

CURE Safety Improvement Project

Monterey County, California

05-Mon-101-PM R41.5/49.8

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SCH-2013091046

Draft 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 USC 327.

June 2014



General Information About This Document

What's in this document:

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration (FHWA), has prepared this Environmental Impact Report/Environmental Assessment (EIR/EA), which examines the potential environmental impacts of the alternatives being considered for the proposed project in Monterey County, California. Caltrans is the lead agency under the National Environmental Policy Act (NEPA), and Caltrans is the lead agency under the California Environmental Quality Act (CEQA). The document tells you why the project is being proposed, what alternatives we have considered for the project, how the existing environment could be affected by the project, the potential impacts of each of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures.

What you should do:

- Please read the document.
- Additional copies of the document and the related technical studies are available for review at the Caltrans district office at 50 Higuera Street, San Luis Obispo, CA 93401 as well as at the King City Branch Library at 404 Broadway Street, King City, CA 93930, telephone (831) 385-3677. This document can be downloaded at the following website: www.dot.ca.gov/dist05/projects/.
- We welcome your comments. If you have any concerns about the proposed project, please attend the public hearing, or send your written comments to Caltrans by the deadline. Submit comments via U.S. mail to Caltrans at the following address:

Matt Fowler, Senior Environmental Planner
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California Department of Transportation
50 Higuera Street
San Luis Obispo, CA 93401

- Submit comments via email to: matt.c.fowler@dot.ca.gov
- Submit comments by the deadline: August 22, 2014.

What happens next:

After comments are received from the public and reviewing agencies, Caltrans, as assigned by the Federal Highway Administration, may 1) give environmental approval to the proposed project, 2) do additional environmental studies, or 3) abandon the project. If the project is given environmental approval and funding is appropriated, Caltrans could design and construct all or part of the project.

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Matt Fowler, Environmental Planning, 50 Higuera Street, San Luis Obispo, CA 93401; phone (805) 542-4603 (Voice), or use the California Relay Service 1 (800) 735-2929 (TTY), 1 (800) 735-2929 (Voice), or 711.

Clean Up Roadside Environment (CURE) Safety Improvement Project on Highway 101 in Monterey County
near King City from 0.2 mile south of Canal Street Undercrossing to
0.4 mile north of Jolon Road and from Central Avenue to Lagomarsino Avenue.

DRAFT ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL ASSESSMENT

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

THE STATE OF CALIFORNIA
Department of Transportation
Responsible Agencies: California Transportation Commission

6/26/14
Date of Approval



Timothy M. Gubbins
District 5 Director
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Summary

The proposed project is a joint project by the California Department of Transportation (Caltrans) 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). Caltrans is the lead agency under both CEQA and NEPA. In addition, the Federal Highway Administration'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 Caltrans under its assumption of responsibility pursuant to 23 U.S. Code (USC) 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, quite often a "lower level" document is prepared for NEPA. One of the most common joint document types is an Environmental Impact Report/Environmental Assessment (EIR/EA).

After receiving comments from the public and reviewing agencies on this draft environmental document, Caltrans will prepare a Final EIR/EA. Caltrans may prepare additional environmental and/or engineering studies to address comments. The Final EIR/EA will include responses to comments received on the Draft EIR/EA and will identify the preferred alternative. If the decision is made to approve the project, a Notice of Determination will be published for compliance with CEQA, and Caltrans will decide whether to issue a Finding of No Significant Impact (FONSI) or require an Environmental Impact Statement (EIS) for compliance with NEPA. A Notice of Availability (NOA) of the FONSI will be sent to the affected units of federal, state, and local government, and to the State Clearinghouse in compliance with Executive Order 12372.

Overview of Project Area

Highway 101 is a State Highway Extra Legal Load (SHELL) Route and a Focus Route. Focus Routes consist of a statewide system for higher volume interregional trip movements, and completion of Focus Routes to minimum facility standards is a high priority.

