured turf grass with ornamental trees lining the fences of residential communities, businesses, and agricultural fields.

Roadway/Shoulder – The roadway and adjoining paved areas and shoulders are highly disturbed and provide little to no value for wildlife species.

Coyote Brush Scrub Alliance – Coyote brush scrub alliance community is present within the project area, but does not occur within the boundaries of the project footprints at any of the specific locations. This area is likely a product of restoration activities associated with Sprig Lake and is found on the banks of a perennial stream. This community is dominated by coyote brush (*Baccharis pilularis*) and common rush (*Juncus effusus*). Several young arroyo willows (*Salix laevigata*) were found in this area. Other common herbaceous species include blue wildrye and mugwort (*Artemisia douglasiana*). This vegetation type is surrounded by coast live oak woodland and redwood forest.

Other habitats within the project area include aquatic habitats consisting of palustrine persistent emergent wetlands, rivers, and culverts. Riverine habitat encompasses three drainages: Bodfish Creek, an unnamed tributary to Bodfish Creek, and Blackhawk Creek.

Trees

There were 1,273 trees mapped in the project area. Within the project footprint are a total of 148 trees with a diameter at breast height (dbh) in excess of 6 in..

Santa Clara Valley HCP/NCCP

As described in Section 2.1.1.2, a Habitat Conservation Plan/Natural Communities Conservation Plan (HCP/NCCP) is currently being developed for the Santa Clara Valley. The estimated completion date of the Santa Clara Valley HCP/NCCP, including certification of the environmental review and completion of the Final HCP/NCCP, is slated for sometime in 2010 (ICF Jones and Stokes 2009).

Based on a review of the second administrative Draft Habitat Plan (ICF Jones and Stokes 2009), the Hecker Pass Safety Improvement Project addresses the key special-status plant and wildlife species and sensitive natural resources covered under the Santa Clara Valley HCP/NCCP, and is in general compliance with the Habitat Plan in its current draft form.

2.3.1.2 Environmental Consequences

Vegetation Communities

Table 2.3-2 lists the potential temporary and permanent impacts to vegetation communities from roadway construction. Temporary impacts to habitat are those that can be restored and revegetated after construction is completed. Permanent impacts to habitat include those areas lost due to circumstances such as the increased paved surface that will remain after construction is complete. Species- or habitat-specific measures are expanded upon in the sections that follow.

Table 2.3-2: Areas of Temporary and Permanent Impact to Vegetation Communities in the Project Footprint

Vegetation Community	Project Area Location [Impacts Acreage]					Total Area Acres
	1	2	3	4	5	
Temporary Impacts						
Coastal Oak Forest	–	–	–	0.08	–	0.08
Coyote Brush Scrub	–	–	–	–	–	0.00
Purple Needlegrass/Native Grassland	–	–	–	0.01	–	0.01
Redwood Forest	–	–	–	–	–	0.00
Landscaped/Agricultural Lands	–	–	–	–	0.67	0.67
Roadway/Paved/Shoulder	–	–	–	–	0.78	0.78
Total Temporary Impacts						**1.54**
Permanent Impacts						
Coastal Oak Forest	–	–	–	0.61	–	0.61
Coyote Brush Scrub	–	–	–	–	–	0.00
Purple Needlegrass/Native Grassland	–	–	–	0.04	–	0.04
Redwood Forest	0.58	0.56	0.57	1.66	–	3.37
Landscaped/Agricultural Lands	–	–	–	–	2.30	2.30
Roadway/Paved/Shoulder	0.11	0.29	0.36	0.35	–	1.11
Total Permanent Impacts						**7.43**
					Total Impact	**8.97**

Trees

California law allows state agencies to supersede county or local ordinances with regard to tree removal outside of the highway right-of-way. The Department typically mitigates for the removal of any tree with a dbh in excess of 6 in. The project may require the removal of a number of roadside trees meeting this criterion. It is anticipated that approximately 148 trees within the project footprint would be removed to facilitate construction activities, as shown in Table 2.3-3.

Table 2.3-3: Number of Existing and Impacted Trees in the Project Footprint, by Species

Tree Species	Total Trees in Project Area	Total Trees to Be Removed from Each Location					Total Trees to Be Removed within the Project Footprint
		1	2	3	4	5	
Alder	6	-	-	-	-	-	0

Table 2.3-3: Number of Existing and Impacted Trees in the Project Footprint, by Species

Tree Species	Total Trees in Project Area	Total Trees to Be Removed from Each Location					Total Trees to Be Removed within the Project Footprint
		1	2	3	4	5	
Almond	3	-	-	-	1	1	2
Cedar	87	-	-	-	10	-	10
Cottonwood	6	-	-	-	-	2	2
Fir	8	-	-	-	-	1	1
Joshua	4	-	-	-	-	2	2
Madrone	12	-	-	-	-	-	0
Maple	207	8	5	0	3	0	16
Oak	214	-	3	-	8	7	18
Olive	3	-	-	-	-	2	2
Pine	5	-	-	-	-	-	0
Redwood	459	36	1	5	6	3	51
Spruce	1	-	-	-	-	-	0
Walnut (black)	2	-	-	-	-	2	2
Walnut (English)	31	-	-	-	-	31	31
Yew	1	-	-	-	-	-	0
other	224	4	1	0	3	3	11
Total Trees	1,273						
Total Trees per Location		48	10	5	31	54	
Total Trees to Be Removed within the Project Footprint							148

2.3.1.3 Avoidance, Minimization, and/or Mitigation Measures

Vegetation Communities

General avoidance and minimization efforts will be incorporated into the design and implemented to reduce potential impacts to natural communities and plant and animal species. These measures will include minimizing the project footprint, providing environmental education for the construction crew, and delineating the work area and all environmentally sensitive areas with fencing. These require that an onsite biological monitor be present during activities that may impact sensitive biological resources. No compensatory mitigation is required for impacts to the communities.

Trees

Replacement trees will be planted at a ratio of 31:1 ratio for all native trees, and trees located within the riparian zone within California Department of Fish and Game jurisdiction with a dbh of 6 inches or greater. Trees having a dbh in excess of 6 in that are in the riparian zone and within California Department of Fish and Game (CDFG) jurisdiction will be replaced at a 3:1 ratio All other trees will be replaced at a 1:1 ratio. Trees will be planted onsite in the project area to the extent possible, after the completion of roadway construction. Offsite planting areas will be sought if onsite mitigation is not possible.

2.3.2 Wetlands and Other Waters

2.3.2.1 Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Clean Water Act (33 U.S.C. 1344) is the primary law regulating wetlands and waters. The Clean Water Act regulates the discharge of dredged or fill material into waters of the United States (U.S.), including wetlands. Waters of the U.S. include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. To classify wetlands for the purposes of the Clean Water Act, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils subject to saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the Clean Water Act.

Section 404 of the Clean Water Act establishes a regulatory program that provides that no discharge of dredged or fill material can be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the U.S. Army Corps of Engineers (ACOE) with oversight by the Environmental Protection Agency (EPA).

The Executive Order for the Protection of Wetlands (E.O. 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, this executive order states that a federal agency, such as the Federal Highway Administration, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds that: (1) there is no practicable alternative to the construction and (2) the proposed project includes all practicable measures to minimize harm.

At the state level, wetlands and waters are regulated primarily by the CDFG and the RWQCB. In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission) may also be involved. Sections 1600 through 1607 of the Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFG before beginning construction. If CDFG determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFG jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the ACOE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFG.

The Regional Water Quality Control Boards were established under the Porter-Cologne Water Quality Control Act to oversee water quality. The RWQCB also issues water quality certifications in compliance with Section 401 of the Clean Water Act. Please see the Water Quality section for additional details.

2.3.2.2 Affected Environment

A Natural Environment Study was approved on January 21, 2010. The Jurisdictional Wetland Delineation for this project was approved by the ACOE on December 28, 2009.

Approximately 0.006 acre of potentially jurisdictional wetland was identified near Location 4. Because this wetland abuts a perennial tributary of Bodfish Creek, the wetland falls under ACOE's jurisdiction. The wetland found near Location 4 is characterized by hydrophytic vegetation including an herbaceous layer dominated by spreading rush, mugwort, and bitter cress. Young arroyo willow trees occur in the shrub layer. However, this wetland lies outside of the project footprint and the project limits, and project activities will not affect this wetland feature.

In addition, 16 culverted features are located within the project limits. Culvert modifications are planned for 15 of these culverts. Of those 15 culverts scheduled for some type of modification, 8 were identified during the jurisdictional delineation as waters that are potentially not under the jurisdiction of the ACOE. The remaining 7 culverts were identified as potentially jurisdictional "other waters of the U.S." and/or waters of the State.

2.3.2.3 Environmental Consequences

The wetland community located in the vicinity of Location 4 lies outside of the project footprint and project activities will not affect this wetland feature.

Repairs to culverts within the project area will result in approximately 566 square feet (ft^2;0.013 ac) of culverted waters, of which approximately 465 ft^2 (0.011 ac) are waters of the U.S. and State and approximately 101 ft^2 (0.002 ac) are classified as waters of the State. Culvert extensions within the project limits will result in permanent impacts to approximately 488 ft^2 (~0.011 ac) of waters: 114 ft^2 (0.002 ac) of waters of the U.S. and State, and 374 ft^2 (0.009 ac) of Waters of the State.

2.3.2.4 Avoidance, Minimization, and/or Mitigation Measures

The Department will limit construction activities to the smallest area possible to complete the work in an effort to minimize impacts to the existing riverine habitat in Bodfish Creek. A Department biologist will clearly delineate this limited construction area for incorporation in the project plans and specifications. The Department will use environmentally sensitive area (ESA) fencing to delineate protected areas and to confine workers and equipment to the designated construction areas. The ESA fencing will preclude access to the stream channel and riparian habitat along Bodfish Creek, the unnamed tributary to Bodfish Creek, and Blackhawk Creek, except as necessary for construction access.

Potential instream impacts to Bodfish Creek, the unnamed tributary to Bodfish Creek, and Blackhawk Creek aquatic resources and fisheries will be minimized by adhering to State Standard Specifications for avoidance of water pollution (Section 7-1.01g) and by implementing BMPs. These measures include detailed recommendations for keeping heavy machinery out of the water, limiting the amount of material (excavated or construction materials) that enter the streams, and maintaining flows at all times. The State Standard Specifications require the contractor to prepare a plan to control water pollution during construction.

All temporary impacts will be restored to pre-construction conditions. Compensatory mitigation for permanent impacts to waters of the U.S. will not likely be required by the ACOE; however, mitigation may be required by the RWQCB for waters of the State.

2.3.3 Animal Species

2.3.3.1 Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service (USFWS), the National Oceanic and Atmospheric Administration (NOAA) Fisheries and the CDFG are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with wildlife not listed or proposed for listing under the state or federal Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in Section 2.3.4 below. All other special-status animal species are discussed here, including CDFG fully protected species and species of special concern, and USFWS or NOAA Fisheries candidate species.

Federal laws and regulations pertaining to wildlife include the following:

- National Environmental Policy Act
- Migratory Bird Treaty Act (MBTA)
- Fish and Wildlife Coordination Act

State laws and regulations pertaining to wildlife include the following:

- California Environmental Quality Act
- Sections 1600 – 1603 of the Fish and Game Code
- Section 4150 and 4152 of the Fish and Game Code

2.3.3.2 Affected Environment

The following sections are summarized from the Natural Environment Study (Caltrans 2009) approved on January 21, 2010.

Various special-status animal species that are not listed as threatened or endangered were determined to have some potential to occur within the project area. These species are discussed below.

Foothill Yellow-Legged Frog

The foothill yellow-legged frog (*Rana boylii*), a California Species of Special Concern, was once common in most Pacific drainages throughout the foothills of California extending from the Oregon border south to the San Gabriel River system in Los Angeles County at elevations ranging from near sea level to 1,940 meters above sea level. Foothill yellow-legged frogs inhabit and remain close to shallow, small to medium streams with cobble substrates beneath which they deposit their eggs (Jennings and Hayes 1994).

A review of the California Natural Diversity Database (CNDDB) and the Museum of Vertebrate Zoology collections database shows that the project area occurs within the recognized range of the foothill yellow-legged frog. Although no contemporary records have been reported, a single adult/juvenile foothill yellow-legged frog was collected in the vicinity of the unnamed tributary to Bodfish Creek in 1939.

The portion of Bodfish Creek adjacent to the project limits in Locations 1 through 4 provides potentially suitable non-breeding aquatic habitat for foothill yellow-legged frogs. It contains appropriate shallow stream habitat with cobble bottom necessary for foothill yellow-legged frogs.

Although potentially suitable aquatic habitat for the species may be present offsite in the vicinity of the project limits and a foothill yellow frog was once collected in the vicinity of the unnamed tributary to Bodfish Creek within Location 1, the foothill yellow-legged frog is a predominantly aquatic species that is unlikely to venture far from the water. For these reasons, there is a low potential for foothill yellow-legged frog to occur within the project footprint.

Western Pond Turtle

The western pond turtle (*Emys* (=*Clemmys*) *marmorata*), a California Species of Special Concern, is one of two freshwater turtles native to California. Western pond turtles are distributed along much of the western coast from Puget Sound in Washington south to the Baja Peninsula, Mexico. Pond turtles inhabit permanent or semi-permanent freshwater ponds, streams, rivers, stock ponds, lakes, reservoirs, marshes, sloughs, and agricultural canals and regularly use basking sites such as matted vegetation, woody debris, and mud banks for thermal regulation. Pond turtles are omnivorous and feed on a variety of aquatic and terrestrial invertebrates, fish, amphibians, and aquatic plants.

Western pond turtles have been reported within the project area. In 2000, two western pond turtles were observed adjacent to Location 4 in Sprig Lake Pond, which is a former impoundment along Blackhawk Creek and a tributary to Bodfish Creek. Although this impoundment has since been removed, western pond turtles may still inhabit this portion of Blackhawk Creek and nest in the surrounding uplands.

White-Tailed Kite

White-tailed kites (*Elanus leucurus*), a state-listed fully protected species, are year-round residents of Central and coastal California, inhabiting grasslands, agriculture fields, oak woodlands, savannah, and riparian habitats in rural and urban areas. They breed in a variety of habitats including grasslands, cultivated fields, oak woodlands, and suburban areas where prey – typically small mammals (primarily California voles), reptiles, and occasionally birds – is abundant. Nests are typically built in trees 9 to 60 ft tall (Wheeler 2003) near a water source and may occur in suburban areas with adjacent open areas with abundant prey. Breeding occurs between February and July, and double-brooding occurs in some years. During the non-breeding season, white-tailed kites may roost communally at certain sites (Dunk 1995).

Although white-tailed kites were not observed onsite during the site visits, the species has been recorded breeding in the project vicinity (Bousman 2005), including an occurrence of a white-tailed kite recorded as a “probable” nesting individual in 1994, approximately 2 miles northeast of the project limits (CDFG 2009). In addition, the ornamental and native trees at Location 5 could potentially act as suitable nesting habitat for the species, as they are near a potentially suitable prey base (as evidenced by the presence of small mammal burrows) and a riparian corridor (Bodfish Creek is less than 1,000 ft away). The denser redwood and coat live oak forests, of Locations 1 through 4 do not provide appropriate breeding habitat for the species. These trees do not contain the appropriate structure for white-tailed kite nests and the habitat is

not preferred by white-tailed kites for hunting. Agricultural habitats in Location 5 may provide appropriate breeding habitat for this species.

Burrowing Owl

Burrowing owls (*Athene cunicularia*), a California Species of Special Concern, range in northern California throughout the Central Valley, the inner and outer coastal regions, and portions of the San Francisco Bay Area. They inhabit areas with low vegetation in agricultural fields, grasslands and desert communities, and also occur in urban and suburban areas subject to regular human disturbance. Burrowing owls require mammal burrows, typically those created by ground squirrels, for escape cover and nesting. However, debris piles, rocks, concrete debris, etc. are also used in lieu of burrows. The breeding season occurs from February 1 to August 31, but peaks between late April and July in most years.

Although burrowing owls were not observed onsite during the site visits, the species has been recorded breeding within Santa Clara County and in the project vicinity, including an occurrence of two adult burrowing owls near a burrow in mid-January 1993, approximately 2 miles northeast of the project area.

Ground squirrel and California meadow vole burrows, which provide potential nesting and foraging habitat for burrowing owl, are scattered along the northern and southern sides of Location 5, concentrated in isolated patches along the vegetated roadside shoulder and throughout the adjacent agricultural fields.

Migratory Birds

In addition to white-tailed kite and burrowing owl, eight other special-status migratory bird species were identified as having some potential to nest, forage, roost, or winter near the project area. These special-status bird species are discussed together below.

Five raptors (bird of prey) – Cooper's hawk (*Accipiter cooperii*), sharp-shinned hawk (*Accipiter striatus*), golden eagle (*Aquila chrysaetos*), long-eared owl (*Asio otus*), and merlin (*Falco columbarius*) – and three passerines (perching birds) – yellow warbler (*Dendroica petechia brewsteri*), loggerhead shrike (*Lanius ludovicianus*), and purple martin (*Progne subis*) were identified as having some potential to nest, forage, roost, or winter onsite. This list includes species of special concern (Cooper's hawk, sharp-shinned hawk, loggerhead shrike, long-eared owl, merlin, yellow warbler, and purple martin) or that are fully protected (golden eagle) under the California Fish and Game code.

These species use a variety of habitats including native and non-native annual grasslands, oak woodlands, coniferous forest, riparian corridors, and rural/suburban neighborhoods, all of which are present within or adjacent to the project. None of these species were observed onsite during the site visits; however, many have been recorded breeding within Santa Clara County and in the project vicinity (Bousman 2005). All eight migratory bird species considered here can be expected to nest, forage, roost, and winter onsite or in the project vicinity corresponding to each species' specific habitat needs and the time of year.

Although the migratory bird species described above were not observed onsite during the site visits, these species have been recorded breeding within Santa Clara County and in the project vicinity (Bousman 2005). During the January 24, 2008, site visit, a vacant hummingbird

(unknown sp.) nest constructed out of lichen and moss was observed in a shrub north of the Sprig Lake parking lot, between the lot and Blackhawk Creek. Additional stick nests, most likely remnants from the 2007 or earlier breeding seasons, were observed in the tree canopy of the oak woodlands and redwood forest throughout Locations 1 through 4 in the project limits.

San Francisco Dusky-Footed Woodrat

The San Francisco dusky-footed woodrat (*Neotoma fuscipes annectans*), a California Species of Special Concern, is one of 11 recognized subspecies native to California. The San Francisco dusky-footed woodrat typically prefers chaparral, oak woodland, and redwood forest and riparian corridor habitats with moderate to dense understory and moderate canopy cover. Woodrats exhibit high site fidelity and construct stick nests elevated in trees or at ground level in dense brush, on the periphery of large rocks, stumps, or tree trunks, or in hollow stumps and trunks; such nests may last and be inhabited for tens of years by successive woodrat generations. Woodrats are generalist herbivores and live in loosely cooperative societies.

A single San Francisco dusky-footed woodrat sticknest was observed during the January 14, 2008, site reconnaissance visit adjacent to the unnamed tributary to Bodfish Creek near Location 1. Approximately 0.75 mile east of the project area, as many as 23 individual San Francisco dusky-footed woodrat stick nests were recorded in the vicinity of the Uvas Creek Scour Project, upstream and downstream of the Uvas Creek Bridge along SR 152 (H.T. Harvey and Associates 2007).

2.3.3.22.3.3.3 Environmental Consequences

Foothill Yellow-Legged Frog

While possibly located nearby, it is very unlikely that the foothill yellow-legged frog is present within the project footprint. Temporary and permanent impacts to the species, if present, are anticipated to be the same as the impacts to the California red-legged frog and will be mitigated through the precautionary avoidance and minimization measures to be taken for California red-legged frog, as described in Section 2.3.4.4. Avoidance and minimization measures established to protect water quality and other special-status species will further ensure that this species is minimally impacted by the project.

Western Pond Turtle

While possibly located nearby, it is very unlikely that the western pond turtle is present within the project footprint. If present, temporary and permanent impacts to the species are anticipated to be the same as the impacts to the California red-legged frog. Avoidance measures will be implemented as described in Section 2.3.3.4.

White-Tailed Kite

The project may result in impacts such as nest disturbance or abandonment during incubation, nestling, or fledging stages; temporary shifts in foraging patterns or territories, noise or light pollution; and winter roost abandonment to white-tailed kite at Location 5, if this species were to nest near this location at the time of construction. The Project will require the removal of an estimated 148 trees, 54 of which are within the project footprint at Location 5. Although no permanent impacts to white-tailed kite are anticipated, temporary impacts can be avoided and/or minimized by implementing the minimization measures described in Section 2.3.3.4.

Burrowing Owl

The landscaped, agricultural lands in Location 5 of the project area show evidence of small mammal burrowing activity. These burrows may provide suitable nesting and foraging habitat for burrowing owl. The project may potentially result in temporary impacts such as nest disturbance or abandonment and/or temporary shifts in foraging patterns or territories to approximately 2.97 acres of potential burrowing owl habitat. These impacts can be avoided and/or minimized by implementing the minimization measures described in Section 2.3.3.4.

Migratory Birds

The project may result in temporary impacts such as nest disturbance or abandonment during incubation, nestling, or fledging stages; temporary shifts in foraging patterns or territories; noise or light pollution; and winter roost abandonment to sensitive bird species in all project locations. These impacts can be avoided and/or minimized by implementing the minimization measures described in Section 2.3.3.4.

San Francisco Dusky-Footed Woodrat

It is unlikely that the San Francisco dusky-footed woodrat is present within the project footprint and permanent impacts to the species are not anticipated. Avoidance and minimization measures described in Section 2.3.3.4 will be implemented as a precaution in the event that any woodrats move in to the project footprint before construction begins.

2.3.3.32.3.3.4 Avoidance, Minimization, and/or Mitigation Measures

Foothill Yellow-Legged Frog

Due to the close proximity of potential foothill yellow-legged frog habitat and an historical record confirming the species' presence within the unnamed tributary to Bodfish Creek, the precautionary measures to avoid or minimize impacts to California red-legged frog (Section 2.3.4.4) will be sufficient to avoid or minimize impacts to foothill yellow-legged frog.

Western Pond Turtle

Due to the proximity of western pond turtles in the vicinity of the project area and a known occurrence of western pond turtle in the vicinity of Location 4 of the project, the measures to avoid or minimize impacts to California red-legged frog (Section 2.3.4.4) together with the following measures will avoid or minimize impacts to western pond turtle:

1. A qualified biologist will survey the work site in the vicinity of Location 4, no more than 48 hours before start-of-work activities begin, for signs of western pond turtles and/or western pond turtle nesting activity (i.e., recently excavated nests, nest plugs) or nest depredation (partially to fully excavated nest chambers, nest plugs, scattered egg shell remains, egg shell fragments). Preconstruction surveys to detect western pond turtles will focus on potentially suitable aerial and aquatic basking habitat such as logs, branches, rootwads, and rip-rap, as well as the shoreline and adjacent warm, shallow waters where pond turtles may be present below the water surface beneath algal mats or other surface vegetation. Preconstruction surveys to detect western pond turtle nesting activity will be concentrated within approximately 1,300 ft of suitable aquatic habitat and will focus on areas along south- or west-facing slopes with bare hard-packed clay or silt soils or a sparse vegetation of short grasses or forbs. If western pond turtles or their nesting sites are found, the

biologist will contact CDFG to determine whether relocation and/or exclusion buffers are appropriate. If CDFG approves of moving the animal, the biologist shall be allowed sufficient time to move the western pond turtle(s) from the work site before work activities begin.

White-Tailed Kite

To ensure compliance with the MBTA (16 U.S.C. 703-712) and California Fish and Game Code (§§3503, 3511, and 3513), and minimize impact to the white-tailed kite, the following species-specific avoidance and minimization measures will be implemented:

1. Preconstruction bird surveys will be conducted by a qualified biologist no more than 2 weeks before construction begins for activities occurring during the breeding season (February 1 to August 31) or during the wintering period (September 1 to January 31) for sensitive wintering species.

2. If active nests of special-status bird species are found in the vicinity of the limits of grading or construction work, within 100 ft of passerine nests or within 300 ft of raptor nests, a non-disturbance buffer will be established at a distance sufficient to minimize nest/roost disturbance based on the nest location, topography, cover, the species' sensitivity to disturbance, and the intensity/type of potential disturbance. Buffer size will be determined in cooperation with CDFG and USFWS.

3. If rescheduling work around active nests/roosts of special-status bird species is infeasible, a qualified biologist will monitor nests for signs of disturbance. If it is determined that project activities are resulting in nest/roost disturbance, work will cease immediately, and the CDFG and the USFWS will be contacted for guidance.

Burrowing Owl

To ensure compliance with the MBTA (16 U.S.C. 703-712) and California Fish and Game Code (§§3503, 3511, and 3513), and avoid and minimize impacts to the burrowing owl, Caltrans will implement the precautionary measures to avoid or minimize impacts to white-tailed kite , together with the following precautionary measures to avoid or minimize impacts to burrowing owl:

1. Within 30 days before construction begins, burrowing owl preconstruction surveys will be conducted at Location 5 of the project area by a qualified biologist in accordance with CDFG's Staff Report on Burrowing Owl Mitigation (CDFG 1995) and the California Burrowing Owl Consortium's Burrowing Owl Survey Protocol and Mitigation Guidelines (CBOC 1993). Preconstruction surveys, consisting of winter season surveys (between December 1 and January 31) and nesting season surveys (between April 15 and July 15), will be conducted for Location 5 of the project area and within a 500-ft buffer where possible, to identify and map active burrowing owl burrows. Surveys will consist of walking transects of no more than 100 ft apart.

2. Occupied burrows will not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by CDFG verifies through noninvasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) that

juveniles from the occupied burrows are foraging independently and are capable of independent survival.

3. If burrowing owls are detected in the project footprint or within 500 ft of the project footprint, a non-disturbance buffer will be established within a 160-ft radius surrounding occupied burrows during the nonbreeding season (September 1 through January 31) or within a 250-ft radius surrounding occupied burrows during the breeding season of February 1 through August 31.

4. If avoidance is not feasible and owls must be moved away from the disturbance area, one of the two following passive relocation techniques (as described below) will be used rather than trapping. At least 1 full week will be necessary to accomplish this and allow the owls to acclimate to alternate burrows.

    - **Passive Relocation – With One-Way Doors**. Owls will be excluded from burrows in the immediate impact zone and within a 160-ft buffer zone by installing one-way doors in burrow entrances to allow the birds to leave the burrow, but not return. One-way doors (e.g., modified dryer vents) will be left in place 48 hours to ensure owls have left the burrow before excavation. Two natural or artificial burrows will be provided for each burrow in the project area that will be affected. The project area will be monitored daily for 1 week to confirm owl use of burrows before excavating burrows in the immediate impact zone. Whenever possible, burrows will be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe will be inserted into the tunnels during excavation to maintain an escape route for any animals inside.

    - **Passive Relocation – Without One-Way Doors**. Two natural or artificial burrows will be provided for each burrow in the project area that will be affected. The project area will be monitored daily until the owls have relocated to the new burrows. The formerly occupied burrows may then be excavated. Whenever possible, burrows will be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe will be inserted into burrows during excavation to maintain an escape route for any animals inside the burrow.

Migratory Birds

To ensure compliance with the MBTA and California Fish and Game Code (§§3503, 3511, and 3513), the precautionary measures to avoid or minimize impacts to white-tailed kite (described above) will be sufficient to avoid or minimize impacts to migratory birds.

San Francisco Dusky-Footed Woodrat

Potential presence of the San Francisco dusky-footed woodrat can be avoided by taking the following avoidance and minimization measures:

1. Several months in advance of construction activities, surveys will be conducted in all forested areas in the project footprint to locate active woodrat stick nests.

2. If active woodrat stick nests are found within the project footprint area at the time of construction, relocation measures, developed in conjunction with CDFG, will be

implemented to ensure that the project footprint is clear of woodrat nests before construction.

2.3.4 Threatened and Endangered Species

Based on the site reconnaissance, a review of available databases and literature, and the project biologists' familiarity with local flora and fauna, a total of 21 federally proposed and federally listed endangered or threatened plant and wildlife species were considered as part of this assessment (USFWS 2008a) (Appendix B). Of these, 15 taxa were ruled out based on the lack of suitable habitat, local range restrictions, regional extirpations, lack of connectivity between areas of suitable or occupied habitat, and/or incompatible land use and habitat degradation/alteration of on-site or adjacent lands.