Highway 101 serves as a connector route for agriculture land uses and is the primary route for trucks hauling produce and farm equipment. These trucks access Highway 101 using the at-grade intersections found along the rural expressway-classified portions of the highway. Within the cities of King City and Greenfield are businesses that require

deliveries by truck; these businesses generate truck traffic of their own as well. With Highway 101 part of the National Network, there are no limits to the type of Surface Transportation Assistance Act (STAA) truck that can use the highway. Trucks make up 11.8 percent of the annual average daily traffic volume.

Proposed Action

Caltrans is proposing a project in the Clean Up Roadside Environment (CURE) Safety Improvement Program. The proposed project would remove approximately 320 mature Tasmanian blue gum trees (*Eucalyptus globulus*) and one Monterey cypress tree (*Cupressus macrocarpa*), remove metal beam guardrail from the edge of pavement, replace drainage headwalls with flared end sections or drainage inlets, and relocate overhead utility pole guy wires and mission bell poles in the clear recovery zone. Additional work at these locations includes minor grading to reestablish flow lines, applying permanent erosion control, removing and replacing damaged barbed wire fencing, installing planting with irrigation, and constructing maintenance vehicle pullouts.

Purpose and Need

Purpose:

- Improve safety by providing an area clear of fixed objects next to the roadway.
- Eliminate the potential of trees and debris falling onto the roadway.
- Reduce maintenance worker exposure on the highway associated with tree maintenance activities and metal beam guardrail repairs.

Need:

- Create a safer roadside by removing fixed objects in the clear recovery zone.

The existing stands of eucalyptus trees are about 15 to 25 feet from the edge of the roadway. Metal beam guardrail is approximately 8 to 10 feet from the edge of the roadway. Guardrail itself is a fixed object, but is designed to redirect and dissipate the energy generated by an out-of-control vehicle, reducing the severity of a collision. The first consideration when addressing the clear recovery zone is to eliminate or minimize the condition requiring guardrail.

Records show the eucalyptus trees were a windbreak planting that existed in 1933 when the two-lane road was first built. The trees have reached maturity and are declining in health. In November 2012, a certified arborist made a general assessment of the trees and produced a tree risk assessment report. Sulfur fungus was observed on 28 eucalyptus trees in the survey. About 21 more trees had visible brown rot or diseased areas consistent with sulfur fungus infection. The fungus was also observed on eucalyptus stumps at the site.

About 94 percent of the trees were determined to be at high risk for failure, based on the general history of disease-linked tree failure in this corridor. The trees are more than 90 years old; many exceed 50 inches in diameter at breast height and approach or exceed 100 feet tall. The trees stand within the clear recovery zone behind metal beam guardrail. Due to poor drainage, fungal infections, freeze damage and constant wind, the stability of these trees is compromised.

From January 2010 through November 2012, seven trees fell over, damaging overhead utility lines and dropping branches and debris onto the roadway. Frequent severe pruning on the highway side for safety has made the trees off balance. In addition, severe topping cuts (topping off the trees) have weakened limb attachments where there is new growth.

There is a high risk for whole tree failure due to all of these factors: the age of the trees, presence of fungal diseases, severe pruning for maintenance over many years, location of the trees within the clear recovery zone, saturated underground conditions, and high winds, which are common in the area.

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Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans) is the lead agency under both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA).

Caltrans is proposing a project in the Clean Up Roadside Environment (CURE) Safety Improvement Program on Highway 101 between the cities of King City and Greenfield (post miles R41.5/49.8), as shown in Figures 1-1a and 1-1b.

Project funding (\$1,957,560) would come through the State Highway Operation and Protection Program (SHOPP) for right-of-way and construction in the 2015/2016 funding year.

Over a distance of about 4 miles at four separate locations, the project would remove approximately 320 mature Tasmanian blue gum trees (*Eucalyptus globulus*) and one Monterey cypress tree (*Cupressus macrocarpa*), remove metal beam guardrail from the edge of the pavement, replace drainage headwalls with flared end sections or drainage inlets, and relocate overhead utility pole guy wires and mission bell poles in the clear recovery zone. An area clear of fixed objects next to the roadway is desirable to provide a recovery zone for vehicles that might veer or pull off the highway. Appropriate planting would occur in various areas along the highway.