Two species listed as threatened or endangered, the California red-legged frog and the California tiger salamander occur within the project limits. These species are addressed in this section. A complete list of all species considered as part of this assessment, their regulatory status, habitat requirements, local occurrences, and evaluations are listed in Table 2.3-1.

Table 2.3-1: Federally Listed Species from the U.S. Fish and Wildlife Service Species List and the California Natural Diversity Database[1]

Scientific Name	Common Name	Federal Status State Status CNPS Status[2]	Supporting Habitat / Flowering Period	Habitat Present/ Absent	Potential Presence in the Study Area / Rationale
PLANTS					
Ceanothus ferrisae	coyote ceanothus	FE -- CNPS 1B.1	Chaparral, coastal scrub, and valley and foothill grassland/serpentinite; known from five occurrences in the Mt. Hamilton Range; Elevation range: 394-1,509 feet.	Absent	**Does not occur.** Suitable habitat is absent. Species not considered further.
Chorizanthe pungens var. *pungens*	Monterey spineflower	FT -- CNPS 1B.2	Chaparral (maritime), cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland/sandy; Elevation range: 10-1,476 feet.	Present	**Does not occur.** Suitable habitat is present within or in the vicinity of the BSA, but field surveys of the action area were negative. Species not considered further.
Chorizanthe robusta var. *robusta*	robust spineflower	FE	Chaparral (maritime), cismontane woodlands (openings), coastal dunes, and coastal scrub/sandy or gravelly; Elevation range: 10-984 feet.	Absent	**Does not occur.** Suitable habitat is absent. Species not considered further.
Dudleya setchellii	Santa Clara Valley dudleya	FE -- CNPS 1B.1	Cismontane woodland, valley and foothill grasslands/serpentinite, rocky; Elevation range: 196-1,492 feet.	Absent	**Does not occur.** Suitable habitat is absent. Species not considered further.
Holocarpha macradenia	Santa Cruz tarplant	FT (CH) SE CNPS 1B.1	Coastal prairie, coastal scrub; Elevation range: 32-721 feet.	Absent	**Does not occur.** Suitable habitat is absent. Species not considered further
Streptanthus albidus ssp. *albidus*	Metcalf Canyon jewelflower	FE -- CNPS 1B.1	Valley and foothill grassland (serpentinite); Elevation range: 147-2,624 feet.	Absent	**Does not occur.** Suitable habitat is absent. Species not considered further.
Trifolium amoenum	two-fork clover	FE -- CNPS 1B.1	Coastal bluff scrub, valley, and foothill grassland (sometimes serpentinite); Elevation range: 16-1,361 feet.	Present	**Does not occur.** Suitable grassland habitat is present at Location 4, but field surveys of the action area were negative. Species not considered further.

Table 2.3-1: Federally Listed Species from the U.S. Fish and Wildlife Service Species List and the California Natural Diversity Database[1]

Scientific Name	Common Name	Federal Status State Status CNPS Status[2]	Supporting Habitat / Flowering Period	Habitat Present/ Absent	Potential Presence in the Study Area / Rationale
INVERTEBRATES					
Euphydryas editha bayensis	bay checkerspot butterfly	FT (CH) -- Xerces-CI	A California endemic butterfly restricted to native grasslands on rock outcrops in serpentine soil. Host plant is the dwarf plantain (*Plantago erecta*). *Orthocarpus densiflorus* and *O. purpurascens* are secondary host plants. Restricted to San Francisco, Alameda, Contra Costa, San Mateo, and Santa Clara Counties.	Absent	**Does not occur.** Suitable habitat is absent. Species not considered further.
FISH					
Eucyclogobius newberryi	tidewater goby	FE	Coastal lagoons and creeks; found up to 3 miles upstream in slow-moving water.	Absent	**Does not occur.** Outside of range. Species not considered further.
Hypomesus transpacificus	delta smelt	FT	Brackish water. Found only in the Sacramento-San Joaquin Estuary, as far upstream as the mouth of the American River on the Sacramento River and Mossdale on the San Joaquin River. Downstream as far as San Pablo Bay.	Absent	**Does not occur.** Outside of range. Species not considered further.
Oncorhynchus mykiss	steelhead South/Central California Coast DPS	FT (CH) CSC	Anadromous. Inhabits cold headwaters, creeks, and small to large rivers and lakes with swift, shallow water and clean, loose gravel for spawning. Requires large pools during summer months. Spawns in winter/spring. This DPS includes all naturally spawned anadromous *O. mykiss* (steelhead) populations below natural and manmade impassable barriers in streams from the Pajaro River (inclusive) to, but not including the Santa Maria River, California.	Present	Does not occur in Action Area; no project impacts. Locations 4 and 5 parallel Bodfish Creek and/or contain its tributary, Blackhawk Creek, both of which lie within the Pajaro River watershed and are within the South/Central California DPS boundary and the designated critical habitat. During field surveys, individuals were observed in several locations below SR 152. Project excludes modifications to the only potentially passable stream or culvert (at Location 4); thus, no effect on species. Species not considered further.

Table 2.3-1: Federally Listed Species from the U.S. Fish and Wildlife Service Species List and the California Natural Diversity Database[1]

Scientific Name	Common Name	Federal Status State Status CNPS Status[2]	Supporting Habitat / Flowering Period	Habitat Present/ Absent	Potential Presence in the Study Area / Rationale
Oncorhynchus mykiss	steelhead Central California Coast DPS	FT (CH) -- National Marine Fisheries Service	Anadromous. Inhabits cold headwaters, creeks, and small to large rivers and lakes with swift, shallow water and clean, loose gravel for spawning. Requires large pools during summer months. Spawns in spring. This DPS includes all naturally spawned anadromous *O. mykiss* (steelhead) populations below natural and manmade impassable barriers in California streams from the Russian River (inclusive) to Aptos Creek (inclusive), and the drainages of San Francisco, San Pablo, and Suisun Bays eastward to Chipps Island at the confluence of the Sacramento and San Joaquin Rivers.	Absent	**Does not occur.** Outside of range. Species not considered further.
Oncorhynchus mykiss irideus	steelhead Central Valley DPS	FT -- --	Anadromous. Inhabits cold headwaters, creeks, and small to large rivers and lakes with swift, shallow water and clean, loose gravel for spawning. Requires large pools during summer months. The DPS includes all naturally spawned anadromous *O. mykiss* (steelhead) populations below natural and manmade impassable barriers in the Sacramento and San Joaquin Rivers and their tributaries, excluding steelhead from San Francisco and San Pablo Bays and their tributaries.	Absent	**Does not occur.** Outside of range. Species not considered further.

Table 2.3-1: Federally Listed Species from the U.S. Fish and Wildlife Service Species List and the California Natural Diversity Database[1]

Scientific Name	Common Name	Federal Status State Status CNPS Status[2]	Supporting Habitat / Flowering Period	Habitat Present/ Absent	Potential Presence in the Study Area / Rationale
AMPHIBIANS					
Ambystoma californiense	California tiger salamander	FT (CH) CSC --	A large terrestrial salamander that inhabits seasonal/semi-permanent water sources (3-4 months in duration) and adjacent upland habitat with small fossorial mammal activity in lowland grasslands, oak savannah and mixed woodlands. Range includes the Central Valley and Central Coast ranges from Colusa County south to San Luis Obispo and Kern counties from sea level to 3,460 feet in elevation with two disjunct populations within Sonoma County and Santa Barbara County. California tiger salamanders have been documented traveling distances up to 1 mile.	Present	**May occur.** Suitable breeding habitat has been identified within a 1.24-mile radius of Location 5, which is within potential migratory range. Occurrences reported within a 1.24-mile radius.
Rana draytonii	California red-legged frog	FT (CH) CSC --	A medium-sized frog that inhabits lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation up to 4,900 feet in elevation. Range extends from Redding to Baja California, Mexico. Breeding occurs between November and April in standing or slow moving water at least 2 ½ feet in depth with emergent vegetation, such as cattails (*Typha* spp.), tules (*Scirpus* spp.) or overhanging willows (*Salix* spp.).	Present	**May occur.** Detected historically in 1939. Suitable breeding habitat has been identified within a 1-mile radius of Locations 1 through 5.
BIRDS					
Brachyramphus marmoratus marmoratus	marbled murrelet	FT (CH) SE --	A small coastal seabird that nests in coastal trees in large, mature/old-growth coniferous forests. Breeding begins in April. Tree nests require large-diameter limbs or other suitable platforms.	Absent	**Does not occur.** Field surveys for suitable habitat were negative. Suitable habitat is absent. Species not considered further.

Table 2.3-1: Federally Listed Species from the U.S. Fish and Wildlife Service Species List and the California Natural Diversity Database[1]

Scientific Name	Common Name	Federal Status State Status CNPS Status[2]	Supporting Habitat / Flowering Period	Habitat Present/ Absent	Potential Presence in the Study Area / Rationale
Falco peregrinus	American peregrine falcon	Delisted SE / FP --	Typically a year-round resident in California and most common along the coast. Nests on cliffs, but frequently uses manmade structures such as bridges and buildings. Nests are generally found close to water bodies with abundant avian prey. Breeding begins in March; single-brooded.	Absent	**Does not occur.** Suitable nesting habitat and large water bodies are absent. Species is uncommon, irregular breeder in Santa Clara County. Species not considered further.
Haliaeetus leucocephalus	bald eagle	Delisted SE / FP --	Winters at lakes, reservoirs, river systems and some rangelands and coastal wetlands. Nests in large conifers near aquatic sources. Breeding begins in May; single-brooded.	Present	**Does not occur.** Suitable nesting and foraging habitat within 5 miles. Rare to very rare vagrants and irregular breeders in Santa Clara County. No CNDDB occurrences nearby. Species not considered further.
Sternula antillarum browni	California least tern	FE SE / FP --	Migratory in California; breeding colonies are found in southern California along marine and estuarine shores, and in San Francisco Bay in abandoned salt ponds and along estuarine shores; feeds in nearby shallow, estuarine waters or lagoons where small fish are abundant. After breeding, family groups regularly occur at lacustrine waters near the coast of southern California. Prefers undisturbed nest sites on open, sandy or gravelly shores near shallow-water feeding areas in estuaries.	Absent	**Does not occur.** Suitable marine/estuarine habitat is absent. Species is rare to very rare in Santa Clara County. Species not considered further.
Vireo bellii pusillus	least Bell's vireo	FE SE --	Obligate riparian species during the breeding season preferring early successional habitat, typically inhabits structurally diverse woodlands along watercourses, including cottonwood-willow forests, oak woodlands, and mule fat scrub.	Absent	**Does not occur.** Suitable riparian habitat is absent. A vagrant species in Santa Clara County. Species not considered further.

MAMMALS					
Vulpes macrotis mutica	San Joaquin kit fox	FE ST --	Inhabits annual grasslands or grassy open stages with scattered shrubby vegetation, agricultural fields, valley oak woodlands, and alkali sink valley floor habitats with low vegetation; needs loose-textured sandy soils for burrowing, as well as a suitable prey base, typically in areas with significant California ground squirrel activity.	Absent	**Does not occur.** Suitable habitat is absent. Species not considered further.

1 Database Queries for the Loma Prieta, Mount Madonna, Gilroy, Watsonville West, Watsonville East, and Chittendon USGS 7.5 minute Quads.

2 Status

CH	Critical Habitat	FT	Federal threatened
CNPS	California Native Plant Society	SE	State endangered
CSC	State species of concern	ST	State threatened
FE	Federal endangered	1B.1	Rare, threatened, or endangered in California and elsewhere; seriously endangered in California
FP	Fully protected (California)	1B.2	Rare, threatened, or endangered in California and elsewhere; fairly endangered in California

Note: A search of the Federal Endangered and Threatened Species That Occur In Or May Be Affected list was conducted and this table was updated on 10/20/10.

2.3.4.1 Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act (FESA): 16 U.S.C., Section 1531, et seq. See also 50 CFR Part 402. This act and subsequent amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as the Federal Highway Administration, are required to consult with the USFWS and the National Marine Fisheries Service (NOAA Fisheries) to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 is a Biological Opinion or an incidental take permit. Section 3 of FESA defines take as activities that "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct."

California has enacted a similar law at the state level, the California Endangered Species Act (CESA), California Fish and Game Code, Section 2050, et seq. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats. The CDFG is the agency responsible for implementing CESA. Section 2081 of the Fish and Game Code prohibits "take" of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the Fish and Game Code as to "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit is issued by CDFG. For projects requiring a Biological Opinion under Section 7 of the FESA, CDFG may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the Fish and Game Code.

2.3.4.2 Affected Environment

A Natural Environment Study was completed for this project on January 21, 2010. The Department initiates consultation with USFWS when a project has the potential to affect a federally listed species and/or destroy or adversely modify designated critical habitat. Formal consultation with the USFWS was initiated in June of 2009 with the submission of the Biological Assessment. A Biological Opinion 81420-2009-F-1058-2 was issued by the USFWS for the California red-legged frog and the California tiger salamander on July 14, 2010, and was accepted by the Department October 19, 2010.

The California red-legged frog (*Rana draytonii*), federally listed as threatened (USFWS 1999), is distributed throughout 26 counties in California, but is most abundant in the San Francisco Bay Area. A review of the CNDDB (CDFG 2009) and the Museum of Vertebrate Zoology (MVZ 2008) collections database showed that the project area occurs within the recognized range of the California red-legged frog. A total of four adult and juvenile California red-legged frog occurrences have been reported within 5 miles of the project area and one historical occurrence has been documented within the project limits at Location 1 (CDFG 2009; MVZ 2008).

The Bodfish and Uvas creek watersheds (and their component tributaries) are between known California red-legged frog occurrences, listed above. California red-legged frogs require slow-

moving water at least 2.5 ft deep with emergent vegetation for breeding (Hayes and Jennings 1988). Approximately 19 ponds, stockponds, reservoirs, and water bodies and an undetermined number of tributary creeks and streams were identified within a 1-mile radius of Locations 1 through 5. It is unknown whether these ponds specifically provide suitable breeding habitat as they were not investigated, however, it is possible that these watersheds could provide breeding, upland refugia, or oversummering habitat for the species, or act as migratory and dispersal corridors on a general population level.

Suitable California red-legged frog upland dispersal habitat includes the presence of some form of cover for the species as well as proximity to non-breeding aquatic habitat. The species may use small mammal burrows for cover in upland dispersal habitat. The proximity of non-breeding aquatic habitat is an important characteristic of upland habitat because 90% of the time non-migrating and non-breeding California red-legged frogs stay within 200 ft of aquatic habitat (Bulger et al. 2003). As a result, the habitats within the project limits, including redwood forest, coast live oak woodlands, coyote brush scrub, and purple needlegrass/native grasslands, may provide potential upland dispersal habitat.

Redwood forest habitat is present within the project limits in Locations 1 through 4. In addition, coast live oak woodlands, coyote brush scrub, and purple needlegrass/native grasslands are present within Location 4. Along Locations 1 through 4, SR 152 parallels Bodfish Creek and the unnamed tributary to Bodfish Creek within 200 ft of the edge of their riparian corridors, well within the USFWS' recognized upland habitat dispersal range. During the January 2008 California red-legged frog habitat assessment, little to no small mammal burrowing activity was observed in Locations 1 through 4. However, boulders, rocks, downed trees, and leaf litter in this habitat may provide upland shelter for this species. These four habitat types within the project limits may provide upland and dispersal habitat for the species.

Landscaped and agricultural lands are present within the project limits in Location 5. During the January 2008 California red-legged frog habitat assessment, moderate to high numbers of small mammal burrows, which could potentially be used by California red-legged frogs as refuge, were observed throughout Location 5. Location 5 is also near, within 500 ft of Bodfish Creek. Therefore, although slightly degraded by landscaping and agriculture, the habitat within Location 5 may provide upland and dispersal habitat for the species.

In summary, the following factors indicate a high potential for California red-legged frog to occur within the project area:

- Previously documented breeding habitat occurs within 1 mile of the project area
- Potential upland dispersal and aestivation habitat for the species is present offsite and within the project area
- The historical collection of a California red-legged frog in the vicinity of the unnamed tributary to Bodfish Creek near Location 1

The project area does not overlap designated or proposed revised critical habitat for California red-legged frog (USFWS 2006). The closest critical habitat unit is in Santa Cruz County 6.5 miles west of the project area.

California Tiger Salamander

The California tiger salamander (*Ambystoma californiense*) is a large, terrestrial salamander with a black body and white to yellow spots and bars (Stebbins 2003). On August 4, 2004, the USFWS determined that the California tiger salamander was likely to become endangered within the foreseeable future throughout its range and listed the entire population of California tiger salamander as threatened (including the Santa Barbara and Sonoma county populations formerly listed as endangered) (USFWS 2004). On August 19, 2005, a court order vacated the downlisting of the Sonoma and Santa Barbara County Distinct Population Segments from endangered to threatened and reinstated their endangered status (USFWS 2005).

A review of the CNDDB (CDFG 2009) and the Museum of Vertebrate Zoology (MVZ 2008) collections database showed that the project area occurs within the recognized range of the California tiger salamander. A total of six adult and larval (breeding) California tiger salamander occurrences have been reported within 3.1 miles[3] of the project area; however, none of these occurrences have been reported within the boundaries or within 1.24 miles of the project area (the observed migratory range of the species from breeding locations).

California tiger salamanders require vernal pools, seasonal ponds, or semipermanent calm waters that pond for a minimum of 3 to 4 months for breeding. Approximately 15 ponds, stockponds, reservoirs, and water bodies have been identified within a 1.24-mile radius of Location 5. Although no aquatic habitat suitable for breeding California tiger salamander was observed within the project limits, two breeding locations, 1.3 miles from Location 5, were recorded in the CNDDB in 2005. This is just over the 1.24 mi migration distance that the species are known to travel. At least four ponds lie within 0.5 mile of the project area, and the uplands surrounding the project area possibly provide suitable upland, refugia, and aestivation habitat, or may act as migratory and dispersal corridors on a general population level.

Landscaped and agricultural lands are present within the project limits in Location 5. During the January 2008 California tiger salamander habitat assessment, a moderate to high number of ground squirrel and California meadow vole (*Microtus californicus*) burrows were noted at Location 5. These burrows are concentrated in isolated patches along the vegetated SR 152 shoulder and throughout the adjacent agricultural fields. Due to the proximity of the two CNDDB reported breeding locations, it is possible that these burrows could provide potential upland refugia and aestivation habitat for California tiger salamanders.

Redwood forest, coast live oak forest, coyote brush scrub, and purple needlegrass/native grasslands are present within the project limits along the roadside at Locations 1 to 4. During the January 2008 California tiger salamander habitat assessment, little to no small mammal burrowing activity was observed in these habitats at Locations 1 through 4, making it unlikely that suitable upland, aestivation, or dispersal habitat is available to California tiger salamanders at these locations.

In summary, the following factors indicate a high potential for California tiger salamander to occur within the project limits at Location 5:

[3] The distance recommended by the USFWS' *Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander* to look at the regional area (USFWS and CDFG 2003).

- Known breeding habitat within 1.3 miles of the project area
- The presence of potential dispersal, upland, and aestivation habitat

The project area does not overlap designated critical habitat for California tiger salamander (USFWS 2005). The closest critical habitat units are two units in Lion's Peak in Santa Clara County, both of which are between 2 and 3 miles to the northeast.

2.3.4.3 Environmental Consequences

California Red-Legged Frog

If California red-legged frogs are present in the project footprint during construction, potential take could occur in the form of capture, harm, harassment, injury, and mortality to adult California red-legged frog due to habitat loss and degradation, construction-related disturbance, or capture and relocation. The project will result in approximately 0.76 ac of temporary and 6.32 ac of permanent impacts to potential California red-legged frog dispersal and upland habitat provided by redwood forest, coast live oak forest, purple needle grass/native grassland, and landscaped and agricultural lands. Temporary effects include disturbance and vegetation trampling due to clearing and equipment access, and permanent effects include habitat loss due to roadway widening and soil nail wall construction.

However, even with the implementation of the avoidance and minimization measures recommended in this document, there would be loss of potentially suitable upland dispersal and aestivation habitat and some small chance of direct take. Therefore, as determined in the Hecker Pass Safety Improvement Project Biological Opinion 81420-2009-F-1058-2Assessment, project activities are likely to adversely affect, but not jeopardize the continued existence of California red-legged frog.

California Tiger Salamander

If California tiger salamanders are present in the project footprint during construction, potential take may occur in the form of capture, harm, harassment, injury, and mortality to adult California tiger salamanders. In addition, take may occur as a result of loss and degradation of potential upland, aestivation, and dispersal habitat; construction-related disturbance; or capture and relocation at Location 5. The project will result in approximately 0.67 acre of temporary and 2.30 acres of permanent impacts to potential California tiger salamander upland dispersal and aestivation habitat. Temporary effects include disturbance and vegetation trampling due to clearing and equipment access, and permanent effects include habitat loss due to roadway widening and soil nail wall construction.

Temporary and permanent impacts to coast live oak woodlands, coyote brush scrub, purple needle grass/native grasslands, and landscaped and agricultural lands at Location 5 will result from construction activities, staging, and access. All temporary impacts at Location 5 will be revegetated after the conclusion of the project construction activities.

The project will neither influence nor affect the potential for the California tiger salamander to cross SR 152. The project will create only very localized widening (up to 12 ft for short distances) at Location 5. No median concrete barrier will be installed. All existing culverts will remain in place and allow amphibian passage under the roadway.

However, even with the implementation of the avoidance and minimization measures recommended in this document, there will be loss of potential upland, aestivation, and dispersal habitat and a small chance of direct take. Therefore, as determined in the Hecker Pass Safety Improvement Project Biological Opinion 81420-2009-F-1058-2Assessment, project activities are likely to adversely affect, but not jeopardize the continued existence of the California tiger salamander.

2.3.4.4 Avoidance, Minimization, and/or Mitigation Measures

California Red-Legged Frog

Due to the proximity of California red-legged frogs in the vicinity of the project area and an historical record of California red-legged frog in the vicinity of Location 1 of the project, the Department will implement the following precautionary measures to avoid or minimize impacts to California red-legged frog:

1. Seasonal Avoidance: To the extent practicable, construction will not occur during the wet season, when California red-legged frogs are more likely to disperse through upland habitats. Work within all waters, wetlands, and the riparian corridor will be limited to the period from April 15 to October 15, with the exception of vegetation clearing. Vegetation clearing may be done outside of this period, if necessary, to avoid disturbance to nesting birds.

2. Preconstruction Surveys: A qualified biologist will conduct a California red-legged frog preconstruction survey of the work site 2 weeks before start-of-work activities begin, including vegetation clearing, grubbing, or other ground disturbance activities. If California red-legged frog adults, tadpoles, or eggs are found, the biologist will contact the USFWS and CDFG to determine whether relocating the species is appropriate. If the agencies approve of relocation, a USFWS-approved biologist will be allowed sufficient time to move the species from the work site before work activities begin. Only USFWS-approved biologists will participate in activities associated with the capture, handling, and monitoring of California red-legged frogs.

3. Construction Area Delineation: Before any ground disturbance occurs on the project site, the boundaries of the project area will be clearly delineated with orange plastic high-visibility construction fencing (ESA fencing) or solid barriers to prevent workers or equipment from inadvertently straying from the project area.

4. Wildlife Exclusion Fencing: Exclusion fencing will be erected along each section of the project area before Project activities begin, including staging equipment and supplies. Fencing will be a minimum of 3 ft high and buried in the soil or form a tight seal with the pavement to prevent California red-legged frog from crawling under and entering the project area.

5. Procedure for California Red-Legged Frog Discovery Onsite: If a California red-legged frog, or any amphibian that construction personnel believe may be this species, is encountered during project construction, or if any contractor, employee, or agency personnel inadvertently kills or injures a California red-legged frog, the following protocol will be followed:

- All work that could result in direct injury, disturbance, or harassment of the individual animal will immediately cease.
- The resident engineer will be immediately notified.
- The resident engineer will notify the approved onsite biologist.
- In the case of a non-injurious encounter, the approved onsite biologist will transport the California red-legged frog immediately in a cool, moist container to a suitable location outside the project area (e.g., suitable habitat elsewhere in the Bodfish Creek watershed). This relocation site will be determined in advance by a qualified biologist in consultation with the USFWS and CDFG. The relocated individual(s) will be monitored until it is determined that the animal(s) are not imperiled by predators or other dangers.
- The approved onsite biologist will notify the USFWS within 24 hours after California red-legged frog(s) have been relocated.
- If a California red-legged frog has been killed or injured, the biologist will contact the USFWS and CDFG within 24 hours.

6. Entrapment Avoidance: To prevent inadvertent entrapment of California red-legged frog or other animals during construction, all excavated, steep-walled holes or trenches more than 2 ft deep will be covered with plywood or similar materials at the end of each working day, or the holes or trenches will contain one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals. If, at any time, a trapped California red-legged frog (or other wildlife) is discovered, USFWS and CDFG will be contacted.

7. Prohibition of Erosion Control Materials Potentially Harmful to California Red-Legged Frog: Plastic monofilament netting (erosion control matting) or similar material will not be used at the project site because California red-legged frog may become entangled and trapped in it. Tightly woven fiber netting or similar material will be used for erosion control or other purposes.

8. Prevention of Introduction of Amphibian Diseases: Biologists will take all precautions to prevent spread of amphibian diseases when handling the listed species. All equipment and clothing will be disinfected per protocol standards.

9. Regular Work Area Surveys: The biological monitor will conduct frequent surveys along the work area boundaries and will notify the USFWS-approved biologist if a California red-legged frog is found within the work area.

Because California red-legged frog could be present throughout the project limits, temporarily or permanently impacted habitat, excluding existing hardscape features such as the roadway or road shoulder, would be mitigated by habitat restoration/replacement. Approximately 6.32 acres of permanent uplandpermanent upland dispersal and aestivation habitat loss will be mitigated at a 3:1 ratio, resulting in 18.96 acres of mitigation for California red-legged frog upland dispersal and aestivation habitat. Temporary impacts will be mitigated at a 1.1:1 ratio, for a total of 0.84 acre. Of this, 0.76 acres will be onsite, in-kind restoration. Total mitigation (for both temporary and permanent loss) will be 19.80 acres.

California Tiger Salamander

Due to the potential for presence of California tiger salamander at Location 5, the, the following measures, in addition to the precautionary measures to avoid or minimize impacts to California red-legged frog,frog will be implemented to minimize impacts to California tiger salamander:

1. If California tiger salamander adults or juveniles are found, all work that could result in direct injury, disturbance, or harassment of the individual animal will immediately cease. The biological monitor will contact the USFWS and CDFG to determine whether relocating the species is appropriate. If the agencies approve of relocation, a USFWS-approved biologist will be allowed sufficient time to move the species from the work site before work activities begin. Only USFWS-approved biologists may participate in activities associated with the capture, handling, and monitoring of California tiger salamander.

2. Temporarily or permanently impacted habitat, excluding existing hardscape features such as the roadway or road shoulder, will be mitigated by habitat restoration/replacement. Approximately 2.3 acres of permanent upland dispersal and aestivation habitat loss will be mitigated at a 3:1 ratio resulting in 6.9 acres of mitigation for California tiger salamander upland dispersal and aestivation habitat. Temporary impacts of 0.67 acre will be mitigated at a 1.1:1 ratio, for a total of 0.74 acre. Of this, 0.67 acre will be restored onsite. Total mitigation (for both temporary and permanent loss) will be 7.64 acres.

2.3.5 Invasive Species

2.3.5.1 Regulatory Setting

On February 3, 1999, President Clinton signed EO 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as “any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health.” Federal Highway Administration guidance issued August 10, 1999 directs the use of the state’s noxious weed list to define the invasive plants that must be considered as part of the NEPA analysis for a proposed project.

2.3.5.2 Affected Environment

The following sections are summarized from the Natural Environment Study (Caltrans 2009) approved on January 21, 2010.

The only invasive aquatic animal species observed in any of the aquatic features near the project area was the introduced crayfish, *Procambarus* spp., several individuals of which were observed in Bodfish Creek during the August 2008 site visit. Invasive plant species listed by the California Invasive Plant Council (Cal IPC) occur within the project area, especially in the California annual grassland series and more ruderal portions of the project area. Cal IPC defines high priority invasives as those species that “have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment” (Cal IPC 2006). High-priority invasive plant species that occur inside the

project area include: fennel (*Foeniculum vulgare*), foxtail chess (*Bromus madritens* ssp. *rubens*), Himalayan blackberry, and yellow star thistle (*Centaurea solstitialis*) (Cal IPC 2006). The Santa Clara Parks Department has identified broom, including French broom (*Genista monspessulana)* and Scotch broom *(Cytisus scoparius)* as also occurring within the project footprint of location 4.