Background

The project would be funded through the State Highway Operation and Protection Program (SHOPP) for right-of-way and construction in the 2015/2016 funding year at a cost of \$1,957,560.

This project was initiated by Traffic Safety under the State Highway Operation and Protection Program during the Project Initiation Development phase. A Project Study Report was approved on September 26, 2011. Four locations on the southbound roadside of Highway 101 were identified for CURE treatment to minimize potential collisions, including collisions related to the metal beam guardrail and existing stands of eucalyptus trees in the clear recovery zone. These fixed objects in the clear recovery zone present a potential for collisions by errant vehicles. In addition, repair of the metal beam guardrail and pruning of the trees increase worker exposure to traffic. The Project Study Report identified potential mitigation planting locations in

Greenfield. However, the Visual Impact Assessment prepared during the Project Approval and Environmental Document phase identified only the need for planting at Broadway and Jolon Road in King City. Therefore, the project limits have been shortened by 5.2 miles because planting in Greenfield is no longer being considered.

1.2 Purpose and Need

The Purpose and Need section of this document discusses the reasons for the project and provides structure for the development of alternatives. In the alternative selection process, alternatives are evaluated and compared on how well they meet the project purpose and need, along with the analysis of potential environmental and economic costs.

1.2.1 Purpose

The purpose of this project is to:

- Improve safety by providing an area clear of fixed objects next to the roadway.
- Eliminate the potential of trees and debris falling onto the roadway.
- Reduce maintenance worker exposure on the highway associated with tree maintenance activities and metal beam guardrail repairs.

1.2.2 Need

- The project is needed to create a safer roadside environment by removing fixed objects in the clear recovery zone.

The existing stands of eucalyptus trees and metal beam guardrail are about 15 to 25 feet from the edge of the roadway. In addition, the eucalyptus trees pose a long-term maintenance and safety issue due to whole trees or limbs falling onto the highway. Over a quarter of the trees have a diameter at breast height of 50 inches, and almost half are 100 feet tall or taller. They have reached their maximum lifespan and size and have several structural defects contributing to their decline. The main defect is root- and wood-decaying fungi that predispose them to uprooting and tree failure at increasing rates.

In 2012, a certified arborist prepared a tree risk assessment report, citing the current condition of the eucalyptus trees, the level of risk they present, and recommendations to reduce that risk. The report concluded that more than 90 percent of the trees

surveyed were at “high risk for failure,” noting “the assessed issues have now become very clear and the probability of failure is now getting serious.”

The main risk is root failure due to sulfur fungus with no effective way to abate the risk other than tree removal. Other potential causes of tree failure include the following: other pathogens, strong winds, termites, uneven canopies, topping cuts/uneven trimming, leaning trees, exposed deadwood, co-dominant trunks, and root damage. Sample testing with a resistograph revealed that even trees that appear visually healthy have decay and pose a substantial risk for tree failure. Due to the severity and widespread nature of the diseased trees, the report concluded that all of the eucalyptus trees should be removed.

1.3 Project Description

The project would remove all fixed objects in the clear recovery zone along a 4-mile section of the southbound roadside of Highway 101 between King City and Greenfield in Monterey County. See Figure 1-1 for a map of the project vicinity and project location.

The project would remove approximately 320 mature Tasmanian blue gum trees (*Eucalyptus globulus*) and one Monterey cypress tree (*Cupressus macrocarpa*), remove metal beam guardrail from the edge of the pavement, replace drainage headwalls with flared end sections or drainage inlets, and relocate overhead utility pole guy wires and mission bell poles in the clear recovery zone. Additional work at these locations includes minor grading to reestablish flow lines, applying permanent erosion control, removing and replacing damaged barbed wire fencing, installing planting with irrigation, and constructing three maintenance vehicle pullouts (see Figure 2-2a Tree Planting and Maintenance Vehicle Pullout locations).