2.3.5.3 Environmental Consequences

The SR 152 corridor provides opportunities for the movement of invasive species through the landscape. Invasive plant and animal species could be transported on vehicles and in the loads they carry. Weed seed could be introduced inadvertently on equipment used forconstructionfor construction.

2.3.5.4 Avoidance, Minimization, and/or Mitigation Measures

In compliance with the EO on Invasive Species (EO 13112), and subsequent guidance from the FHWA, the landscaping and erosion control included in the project will not use species listed as noxious weeds. In areas of particular sensitivity, extra precautions will be taken if invasive species are found in or adjacent to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur.

2.4 Cumulative Impacts

2.4.1 Regulatory Setting

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of the present or proposed project. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor, but collectively substantial impacts taking place over a period of time.

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive types of agricultural cultivation. These land use activities can degrade habitat and species diversity by means of displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

CEQA Guidelines, Section 15130, describe when a cumulative impact analysis is warranted and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts under CEQA can be found in Section 15355 of the CEQA Guidelines. A definition of cumulative impacts under NEPA can be found in 40 CFR, Section 1508.7 of the CEQA Regulations.

2.4.2 Projects Considered for Cumulative Impacts

A survey was completed on CEQAnet, the online searchable environmental database of the State Clearinghouse, for any projects listed from 2005-present within the project limits. The

project limits were determined to be the same as the areas studied in the cumulative impact analysisanalysis, as the project impacts are limited to the immediate highway corridor. Outside this immediate corridor, visual and biological resources are dramatically different. In 2005, the Department approved an Initial Study with Negative Declaration (CEQA)/ Categorical Exclusion (NEPA) for the Uvas Creek Bridge Replacement project. The document's cumulative impact analysis included this project's limits. As no cumulative impacts were found in the 2005 document, it is assumed that the time frame for this project survey need only go back to 2005. No projects have occurred within the project limits within the last five years, and no projects within the reasonably foreseeable future were found in the survey.

2.4.3 Environmental Consequences

The following resource areas were determined to have no direct or indirect impacts, and were not discussed in Chapter 2 of this document: growth, coastal zone, wild and scenic rivers, timberland, community impacts, relocations and real property acquisitions, utilities/emergency services, hydrology and floodplain, traffic and transportation/pedestrian and bicycle facilities, paleontology, air quality, noise, and energy

Similarly, the following topics were discussed within Chapter 2, but as they have no potentially significant impact on a resource, they will not contribute to a cumulative impact: land use, farmlands, parks and recreational facilities, cultural resources, water quality and storm water runoff, geology/soils/seismic/topography, and hazardous waste/materials.

The remaining topics, visual resources and biological environment, are discussed below. Cumulative impacts associated with climate change are discussed in Section 3.5.

2.4.3.1 Visual Resources

Areas where development is permissible within the highway corridor are limited, but include areas of designated rural residential development adjacent to the highway in areas west of Watsonville Road. This area, a portion of Landscape Unit 2 (Gilroy/Santa Clara Valley) in this study, is already characterized by low-density development. In addition, areas adjacent to the highway within Hecker Pass itself, between Mt. Madonna County Park and the designated residential area, are designated to allow medium-scale agriculture, which in the study area consists primarily of grape growing. Within the project limits, as no projects are in construction, or planned for the reasonably foreseeable future, the project will not contribute to any cumulative visual impacts.

2.4.3.2 Biological Environment

Much of the area surrounding SR 152 is privately owned and used as agricultural land, owned by the Santa Clara County Parks and Recreation Department (Mt. Madonna County Park), or held by private timber interests. These lands are not slated for future change in zoning and no known development projects are currently expected on these private holdings. Within the project limits, as no projects are in construction, or planned for the reasonably foreseeable future, and as the Department will mitigate for any effects to the California red-legged frog and California tiger salamander as is required by the Biological Opinion issued by the USFWS, the project will not contribute to any cumulative biological impacts.

Chapter 3 California Environmental Quality Act Evaluation

3.1 Determining Significance under CEQA

The proposed project is a joint project by the Department and the FHWA and is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with both CEQA and NEPA. FHWA's responsibility for environmental review, consultation, and any other action required in accordance with NEPA and other applicable federal laws for this project is being, or has been, carried out by the Department under its assumption of responsibility pursuant to 23 U.S.C. 327. The Department is the lead agency under CEQA and NEPA.

One of the primary differences between NEPA and CEQA is the way significance is determined. Under NEPA, significance is used to determine whether an Environmental Impact Statement (EIS), or some lower level of documentation, will be required. NEPA requires that an EIS be prepared when the proposed federal action (project) as a whole has the potential to "significantly affect the quality of the human environment." The determination of significance is based on context and intensity. Some impacts determined to be significant under CEQA may not be of sufficient magnitude to be determined significant under NEPA. Under NEPA, once a decision is made regarding the need for an EIS, it is the magnitude of the impact that is evaluated and no judgment of its individual significance is deemed important for the text. NEPA does not require that a determination of significant impacts be stated in the environmental documents.

CEQA, on the other hand, does require the Department to identify each "significant effect on the environment" resulting from the project and ways to mitigate each significant effect. If the project may have a significant effect on any environmental resource, then an Environmental Impact Report (EIR) must be prepared. Each and every significant effect on the environment must be disclosed in the EIR and mitigated if feasible. In addition, the CEQA Guidelines list a number of mandatory findings of significance, which also require the preparation of an EIR. NEPA requires no types of actions parallel to the findings of mandatory significance of CEQA. This chapter discusses the effects of this project and CEQA significance.

3.2 Less-than-Significant Effects of the Proposed Project

All environmental resource areas subject to analysis under CEQA other than visual/aesthetics would have less than significant effects. Refer to Chapter 2: Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures for a discussion of environmental effects of the proposed project. Visual/Aesthetic effects under CEQA are described in additional detail in the below section.

3.3 Significant Environmental Effects of the Proposed Project

This section focuses on significant impacts specific to CEQA. Significant environmental effects will occur to visual/aesthetic resources and threatened and endangered species within and adjacent to the project limits as a result of the proposed project. A detailed description of the impacts to these resources, and appropriate avoidance, minimization, and mitigation measures are provided in Sections 2.1.3 and 2.3.4 respectively.

Visual/Aesthetics. Appendix G of the CEQA guidelines defines four criteria to evaluate the significance of visual impacts. Of the four criteria, one would not have significant effects and two, discussed in the following questions and answers,answers can be reduced to less than significant levels with proposed mitigation.

Would the project substantially damage scenic resources, including but not limited to, tress, rock outcroppings, and historic buildings within a state scenic highway?

No specific outstanding scenic resources were identified within the project limits. The project has the potential to damage areas of mature forest within the proposed project right-of-way adjacent to the proposed retaining walls. However, with Mitigation Measures that limit tree removal and grubbing to within 5 ft of the proposed retaining walls, these impacts could be reduced to a minor, less-than-significant level. No other scenic resources were identified that could potentially be affected by the project action.

Would the project create a new source of substantial light and glare, which would adversely affect day or nighttime views in the project area?

Prominent concrete structures can, under certain conditions, be sources of annoying or even disabling reflected glare, particularly if bright in color or high in reflectivity. However with recommended mitigation measures, walls would be treated to have low reflectivity, dark, subdued colors, and light reflectivity values of under 45. With that measure, potential reflective glare from walls would be less than significant.

Similarly, with mitigation measures, potential glare from nighttime construction activities would be shielded and controlled, reducing those impacts to less-than-significant levels. No long-term project night lighting is proposed. No potential glare impacts from automobile headlights to off-road viewers as a result of project would occur.

Special-Status and Threatened and Endangered Species. Appendix G of the CEQA guidelines defines six criteria to evaluate the significance of impacts to biological resources. Of the six criteria, five would not have significant effects and one, discussed below, can be reduced to a less-than-significant level with proposed mitigation.

Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Two species listed as threatened or endangered, the California red-legged frog and the California tiger salamander occur within the project limits. The project would temporarily and permanently impact potential habitat for both species. Several other species are listed as Species of Special Concern by the state. Impact avoidance, minimization, and mitigation measures would reduce impacts to these species to a less-than-significant level. Measures include pre-construction surveys, use of wildlife exclusion and environmentally sensitive area fencing, and restoration and replacement planting for impacted habitat. Replacement of habitat would be at a ratio of 3:1 for permanent impacts, and 1.1:1 for temporary impacts to threatened and endangered species habitat.

3.4 Unavoidable Significant Environmental Effects

One visual/aesthetic criteria under the CEQA guidelines would have significant environmental effects even with proposed avoidance, minimization, and mitigation measures, as described in the following question and answer.

Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

The introduction of the proposed retaining walls, with all recommended mitigation measures, would still have significant adverse impacts to the visual character and quality of the SR 152 scenic highway corridor. In all, up to approximately 0.75 mile (approximately 3,963 ft) of new retaining walls would be constructed in the corridor; approximately 1.6 miles of the highway overall would be affected by the project. If eligibility for State Scenic Highway status were to be affected by the project, this could be inconsistent with Policies R-PR(i) 21 and 22 of the Santa Clara County General Plan.

3.5 Climate Change

3.5.1 Regulatory Setting

While climate change has been a concern since at least 1988, as evidenced by the establishment of the United Nations and World Meteorological Organization's Intergovernmental Panel on Climate Change (IPCC), the efforts devoted to greenhouse gas (GHG) emissions reduction and climate change research and policy have increased dramatically in recent years. These efforts are primarily concerned with the emissions of GHG related to human activity that include carbon dioxide (CO_2), methane, nitrous oxide, tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, HFC-23 (fluoroform), HFC-134a (s, s, s, 2 –tetrafluoroethane), and HFC-152a (difluoroethane).

In 2002, with the passage of Assembly Bill 1493 (AB 1493), California launched an innovative and pro-active approach to dealing with GHG emissions and climate change at the state level. Assembly Bill 1493 requires the California Air Resources Board (CARB) to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year; however, in order to enact the standards California needed a waiver from the U.S. Environmental Protection Agency (EPA). The waiver was denied by EPA in December 2007. See California v. Environmental Protection Agency, 9th Cir. Jul. 25, 2008, No. 08-70011. However, on January 26, 2009, it was announced that EPA will reconsider their decision regarding the denial of California's waiver. On May 18, 2009, President Obama announced the enactment of a 35.5 mpg fuel economy standard for automobiles and light duty trucks which will take effect in 2012. On June 30, 2009 EPA granted California the waiver. California is expected to enforce its standards for 2009 to 2011 and then look to the federal government to implement equivalent standards for 2012 to 2016. The granting of the waiver will also allow California to implement even stronger standards in the future. The state is expected to start developing new standards for the post-2016 model years later this year.

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05. The goal of this Executive Order is to reduce California's GHG emissions to: 1) 2000 levels by 2010, 2) 1990 levels by the 2020 and 3) 80 percent below the 1990 levels by the year 2050. In 2006, this

goal was further reinforced with the passage of Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006. AB 32 sets the same overall GHG emissions reduction goals while further mandating that CARB create a plan, which includes market mechanisms, and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases. " Executive Order S-20-06 further directs state agencies to begin implementing AB 32, including the recommendations made by the state's Climate Action Team.

With Executive Order S-01-07, Governor Schwarzenegger set forth the low carbon fuel standard for California. Under this executive order, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by 2020.

Climate change and GHG reduction is also a concern at the federal level; however, at this time, no legislation or regulations have been enacted specifically addressing GHG emissions reductions and climate change. California, in conjunction with several environmental organizations and several other states, sued to force the U.S. Environmental Protection Agency (EPA) to regulate GHG as a pollutant under the Clean Air Act (Massachusetts vs. Environmental Protection Agency et al., 549 U.S. 497 (2007). The court ruled that GHG does fit within the Clean Air Act's definition of a pollutant, and that the EPA does have the authority to regulate GHG. Despite the Supreme Court ruling, there are no promulgated federal regulations to date limiting GHG emissions.

On December 7, 2009, the EPA Administrator signed two distinct findings regarding greenhouse gases under section 202(a) of the Clean Air Act:

Endangerment Finding: The Administrator finds that the current and projected concentrations of the six key well-mixed greenhouse gases--carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6)--in the atmosphere threaten the public health and welfare of current and future generations.

Cause or Contribute Finding: The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution which threatens public health and welfare.

These findings do not themselves impose any requirements on industry or other entities. However, this action is a prerequisite to finalizing the EPA's proposed greenhouse gas emission standards for light-duty vehicles, which were jointly proposed by EPA and the Department of Transportation's National Highway Safety Administration on September 15, 2009. [4]

According to Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate change in CEQA Documents (March 5, 2007), an individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may participate in a potential impact through its incremental contribution combined with the contributions of all other sources of GHG. In assessing cumulative impacts, it must be

[4] http://www.epa.gov/climatechange/endangerment.html

determined if a project's incremental effect is "cumulatively considerable." See CEQA Guidelines sections 15064(i)(1) and 15130. To make this determination the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects in order to make this determination is a difficult if not impossible task.

As part of its supporting documentation for the Draft Scoping Plan, CARB recently released an updated version of the GHG inventory for California (June 26, 2008). Shown below (Figure 3.5-1) is a graph from that update that shows the total GHG emissions for California for 1990, 2002-2004 average, and 2020 projected if no action is taken.

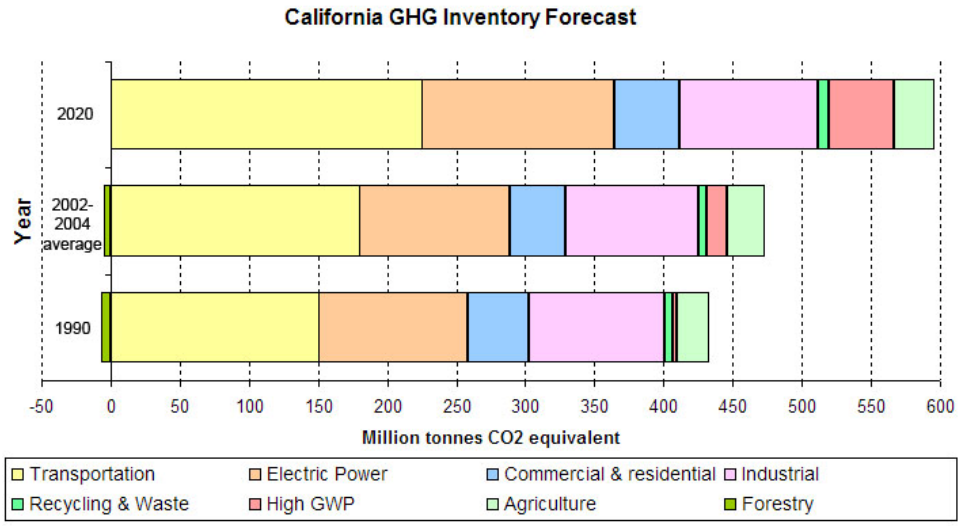

Figure 3.5-1. California Greenhouse Gas Inventory

Taken from : http://www.arb.ca.gov/cc/inventory/data/forecast.htm

The Department and its parent agency, the Business, Transportation, and Housing Agency, have taken an active role in addressing GHG emission reduction and climate change. Recognizing that 98 percent of California's GHG emissions are from the burning of fossil fuels and 40 percent of all human made GHG emissions are from transportation (see Climate Action Program at Caltrans (December 2006), Caltrans has created and is implementing the Climate Action Program at Caltrans that was published in December 2006. This document can be found at: http://www.dot.ca.gov/docs/ClimateReport.pdf

3.5.2 Project Analysis

This project involves safety improvements that would not modify the configuration of the roadway or result in changes that would be expected to increase traffic volumes or induce growth. Thus, the project has low to no potential for climate change impacts. Minor impacts resulting from unavoidable construction emissions would occur, as described below.

3.5.3 Construction Emissions

GHG emissions for transportation projects can be divided into those produced during construction and those produced during operations. Construction GHG emissions include

emissions produced as a result of material processing, emissions produced by onsite construction equipment, and emissions arising from traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases. In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the GHG emissions produced during construction can be mitigated to some degree by longer intervals between maintenance and rehabilitation events.

CEQA Conclusion

While construction will result in a slight increase in GHG emissions during construction, it is anticipated that any increase in GHG emissions due to construction will be offset by the improvement in operational GHG emissions. While it is Caltrans determination that in the absence of further regulatory or scientific information related to GHG emissions and CEQA significance, it is too speculative to make a significance determination regarding the project's direct impact and its contribution on the cumulative scale to climate change, Caltrans is firmly committed to implementing measures to help reduce GHG emissions. These measures are outlined in the following section.

3.5.4 AB 32 Compliance

Caltrans continues to be actively involved on the Governor's Climate Action Team as CARB works to implement the Governor's Executive Orders and help achieve the targets set forth in AB 32. Many of the strategies Caltrans is using to help meet the targets in AB 32 come from the California Strategic Growth Plan, which is updated each year. Governor Arnold Schwarzenegger's Strategic Growth Plan calls for a $222 billion infrastructure improvement program to fortify the state's transportation system, education, housing, and waterways, including $100.7 billion in transportation funding during the next decade.[5] As shown on the figure below, the Strategic Growth Plan targets a significant decrease in traffic congestion below today's level and a corresponding reduction in GHG emissions. The Strategic Growth Plan proposes to do this while accommodating growth in population and the economy. A suite of investment options has been created that combined together yield the promised reduction in congestion. The Strategic Growth Plan relies on a complete systems approach of a variety of strategies: system monitoring and evaluation, maintenance and preservation, smart land use and demand management, and operational improvements.

[5] Governor's Strategic Growth Plan, Fig. 1 (http://gov.ca.gov/pdf/gov/CSGP.pdf)

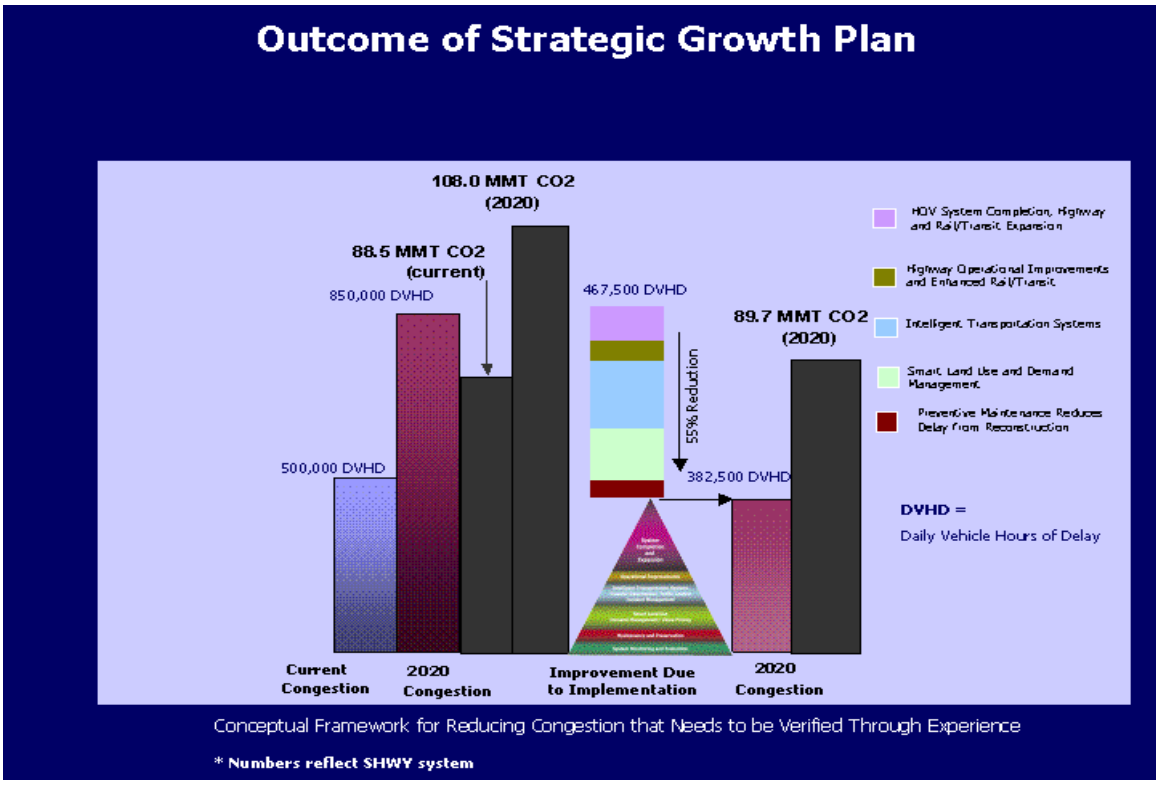

Figure 3.5-2. Outcome of Strategic Growth Plan

As part of the Climate Action Program at Caltrans (December 2006, http://www.dot.ca.gov/docs/ClimateReport.pdf), Caltrans is supporting efforts to reduce vehicle miles traveled by planning and implementing smart land use strategies: job/housing proximity, developing transit-oriented communities, and high density housing along transit corridors. Caltrans is working closely with local jurisdictions on planning activities; however, Caltrans does not have local land use planning authority. Caltrans is also supporting efforts to improve the energy efficiency of the transportation sector by increasing vehicle fuel economy in new cars, light and heavy-duty trucks; Caltrans is doing this by supporting on-going research efforts at universities, by supporting legislative efforts to increase fuel economy, and by its participation on the Climate Action Team. It is important to note, however, that the control of the fuel economy standards is held by EPA and CARB. Lastly, the use of alternative fuels is also being considered; the Department is participating in funding for alternative fuel research at the UC Davis.

Table 3.5-1 summarizes the Department and statewide efforts that the Department is implementing in order to reduce GHG emissions. For more detailed information about each strategy, please see Climate Action Program at the Department (December 2006); it is available at http://www.dot.ca.gov/docs/ClimateReport.pdf

Table 3.5-1: Climate Change Strategies

Strategy	Program	Partnership		Method/Process	Estimated CO_2 Savings (MMT)	
		Lead	Agency		2010	2020
Smart Land Use	Intergovernmental Review (IGR)	Caltrans	Local Governments	Review and seek to mitigate development proposals	Not Estimated	Not Estimated
	Planning Grants	Caltrans	Local and regional agencies & other stakeholders	Competitive selection process	Not Estimated	Not Estimated
	Regional Plans and Blueprint Planning	Regional Agencies	Caltrans	Regional plans and application process	0.975	7.8
Operational Improvements & Intelligent Trans. System (ITS) Deployment	Strategic Growth Plan	Caltrans	Regions	State ITS; Congestion Management Plan	.007	2.17
Mainstream Energy & GHG into Plans and Projects	Office of Policy Analysis & Research; Division of Environmental Analysis	Interdepartmental effort		Policy establishment, guidelines, technical assistance	Not Estimated	Not Estimated
Educational & Information Program	Office of Policy Analysis & Research	Interdepartmental, CalEPA, CARB, CEC		Analytical report, data collection, publication, workshops, outreach	Not Estimated	Not Estimated
Fleet Greening & Fuel Diversification	Division of Equipment	Department of General Services		Fleet Replacement B20 B100	0.0045	0.0065 0.45 0.0225
Non-vehicular Conservation Measures	Energy Conservation Program	Green Action Team		Energy Conservation Opportunities	0.117	0.34
Portland Cement	Office of Rigid Pavement	Cement and Construction Industries		2.5% limestone cement mix 25% fly ash cement mix > 50% fly ash/slag mix	1.2 0.36	3.6
Goods Movement	Office of Goods Movement	Cal EPA, CARB, BT&H, MPOs		Goods Movement Action Plan	Not Estimated	Not Estimated
Total					2.72	18.67

To the extent that it is applicable or feasible for the project and through coordination with the project development team, the following measures will also be included in the project to reduce the GHG emissions and potential climate change impacts from the project:

According to Caltrans Standard Specification Provisions, idling time for lane closure during construction is restricted to ten minutes in each direction; in addition, the contractor must comply with local rules, ordinances, and regulations in regards to air quality restrictions.

3.5.5 Adaptation Strategies

"Adaptation strategies" refer to how the Department and others can plan for the effects of climate change on the state's transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, storm surges and intensity, and the frequency and intensity of wildfires. These changes may affect the transportation infrastructure in various ways, such as damaging roadbeds by longer periods of intense heat; increasing storm damage from flooding and erosion; and inundation from rising sea levels. These effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. There may also be economic and strategic ramifications as a result of these types of impacts to the transportation infrastructure.

Climate change adaption must also involve the natural environment as well. Efforts are underway on a statewide-level to develop strategies to cope with impacts to habitat and biodiversity through planning and conservation. The results of these efforts will help California agencies plan and implement mitigation strategies for programs and projects.

On November 14, 2008, Governor Schwarzenegger signed Executive Order S-13-08 which directed a number of state agencies to address California's vulnerability to sea level rise caused by climate change.

The California Resources Agency (now the Natural Resources Agency, (Resources Agency)), through the interagency Climate Action Team, was directed to coordinate with local, regional, state and federal public and private entities to develop a state Climate Adaptation Strategy. The Climate Adaptation Strategy will summarize the best known science on climate change impacts to California, assess California's vulnerability to the identified impacts and then outline solutions that can be implemented within and across state agencies to promote resiliency.

As part of its development of the Climate Adaptation Strategy, Resources Agency was directed to request the National Academy of Science to prepare a *Sea Level Rise Assessment Report* by December 2010 to advise how California should plan for future sea level rise. The report is to include:

- Relative sea level rise projections for California, taking into account coastal erosion rates, tidal impacts, El Niño and La Niña events, storm surge and land subsidence rates;
- The range of uncertainty in selected sea level rise projections;

- A synthesis of existing information on projected sea level rise impacts to state infrastructure (such as roads, public facilities and beaches), natural areas, and coastal and marine ecosystems;
- A discussion of future research needs regarding sea level rise for California.

Furthermore Executive Order S-13-08 directed the Business, Transportation, and Housing Agency to prepare a report to assess vulnerability of transportation systems to sea level affecting safety, maintenance and operational improvements of the system and economy of the state. The Department continues to work on assessing the transportation system vulnerability to climate change, including the effect of sea level rise.

Prior to the release of the final Sea Level Rise Assessment Report, all state agencies that are planning to construct projects in areas vulnerable to future sea level rise were directed to consider a range of sea level rise scenarios for the years 2050 and 2100 in order to assess project vulnerability and, to the extent feasible, reduce expected risks and increase resiliency to sea level rise. However, all projects that have filed a Notice of Preparation, and/or are programmed for construction funding from 2008 through 2013, or are routine maintenance projects as of the date of Executive Order S-13-08 may, but are not required to, consider these planning guidelines. Sea level rise estimates should also be used in conjunction with information regarding local uplift and subsidence, coastal erosion rates, predicted higher high water levels, storm surge and storm wave data. (Executive Order S-13-08 allows some exceptions to this planning requirement.) This project is not mandated to consider sea level rise as the Notice of Preparation was submitted to the California State Clearinghouse on April 3, 2009.

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system from increased precipitation and flooding; the increased frequency and intensity of storms and wildfires; rising temperatures; and rising sea levels. The Department is an active participant in the efforts being conducted as part of Governor’s Schwarzenegger’s Executive Order on Sea Level Rise and is mobilizing to be able to respond to the National Academy of Science report on *Sea Level Rise Assessment* which is due to be released by December 2010.

On August 3, 2009, Natural Resources Agency in cooperation and partnership with multiple state agencies, released the 2009 California Climate Adaptation Strategy Discussion Draft, which summarizes the best known science on climate change impacts in seven specific sectors and provides recommendations on how to manage against those threats. The release of the draft document set in motion a 45-day public comment period. Led by the California Natural Resources Agency, numerous other state agencies were involved in the creation of discussion draft, including Environmental Protection; Business, Transportation and Housing; Health and Human Services; and the Department of Agriculture. The discussion draft focuses on sectors that include: Public Health; Biodiversity and Habitat; Ocean and Coastal Resources; Water Management; Agriculture; Forestry; and Transportation and Energy Infrastructure. The strategy is in direct response to Gov. Schwarzenegger's November 2008 Executive Order S-13-08 that specifically asked the Natural Resources Agency to identify how state agencies can respond to rising temperatures, changing precipitation patterns, sea level rise, and extreme natural events. As data continues to be developed and collected, the state's adaptation strategy will be updated to reflect current findings. A revised version of the report was posted on the Natural Resource

Agency website on December 2, 2009; it can be viewed at: http://www.energy.ca.gov/2009publications/CNRA-1000-2009-027/CNRA-1000-2009-027-F.PDF.