1.3.1 Project Alternatives

This section describes the project alternatives that were developed by an interdisciplinary team to achieve the project purpose while avoiding or minimizing environmental impacts. Several criteria were taken into consideration when evaluating the alternatives for the proposed project, including the project purpose and need, cost, and environmental impacts. Alternative 1 proposed removal of fixed objects in the clear recovery zone on the southbound side including the removal of Eucalyptus trees. Alternative 2 proposed removing fixed objects in the clear recovery zone on the southbound side, including partial removal of eucalyptus trees based on

finding by a certified arborist. The remaining trees would be pruned to remove dead or dying limbs. Alternative 3 is the No-Build Alternative.

Because the arborist report concluded that all of the eucalyptus trees should be removed, Alternative 1 and 2 of the Project Study Report resulted in the same scope. These two alternatives are now documented as Alternative 1 in the Project Report.

1.3.2 Build Alternative

Alternative 1

This alternative would remove all fixed objects in the clear recovery zone along a 4-mile section of the southbound roadside of Highway 101. Work would entail the removal of approximately 320 mature Tasmanian blue gum trees (*Eucalyptus globulus*) and one Monterey cypress tree (*Cupressus macrocarpa*), removal of metal beam guardrail from the edge of the pavement (previously installed to shield motorists from the trees in the clear recovery zone), replacement of drainage headwalls with flared end sections or drainage inlets, and relocation of overhead utility pole guy wires and mission bell poles in the clear recovery zone. An area clear of fixed objects adjacent to the roadway is desirable to provide a recovery area for vehicles that veer or pull off the roadway. On most highways, a 20- to 30-foot minimum is advised for a clear recovery zone.

Trees identified for removal (see Tree Removal Locations, Figures 1-2a to 1-2j) would be cut from the top down and lowered to the ground in segments using a crane. Branches that are less than 30 inches in diameter would be chipped onsite. Tree trunks and branches 30 inches and larger in diameter would become the property of the contractor and transported offsite. The base of the tree and root-ball would be stump-ground to a minimum of 12 inches below grade. The area would then be graded to fill in voids.

Additional work at these locations includes permanent erosion control, removing and replacing damaged barbed wire fencing, installing planting with irrigation, and minor grading to reestablish flow lines (known as roadside drainage swales). Work in these swales would be minimal, mainly clearing them of debris (considered routine maintenance work). No change to hydraulic capacity or alignment would occur.

Three maintenance pullouts would be constructed on the southbound roadside of Highway 101; they were identified to minimize potential collisions, including collisions related to the metal beam guardrail and existing stand of eucalyptus trees in

the clear recovery zone. Guardrail itself is a fixed object, but is designed to redirect and dissipate the energy generated by an out-of-control vehicle to reduce the severity of a collision. The first consideration when addressing the clear recovery zone is to eliminate or minimize the condition requiring guardrail.

New planting would be put in, with irrigation (see Tree Planting Locations, Figures 2-2a to 2-2d, in Chapter 2). The species being considered are 1- and 15-gallon-size cottonwoods, oaks, eucalyptus and native shrubs. Planting locations include the Broadway Undercrossing (post mile R41.2) in King City and the Jolon Road Undercrossing (post mile R42.0) north of the Salinas River Bridge. Work would include a three-year plant establishment period to maintain the planting and operate the irrigation.

1.3.3 No-Build (No-Action) Alternative

Alternative 3

The No-Build Alternative provides a baseline for consideration of the other alternatives and may be preferred if the other alternatives and/or variations have significant impacts on the environment, do not serve the project's purpose and need to improve safety by providing an area clear of fixed objects, eliminating the potential of trees and debris falling onto the roadway and reducing maintenance worker exposure on the highway associated with tree maintenance activities and metal beam guardrail repairs.

1.4 Alternative Considered but Eliminated from Further Discussion

Alternative 2

The decision to remove trees from the clear recovery zone was based on findings provided by a certified arborist. The certified arborist's March 2013 Tree Risk Assessment Report, which assessed the condition of the eucalyptus trees and the level of risk they present, concluded that approximately 94 percent of the trees surveyed were determined to be high risk, mainly due to their size, the proximity of Highway 101, and their history of root failure.

The risk presented by most of the trees cannot be effectively abated because: 1) the whole tree has an elevated risk of failure due to decay in structural roots, 2) there is no feasible treatment for sulfur fungus or Armillaria, and 3) the highest-risk potential target, Highway 101, cannot be feasibly moved.