Currently, the Department is working to assess which transportation facilities are at greatest risk from climate change effects. However, without statewide planning scenarios for relative sea level rise and other climate change impacts, the Department has not been able to determine what change, if any, may be made to its design standards for its transportation facilities. Once statewide planning scenarios become available, the Department will be able review its current design standards to determine what changes, if any, may be warranted in order to protect the transportation system from sea level rise.

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Chapter 4 Comments and Coordination

Early and continuing coordination with the general public and appropriate public agencies is an essential part of the environmental process. It helps planners determine the necessary scope of environmental documentation, the level of analysis required, and to identify potential impacts and mitigation measures and related environmental requirements. Agency consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including: project development team meetings and interagency coordination meetings. This chapter summarizes the results of the Department's efforts to fully identify, address, and resolve project-related issues through early and continuing coordination.

4.1 Initial Project Development and Public Participation

On April 14, 2009, a public scoping meeting was held in Gilroy at the Gilroy Police Department Community Room. Over 250 notices of the scoping meeting were sent to a mailing list of officials and local residents. The meeting was advertised in two local newspapers (Gilroy Dispatch and Santa Cruz Sentinel), as well as on local radio and television. The style of meeting was "open house" and was staffed by representatives from Caltrans Project Management, Design/Engineering, Landscape Architecture, and Environmental Analysis. Large informational boards were produced and displayed at the meeting. These included an index map, details of the five separate locations, and typical cross-sections. Meeting attendees had the opportunity to browse displays and ask questions to Department staff. Attendees of the scoping meeting were also presented with a fact sheet detailing a general project description and schedule. Approximately 15 local residents attended the scoping meeting, 7 comment cards were received at the meeting, and one e-mail comment was received following the meeting.

4.2 Consultation and Coordination with Public Agencies

As part of the EIR process, a Notice of Preparation was prepared for this project and submitted to the Governor's Office of Planning and Research State Clearinghouse and Planning Unit, and to reviewing agencies for the project. Responses were received from the following agencies. The italicized statements after most of the following summary responses provide the Department's guidance and clarification on the concerns identified. All comments received regarding the DEIR/EA are discussed in section 4.3.

Public Agency Comments in Response to the Notice of Preparation/Scoping Meeting

Santa Clara Valley Transportation Authority

The Santa Clara Valley Transportation Authority requested that the Draft EIR/Environmental Assessment (EA) discuss any benefits or impacts the proposed project would have on cyclists, and should address the consistency of the proposed project with the 2008 Santa Clara Countywide Bicycle Plan.

Santa Clara County

The Santa Clara County Roads and Airports Department responded requesting that the Draft EIR/EA discuss any traffic impacts of the proposed project. *The proposed project is not*

anticipated to have any permanent impacts to traffic flow or patterns throughout the project corridor.

The Santa Clara County Parks and Recreation Department responded with the following comments:

- The Draft EIR/EA should discuss potential impacts to the Hecker Pass Connector Trails, Route C30 (Mis labeled by the County Parks in their first correspondence as the Bay Area Ridge Trail, and subsequently corrected in their comment letter addressed in section 4.3), designated as an on-street bicycle route within the roadway right-of-way along SR 152. *This project will not adversely impact bicycle facilities. After construction, bicyclists would have access to a wider roadway. SR 152 would remain functional during construction, bicyclists would be afforded the same accessibility to the roadway as motorized vehicles.*

- The Draft EIR/EA should discuss potential impacts to visual resources, parkland, water resources, cultural resources, and biological resources. *Discussion of impacts to environmental resources is in various sections in Chapter 2.*

- The Draft EIR/EA should identify potential impacts to visual resources and include mitigation to reduce the impacts to visual resources, specifically resulting from the construction of retaining walls. *Discussion of impacts to visual resources, and appropriate mitigation is discussed in Section 2.1.3.*

- The Draft EIR/EA should discuss potential impacts to trees and natural communities. *Impacts to trees and natural communities are discussed in Section 2.3.1.*

- The Draft EIR/EA should discuss the proposed drainage improvements and the impacts of these improvements related to special-status species. *Project impacts to special-status species are discussed in Sections 2.3.3 and 2.3.4.*

- Mitigation for importation of disease, fungi, and invasive species, should be addressed. *Mitigation measures to control the spread of invasive species are discussed in Section 2.3.5.*

- The Draft EIR/EA should indicate that Mt. Madonna is a migration corridor for migrating raptors and address impacts to these species. *Discussion of impacts to and mitigation for migrating raptors are discussed in Chapter 2.*

- The Draft EIR/EA should include a discussion on the Santa Clara Valley Habitat Conservation Plan that is currently under preparation, and how the proposed project may affect future habitat conservation areas. *Discussion of the proposed project in relation to the Santa Clara Valley Habitat Conservation plan is included in Section 2.1.1.2.*

- The Draft EIR/EA should include a discussion of potential impacts, including impacts from proposed culvert extensions, to creeks in the vicinity of the proposed project. *Water quality impacts and associated mitigation are discussed in Section 2.2.1.*

Stanislaus County

Stanislaus County responded stating that they reviewed the proposed project and have no comments.

Public Agency Consultation and Coordination

California Department of Fish and Game

- January 2008: A list of species of concern was obtained from the CDFG's California Natural Diversity Database to assist in the identification of sensitive plant and wildlife species that may occur in the project area.
- June 2008: The Department conducted a site visit with USFWS and CDFG to discuss the project and potential effects to federally and state listed species.
- June 2008: The Department requested that CDFG review the *Hecker Pass Safety Improvement Project: Marbled Murrelet Assessment.* CDFG concluded that the project area was not likely to support marbled murrelet and that future consultation with CDFG is not required.

U.S. Fish and Wildlife Service

- January 2008: A list of species of concern was obtained from the online database of the USFWS to assist in the identification of sensitive plant and wildlife species that may occur in the project area.
- June 2008: The Department conducted a site visit with USFWS and CDFG to discuss the project and potential effects to federally and state listed species.
- February 2009: A revised list of species of concern was obtained from the online database of the USFWS to assist in the identification of sensitive plant and wildlife species that may occur in the project area.
- June 2009: Biological Assessment was submitted to USFWS
- July 2010: Biological Opinion #81420-2009-F-1058-2 was received from the USFWS

United States Army Corps of Engineers

- August 2009: The Department submitted a copy of the Jurisdictional Wetland Delineation, with a request for concurrence from the Army Corps of Engineers.
- December 2009: The Department received concurrence on the Jurisdictional Wetland Delineation mapping.

USDA National Resource Conversation Service (NRCS)

- January 2010: The Department sent a letter, mapping, and copies of the Farmland Conversion Rating form AD 1006 with section 1 completed to the USDA National Resource Conservation Service.

- March 2010: The NRCS sent copies of form AD 1006 back to the Department with section two completed. The Department completed the rest of the form, finishing the consultation process.

County of Santa Clara Parks and Recreation Department

The Department and the Santa Clara County Department of Parks and Recreation held three coordination meetings in 2009 to discuss the proposed project and present information regarding Section 4(f) and the Department's proposal for a "de minimis" determination. The Department received written concurrence of the de minimis use of Mt. Madonna Park from the Santa Clara County Department of Parks and Recreation on August 20, 2010. A copy of this letter can be found in Appendix C.

4.3 Circulation, Review, and Comments on the Draft Environmental Document

Document Circulation and Review

The Draft EIR/EA wasill be releaseddistributed for public review on March 8, with the official comment period open until April 26, 2010. and comment, and Aa public meeting in the form of an open house waswill be held to receive comments, as oral testimony and in writing, on March 24, 2010 from 5:00 P.M. to 7:30 P.M. at the Gilroy High School Library.. Copies of this document, as well as of the technical studies we relied on in preparing it, are available for review at the Department of Transportation District 4 Office, 111 Grand Avenue, Oakland, CA, and the Gilroy Public Library, 7652 Monterey Street, Gilroy, CA. The document will also be posted online at the Department of Transportation District 4 web page: http://www.dot.ca.gov/dist4/envdocs.htm. A public hearing will be held on March 24, 2010, 5:00 P.M to 7:30 P.M., at the Gilroy High School Library, 750 West 10th Street, Gilroy, CA.

Notices regarding the availability of the DEIR/EA and the public meeting were published in the Santa Cruz Sentinel and the Gilroy Gazette on March 10th & March 17th, 2010. Comments may be submitted via postal mail to:

Jared Goldfine, Environmental Branch Chief
Department of Transportation, Environmental Planning
P.O. Box 23660 MS8B, Oakland, CA 94623

Comments may be submitted via email to jared_goldfine@dot.ca.gov.

After the comment review period ends, a Final EIR/EA will be prepared that will contain all comments received and the responses to those comments. If the Final EIR/EA is approved, a Notice of Determination and a Finding of No Significant Impact will be signed and included with the Final EIR/EA.A total of eight people attended the public meeting. The Department received one letter that was attached to a comment card from property owner’s adjacent to the project, and four hand written comment cards at the meeting. All comments received at the meeting were in written form, and can be found along with responses in the next section.

Comments and Responses

A copy of each comment received by the Department, followed by the Departments response can be found on the following pages. If multiple comments were received in a single submittal, each comment was segregated and addressed separately.

One letter (below), from Santa Clara County, had no comments.

231.06
2A2500

County of Santa Clara

Roads and Airports Department

101 Skyport Drive
San Jose, California 95110-1302
(408) 573-2400

April 2, 2010

Mr. Jared Goldfine
Senior Environmental Planner
Department of Transportation, Environmental Planning MS 8B
PO Box 23660
Oakland, CA 94623-0660

Subject: Notice of Availability for Draft EIR/EA and Announcement of Public Meeting for the State Route 152 Hecker Pass Safety Improvement Project in Santa Clara County

Your March 4, 2010 letter along with the attachments for the subject project have been reviewed. We have no comments.

Thank you for the opportunity to review and comment on the subject. If you have any questions, please contact me at 408-573-2464.

Sincerely,

Raluca Nitescu, PE
Project Engineer

Board of Supervisors: Donald F. Gage, George Shirakawa, Dave Cortese, Ken Yeager, Liz Kniss
County Executive: Jeffrey V. Smith

7-007

Comments 1A and 1B

QUESTIONS / COMMENTS

▸ **Project** STATE ROUTE 152 HECKER PASS SAFETY IMPROVEMENT PROJECT **Date** 3/24/2010 **Location** GHS. LIBRARY

Name *(Please Print)* Thomas Muniz **Phone/Fax**

Company

Address 422 Willy CT. *city* Gilroy *state* CA *zip code* 95020

• **Was this meeting helpful to you ?** YES

• **How can this kind of meeting be improved ?**

• **Other comments:** Please consider incorporation of 2 items:
(1) ADD 'SHARE THE ROAD' BICYCLIST SIGNAGE IN BOTH DIRECTIONS
(2) PROVIDE APPROPRIATE MPH FOR ACCOMODATION OF BICYCLISTS FOR BOTH DIRECTIONS

For additional comments use reverse side.

Caltrans

Comment 1A

Add “Share the road” bicyclist signage in both directions

Response 1A

The Department’s District 4 Bicycle Coordinator reviewed the project, and advises that “Share the Road” signage be installed as part of the project in advance of locations where road users are required to use the same space. Such locations include areas where the shoulder narrows, after a curve, or at critical locations where sight distance is an issue, and uphill locations where lower bicycle speeds are an issue. The Department will install signs where feasible within the spot locations being improved by the project.

Comment 1B

Provide appropriate MPH for accommodation [sic] of bicyclists for both directions.

Response 1B

The California Vehicle Code states that speed limits on state highways lower than 65 miles per hour be established in accordance with the engineering and traffic surveys conducted for the highway in question. The speed limits posted as a result of these surveys must facilitate the

orderly movement of traffic, be reasonable, and safe. The posted speed limits along route 152 conform with the speed limits determined by these surveys, and will remain the same.

Comments 2A and 2B

QUESTIONS / COMMENTS

• Project Hecker Pass Safety Improvement Project Date 3/24/10 Location Gilroy

Name (Please Print) CHARLES CRAIG Phone/Fax (408) 842-5969

Company —

Address 4605 MERITAGE CT city Gilroy state CA zip code 95020

• Was this meeting helpful to you? Yes

• How can this kind of meeting be improved? 1. Lower THE speed limit ON Hecker Pass FROM 55 to 45 mph. the WHOLE length OF THE ROAD.

• Other comments: INSTALL A LEFT TURN LANE FROM WEST BOUND Hecker PASS TO SAGUARO CT.

For additional comments use reverse side.

Caltrans

Comment 2A

Lower the speed limit on Hecker Pass from 55 to 45 mph the whole length of the road.

Response 2A

Please refer to response 1B.

Comment 2B

Install a left turn lane from westbound Hecker Pass to Saguaro Ct.

Response 2B

Mapping indicates that Saguaro Court is connected to Meritage Court, a private road that intersects Route 152 just west of Watsonville Road. The Department is unable to initiate projects that involve an intersection with a private road. However, the owner of a private road may initiate and develop a project (that will require a Caltrans encroachment permit) to construct improvements at this intersection. Such a proposal must satisfy all of the state's design and construction standards.

Comments 3A through 3D

QUESTIONS / COMMENTS

▸ **Project** St Route 152 Safety Imp **Date** 5-24-10 **Location**

Name *(Please Print)* Cheryl Behlmer **Phone/Fax** 408-842-9335

Company

Address 4390 Hecker Pass *city* *state* *zip code*

• **Was this meeting helpful to you ?** yes

• **How can this kind of meeting be improved ?**

• **Other comments:** see attached letter

For additional comments use reverse side.

Caltrans

Alternative -

Jared Goldfine
Department of Transportation, Environmental Planning MS 8B
PO Box 23660
Oakland CA 94623-0660

Re: Left turn lane at Watsonville road and Hecker Pass Rd. State Route 152

We live at 4390 Hecker Pass Road which is the residence immediately across the street from the Watsonville Road/Hecker Pass Road intersection.

We are not totally opposed to something that improves safety at the intersection stated above. However we do question the proposed solution. Here are some points that we would like to be considered:

1) Most of the accidents that I am aware of since we have lived at this residence (12 years) seem to have involved cars turning onto Hecker Pass Rd. from Watsonville Road. Not vice a versa. Any accident that was the result of someone waiting to turn onto Watsonville Road would be a "Rear end" accident. There have very few, if any "rear end" accidents on Hecker Pass at this intersection due to cars waiting to turn left, that I am aware of. Therefore, I am not convinced that adding a left turn lane improves safety.

2) Adding a left turn lane will increase the speed of traffic in this area. If cars no longer have to slow down and exercise caution due to someone making a turn, they will likely be going much faster in this area. Drivers already exceed the speed limit on the section of straight road between Hecker Pass Winery and Gilroy Gardens. We estimate that some drivers reach speeds of 70 miles per hour. Because of this, a left turn lane is going to make it much more dangerous for us to exit our driveway.
Alternative -
1) Has anyone considered lowering the speed limit to 45 along all of Hecker Pass Rd between Santa Teresa and the ascent up to Mount Madonna. In addition, add a **flashing caution light** at the intersection of Watsonville Road and Hecker Pass to warn drivers to slow down at this intersection. It would also warn drivers coming down Watsonville Road that they are approaching a stop sign and 3 way intersection. This would be an inexpensive alternative to widening the road and putting in a turn lane. If it proves to be unsuccessful after monitoring the results, then resort to the more costly approaches.

If for some reason, the above alternative does not make sense to the planners, here are a few additional points regarding the proposed left turn lane solution.

a) Watsonville Road is located on the north side of Hecker Pass Rd. Trees located on the south side of Hecker Pass road have no affect on visibility for anyone making turns at this intersection. Therefore, removing any trees on the south side of Hecker Pass road seems unnecessary. Since any obstructions to visibility logically have to exist on the north side of the road, that is where the focus of improvements should remain. There is absolutely nothing to be gained by removing trees and widening the road on the south side when the road in question (Watsonville Road) exists on the north side of Hecker Pass.

A response addressing these issues would be appreciated.

Sincerely

Eric D. Behlmer and Cheryl R. Behlmer
4390 Hecker Pass Road
Gilroy CA 95020

Comment 3A

Most of the accidents that I am aware of since we have lived at this residence (12 years) seem to have involved cars turning onto Hecker Pass Rd. from Watsonville Road. Not vise a versa. Any accident that was the result of someone waiting to turn onto Watsonville Road would be a "Rear end" accident. There have very few, if any "rear end" accidents on Hecker Pass at this intersection due to cars waiting to turn left, that I am aware of. Therefore I am not convinced that adding a left turn lane improves safety.

Response 3A

Construction of the left-turn lane at the Route 152/Watsonville Road intersection will help to prevent both accidents involving left-turning vehicles from eastbound Route 152 to northbound Watsonville Road as well as accidents involving left-turning vehicles from southbound Watsonville Road to eastbound Route 152. Not only could vehicles turning left from eastbound Route 152 be involved in are rear-end accidents, they could also be involved in: sideswipe accidents with eastbound Route 152 vehicles trying passing them on the shoulder, in broadside or head-on accidents with on-coming westbound Route 152 vehicles, and in broadside or head-on accidents with left-turning vehicles from southbound Watsonville Road. As the new left-turn lane and refuge area will provide vehicles a place to comfortably wait, these improvements should reduce the number accidents at this intersection.

Comment 3B

Adding a left turn lane will increase the speed of traffic in this area. If cars no longer have to slow down and exercise caution due to someone making turn, they will likely be going much faster in this area. Drivers already exceed the speed limit on the section of straight road between Hecker Pass Winery and Gilroy Gardens. We estimate that some drivers reach speeds of 70 miles per hour. Because of this, a left turn lane is going to make it much more dangerous for us to exit our driveway.

Response 3B

Construction of the left turn lane at the route 152/Watsonville Road intersection is intended to upgrade the current facility, so that it would be better able to assist out-of-control motorists from crossing the centerline of the highway, thus creating a safer facility. The speed of traffic along Route 152 will not be affected by this improvement, as the posted speed limits will remain as they are currently (please see response 1B for information). The California Highway Patrol (CHP) enforces speed limits along all State freeways and highways. Complaints regarding speeding in this area should be forwarded to the CHP office located at 740 Renz Lane, Gilroy, CA 95020-9584, or by phone at 408-848-2324.

Comment 3C

Alternative – 1) Has anyone considered lowering the speed limit to 45 along all of Hecker Pass Rd. between Santa Tersa and the ascent up to Mount Madonna. [sic] In addition, add a flashing caution light at the intersection of Watsonville Roade and Hecker Pass to warn drivers to slow down at this intersection. It would also warn drivers coming down Watsonville Road that they are approaching a stop sign and 3 way intersection. This would be an inexpensive alternative to

widening the road and putting in a turn lane. If it proves to be unsuccessful after monitoring the results, then resort to the more costly approaches.

Response 3C

Please see response 1B for the Departments response to speed limit concerns. As part of the project to be constructed at the intersection of Route 152 and Watsonville Road, all of the traffic control devices (such as striping, signage, etc.) required in accordance with our standards will be included. The Department appreciates your suggested alternative, but has determined that construction of the left hand turn lane will better meet the purpose of the project, to reduce cross centerline accidents and run off the road accidents along the highway corridor.

Comment 3D

If for some reason, the above alternative does not make sense to the planners, here are few additional points regarding the proposed left turn lane solution. A) Watsonville Road is located on the north side of Hecker Pass Rd. Trees located on the south side of Hecker Pass Road had no affect on visibility for anyone making turns at this intersection. Therefore, removing any trees on the south side of Hecker Pass road seems unnecessary. Since any obstructions to visibility logically have to exist on the north side of the road, that is where the focus of the improvements should remain. There is absolutely nothing to be gained by removing trees and widening the road on the south side when the road in question (Watsonville Road) exists on the north side of Hecker Pass.

Response 3D

Widening of the highway is proposed to take place on both the north and south side of the highway. The majority of the widening is planned to occur on the south side, to avoid impacting a possible hazardous waste area (an old gas station) and an underground utility.

Throughout the proposed project, the Department is making every effort possible to avoid affecting trees. Unfortunately, the trees you refer to are within the clear recovery zone, an area clear of fixed objects adjacent to the roadway to provide a recovery zone for vehicles that have left the traveled way. Along conventional highways, such as this portion of Route 152, a minimum clear recovery zone of 20 feet to the nearest traveled lane is required. To comply with this highway standard, trees on both the north and south side of the highway will be removed.

Comment 4

QUESTIONS / COMMENTS

• **Project** State 152 Hecker Pass Safety **Date** 03/24/10 **Location** Gilroy Ca.

Name (Please Print) Victoria V. Muñoz **Phone/Fax** (408) 840 6068

Company MS. Engineering in Construction Science

Address 1220 San Miguel **city** Gilroy **state** Ca **zip code** 95020

• **Was this meeting helpful to you?** More knowledging for me

• **How can this kind of meeting be improved?** More advertising for the people.

• **Other comments:** Thank you for the information to caltrans and staff and your presentation is perfect and excellent.

For additional comments use reverse side.

Caltrans

Comment 4A

How can this kind of meeting be improved? More advertising for the people.

Response 4A

The Department does its best to inform the public of the availability of the Draft EIR and of a public meeting, if one is being held, to the public, and is continuously working on improving this process. An announcement of both the availability of the Draft EIR and the open house were published in the Gilroy Dispatch and the Santa Cruz Sentinel on March 10, and March 17 of 2010.

Comment 5

QUESTIONS / COMMENTS

(Hecker Pass safety)

▸ **Project** Hwy 152 improvement **Date** 03/24/10 **Location** Gilroy

Name *(Please Print)* Charlotte Medina **Phone/Fax** (408) 903 7671

Company Gilroy High school student - senior

Address PO BOX 1012 *city* Gilroy *state* CA *zip code* 95021

• **Was this meeting helpful to you ?** Yes. I got well informed about what was the project about.

• **How can this kind of meeting be improved ?** Everything was okay. It was a nice visual presentation and the members were helpful :)

• **Other comments:**

For additional comments use reverse side.

Caltrans

Comment 5

Everything was okay. It was a nice visual presentation and the members were helpful ☺.

Response 5

The Department appreciates your attendance to the public meeting, and your participation in the environmental process.

Comment 6

"Andy Berna-Hicks"
<ABernahi@dtsc.ca.gov>
05/03/2010 02:19 PM

To <jared_goldfine@dot.ca.gov>
cc
Subject Hecker Pass Safety Improvement Project

Dear Mr. Goldfine,
Please accept the following comments regarding the Hecker Pass Safety Improvement Project.

Handling and placement of lead contaminated soils to be excavated and redeposited on-site must comply with the requirements of the Variance addressing management of lead impacted soils at CalTrans construction sites issued by Cal EPA, DTSC to CalTrans effective July 1, 2009. This document is available at the following website:
http://www.dot.ca.gov/hq/env/haz/pdfs/adl/h295.pdf

Note that the Variance does not apply to unpaved areas. Soils excavated and redeposited in unpaved areas must meet all current regulations regarding hazardous waste impacted soils.

Sorry for missing the deadline.

Sincerely,

Andrew Berna-Hicks
Project Manager
Brownfields and Environmental Restoration Program
Department of Toxic Substances Control
Berkeley Office
510-540-3956
abernahi@dtsc.ca.gov

Comment 6
Handling and placement of lead contaminated soils to be excavated and redeposited on-site must comply with the requirements of the Variance addressing management of lead impacted soils at CalTrans construction sites issued by Cal EPA, DTSC to CalTrans effective July 1, 2009. This document is available at the following website:
http://www.dot.ca.gov/hq/env/haz/pdfs/adl/h295.pdf

Note that the Variance does not apply to unpaved areas. Soils excavated and redeposited in unpaved areas must meet all current regulations regarding hazardous waste impacted soils.

Response 6

The Department will comply with all State and Federal laws and ordinances. If contaminated soil or groundwater is encountered during excavations, all activities involving the contaminated soil or groundwater will comply with regulatory agency requirements.

Comments 7A-7D

From: "john & patty cannon" [twoloosecannons@gmail.com]
Sent: 05/04/2010 10:10 PM MST
To: Jared Goldfine
Subject: Hecker Pass Safety Improvement Project Draft EIR

Hi Jared,

I am a resident at 1004 Hecker Pass Road, in Santa Cruz County, and have just finished reading the Draft EIR. For the record, I'm a Civil Engineer familiar with EIRs and roadway construction. The project EIR reads well and I enthusiastically support the project. Although I realize it is past the deadline for comment submission, I had three questions that perhaps you can help me understand better.

I did not see (or perhaps overlooked) the estimated construction duration for the project. The report suggests a 2010-2011 timeframe, but this looks like a two-year project to me. Can you give me a sense of the start date and construction duration? Also, do you have a sense of the construction hours that will affect commute traffic? I drive this road every day and it will obviously impact my commute in to San Jose.

Also, vehicle speed is a considerable contributor to the cross center divider accidents that occur along this section of the road. I know because I drive it every day, and although I've never witnessed an accident, I see the fresh skidmarks every Monday morning on my way in to work. Since the project contemplates straightening out a few S-curves and improving superelevation, can you share the Department's plans for the additional warning signage that may help slow motorists (not familiar with the road) so they do not swerve across the center divide?

And, how much of the new paving will be removed/replaced between the widening/retaining wall construction areas? The new pavement is a huge improvement over what existed two years ago, however considering the contemplated scope of the project, I would hope most the entire stretch would be repaved for smoothness and longevity. I realize it's not very green to remove and replace fresh paving, but I would be a little concerned about creating a patchwork quilt of uneven pavement surfaces.

Thanks for the opportunity to comment and I look forward to your response.

John Cannon
(408)221-1362

Comment 6A

I am a resident at 1004 Hecker Pass Road, in Santa Cruz County, and have just finished reading the Draft EIR. For the record, I'm a Civil Engineer familiar with EIRs and roadway construction. The project EIR reads well and I enthusiastically support the project. Although I realize it is past the deadline for comment submission, I had three questions that perhaps you can help me understand better.

Response 6A

The Department appreciates your interest in the project, and notes your support of the project.

Comment 6B

I did not see (or perhaps overlooked) the estimated construction duration for the project. The report suggests a 2010-2011 timeframe, but this looks like a two-year project to me. Can you

give me a sense of the start date and construction duration? Also, do you have a sense of the construction hours that will affect commute traffic? I drive this road every day and it will obviously impact my commute in to San Jose.

Response 6B

Construction of the project is currently planned to commence in late 2012 or early 2013, and will last approximately two years. A Transportation Management Plan will be put in place during the next phase of the project. As a general rule, the Department does its best to keep construction impacts to traffic at a minimum.

Comment 6C

Also, vehicle speed is a considerable contributor to the cross center divider accidents that occur along this section of the road. I know because I drive it every day, and although I've never witnessed an accident, I see the fresh skidmarks every Monday morning on my way in to work. Since the project contemplates straightening out a few S-curves and improving superelevation, can you share the Department's plans for the additional warning signage that may help slow motorists (not familiar with the road) so they do not swerve across the center divide?

Response 6C

The Department is not yet in the design phase of this project, and thus cannot denote exact locations where warning signs will be placed at this time. However, the installation of warning signs is a component of the improvements being constructed at each of the five spot locations. For more information regarding the limits of the spot improvements please see Figure 1.1-2, and section 1.3.1 of the document.

Comment 6D

And, how much of the new paving will be removed/replaced between the widening/retaining wall construction areas? The new pavement is a huge improvement over what existed two years ago, however considering the contemplated scope of the project, I would hope most the entire stretch would be repaved for smoothness and longevity. I realize it's not very green to remove and replace fresh paving, but I would be a little concerned about creating a patchwork quilt of uneven pavement surfaces.

Response 6D

Although the project limits extend to just over five miles in length, improvements, including repaving, are limited to the five spot locations referred to in response 6C. In the case that new pavement overlay was added in one of these spot locations, it will be scraped down to the structural segments of the roadway, and repaved as part of this project. This will be done to preserve the structural integrity of the road.

Comments 7A-7O

County of Santa Clara
Parks and Recreation Department

298 Garden Hill Drive
Los Gatos, California 95032-7669
(408) 355-2200 FAX 355-2290
Reservations (408) 355-2201
www.parkhere.org

May 11, 2010

Jared D. Goldfine, AICP
Environmental Branch Chief
California Department of Transportation, District 4
Environmental Planning
P.O. Box 23660
Oakland, CA 94623

SUBJECT: Draft Environmental Impact Report/Environmental Assessment for Hecker Pass Safety Improvement Project (February 2010)

Dear Mr. Goldfine,

The County of Santa Clara Parks and Recreation Department (County Parks) has received a copy of the Draft Environmental Impact Report/Environmental Assessment (DEIR/EA) for the proposed Hecker Pass Safety Improvement Project ("Project") (District 4-SCL-152, (PM 0.14/5.20) 2A2500) located along a portion of State Highway 152 (SR 152) that passes through Mount Madonna County Park in Gilroy.

County Parks has reviewed the Draft EIR/EA and submits the following comments for consideration. County Parks' comments are primarily focused on potential impacts related to land use policies, park natural resources, public access, recreation, and local and regional trails.

It is understood that project activities would occur at Location 4 (Postmile 2.5713.20) which is located along the southeastern border of Mount Madonna County Park within the vicinity of an existing staging area and parking lot, Sprig Recreation Area, and where adjoining trails provide recreational opportunities for the public.

Construction activities at Location 4 would involve construction of retaining walls necessitating the acquisition of approximate 0.55 acres of right-of-way at the southern boundary of the park abutting SR 152. Per Section 4(f) of the Department of Transportation Act of 1966, the acquisition of a public park or recreation area would be considered a "use" or impact of a section 4(f) resource. Because of the nature of this impact, which includes acquisition of a very small amount of parkland, Caltrans is proposing that this be considered a "de minimis" use of parkland and is seeking agreement from County Parks of a de minimis determination. The Director of County Parks determined that a "de minimis" determination may require consideration by the County of Santa Clara Board of Supervisors (Board). County Parks would welcome further

Board of Supervisors: Donald F. Gage, George Shirakawa, Dave Cortese, Ken Yeager, Liz Kniss
County Executive: Jeffrey V. Smith

discussions regarding the "de minimis" determination, and if necessary, staff would present a proposal for a "de minimis" determination to the Board at a regularly scheduled public meeting.

County Parks appreciates the collaborative and cooperative approach undertaken by Caltrans, and acknowledges that Caltrans staff has met with County Parks staff on several occasions including the three coordination meetings as mentioned on page 2-7 of the Draft EIR/EA. However, County Parks would like to clarify that while the "de minimis" determination was mentioned during these meetings, no substantial details were discussed regarding the findings of a "de minimis" determination. These coordination meetings focused on clarifications to the project description and engineering plan updates such as the location and heights of the proposed retaining walls.

Section 1.3.1.1, Build Alternative Location 4,
The Draft EIR/EA states *"Two T-intersections in this location on the northern side of the road provide access to the Sprig Lake parking lot and a horse trailhead and parking lot"*. The Draft EIR/EA should correctly list this area as the Sprig Recreation Area and provide additional information related to the existing park setting which includes a parking lot, equestrian staging area and access to park trails.

Santa Clara County Countywide Trails Master Plan Update
The Draft EIR/EA should acknowledge the land use policies and guidelines of the *Santa Clara County Countywide Trails Master Plan Update ("Countywide Trails Master Plan")*, which the County Board of Supervisors approved and adopted in November 1995 as part of the Parks and Recreation Element of the County of Santa Clara General Plan (1995-2010). Currently this adopted land use plan was not included in *section 2.1.1.2 Consistency with State Regional and Local Plans and Programs* of the DEIR.

County Parks, in partnership with other public agencies, is charged with furthering the implementation of the *Countywide Trails Master Plan*. The following Countywide Trails Master Plan routes are identified as future planned routes which are adjacent to or within the vicinity of the project area.

- ***Hecker Pass Connector Trails*** (Route C30) – designated as an on-street bicycle route within road right-of-way (ROW) for on-road cycling. This route is located along SR 152.
- ***Bay Area Ridge Trail: Santa Cruz Mountains*** (Route R5-A) – designated as a trail route within other public lands for hiking, cycling and equestrian use.
- ***Bay Area Ridge Trail: Mt Madonna-Coyote Lake*** (Route R5-E) - designated as a trail route within other public lands for hiking, cycling and equestrian use.

As clarification, the countywide trail route noted in April 28, 2009 County Parks' response letter on the Notice of Preparation (NOP) of the Draft EIR/EA incorrectly identified the trail route within the ROW as *Route R5-A, Bay Area Ridge Trail*, but the correct name for the trail route within the ROW is *Hecker Pass Connector Trails, Route C30*. County Parks agrees with the assessment on page 2-9 and 4-2 of the Draft EIR/EA that the project will have a future benefit to cyclists as a result of the proposed shoulder widening.

SANTA CLARA COUNTY PARKS

Board of Supervisors: Donald F. Gage, George Shirakawa, Dave Cortese, Ken Yeager, Liz Kniss
County Executive: Jeffrey V. Smith

The Bay Area Ridge Trail (Route R5) is a regionally significant trail route. Segments of this trail route, Route R5-A and Route R5-E, are located within Mount Madonna County Park and cross SR 152 in or adjacent to project area Location 4. Route R5-A is located north of Hwy 152 and is partially completed, leading to the Merry Go Round trail within the park and linking to other park trails. The segments of Route R5-A linking to Route R5-E and Route R5-E proposed south of SR 152 have not been developed.

In partnership with the Bay Area Ridge Trail Council, County Parks would plan and develop these future segments of the Bay Area Ridge Trail described above. Therefore, County Parks recommends an at-grade trail crossing and gathering location for trail users on both sides of SR 152 near and/or adjacent to Location 4 west of the entrance to Sprig Recreation Area per Caltrans specifications and all applicable State, Federal, and local standards. The at-grade trail crossing would require a safe crossing, gathering location on both sides of SR 152 and measures that meet State, Federal and local standards for safe crossing of the highway. County Parks staff will continue to work with Caltrans to identify an appropriate site for the gathering areas and identify a viable alignment for the trail connection within the park. Prior to Caltrans' completion of a Final EIR/EA, County Parks requests that Caltrans share draft language specifying a trail crossing/trail user gathering area for the Mitigation Monitoring and Reporting Plan with County Parks staff for review and comment.

Section 2.1.1.3 Parks and Recreational Facilities
The Draft EIR/EA states, "the park is under the jurisdiction of the Santa Clara County Parks and Recreation Department which administers the county's parks and recreation programs and operates and maintains 27 parks throughout the County." Please revise the statement with 28 parks that are managed by the County of Santa Clara Parks and Recreation Department.

Section 2.2 Physical Environment
There are existing landslide areas adjacent to the SR 152 and within the project area which were identified during coordination meetings and site visits with Caltrans. The Draft EIR/EA should include a discussion regarding these existing landslide areas and any underlying drainage issues and identify measures which could improve drainage and reduce soil instability.

Section 2.2.1.4 Avoidance, Minimization, and or Mitigation Measures
County Parks suggests that native plant species mixes be used with any seeding that may be used to cover disturbed soils. In order to achieve erosion control needs, native plant species mixes can be mixed with sterile seed mixes until native plants establish. County Parks requests that native plant seeds originate from the watershed and be species found within the project area.

A concern of County Parks is the importation of Sudden Oak Death (SOD) and other diseases and fungi. SOD is prevalent throughout the Santa Cruz Mountains; however, it has not appeared in Mount Madonna County Park. As part of our resource management goals, County Parks continues to focus on the prevention and the spread of SOD into the park. Therefore, County Parks requires that cleaning/decontamination of all equipment and vehicles be part of the protocols/specifications specified in the project's Best Management Practices.

Section 2.3 Biological Environment
The Draft EIR/EA (section 2.3.1.2) identifies vegetation communities including Oak and Redwood forest which would be temporarily or permanently impacted. The Draft EIR/EA

SANTA CLARA COUNTY PARKS

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should include a more comprehensive discussion of the vegetation communities, including the forest understory, which will be impacted by the project.

The avoidance and minimization efforts as described in section 2.3.1.3 are not adequate mitigations for the potential impacts to the vegetation communities. The Draft EIR/EA should clarify that native plant species will be planted and re-established in areas disturbed as a result of the project, including in the forest understory. County Parks would require that all plantings be of native species originating from the local watershed to maintain the genetic integrity of the natural communities within the park and project area.

Trees

Due to the uncertainty of the number, size and species of trees and their locations, County Parks is unable to comment on the project's potential impacts to trees. County Parks requests that the number, size and species of trees proposed for removal and those potentially significantly impacted by project activities be identified on a location map and included in the Draft EIR/EA. The Draft EIR/EA should also clarify if trees listed in Table 2.3-1 are only those which will be removed or includes those which may be significantly impacted such that they are not likely to survive after project completion.

County Parks requires that replacement trees be from the local watershed in order to maintain genetic integrity within the park. County Parks typically requires replacement mitigation ratios of 3:1 for native trees larger than 8" dbh or at a ratio acceptable to the California Department of Fish and Game. If non-native species are proposed for removal, County Parks recommends that they are mitigated at a 1:1 replacement ratio with a native species.

County Parks requests that mitigation sites be located within Mount Madonna County Park in a mutually agreed upon location within the park, and if not possible within the County Park, the mitigation site be negotiated at a location within the same watershed. The Draft EIR/EA does not include a mitigation monitoring and reporting plan, therefore, it is unclear as to what the success criteria are for mitigation and monitoring of the site. County Parks would not perform mitigation and mitigation monitoring; Caltrans would be fully responsible for these activities. The Mitigation Monitoring and Reporting Plan should include success criteria to meet Caltrans' success criteria goals and specify monitoring protocols.

The County of Santa Clara requires that the project comply with the County of Santa Clara Tree Preservation and Removal Ordinance (Ord. No. NS-1203-107, Division C16). The County of Santa Clara Tree Preservation and Removal Policy states that a protected tree consists of: 1) any tree present on property owned or leased by the county that is twelve (12) inches or more in diameter measured at four and one-half feet above the ground, or which exceeds twenty (20) feet in height; 2) any multi-trunk trees totaling 24 inches or more in diameter measured at four and one-half feet above the ground; and 3) any tree designated as heritage by the County Board of Supervisors.

Section 2.3.5 Invasive species

A concern of County Parks is the importation of invasive species, such as broom. Invasive plant species, including species of broom such as French and scotch broom, occur within, adjacent to and in the vicinity of the project sites. Broom has a long-lived seed source and because of the soil disturbance associated with the project, has the potential to regenerate and spread in the park.

SANTA CLARA COUNTY PARKS

Board of Supervisors: Donald F. Gage, George Shirakawa, Dave Cortese, Ken Yeager, Liz Kniss
County Executive: Jeffrey V. Smith

The Draft EIR/EA should identify broom as an invasive plant species occurring in the project area. The mitigations measures identified in section 2.3.5.4 are precautionary and, as such, do not address the removal of invasive plants from the project area or ensure that they do not spread to other areas outside of the project area. The Draft EIR/EA should discuss invasive plant species control and provide guidelines/protocols for their removal and ensure that they do not spread as a result of project activities.

County Parks appreciates the opportunity to comment on the Draft EIR/EA for the proposed Hecker Pass Safety Improvement Project. We look forward to receiving subsequent documents including the Draft Mitigation Monitoring and Reporting Plan and draft Final EIR/EA prior to the public release of the Final EIR/EA, and participating in future discussions as the project proceeds. If you have any questions regarding these comments, please feel free to contact me at (408) 355-2235 or by email at Antoinette.Romeo@prk.sccgov.org.

Sincerely,

Antoinette Romeo

Antoinette Romeo
Park Planner III

CC: Julie Mark, Acting Director
Jane Mark, Senior Planner
Tim Heffington, Senior Real Estate Agent
Don Rocha, Natural Resource Management Program Manager
Ian Champeny, Associate Real Estate Agent
Rob Eastwood, Senior Planner, County of Santa Clara, Department of Planning and Development Planning
Bern Smith, South Bay Director, Bay Area Ridge Trail Council

SANTA CLARA COUNTY PARKS

Board of Supervisors: Donald F. Gage, George Shirakawa, Dave Cortese, Ken Yeager, Liz Kniss
County Executive: Jeffrey V. Smith

Comment 7A

Section 1.3.1.1, Build Alternative Location 4,

The Draft EIR/EA states "*Two T-intersections in this location on the northern side of the road provide access to the Sprig Lake parking lot and a horse trailhead and parking lot*". The Draft EIR/EA should correctly list this area as the Sprig Recreation Area and provide additional information related to the existing park setting which includes a parking lot, equestrian staging area and access to park trails.

Response 7A

The text in the section has been revised in response to your comments.

Comment 7B

Santa Clara County Countywide Trails Master Plan Update

The Draft EIR/EA should acknowledge the land use policies and guidelines of the Santa Clara County Countywide Trails Master Plan Update ("Countywide Trails Master Plan"), which the County Board of Supervisors approved and adopted in November 1995 as part of the Parks and Recreation Element of the County of Santa Clara General Plan (1995-2010). Currently this adopted land use plan was not included in section 2.1.1.2 Consistency with State and Regional and Local Plans and Programs of the DEIR.

Response 7B

The text in the section has been revised in response to your comments.

Comment 7C

As clarification, the countywide trail route noted in April 28, 2009 County Parks response letter on the Notice of Preparation (NOP) of the Draft EIR/EA incorrectly identified the trail route within the ROW as Route R5-A, Bay Area Ridge Trail, but the correct name for the trail route within the ROW is Hecker Pass Connector Trails, Route C30. County Parks agrees with the Assessment on page 2-9 and 4-2 of the Draft EIR/EA that the project will have a future benefit to cyclists as a result of the proposed shoulder widening.

Response 7C

The text in the section has been revised in response to your comments.

Comment 7D

In partnership with the Bay Area Ridge Trail Council, County Parks would plan and develop these future segments of the Bay Area Ridge Trail as described above. Therefore, County Parks recommends an at-grade trail crossing and gathering location for trail users on both sides of SR 152 near and/or adjacent to Location 4 west of the entrance to Sprig Recreation Area per Caltrans specifications and all applicable State, Federal, and local standards. The at-grade trail crossing would require a safe crossing, gathering location on both sides of SR 152 and measures that meet State, Federal and local standards for safe crossing of the highway. County Parks staff will continue to work with Caltrans to identify an appropriate site for gathering areas and

identify a viable alignment for the trail connection within the park. Prior to Caltrans' completion of a Final EIR/EA, County Parks requests that Caltrans share draft language specifying a trail crossing/trail user gathering area for the Mitigation Monitoring and Reporting Plan with County Parks staff for review and comment.

Response 7D

Creation of a trail user gathering location of the type referred to requires an Encroachment Permit from the Department. As the trail alignment is still in the planning phases by the County Parks, the Department cannot include specific language regarding a site at this time. The Department's Environmental and Engineering staff are committed to providing comprehensive technical assistance to County Parks during the (1) planning, (2) design, and (3) permit application process. It is expected that the active participation of the Department can facilitate the selection of a suitable gathering location. In addition, the Department can remain involved during the design phase to review plans as they are being developed, and facilitate obtaining the encroachment permit.

Comment 7E

Section 2.1.1.3 Parks and Recreational Facilities

The Draft EIR/EA states, "the park is under the jurisdiction of the Santa Clara County Parks and Recreation Department which administers the county's parks and recreation programs and operates and maintains 27 parks throughout the County." Please revise the statement with 28 parks that are managed by the County of Santa Clara Parks and Recreation Department.

Response 7E

The error regarding the number of parks managed by the County of Santa Clara Parks and Recreation Department has been corrected.

Comment 7F

Section 2.2 Physical Environment

There are existing landslide areas adjacent to the SR 152 and within the project area which were identified during coordination meetings and site visits with Caltrans. The Draft EIR/EA should include a discussion regarding these existing landslide areas and any underlying drainage issues and identify measures which could improve drainage and reduce soil instability.

Response 7F

Section 2.2.2 has been updated to include information regarding improvements to be made within landslide areas.

Comment 7G

Section 2.2.1.4 Avoidance, Minimization, and or Mitigation Measures

County Parks suggests that native plant species mixes be used with any seeding that may be used to cover disturbed soils. In order to achieve erosion control needs, native plant species mixes can

be mixed with sterile seed mixes until native plants establish. County Parks requests that native plant seeds originate from the watershed and be species found within the project area.

Response 7G

The Department will prepare a non standard specification instructing that any hydroseeding done for the project will use native plant species mixes.

Comment 7H

A concern of County Parks is the importation of Sudden Oak Death (SOD) and other diseases and fungi. SOD is prevalent throughout the Santa Cruz Mountains; however, it has not appeared in Mount Madonna County Park. As part of our resource management goals, County Parks continues to focus on the prevention and the spread of SOF into the park. Therefore, County Parks requires that cleaning/decontamination of all equipment and vehicles by part of the protocols/specifications specified in the project's Best Management Practices.

Response 7H

The Department will develop non standard specifications to ensure that cleaning and decontamination of all equipment and vehicles entering the project area will occur to prevent the introduction of SOD and other invasive species.

Comment 7I

Section 2.3 Biological Environment

The Draft EIR (section 2.3.1.2) identifies vegetation communities including Oak and Redwood forest which would be temporarily or permanently impacted. The Draft EIR/EA should include a more comprehensive discussion of the vegetation communities, including the forest understory, which will be impacted by the project.

Response 7I

Section 2.3.1.1 of the document discusses the vegetation communities, including the forest understory, that are located within the affected environment of the project.

Comment 7J

The avoidance and minimization efforts as described in section 2.3.1.3 are not adequate mitigations for the potential impacts to the vegetation communities. The Draft EIR/EA should clarify that native plant species will be planted and re-established in areas disturbed as a result of the project, including in the forest understory. County Parks would require that all plantings be of native species originating from the local watershed to maintain the genetic integrity of the natural communities within the park and project area.

Response 7J

The Department will include the establishment of a native forest undertory in locations where mitigation replanting occurs. The Department will replant using seed stock originating from the native species in the local watershed.

Comment 7K

Due to the uncertainty of the number, size and species of trees and their locations, County Parks is unable to comment on the project's potential impacts to trees. County Parks requests that the number, size and species of trees proposed for removal and those potentially significantly impacted by project activities be identified on a location map and included in the Draft EIR/EA. The Draft EIR/EA should also clarify if trees listed in Table 2.3-1 are only those which will be removed or includes those which may be significantly impacted such that they are not likely to survive after project completion.

Response 7K

Table 2.3-3 lists the number of trees (with a dbh of six inches or greater) by species that are located within the project footprint, as well as the trees that may be removed by the project at each location. To clarify, the trees listed as potentially impacted include all trees that may require removal, both through direct and indirect construction impacts, for the project. It is the Department's policy to avoid unnecessary removal of trees.

Comment 7L

County Parks requires that replacement trees be from the local watershed in order to maintain genetic integrity within the park. County parks typically requires replacement mitigation ratios of 3:1 for native trees larger than 8" dbh or at a ratio acceptable to the California Department of Fish and Game. If non-native species are proposed for removal, County Parks recommends that they are mitigated at a 1:1 replacement ration with a native species.

County Parks requires that mitigation sites be located within Mount Madonna County Park in a mutually agreed upon location within the park, and if not possible within the County Park, the mitigation site be negotiated at a location within the same watershed. The Draft EIR/EA does not include a mitigation monitoring and reporting plan, therefore, it is unclear as to what the success criteria are for mitigation and monitoring of the sire. County Parks would not perform mitigation and monitoring; Caltrans would be fully responsible for these actives. The Mitigation Monitoring and Reporting Plan should include success criteria to meet Caltrans' success criteria goals and specify monitoring protocols.

Response 7L

Section 2.3.1.3 has been revised to read: Replacement trees will be planted at a 3:1 for all native trees, and trees located within the riparian zone under California Department of Fish and Game regulatory jurisdiction with a dbh of 6 inches or greater. All other trees will be replaced at a 1:1 ratio.

The Department will work with County Parks to replant trees from native seed stock within a mutually agreed upon location(s) within the park. While a complete Mitigation Monitoring and Reporting Plan is not prepared by the Department until the design phase of the project begins, the Department's Avoidance, Minimization and Mitigation commitments can be found in Table S-1, which has been revised for the Final EIR/EA.

The Mitigation Monitoring and Reporting Plan will include information regarding the plant establishment period, success criteria, and reporting requirements.

Comment 7M

The County of Santa Clara requires that the project comply with the County of Santa Clara Tree Preservation and Removal Ordinance (Ord. No. NS-1203-107, Division C16). The County of Santa Clara Tree Preservation and Removal Policy states that a protected tree consists of: 1) and tree present on property owned or leased by the county that is twelve (12) inches or more in diameter measured at four and one-half feet above the ground, or which exceeds twenty (20) feet in height; 2) any multi-trunk trees totaling 24 inches or more in diameter measured at four and one-half feet above the ground; and 3) any tree designated as heritage by the County Board of Supervisors.

Response 7M

Replacement trees will be planted at a 3:1 ratio for all native trees, and trees located within the riparian zone under California Department of Fish and Game jurisdiction with a dbh of 6 inches or greater. All other trees will be replaced at a 1:1 ratio.

Comment 7N

Section 2.3.5 Invasive Species

The Draft EIR/EA should identify broom as an invasive plant species occurring in the project area. The mitigations measures identified in section 2.3.5.4 are precautionary and, as such, do not address the removal of invasive plants from the project area or ensure that they do not spread to other areas outside of the project area. The Draft EIR/EA should discuss invasive plant species control and provide guidelines/protocols for their removal and ensure that they do not spread as a result of project activities.

Response 7N

The Department has updated section 2.3.5.2 to include broom as an invasive species found at location 4. The Department will remove invasive species from plant mitigation sites at the time of planting and throughout the plant establishment and monitoring periods.

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The following agencies, organizations, and individuals received printed or electronic copies of this document. Agencies, organizations, and individuals on the project mailing list, which included over 250 addresses, were notified of the availability of this document and public meetings as described in Chapter 4.

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Chapter 7 References

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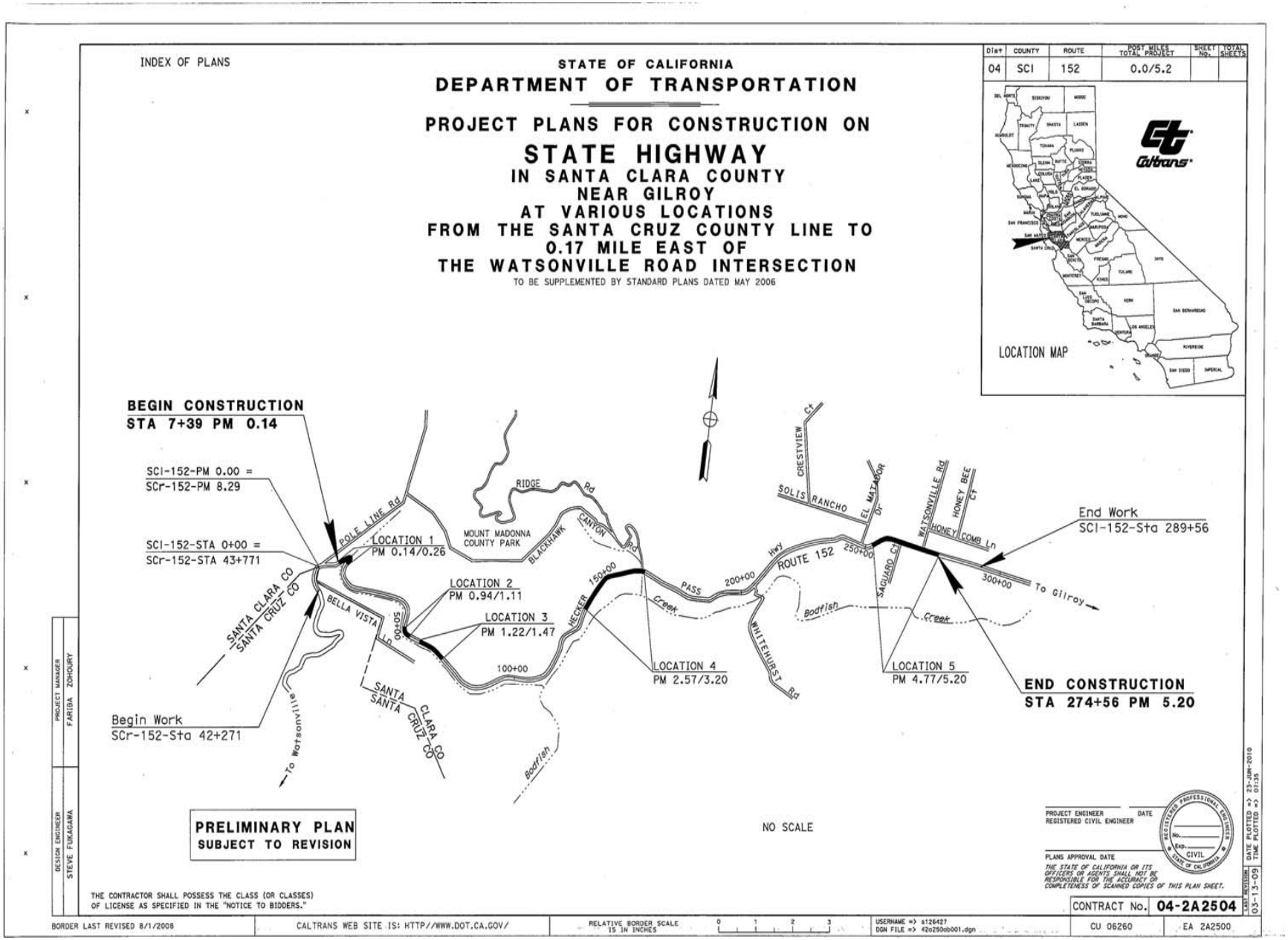
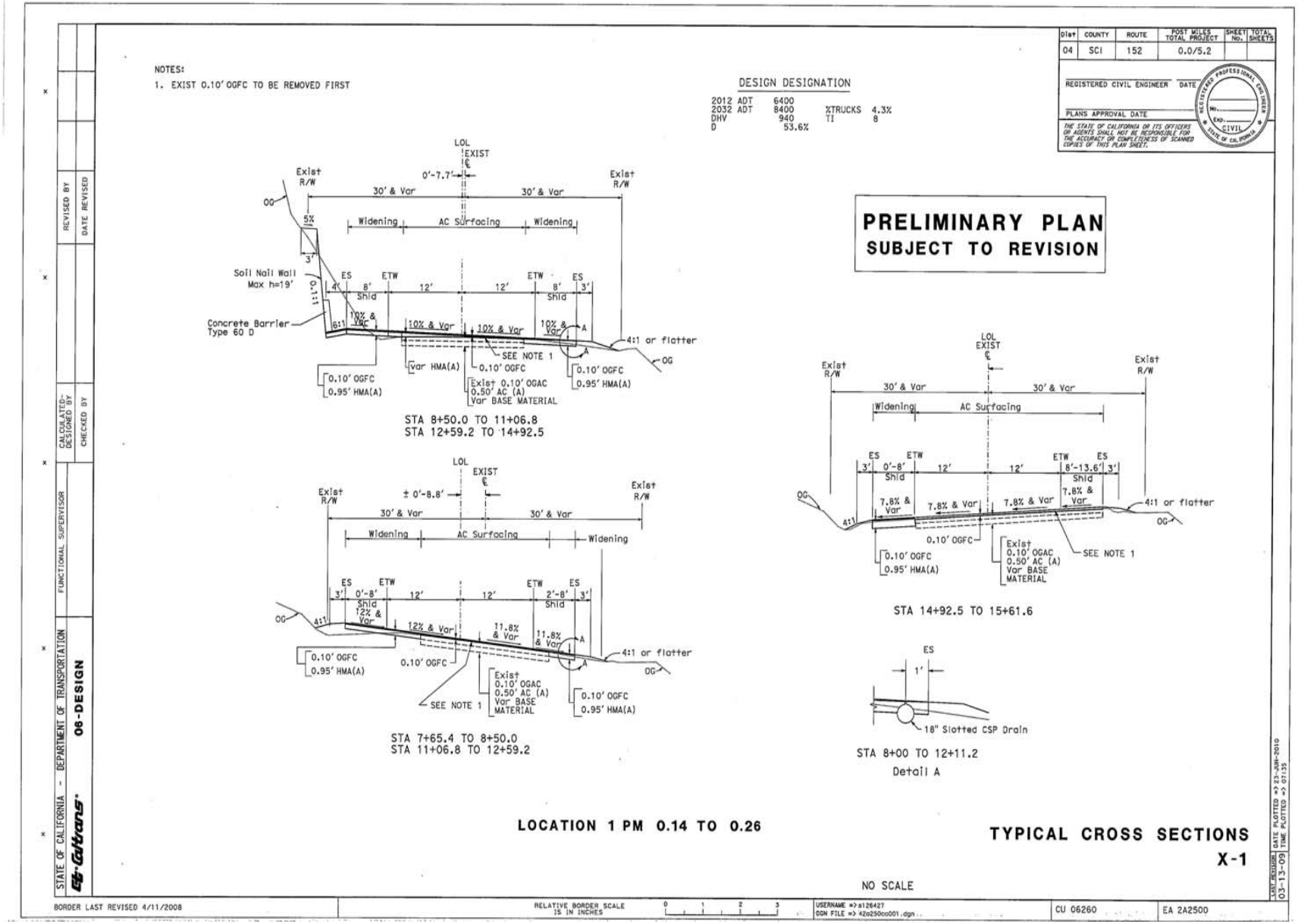
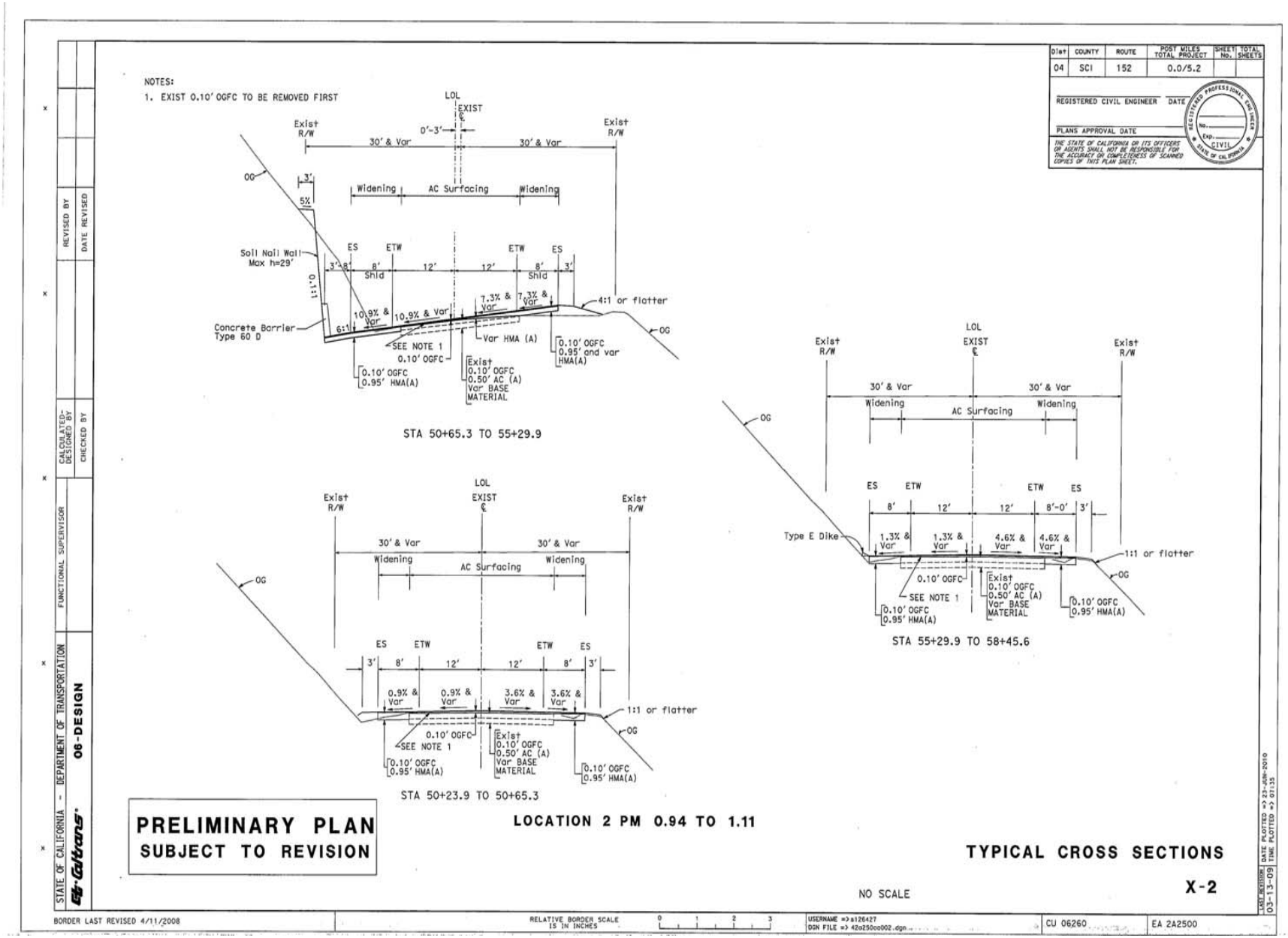
Appendix A Project Plans

Typical Cross Section sheets X-1 through X-6 illustrate the preliminary typical roadway cross section at each of the five project locations. Layout sheets L-1 through L-8 illustrate the preliminary project plans.


INDEX OF PLANS
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN SANTA CLARA COUNTY
NEAR GILROY
AT VARIOUS LOCATIONS
FROM THE SANTA CRUZ COUNTY LINE TO
0.17 MILE EAST OF
THE WATSONVILLE ROAD INTERSECTION
TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006
Dist 04
COUNTY SCI
ROUTE 152
POST MILES TOTAL PROJECT 0.0/5.2
SHEET NO.
TOTAL SHEETS
LOCATION MAP
BEGIN CONSTRUCTION
STA 7+39 PM 0.14
SCI-152-PM 0.00 =
SCr-152-PM 8.29
SCI-152-STA 0+00 =
SCr-152-STA 43+771
SANTA CLARA CO
SANTA CRUZ CO
Begin Work
SCr-152-Sta 42+271
To Watsonville
POLE LINE Rd
LOCATION 1
PM 0.14/0.26
MOUNT MADONNA
COUNTY PARK
RIDGE Rd
BLACKHAWK CANYON Rd
LOCATION 2
PM 0.94/1.11
LOCATION 3
PM 1.22/1.47
BELLA VISTA Ln
50+00
100+00
150+00
HECKER PASS
Creek
Bodfish
LOCATION 4
PM 2.57/3.20
200+00
Hwy
ROUTE 152
250+00
WHITEHURST Rd
SOLIS RANCHO
CRESTVIEW Ct
EL MATADOR Dr
SAGUARO Ct
WATSONVILLE Rd
HONEY BEE Ct
HONEY COMB Ln
300+00
To Gilroy
LOCATION 5
PM 4.77/5.20
End Work
SCI-152-Sta 289+56
END CONSTRUCTION
STA 274+56 PM 5.20
PRELIMINARY PLAN
SUBJECT TO REVISION
NO SCALE
PROJECT ENGINEER
REGISTERED CIVIL ENGINEER
DATE
PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.
CONTRACT No. 04-2A2504
THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."
PROJECT MANAGER FARIBA ZOHOURY
DESIGN ENGINEER STEVE FUKAGAWA
BORDER LAST REVISED 8/1/2008
CALTRANS WEB SITE IS: HTTP//WWW.DOT.CA.GOV/
RELATIVE BORDER SCALE IS IN INCHES
USERNAME => s126427
DGN FILE => 42a2502b001.dgn
CU 06260
EA 2A2500
LAST REVISION 03-13-09
DATE PLOTTED => 23-JUN-2010
TIME PLOTTED => 07:35


NOTES:
1. EXIST 0.10' OGFC TO BE REMOVED FIRST
DESIGN DESIGNATION
2012 ADT 6400
2032 ADT 8400 %TRUCKS 4.3%
DHV 940 TI 8
D 53.6%
PRELIMINARY PLAN
SUBJECT TO REVISION
STA 8+50.0 TO 11+06.8
STA 12+59.2 TO 14+92.5
STA 7+65.4 TO 8+50.0
STA 11+06.8 TO 12+59.2
STA 14+92.5 TO 15+61.6
STA 8+00 TO 12+11.2
Detail A
18" Slotted CSP Drain
Soil Nail Wall Max h=19'
Concrete Barrier Type 60 D
0.10' OGFC
0.95' HMA(A)
Var HMA(A)
Exist 0.10' OGAC 0.50' AC (A) Var BASE MATERIAL
SEE NOTE 1
4:1 or flatter
LOCATION 1 PM 0.14 TO 0.26
TYPICAL CROSS SECTIONS
X-1
NO SCALE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
06-DESIGN
BORDER LAST REVISED 4/11/2008
CU 06260
EA 2A2500


NOTES:
1. EXIST 0.10' OGFC TO BE REMOVED FIRST
LOL
EXIST ℄
Exist R/W
0'-3'
30' & Var
30' & Var
Widening
AC Surfacing
Widening
OG
3'
5%
Soil Nail Wall Max h=29'
0.1:1
ES
ETW
ETW
ES
3'
8'
8' Shld
12'
12'
8' Shld
3'
10.9% & Var
10.9% & Var
7.3% & Var
7.3% & Var
4:1 or flatter
Concrete Barrier Type 60 D
6:1
SEE NOTE 1
0.10' OGFC
Var HMA (A)
0.10' OGFC 0.95' and var HMA(A)
0.10' OGFC 0.95' HMA(A)
Exist 0.10' OGFC 0.50' AC (A) Var BASE MATERIAL
STA 50+65.3 TO 55+29.9
Type E Dike
8'
12'
12'
8'-0'
3'
1.3% & Var
1.3% & Var
4.6% & Var
4.6% & Var
1:1 or flatter
STA 55+29.9 TO 58+45.6
0.9% & Var
0.9% & Var
3.6% & Var
3.6% & Var
STA 50+23.9 TO 50+65.3
PRELIMINARY PLAN
SUBJECT TO REVISION
LOCATION 2 PM 0.94 TO 1.11
TYPICAL CROSS SECTIONS
X-2
NO SCALE
Dist COUNTY ROUTE POST MILES TOTAL PROJECT SHEET No. TOTAL SHEETS
04 SCI 152 0.0/5.2
REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
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CIVIL
STATE OF CALIFORNIA
REVISED BY
DATE REVISED
CALCULATED-DESIGNED BY
CHECKED BY
FUNCTIONAL SUPERVISOR
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
06-DESIGN
LAST REVISION 03-13-09
DATE PLOTTED => 23-JAN-2010
TIME PLOTTED => 07:35
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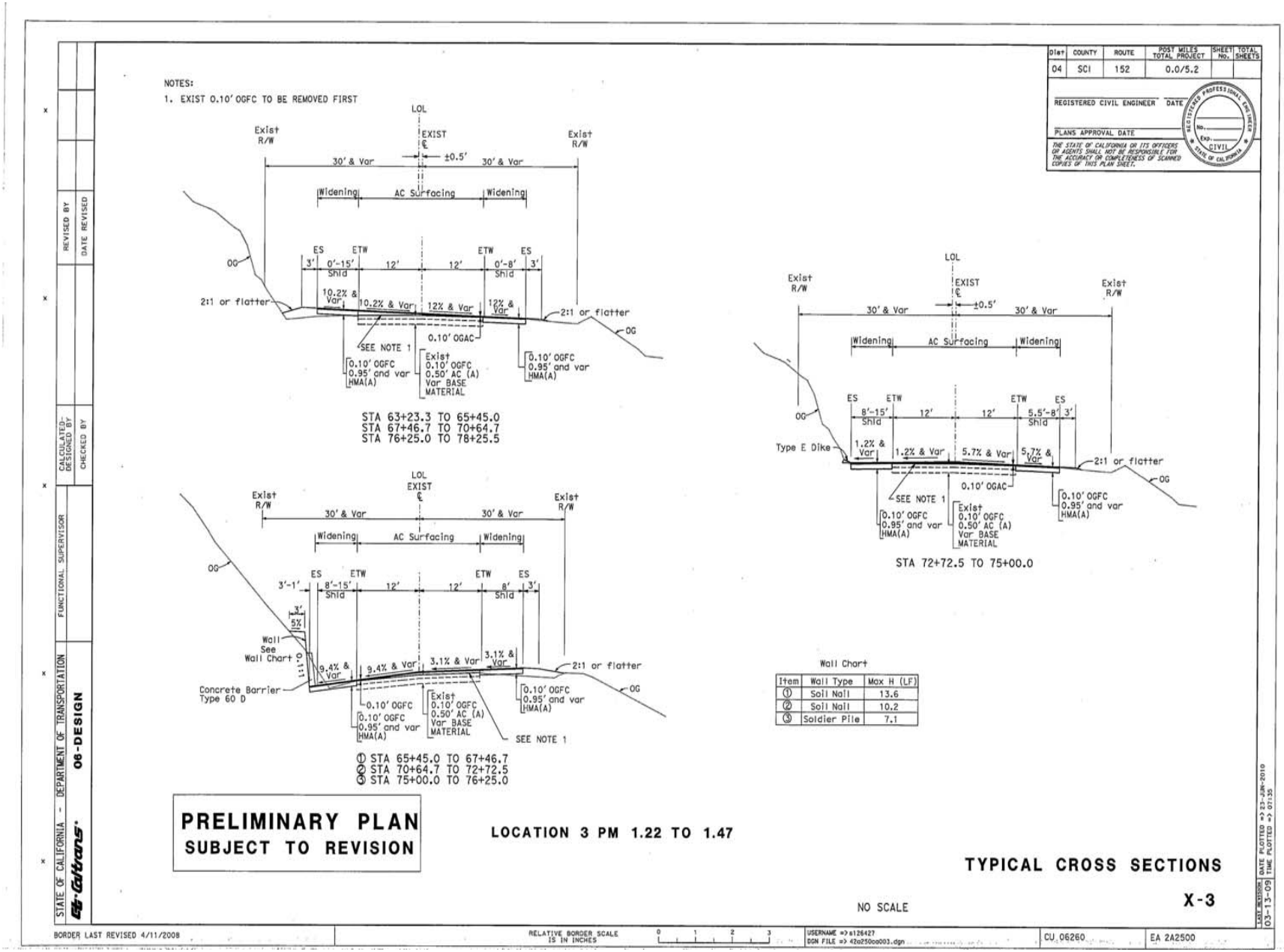
CU 06260
EA 2A2500


NOTES:
1. EXIST 0.10' OGFC TO BE REMOVED FIRST
LOL
EXIST ℄
Exist R/W
±0.5'
30' & Var
Widening
AC Surfacing
ES
ETW
3'
0'-15' Shld
12'
0'-8' Shld
10.2% & Var
12% & Var
2:1 or flatter
OG
0.10' OGAC
SEE NOTE 1
0.10' OGFC 0.95' and var HMA(A)
Exist 0.10' OGFC 0.50' AC (A) Var BASE MATERIAL
STA 63+23.3 TO 65+45.0
STA 67+46.7 TO 70+64.7
STA 76+25.0 TO 78+25.5
3'-1'
8'-15' Shld
8' Shld
Wall See Wall Chart
0.1:1
9.4% & Var
3.1% & Var
Concrete Barrier Type 60 D
① STA 65+45.0 TO 67+46.7
② STA 70+64.7 TO 72+72.5
③ STA 75+00.0 TO 76+25.0
8'-15' Shld
5.5'-8' Shld
1.2% & Var
5.7% & Var
Type E Dike
STA 72+72.5 TO 75+00.0
Wall Chart
Item | Wall Type | Max H (LF)
① | Soil Nail | 13.6
② | Soil Nail | 10.2
③ | Soldier Pile | 7.1
PRELIMINARY PLAN
SUBJECT TO REVISION
LOCATION 3 PM 1.22 TO 1.47
TYPICAL CROSS SECTIONS
X-3
NO SCALE
Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS
04 | SCI | 152 | 0.0/5.2
REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
CIVIL
STATE OF CALIFORNIA
REVISED BY
DATE REVISED
CALCULATED-DESIGNED BY
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FUNCTIONAL SUPERVISOR
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
06-DESIGN
BORDER LAST REVISED 4/11/2008
RELATIVE BORDER SCALE IS IN INCHES
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CU 06260
EA 2A2500
LAST REVISION 03-13-09
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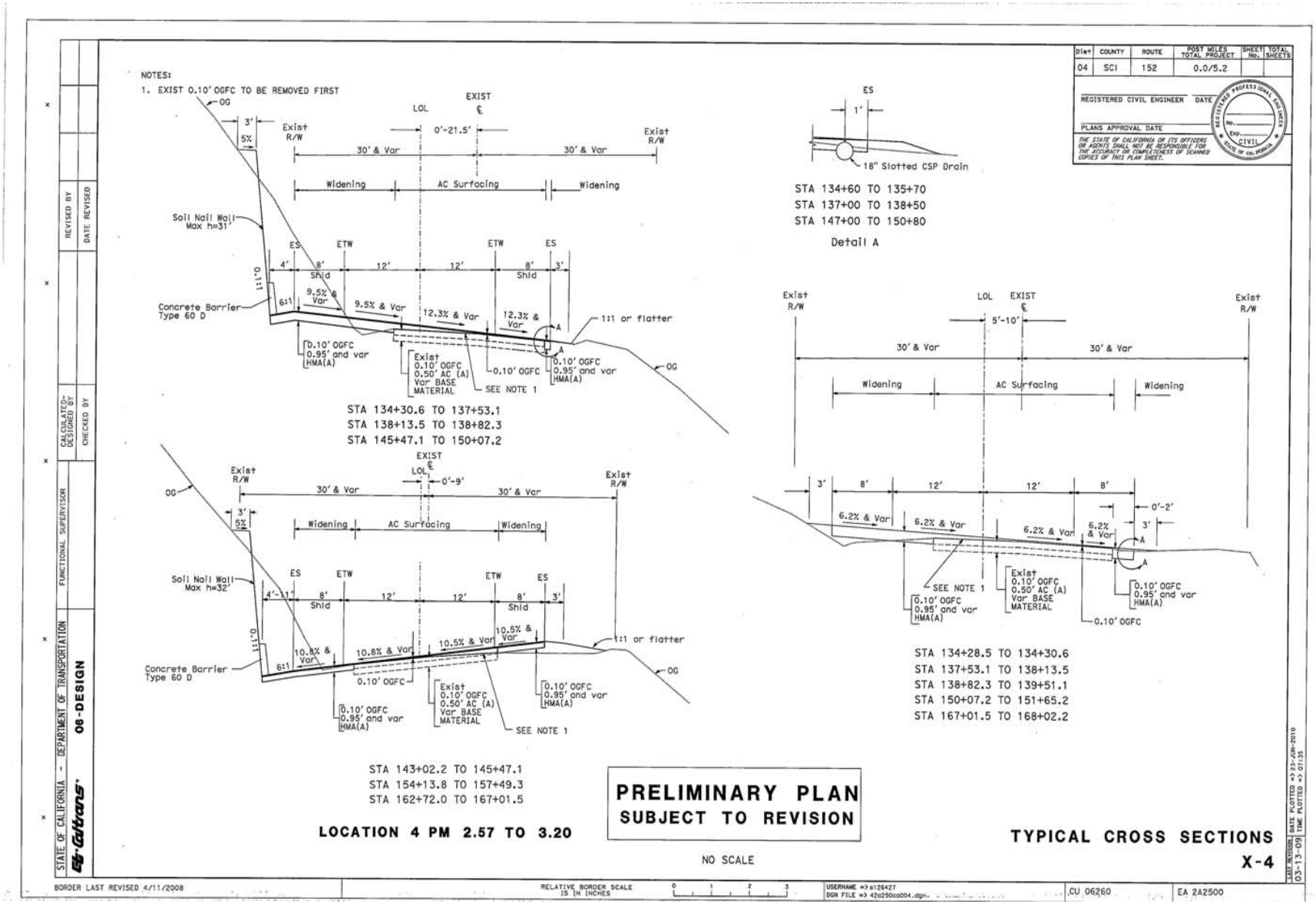
TIME PLOTTED => 07:35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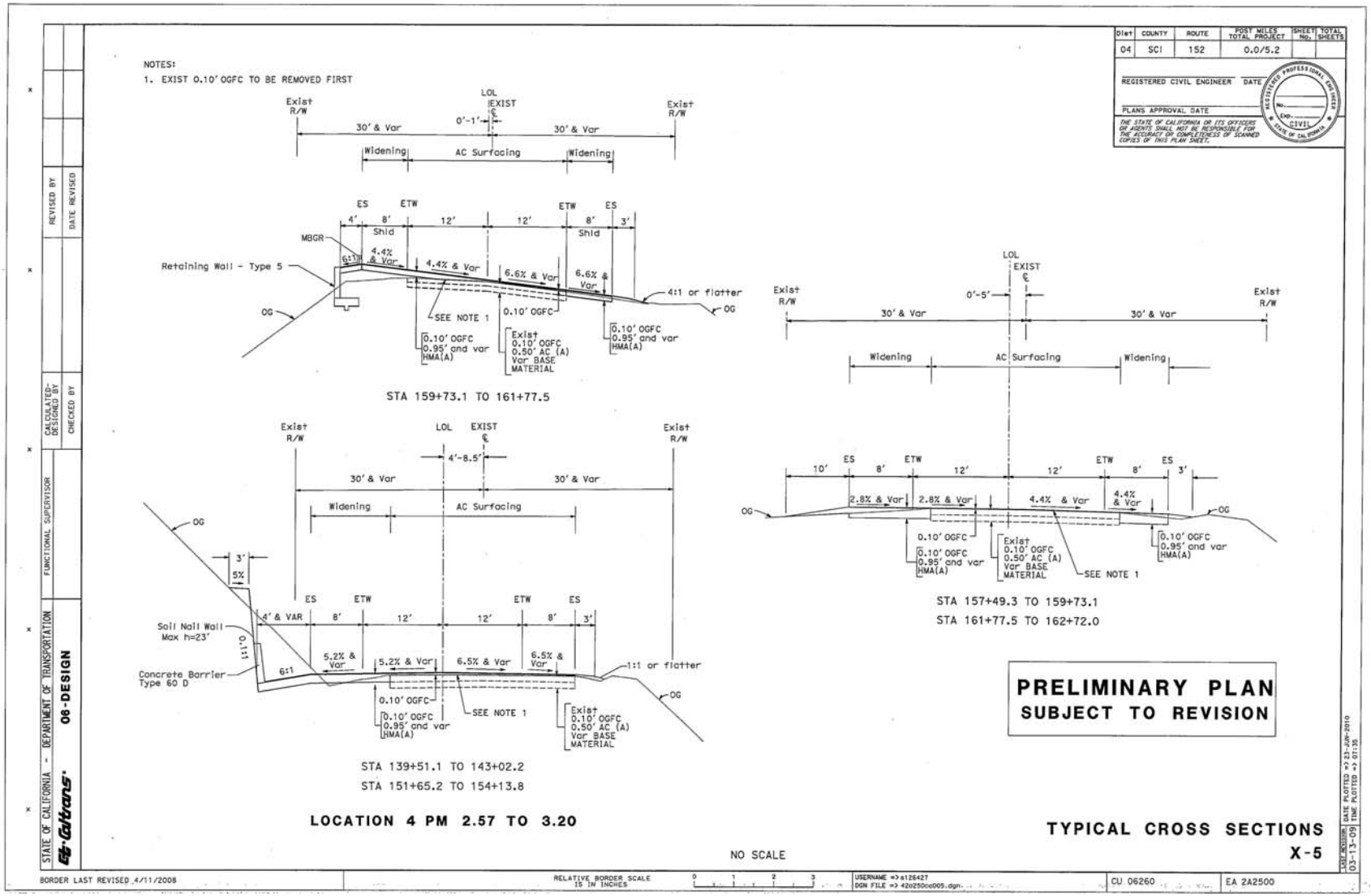
1. EXIST 0.10' OGFC TO BE REMOVED FIRST
STA 134+30.6 TO 137+53.1
STA 138+13.5 TO 138+82.3
STA 145+47.1 TO 150+07.2
STA 143+02.2 TO 145+47.1
STA 154+13.8 TO 157+49.3
STA 162+72.0 TO 167+01.5
LOCATION 4 PM 2.57 TO 3.20
STA 134+60 TO 135+70
STA 137+00 TO 138+50
STA 147+00 TO 150+80
Detail A
18" Slotted CSP Drain
STA 134+28.5 TO 134+30.6
STA 137+53.1 TO 138+13.5
STA 138+82.3 TO 139+51.1
STA 150+07.2 TO 151+65.2
STA 167+01.5 TO 168+02.2
PRELIMINARY PLAN
SUBJECT TO REVISION
NO SCALE
TYPICAL CROSS SECTIONS
X-4
Soil Nail Wall Max h=31'
Soil Nail Wall Max h=32'
Concrete Barrier Type 60 D
Widening
AC Surfacing
30' & Var
Exist R/W
LOL
EXIST ℄
ES
ETW
Shld
1:1 or flatter
0.10' OGFC 0.95' and var HMA(A)
Exist 0.10' OGFC 0.50' AC (A) Var BASE MATERIAL
SEE NOTE 1
OG
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
08-DESIGN
FUNCTIONAL SUPERVISOR
CALCULATED-DESIGNED BY
CHECKED BY
REVISED BY
DATE REVISED
BORDER LAST REVISED 4/11/2008
RELATIVE BORDER SCALE IS IN INCHES
CU 06260
EA 2A2500
DATE PLOTTED => 23-JUN-2010
TIME PLOTTED => 07:35
03-13-09


NOTES:
1. EXIST 0.10' OGFC TO BE REMOVED FIRST
Exist R/W
LOL
EXIST ℄
0'-1'
30' & Var
Widening
AC Surfacing
ES
ETW
4'
8'
Shld
12'
MBGR
Retaining Wall - Type 5
6:1
4.4% & Var
6.6% & Var
4:1 or flatter
OG
SEE NOTE 1
0.10' OGFC
0.10' OGFC 0.95' and var HMA(A)
Exist 0.10' OGFC 0.50' AC (A) Var BASE MATERIAL
STA 159+73.1 TO 161+77.5
4'-8.5'
3'
5%
Soil Nail Wall Max h=23'
0.1:1
Concrete Barrier Type 60 D
4' & VAR
5.2% & Var
6.5% & Var
1:1 or flatter
STA 139+51.1 TO 143+02.2
STA 151+65.2 TO 154+13.8
0'-5'
10'
2.8% & Var
STA 157+49.3 TO 159+73.1
STA 161+77.5 TO 162+72.0
PRELIMINARY PLAN
SUBJECT TO REVISION
LOCATION 4 PM 2.57 TO 3.20
TYPICAL CROSS SECTIONS
X-5
NO SCALE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
08-DESIGN
Caltrans
REVISED BY
DATE REVISED
CALCULATED-DESIGNED BY
CHECKED BY
FUNCTIONAL SUPERVISOR
Dist 04
COUNTY SCI
ROUTE 152
POST MILES TOTAL PROJECT 0.0/5.2
SHEET No.
TOTAL SHEETS
REGISTERED CIVIL ENGINEER
DATE
PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
CIVIL
STATE OF CALIFORNIA
BORDER LAST REVISED 4/11/2008
RELATIVE BORDER SCALE IS IN INCHES
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DGN FILE => 42o250ca005.dgn
CU 06260
EA 2A2500
LOCF-RCUSER
DATE PLOTTED => 23-Jun-2010
TIME PLOTTED => 07:35
03-13-09

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	152	0.0/5.2		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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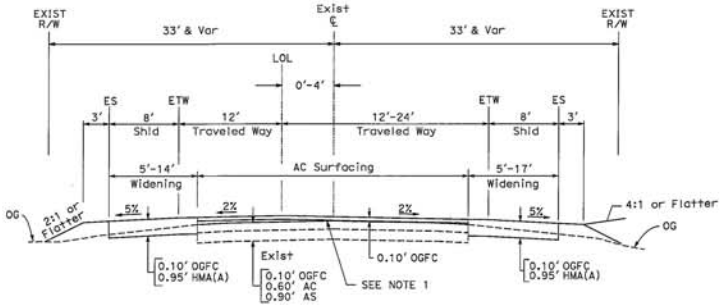
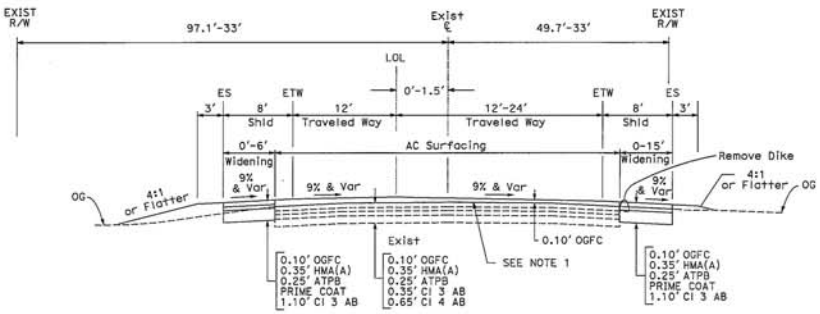
REGISTERED PROFESSIONAL ENGINEER CIVIL STATE OF CALIFORNIA

NOTES:

1. EXIST OGFC TO BE REMOVED FIRST



Sta 260+82.7 to 274+20.5



Sta 253+24.1 to 260+82.7

PRELIMINARY PLAN
SUBJECT TO REVISION

LOCATION 5 PM 4.77 TO 5.20

NO SCALE

TYPICAL CROSS SECTIONS

X-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
06-DESIGN

FUNCTIONAL SUPERVISOR
CALCULATED-DESIGNED BY
CHECKED BY
REVISED BY
DATE REVISED

LAST REVISION 03-13-09
DATE PLOTTED => 23-JAN-2010
TIME PLOTTED => 07:25

BORDER LAST REVISED 4/11/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
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EA 2A2500

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCI	152	0.0/5.2		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER NO. EXP. CIVIL STATE OF CALIFORNIA

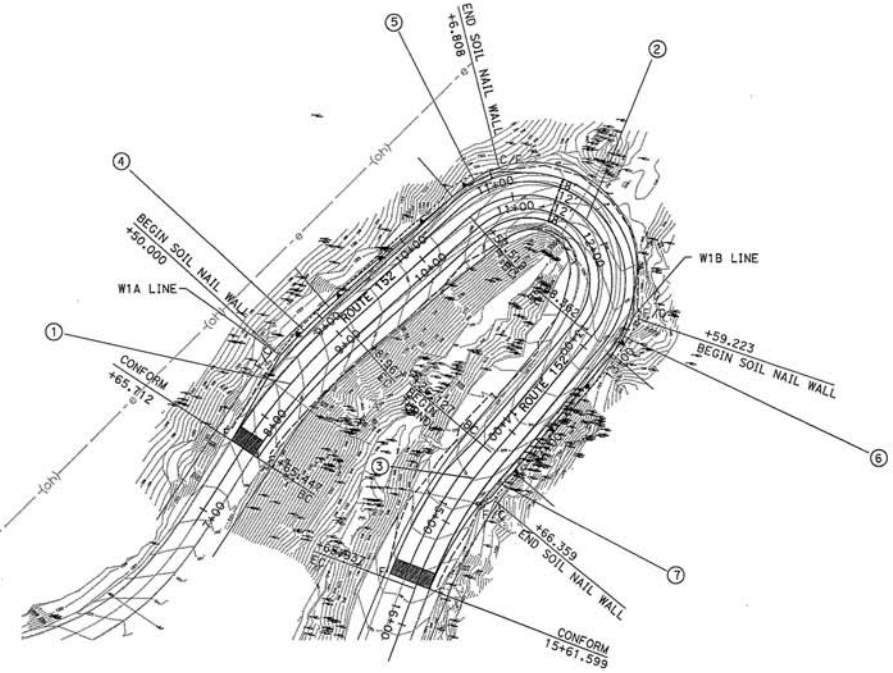
NOTES:

1. EXISTING CENTER YELLOW STRIPE WILL NOT MATCH DESIGN CENTERLINE.

LEGEND
----- CUT LINE
—·— FILL LINE

CURVE DATA

No.	R	Δ	T	L	N	E
1	525.00	15°39'47"	72.21	143.52	1823295.45	6207121.60
2	77.00	171°46'13"	1070.30	230.84	1823729.05	6206935.18
3	400.00	20°1'35"	70.63	139.81	1823316.14	6207210.87
4	549.00	6°26'3"	30.86	61.65	1823295.45	6207121.60
5	101.00	27°21'49"	24.59	48.24	1823729.05	6206935.18
6	101.00	21°40'55"	19.34	38.22	1823729.05	6206935.18
7	380.71	4°40'10"	15.52	31.03	1823295.68	6207198.84



PRELIMINARY PLAN
SUBJECT TO REVISION

LOCATION 1 PM 0.14 TO 0.26

SCALE 1"=50'

LAYOUT
L-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
06 - DESIGN
FUNCTIONAL SUPERVISOR
CALCULATED-DESIGNED BY
CHECKED BY
REVISED BY
DATE REVISED

LAST REVISION 03-13-09
DATE PLOTTED => 23-JUN-2010
TIME PLOTTED => 08:04

BORDER LAST REVISED 3/1/2007
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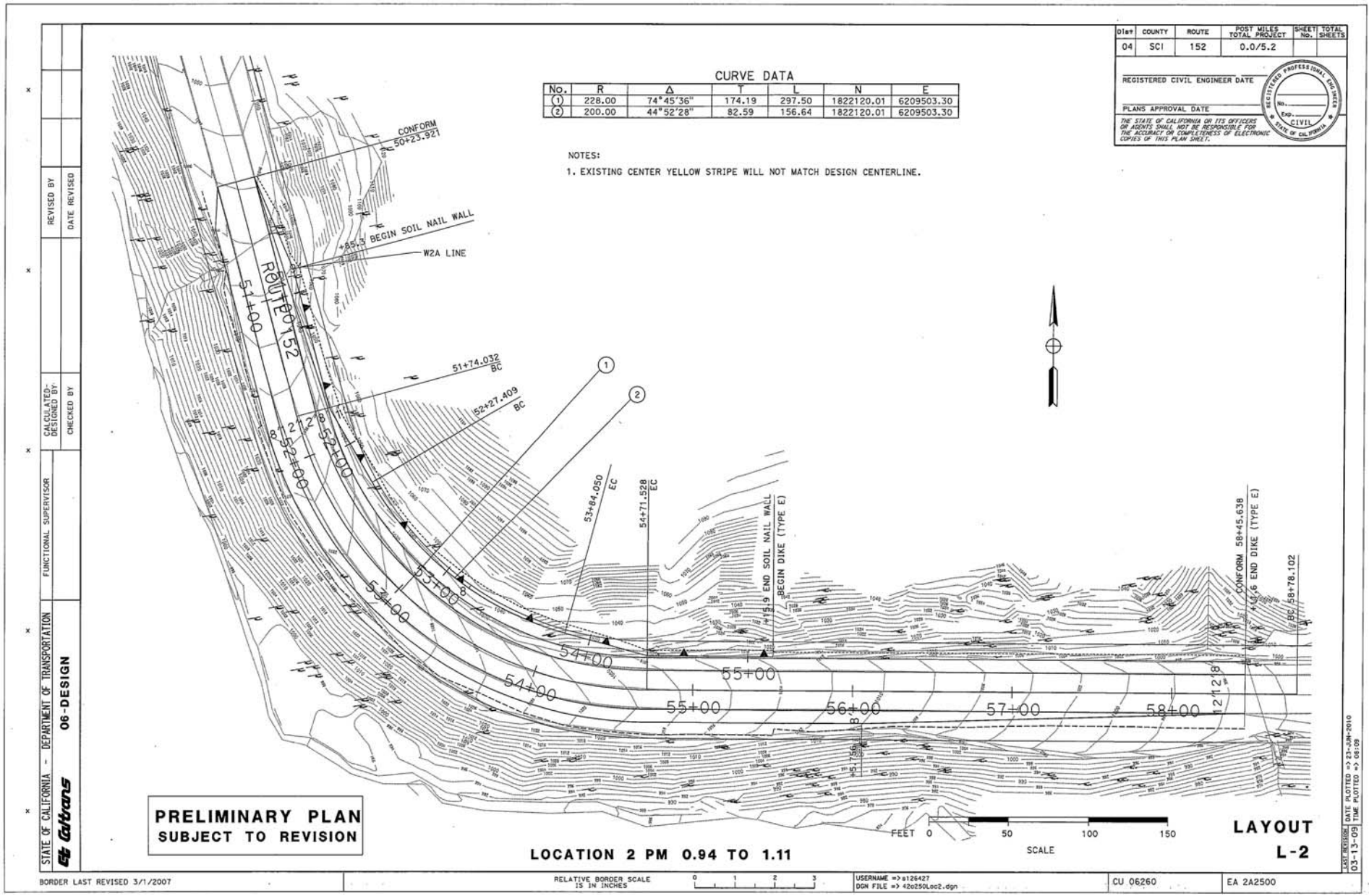
EA 2A2500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No. R Δ T L N E
1 228.00 74°45'36" 174.19 297.50 1822120.01 6209503.30
2 200.00 44°52'28" 82.59 156.64 1822120.01 6209503.30
NOTES:
1. EXISTING CENTER YELLOW STRIPE WILL NOT MATCH DESIGN CENTERLINE.
Dist COUNTY ROUTE POST MILES TOTAL PROJECT SHEET No. TOTAL SHEETS
04 SCI 152 0.0/5.2
REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
CIVIL
STATE OF CALIFORNIA
CONFORM 50+23.921
BEGIN SOIL NAIL WALL
W2A LINE
ROUTE 152
51+00
51+74.032 BC
52+27.409 BC
52+00
53+00
53+84.050 EC
54+71.528 EC
END SOIL NAIL WALL
BEGIN DIKE (TYPE E)
54+00
55+00
56+00
57+00
58+00
CONFORM 58+45.638
END DIKE (TYPE E)
58+78.102 BC
PRELIMINARY PLAN
SUBJECT TO REVISION
LOCATION 2 PM 0.94 TO 1.11
FEET 0 50 100 150
SCALE
LAYOUT
L-2
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
06-DESIGN
FUNCTIONAL SUPERVISOR
CALCULATED-DESIGNED BY
CHECKED BY
REVISED BY
DATE REVISED
LAST REVISION 03-13-09
DATE PLOTTED => 23-JUN-2010
TIME PLOTTED => 08:09
BORDER LAST REVISED 3/1/2007
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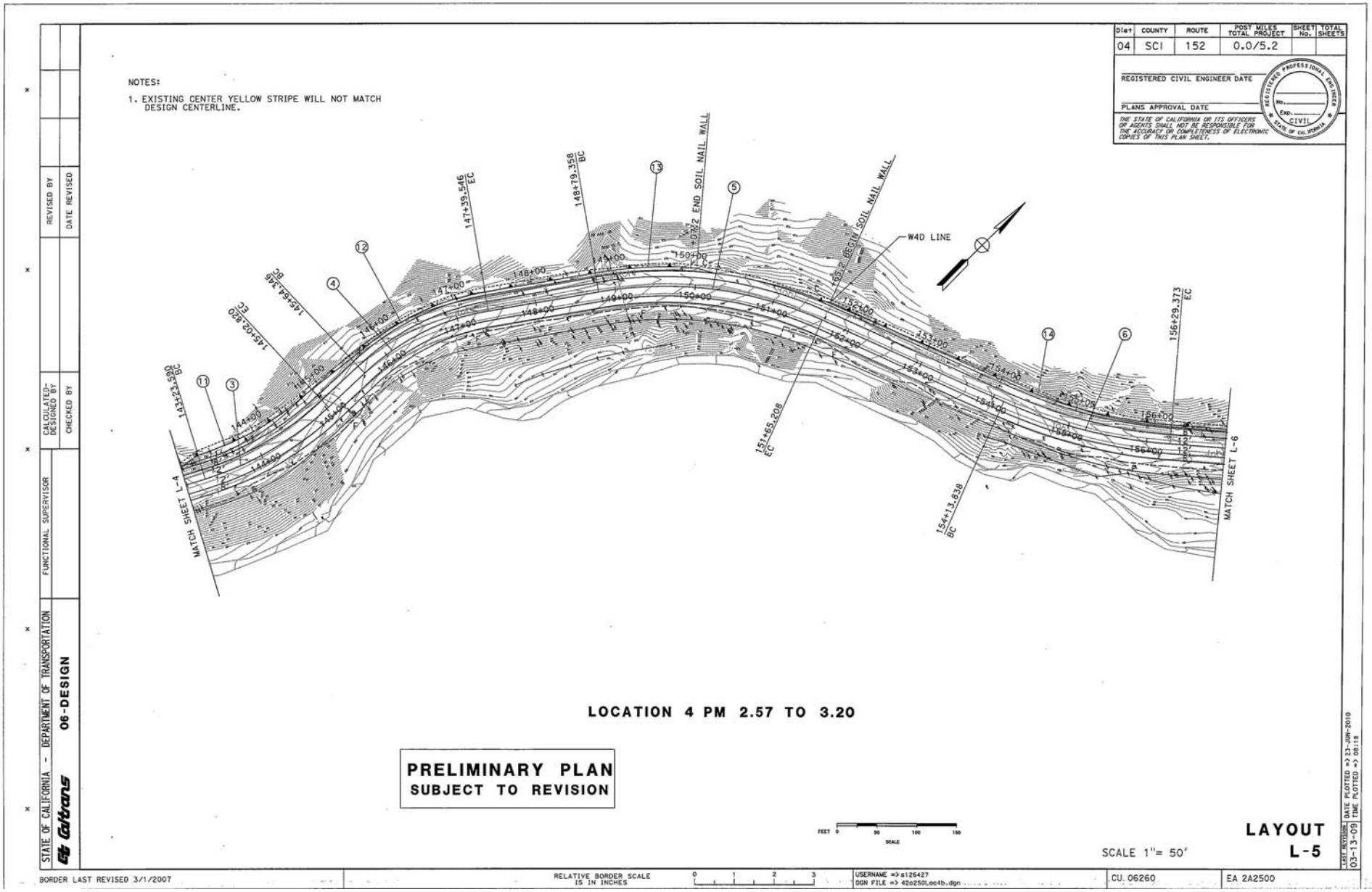
CU 06260
EA 2A2500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1. EXISTING CENTER YELLOW STRIPE WILL NOT MATCH DESIGN CENTERLINE.
Dist COUNTY ROUTE POST MILES TOTAL PROJECT SHEET No. TOTAL SHEETS
04 SCI 152 0.0/5.2
REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
CIVIL
STATE OF CALIFORNIA
W4D LINE
MATCH SHEET L-4
MATCH SHEET L-6
LOCATION 4 PM 2.57 TO 3.20
PRELIMINARY PLAN
SUBJECT TO REVISION
SCALE 1"= 50'
LAYOUT
L-5
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
06-DESIGN
FUNCTIONAL SUPERVISOR
CALCULATED-DESIGNED BY
CHECKED BY
REVISED BY
DATE REVISED
BORDER LAST REVISED 3/1/2007
RELATIVE BORDER SCALE IS IN INCHES
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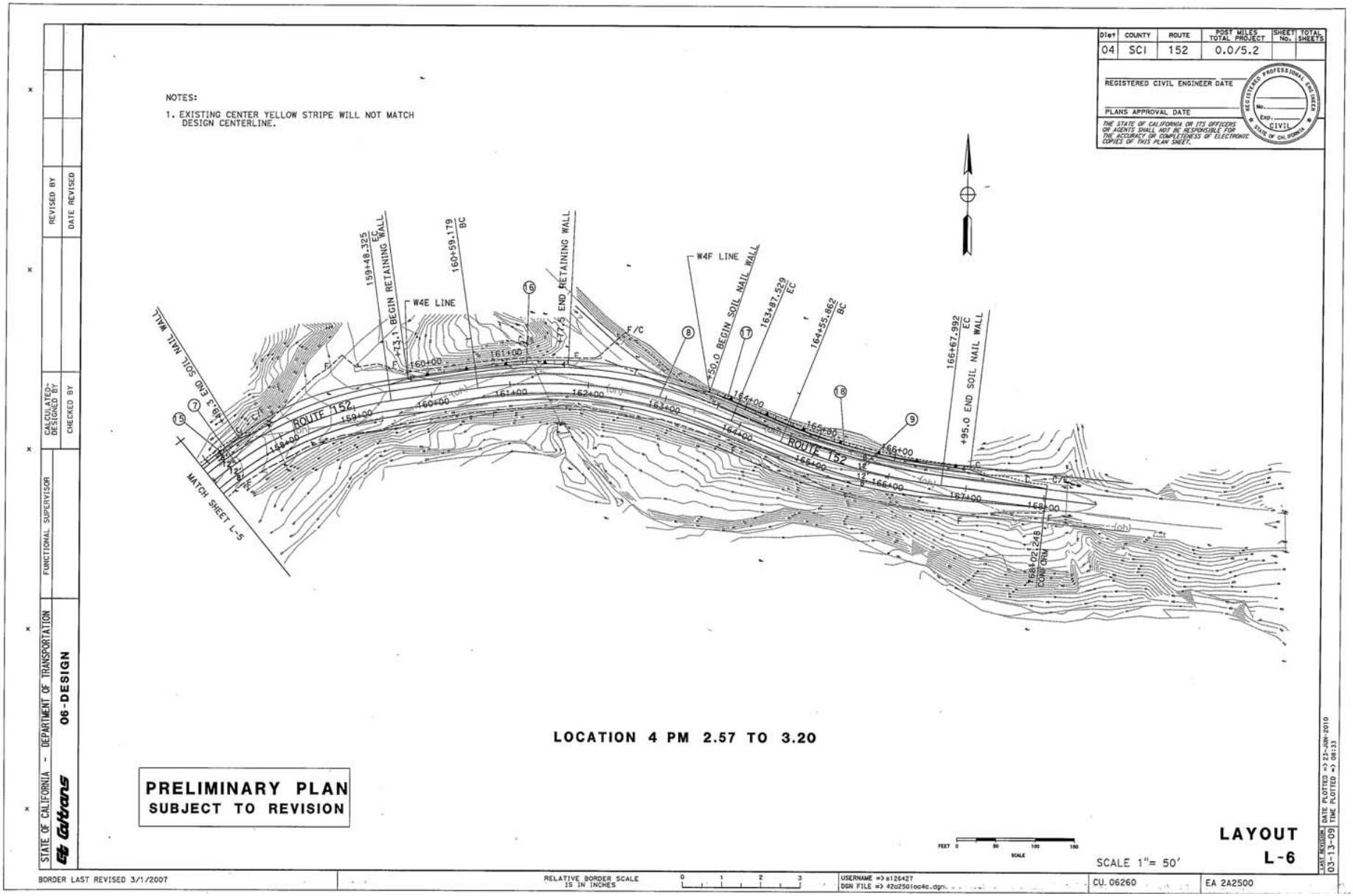
CU. 06260
EA 2A2500
LAST REVISION 03-13-09
DATE PLOTTED => 23-JUN-2010
TIME PLOTTED => 08:18


NOTES:
1. EXISTING CENTER YELLOW STRIPE WILL NOT MATCH DESIGN CENTERLINE.
Dist COUNTY ROUTE POST MILES TOTAL PROJECT SHEET No. TOTAL SHEETS
04 SCI 152 0.0/5.2
REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
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CIVIL
STATE OF CALIFORNIA
159+49.325 EC
END RETAINING WALL
160+59.179 BC
BEGIN RETAINING WALL
W4E LINE
W4F LINE
BEGIN SOIL NAIL WALL
163+87.529 EC
164+55.862 BC
166+67.992 EC
END SOIL NAIL WALL
END SOIL NAIL WALL
ROUTE 152
MATCH SHEET L-5
LOCATION 4 PM 2.57 TO 3.20
PRELIMINARY PLAN
SUBJECT TO REVISION
LAYOUT
L-6
SCALE 1"= 50'
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
06-DESIGN
FUNCTIONAL SUPERVISOR
CALCULATED-DESIGNED BY
CHECKED BY
REVISED BY
DATE REVISED
BORDER LAST REVISED 3/1/2007
RELATIVE BORDER SCALE IS IN INCHES
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CU. 06260
EA 2A2500
LAST REVISION 03-13-09
DATE PLOTTED => 23-JUN-2010
TIME PLOTTED => 08:33

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SCl	152	0.0/5.2		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER NO. EXP. CIVIL STATE OF CALIFORNIA

NOTE:

1. EXISTING CENTER YELLOW STRIPE WILL NOT MATCH DESIGN CENTERLINE.

CURVE DATA

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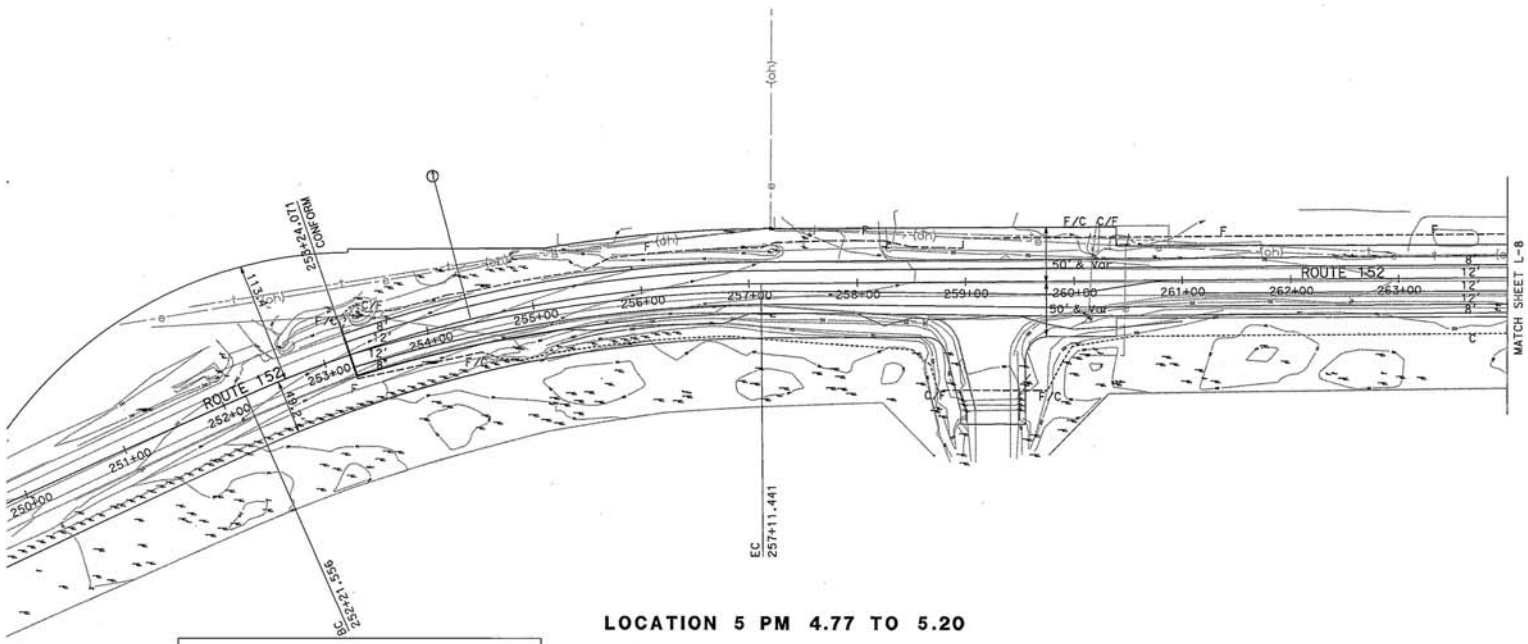

LOCATION 5 PM 4.77 TO 5.20

PRELIMINARY PLAN
SUBJECT TO REVISION

SCALE 1"= 50'

LAYOUT
L-7

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
06-DESIGN

FUNCTIONAL SUPERVISOR
CALCULATED-DESIGNED BY
CHECKED BY
REVISED BY
DATE REVISED

LAST REVISION 03-13-09
DATE PLOTTED => 23-JUN-2010
TIME PLOTTED => 08:23

BORDER LAST REVISED 3/1/2007
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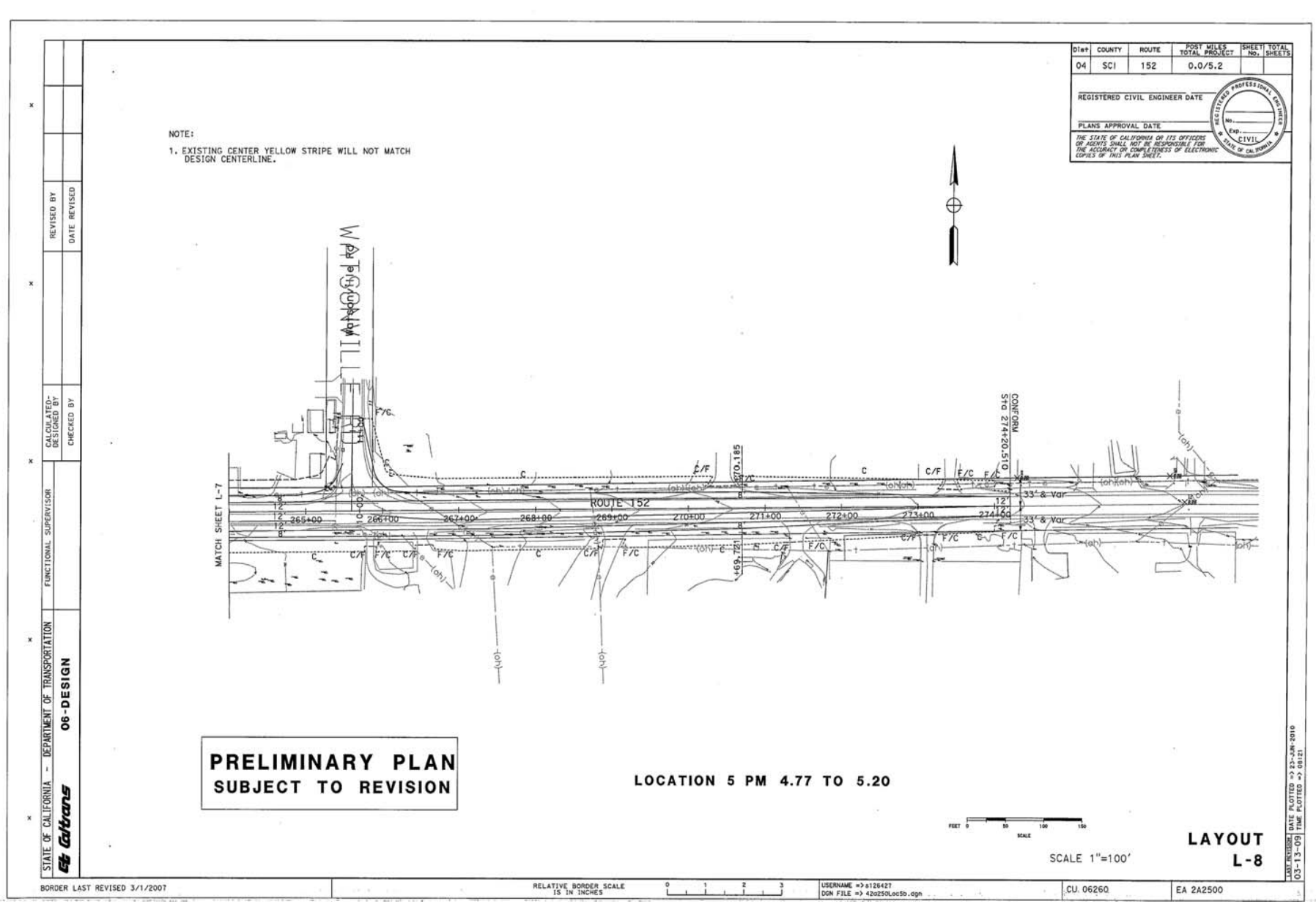
CU 06260
EA 2A2500


Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS
04 | SCl | 152 | 0.0/5.2
REGISTERED CIVIL ENGINEER DATE
PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
No.
Exp.
CIVIL
STATE OF CALIFORNIA
NOTE:
1. EXISTING CENTER YELLOW STRIPE WILL NOT MATCH DESIGN CENTERLINE.
MATCH SHEET L-7
ROUTE 152
265+00
266+00
267+00
268+00
269+00
270+00
271+00
272+00
273+00
274+00
33' & Var
CONFORM STA 274+20.510
PRELIMINARY PLAN
SUBJECT TO REVISION
LOCATION 5 PM 4.77 TO 5.20
SCALE 1"=100'
LAYOUT
L-8
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
06-DESIGN
FUNCTIONAL SUPERVISOR
CALCULATED-DESIGNED BY
CHECKED BY
REVISED BY
DATE REVISED
BORDER LAST REVISED 3/1/2007
RELATIVE BORDER SCALE IS IN INCHES
USERNAME => s126427
DGN FILE => 42a250Loc5b.dgn
CU. 06260
EA 2A2500
LAST REVISION 03-13-09
DATE PLOTTED => 23-JAN-2010
TIME PLOTTED => 08:21

Appendix B CEQA Checklist

Supporting documentation of all CEQA checklist determinations is provided in Chapter 2 of this Environmental Impact Report/Environmental Assessment. Documentation of "No Impact" determinations is provided at the beginning of Chapter 2. Discussion of all impacts, avoidance, minimization, and/or compensation measures is under the appropriate topic headings in Chapter 2.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
I. AESTHETICS: Would the project:				
a) Have a substantial adverse effect on a scenic vista	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway	☐	☒	☐	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☒	☐	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐
II. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	☒
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	☒
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☒
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

IV. BIOLOGICAL RESOURCES: Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

V. CULTURAL RESOURCES: Would the project:

a) Cause a substantial adverse change in the significance of an historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

VI. GEOLOGY AND SOILS: Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☐
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

VII. HAZARDS AND HAZARDOUS MATERIALS: Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

VIII. HYDROLOGY AND WATER QUALITY: Would the project:

a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or offsite?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?	☐	☐	☐	☒
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow	☐	☐	☐	☒

IX. LAND USE AND PLANNING: Would the project:

a) Physically divide an established community?	☐	☐	☐	☒

b)Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☒	☐	☐	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

X. MINERAL RESOURCES: Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

XI. NOISE: Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

XII. POPULATION AND HOUSING: Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

XIII. PUBLIC SERVICES:

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	☐	☐	☐	☒
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☐	☒

XIV. RECREATION:

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

XV. TRANSPORTATION/TRAFFIC: Would the project:

a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☐	☒
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Result in inadequate parking capacity?	☐	☐	☐	☒

g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

XVI. UTILITIES AND SERVICE SYSTEMS: Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

XVII. MANDATORY FINDINGS OF SIGNIFICANCE

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	☒
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

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Appendix C Concurrrence Letter and Supplemental information of Section 4(f) and de minimis Impacts to Section 4(f) Resources

County of Santa Clara
Parks and Recreation Department

298 Garden Hill Drive
Los Gatos, California 95032-7669
(408) 355-2200 FAX 355-2290
Reservations (408) 355-2201
www.parkhere.org

August 20, 2010

Subject: Hecker Pass Safety Improvement Project

To: Jared Goldfine, Senior Branch Chief
Office of Environmental Analysis
Caltrans
P.O. Box 23660
Oakland, CA 94623

Dear Mr. Goldfine,

The County of Santa Clara Parks and Recreation Department (Department) reviewed the Draft Environmental Impact Report (DEIR) for the proposed road widening project on Highway 152 adjacent to Mount Madonna County Park. It is understood that the project will require that Caltrans use 0.55 acres of County parkland in order to construct retaining walls. Per section 4(f) of the Department of Transportation Act of 1966, Caltrans has determined that the use of this land is considered a de minimis impact to the park.

As previously stated, the County, in partnership with the Bay Area Ridge Trail Council, plans a future trail crossing across Highway 152 in the general vicinity of the proposed project. The Department has evaluated the proposed project and its effect on the County's resource and determined that, while the project will curtail the County's flexibility in establishing a future trail crossing, the project's effect on the County's park resource, as it is currently developed and configured, is likely de minimis, and staff will make that recommendation to the County of Santa Clara Board of Supervisors.

Please contact me at the above address if you have any questions.

Sincerely,

Julie Mark, Acting Director

C: Tim Heffington, Senior Real Estate Agent / Ian Champeny, Associate Real Estate Agent
Katherine Harasz, Deputy County Counsel
James O'Connor, Deputy Director

Section 4(f), of the US Department of Transportation Act of 1966, states that the Federal Highway Administration "…may approve a transportation program or project…requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if…there is no prudent and feasible alternative to using that land; and…the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use." (49 U.S.C. 303[c])

A "use" of a Section 4(f) resource, as defined in "Title 23, Code of Federal Regulations, Part 771.135(p)," occurs: 1) when land is permanently incorporated into a transportation facility; 2) when there is a temporary occupancy of land that is adverse in terms of the statute's preservationist purposes; or 3) when there is a constructive use of land. A constructive use of a Section 4(f) resource occurs when the transportation project does not incorporate land from a Section 4(f) resource, but the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired. For example, a constructive use can occur when:

a) the projected noise level increase, attributable to the project, substantially interferes with the use and enjoyment of a noise-sensitive facility of a resource protected by Section 4(f);

b) the proximity of the project substantially impairs aesthetic features or attributes of a resource protected by Section 4(f), where such features or attributes are considered important contributing elements to the value of the resource. An example of such an effect would be the location of a transportation facility in such proximity that it obstructs or eliminates the primary views of an architecturally significant historical building, or substantially detracts from the setting of a park or historic site which derives its value in substantial part due to its setting; and/or

c) the project results in a restriction on access, which substantially diminishes the utility of a significant publicly owned park, recreation area, or historic site.

The Federal Highway Administration (FHWA) issued guidance on December 13, 2005, for determining de minimis impacts on Section 4(f) resources. This guidance came from an amendment of existing Section 4(f) legislation through adoption of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)2 to simplify the processing and approval of projects that have only de minimis impacts on lands protected by Section 4(f). This is the first substantive revision of Section 4(f) legislation since passage of the U.S. Department of Transportation Act of 1966. This revision of Section 4(f) legislation provides that once FHWA determines that a transportation use of Section 4(f) property, after consideration of any impact avoidance, minimization, and mitigation or enhancement measures, results in a de minimis impact on that property, an analysis of avoidance alternatives is not required and the Section 4(f) evaluation process is complete. In other words, although some impacts may be unavoidable (and would be minimized or mitigated), avoidance alternatives would not need to be developed if a de minimis impact determination is made.

De minimis impacts on publicly owned parks, recreation areas, and wildlife and waterfowl refuges are defined as those that do not adversely affect the activities, features, and attributes of

the 4(f) resource. The official(s) with jurisdiction over the property must provide written concurrence that the project will not adversely affect the activities, features, and attributes that qualify the property for protection under 4(f), and the public must be afforded the opportunity to review and comment on the effects of the project on the identified 4(f) resource(s).

De minimis impacts on historic sites are defined as the determination of either "no adverse effect" or "no historic properties impacted" in compliance with Section 106 regulations, including SHPO's written concurrence and ACHP's written concurrence, when applicable. When a Programmatic Agreement is in place for Section 106, the Department must inform the SHPO in writing that a non-response for the purposes of a "no adverse affect" or a "no historic properties affected" determination will be treated as the written concurrence for the *de minimis* determination; to streamline the process this may be combined with the Section 106 PA notification letter to SHPO regarding the finding of effect.

The Rofinella Winery, discussed in Section 2.1.5.3 of this document, is not eligible for inclusion in the National Register of Historic Places. As such, it it not subject to Section 106 regulations, and no concurrence of “no adverse effect” or “no historic properties affected” would be secured from SHPO or ACHP. In instances where a historic site is not eligible for inclusion in the National Register of Historic Places, but is determined by the Department as assigned by FHWA to be a Section 4(f) resource, the determination of a *de minimis* impact to a Section 4(f) resource would be made by the Department.

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Appendix D Title VI Policy Statement

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
1120 N STREET
P. O. BOX 942873
SACRAMENTO, CA 94273-0001
PHONE (916) 654-5266
FAX (916) 654-6608
TTY (916) 653-4086

Flex your power!
Be energy efficient!

August 25, 2009

TITLE VI
POLICY STATEMENT

The California State Department of Transportation under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, or age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

RANDELL H. IWASAKI
Director

"Caltrans improves mobility across California"

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Appendix E Glossary of Acronyms and Technical Terms

AB	California State Assembly Bill
ACOE	U.S. Army Corps of Engineers
ADL	aerially deposited lead
APE	area of potential effect
BMP	best management practice
BT&H	Business, Transportation, and Housing
CAA	Clean Air Act, as amended in 1990
CalEPA	California Environmental Protection Agency
Cal IPC	California Invasive Plant Council
CARB	California Air Resources Board
CCA	cross-centerline accident
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (aka “Superfund”)
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CO_2	carbon dioxide
CRZ	Clear Recovery Zone
dbh	diameter at breast height
Department	California Department of Transportation
EA	environmental assessment
EIR	environmental impact report
EIS	environmental impact statement
EO	Executive Order
EPA	Environmental Protection Agency

ESA	environmentally sensitive area
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FPPA	Farmland Protection Policy Act
ft	foot/feet
GHG	greenhouse gas
HCP/NCCP	Habitat Conservation Plan/Natural Communities Conservation Plan
HFC-23	fluoroform
HFC-134a	s, s, s, 2 –tetrafluoroethane
HFC-152a	difluoroethane
HSA	hydrologic sub-area(s)
in	inch(es)
IPCC	Intergovernmental Panel on Climate Change
ISA	Initial Site Assessment
MBTA	Migratory Bird Treaty Act
MCE	maximum credible earthquake
MLD	most likely descendent
mpg	miles per gallon
Mt.	Mount
MTC	Metropolitan Transportation Commission
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act of 1966
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
OWTS	onsite treatment system(s)

PM	post mile
PRC	Public Resources Code
project	proposed federal action
RCRA	Resource Conservation and Recovery Act of 1976
RWQCB	Regional Water Quality Control Board
SHPO	State Historic Preservation Officer
SR	State Route
Sta	station
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resource Control Board
TDM	Transportation Demand Management
TIP	Transportation Improvement Program
TSM	Transportation System Management
U.S.	United States
U.S.C.	United States Code
USFWS	U.S. Fish and Wildlife Service

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Appendix F Minimization and/or Mitigation Summary

This appendix summarizes the minimization and/or mitigation measures discussed in Chapter 2.

Visual Resources

Locations 1, 2, and 3

To address the potential impacts of tree removal at these locations, the following tree replacement and revegetation measures are recommended:

- Minimizing existing tree and forest removal to the greatest possible extent. The limit of work shall be kept to the minimum possible footprint, not to exceed 5 feet (ft) from the edge of the retaining wall. Priority shall be placed on preserving existing trees nearest the wall, in order to preserve views of the forest edge from the road to the greatest extent feasible.
- Tree replacement planting shall be implemented if appropriate to mitigate for major loss of tree canopy, as determined by the project landscape architect.

To address the potential impacts of visual intrusion from the new retaining walls, the following mitigation measures are recommended:

- Minimizing overall wall height to the greatest extent feasible.
- Using context-sensitive wall texture and color treatment, in consultation with local agencies, to reduce visual contrast and enhance compatibility of visual character to the greatest extent feasible.
- Staining of bottom, safety-barrier portion of walls to reduce overall color contrast and visual intrusion.
- If feasible, walls shall be gutterless and without chain-link safety fence in order to reduce visual contrast.
- Wherever feasible and consistent with safety, the use of crash cushions at retaining walls shall be avoided to reduce the visual contrast with the natural environment.

Location 4

All avoidance, minimization, and mitigation measures that apply to Locations 1, 2, and 3 also apply to Location 4. In addition to those measures, the following measures also apply to Location 4:

- To minimize the long-term visual effect of tree removal for Wall 4E as seen from both inside and outside of the park, tree replacement and other supplemental native vegetation planting will be implemented where feasible adjacent to Wall 4E.
- To minimize the contrast in visual character and decline in visual quality as a result of Wall 4E as seen by park visitors, Mitigation Measures VM-2 shall be applied to Wall 4E, including context-sensitive wall color and texture treatment. Color shall be dark to minimize contrast and reflectivity; texture treatment such as stacked stone, carved rock or other similar treatment shall be used to articulate the wall surface and provide a more naturalistic, context-compatible visual character.

Location 5

- Minimization of existing tree removal to the greatest possible extent. The limit of work shall be kept to the minimum possible footprint.
- Where feasible, tree replacement planting shall be implemented to replace the lost tree screening and 'allee' pattern at the roadside.

Light and Glare

- Construction activities shall limit all construction lighting to within the area of work and avoid light trespass through directional lighting, shielding, and other measures as needed.

Construction impacts

- Unsightly material and equipment storage and staging shall not be visible within the foreground of the highway corridor to the extent feasible. Where such siting is unavoidable, material and equipment shall be visually screened to minimize visibility from the roadway and to nearby sensitive off-road receptors.
- Construction, staging, and storage areas shall be screened by visually opaque screening wherever they will be exposed to public view for extended periods of time.
- Construction activities shall be phased to minimize the duration of disturbance to the shortest feasible time.
- All areas disturbed by construction, staging, and storage shall be revegetated.
- Construction activities adjacent to residences shall limit all construction lighting to within the area of work and avoid light trespass through directional lighting, shielding, and other measures as needed.

Cultural Resources

- If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.
- If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC) who will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact the Department District 4 Environmental Branch Office of Cultural Resources Studies so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.
- During coordination with Native American groups, a Native American cultural resources monitor was requested. The Department will determine if a Native American cultural resources monitor is required during the design phase of the project based on specific construction activities that are anticipated.

Water Quality and Storm Water Runoff

Section 401 of the Clean Water Act

- Section 401 certification will be required for this project. Early discussion will be initiated regarding the handling and disposal of water during the design phase. The groundwater will be tested for potential contamination as a part of the Hazardous Waste Site Investigation. Proper handling and disposal of the groundwater will be based on the levels of contaminants reported in the Site Investigation Report.

Section 402 of the Clean Water Act

- According to Caltrans NPDES permit and the Construction General Permit, BMPs will be incorporated to reduce the discharge of pollutants during construction as well as permanently to the Maximum Extent Practicable (MEP). These BMPs fall into three categories, Temporary Construction Site BMPs, Permanent Design Pollution Prevention BMPs, and Permanent Treatment BMPs.

Construction Site BMPs

- Construction Site BMPs are implemented during construction activities to reduce pollutants in storm water discharges throughout construction. Temporary silt fence, concrete washout, stockpile cover, stabilized construction entrance/exit and temporary soil stabilizers are some of the temporary erosion and water pollution control measures that may be used in combination to prevent and minimize soil erosion and sediment discharges during construction. Given that the anticipated soil disturbance will be greater than 0.4 hectare (1 acre), a Storm Water Pollution Prevention Plan (SWPPP) will be developed during construction. This dynamic document addresses the deployment of various erosion and water pollution control measures that are required commensurate to changing construction activities.

Permanent Design Pollution Prevention BMPs

- Design Pollution Prevention BMPs are permanent measures to improve storm water quality by reducing erosion, stabilizing disturbed soil areas, and maximizing vegetated surfaces. Erosion control measures will be provided on all disturbed areas to the extent feasible. These measures will use a combination of source and sediment control measures to prevent and minimize erosion from soil disturbed areas. Source controls can use erosion control netting in combination with hydroseeding.

- The biodegradable netting is effective in providing good initial mechanical protection while seed applied during the hydroseeding operation germinates and establishes itself. Other forms of source control such as tacked straw may also be used when applicable. Sediment controls such as biodegradable fiber rolls can be used to retain sediments and to help control runoff from disturbed slope areas. These measures will be investigated during the design phase.

- Outlet protection and velocity dissipation devices placed at the downstream end of culverts and channels are also Design Pollution Prevention BMPs that reduce runoff velocity and control erosion and scour. The need of these devices for this project will also be further investigated during the design phase.

- Generally, as velocities and volume of flow increases, so could the sediment loading. Effects to downstream flow will be further investigated during the design phase and the use of appropriate Design Pollution Prevention BMPs to address this concern will be considered.

Permanent Treatment BMPs

- This project will be required to incorporate treatment BMPs. Treatment BMPs are permanent devices and facilities treating storm water runoff. The Department-approved Treatment BMPs are: biofiltration swales, infiltration basins, detention basins, traction sand traps, dry weather flow diversions, media filters, gross solids removal devices (GSRDs), multi-chamber treatment trains, and wet basins.

Geology/Soils/Seismic/Topography

- The field exploration and investigation of this project will include borings. Laboratory tests may include corrosion, moisture content, density, plasticity index, graduation, consolidation, and triaxial tests. Vertical and horizontal borings will be advanced at all sites where fill or walls are proposed. Horizontal borings are recommended at all soil nail wall locations to determine whether the contractor will have to case the holes for the soil nails.

- The soil nail walls and retaining wall at Location 4 may require a fault study, which will likely include trenching to verify the exact location of the Sargent and Castro Faults that cross the project area limit. The strike of the fault is a design parameter for soil nail wall design. These studies will help ensure that the proposed retaining walls will be appropriately designed for the site conditions, pursuant to the requirements of latest uniform Building Code.

- Mitigation for the potential reactivation of the landslides and rock fall sites referred to in Table 2.2-1 may include avoidance, different wall type, installation of rock nets and minimizing cut slopes to a maximum of 2:1.

Hazardous Waste/Materials

- Additional review of the data analyzed in the ISA will be performed before ground-disturbing activities begin, to ensure that the potential hazardous materials site will not have an adverse impact on the proposed project.

- There is a potential for residual ADL in the surface soil. Testing for ADL will be performed during the final design stage. If ADL is found, special handling of the contaminated soil will be required and will include implementing a health and safety plan. If construction encounters soil contamination, all activities involving contaminated soil or groundwater will be planned to comply with regulatory agency requirements.

- Existing yellow roadway striping that will be impacted will be tested for lead-based paint. If present, lead-based paint will be handled and disposed of to comply with regulatory agency requirements.

Natural Communities

- General avoidance and minimization efforts will be incorporated into the design and implemented to reduce potential impacts to natural communities and plant and animal species. These measures will include minimizing the project footprint, providing environmental education for the construction crew, delineating the work area and all environmentally sensitive areas with fencing, requiring that an onsite biological monitor be present during activities that may impact sensitive biological resources. No compensatory mitigation is required for impacts to the communities.

- Replacement trees will be planted at a ratio of 3:1 for all native trees, and trees located within the riparian zone within California Department of Fish and Game jurisdiction with a dbh of 6 inches or greater. All other trees will be replaced at a 1:1 ratio. Trees will be planted onsite in the project area to the extent possible, after the completion of roadway construction. Offsite planting areas will be sought only if onsite mitigation is not possible.

- The Department will limit construction activities to the smallest area possible to complete the work in an effort to minimize impacts to the existing riverine habitat in Bodfish Creek. A Department biologist will clearly delineate this limited construction area for incorporation in the project plans and specifications. The Department will use environmentally sensitive area (ESA) fencing to delineate protected areas and to confine workers and equipment to the designated construction areas. The ESA fencing will preclude access to the stream channel and riparian habitat along Bodfish Creek, the unnamed tributary to Bodfish Creek, and Blackhawk Creek, except as necessary for construction access.

- Potential instream impacts to Bodfish Creek, the unnamed tributary to Bodfish Creek, and Blackhawk Creek aquatic resources and fisheries will be minimized by adhering to State Standard Specifications for avoidance of water pollution (Section 7-1.01g) and by implementing best management practices (BMPs). These measures include detailed recommendations for keeping heavy machinery out of the water, limiting the amount of material (excavated or construction materials) that enter the streams, and maintaining flows at all times. The State Standard Specifications require the contractor to prepare a plan to control water pollution during construction.

- All temporary impacts will be restored to pre-construction conditions. Compensatory mitigation for permanent impacts to waters of the U.S. will not likely be required by the Corps of Engineers; however, mitigation may be required by the RWQCB for waters of the State.

Animal Species

- A qualified biologist will survey the work site in the vicinity of Location 4, no more than 48 hours before start-of-work activities begin, for signs of western pond turtles and/or western pond turtle nesting activity (i.e., recently excavated nests, nest plugs) or nest depredation (partially to fully excavated nest chambers, nest plugs, scattered egg shell remains, egg shell fragments). Preconstruction surveys to detect western pond turtles will focus on suitable aerial and aquatic basking habitat such as logs, branches, rootwads, and rip-rap, as well as the shoreline and adjacent warm, shallow waters where pond turtles may be present below the water surface beneath algal mats or other surface vegetation. Preconstruction surveys to detect western pond turtle nesting activity will be concentrated within approximately 1,300 ft of suitable aquatic habitat and will focus on areas along south- or west-facing slopes with bare hard-packed clay or silt soils or a sparse vegetation of short grasses or forbs. If western pond turtles or their nesting sites are found, the biologist will contact CDFG to determine whether relocation and/or exclusion buffers are appropriate. If CDFG approves of moving the animal, the biologist shall be allowed sufficient time to move the western pond turtle(s) from the work site before work activities begin.

- Preconstruction bird surveys will be conducted by a qualified biologist no more than 2 weeks before construction begins for activities occurring during the breeding season (February 1 to

August 31) or during the wintering period (September 1 to January 31) for sensitive wintering species.

- If active nests of special-status bird species are found in the vicinity of the limits of grading or construction work, within 100 ft of passerine nests or within 300 ft of raptor nests, a non-disturbance buffer will be established at a distance sufficient to minimize nest/roost disturbance based on the nest location, topography, cover, the species' sensitivity to disturbance, and the intensity/type of potential disturbance. Buffer size will be determined in cooperation with CDFG and USFWS.

- If rescheduling work around active nests/roosts of special-status bird species is infeasible, a qualified biologist will monitor nests for signs of disturbance. If it is determined that project activities are resulting in nest/roost disturbance, work will cease immediately, and the CDFG and the USFWS will be contacted for guidance.

- Within 30 days before construction begins, burrowing owl preconstruction surveys will be conducted at Location 5 of the project area by a qualified biologist in accordance with CDFG's Staff Report on Burrowing Owl Mitigation (CDFG 1995) and the California Burrowing Owl Consortium's Burrowing Owl Survey Protocol and Mitigation Guidelines (CBOC 1993). Preconstruction surveys, consisting of winter season surveys (between December 1 and January 31) and nesting season surveys (between April 15 and July 15), will be conducted for Location 5 of the project area and within a 500 ft buffer where possible to identify and map active burrowing owl burrows. Surveys will consist of walking transects of no more than 100 ft apart.

- Occupied burrows will not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by CDFG verifies through noninvasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

- If burrowing owls are detected in the project footprint or within 500 ft of the project footprint, a non-disturbance buffer will be established within a 160-ft radius surrounding occupied burrows during the nonbreeding season (September 1 through January 31) or within a 250-ft radius surrounding occupied burrows during the breeding season of February 1 through August 31.

- If avoidance is not feasible and owls must be moved away from the disturbance area, one of the two following passive relocation techniques will be used rather than trapping. At least 1 full week will be necessary to accomplish this and allow the owls to acclimate to alternate burrows.

  Passive Relocation – With One-Way Doors. Owls will be excluded from burrows in the immediate impact zone and within a 160-ft buffer zone by installing one-way doors in burrow entrances to allow the birds to leave the burrow, but not return. One-way doors (e.g., modified dryer vents) will be left in place 48 hours to ensure owls have left the burrow before excavation. Two natural or artificial burrows will be provided for each burrow in the project area that will be affected. The project area will be monitored daily for 1 week to confirm owl use of burrows before excavating burrows in the immediate

impact zone. Whenever possible, burrows will be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe will be inserted into the tunnels during excavation to maintain an escape route for any animals inside the burrow.

Passive Relocation – Without One-Way Doors. Two natural or artificial burrows will be provided for each burrow in the project area that will be affected. The project area will be monitored daily until the owls have relocated to the new burrows. The formerly occupied burrows may then be excavated. Whenever possible, burrows will be excavated using hand tools and refilled to prevent reoccupation. Sections of flexible plastic pipe will be inserted into burrows during excavation to maintain an escape route for any animals inside the burrow.

- Several months in advance of construction activities, surveys will be conducted in all forested areas in the project footprint to locate active woodrat nests.
- If active woodrat stick nests are found within the project footprint area at the time of construction, relocation measures, developed in conjunction with CDFG, will be implemented to ensure that the project footprint is clear of woodrat nests before construction begins.

Threatened and Endangered Species

California Red-Legged Frog

- Seasonal Avoidance: To the extent practicable, construction will not occur during the wet season, when California red-legged frogs are more likely to disperse through upland habitats. Work within all waters, wetlands, and the riparian corridor will be limited to the period from April 15 to October 15, with the exception of vegetation clearing. Vegetation clearing may be done outside of this period, if necessary, to avoid disturbance to nesting birds.
- Preconstruction Surveys: A qualified biologist will conduct a California red-legged frog preconstruction survey of the work site 2 weeks before start-of-work activities begin, including vegetation clearing, grubbing, or other ground disturbance activities. If California red-legged frog adults, tadpoles, or eggs are found, the biologist will contact the USFWS and CDFG to determine whether relocating the species is appropriate. If the agencies approve of relocation, a USFWS-approved biologist will be allowed sufficient time to move the species from the work site before work activities begin. Only USFWS-approved biologists will participate in activities associated with the capture, handling, and monitoring of California red-legged frogs.
- Construction Area Delineation: Before any ground disturbance occurs on the project site, the boundaries of the project area will be clearly delineated with orange plastic high-visibility construction fencing (ESA fencing) or solid barriers to prevent workers or equipment from inadvertently straying from the project area.
- Wildlife Exclusion Fencing: Exclusion fencing will be erected along each section of the project area before project activities begin, including staging equipment and supplies. Fencing will be a minimum of 3 ft high and buried in the soil or form a tight seal with the pavement to prevent California red-legged frog from crawling under and entering the project area.

- Procedure for California Red-Legged Frog Discovery Onsite: If a California red-legged frog, or any amphibian that construction personnel believe may be this species, is encountered during project construction, or if any contractor, employee, or agency personnel inadvertently kills or injures a California red-legged frog, the following protocol will be followed:
  - All work that could result in direct injury, disturbance, or harassment of the individual animal will immediately cease.
  - The resident engineer will be immediately notified.
  - The resident engineer will notify the approved onsite biologist.
  - In case a non-injurious encounter occurs, the approved onsite biologist will transport the California red-legged frog immediately in a cool, moist container to a suitable location outside the project area (e.g., suitable habitat elsewhere in the Bodfish Creek watershed). This relocation site will be determined in advance by a qualified biologist in consultation with the USFWS and CDFG. The relocated individual(s) will be monitored until it is determined that the animal(s) are not imperiled by predators or other dangers.
  - The approved onsite biologist will notify the USFWS within 24 hours after California red-legged frog(s) have been relocated.
  - If a California red-legged frog has been killed or injured, the biologist will contact the USFWS and CDFG within 24 hours.
- Entrapment Avoidance: To prevent inadvertent entrapment of California red-legged frog or other animals during construction, all excavated, steep-walled holes or trenches more than 2 ft deep will be covered with plywood or similar materials at the end of each working day, or the holes or trenches will contain one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals. If, at any time, a trapped California red-legged frog (or other wildlife) is discovered, USFWS and CDFG will be contacted.
- Prohibition of Erosion Control Materials Potentially Harmful to California Red-Legged Frog: Plastic monofilament netting (erosion control matting) or similar material will not be used at the project site because California red-legged frog may become entangled and trapped in it. Tightly woven fiber netting or similar material will be used for erosion control or other purposes.
- Prevention of Introduction of Amphibian Diseases: Biologists will take all precautions to prevent spread of amphibian diseases when handling the listed species. All equipment and clothing will be disinfected per protocol standards.
- Regular Work Area Surveys: The biological monitor will conduct frequent surveys along the work area boundaries and will notify the USFWS-approved biologist if a California red-legged frog is found within the work area.
- Because California red-legged frog could be present throughout the project limits, temporarily or permanently impacted habitat, excluding existing hardscape features such as the roadway or road shoulder, will be mitigated by habitat restoration/replacement. Approximately 6.32 acres of permanent upland dispersal and aestivation habitat loss will be

mitigated at a 3:1 ratio resulting in 18.96 acres of mitigation for California red-legged frog upland dispersal and aestivation habitat. Temporary impacts will be mitigated at a 1.1:1 ratio, for a total of 0.84 acre. Of this, 0.76 acre will be onsite, in-kind restoration. Total mitigation (for both temporary and permanent loss) will be 19.80 acres.

California Tiger Salamander

- If California tiger salamander adults or juveniles are found, all work that could result in direct injury, disturbance, or harassment of the individual animal will immediately cease. The biological monitor will contact the USFWS and CDFG to determine whether relocating the species is appropriate. If the agencies approve of relocation, a USFWS-approved biologist will be allowed sufficient time to move the species from the work site before work activities begin. Only USFWS-approved biologists may participate in activities associated with the capture, handling, and monitoring of California tiger salamander.

- Temporarily or permanently impacted habitat, excluding existing hardscape features such as the roadway or road shoulder, will be mitigated by habitat restoration/replacement. Approximately 2.3 acres of permanent upland dispersal and aestivation habitat loss will be mitigated at a 3:1 ratio, resulting in 6.9 acres of mitigation for California tiger salamander upland dispersal and aestivation habitat. Temporary impacts of 0.67 acre will be mitigated at a 1.1:1 ratio, for a total of 0.74 acre. Of this, 0.67 acre will be restored onsite. Total mitigation (for both temporary and permanent loss) will be 7.64 acres.

Invasive Species

In compliance with the Executive Order on Invasive Species, E.O. 13112, and subsequent guidance from the Federal Highway Administration, the landscaping and erosion control included in the project will not use species listed as noxious weeds. In areas of particular sensitivity, extra precautions will be taken if invasive species are found in or adjacent to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur.

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Appendix G List of Technical Studies

The following technical studies were prepared to support this environmental document:

- Archaeological Survey Report, April 2009
- Biological Assessment, June 2009
- Historic Property Survey Report, May 2009
- Storm Water Data Report, February 2009
- Natural Environment Study, January 2010
- Visual Impact Assessment, September 2009
- Water Quality Report, August 2008
- Preliminary Geotechnical Report
- Initial Site Assessment, August 2009