Retention of substantial numbers of trees, while removing those with the highest probability of failure, could create additional problems because most of the trees are in a windrow. Opening gaps in a windrow increases the probability of failure for the trees next to the new gap.

1.5 Permits and Approvals Needed

No permits or approvals are required.

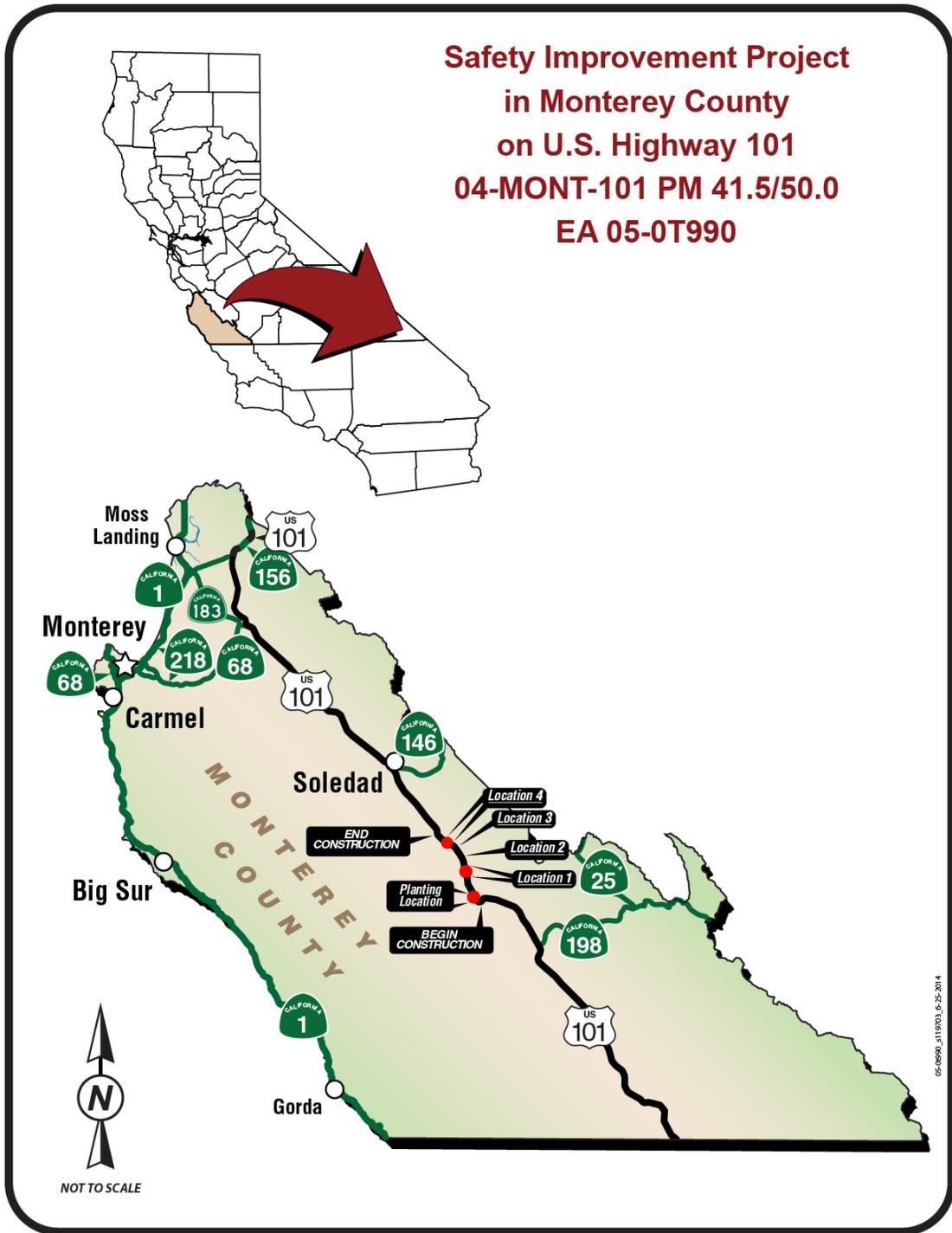


Figure 1-1a Project Vicinity Map

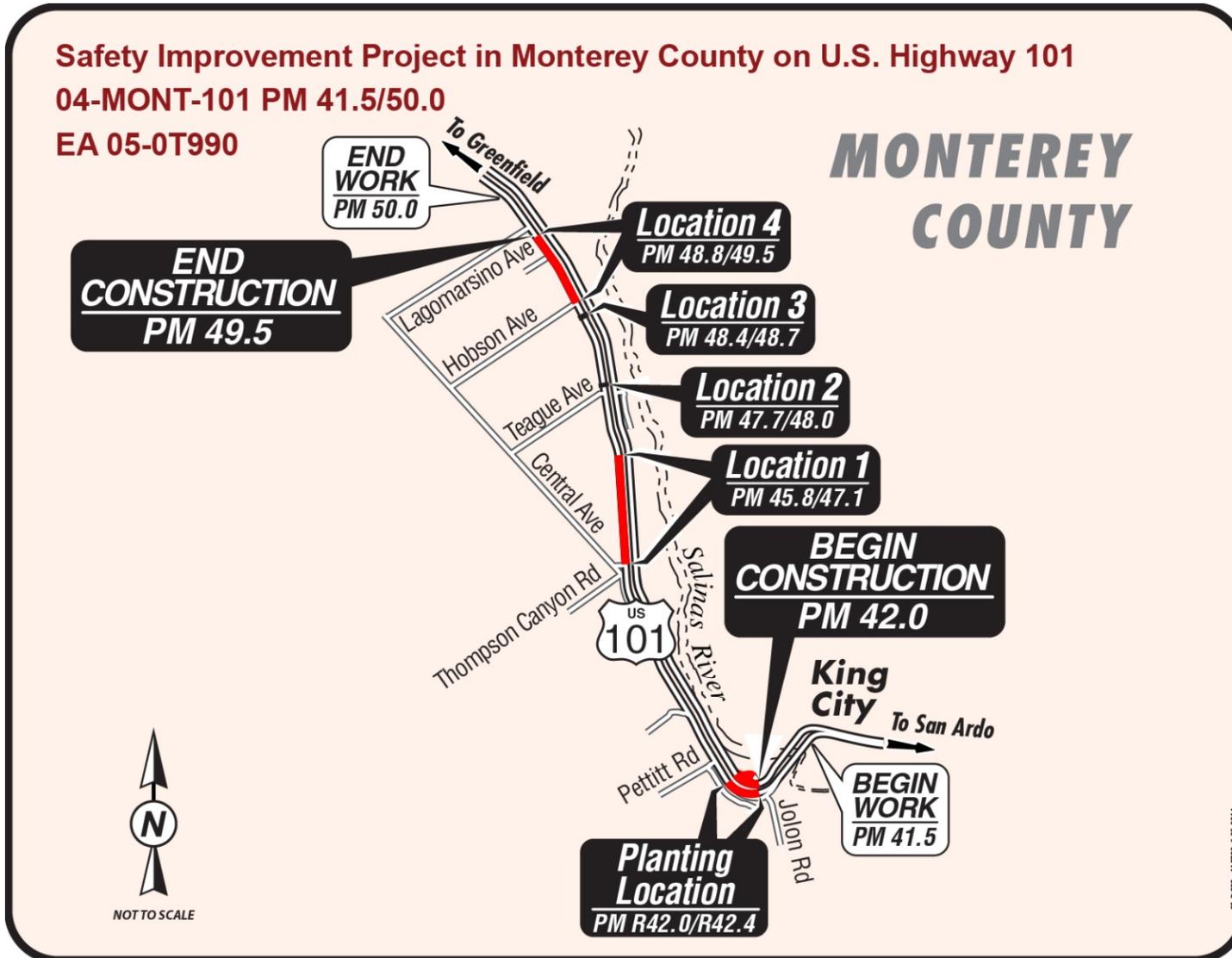


Figure 1-1b Project Location Map



Figure 1-2a Tree Removal Locations



Figure 1-2b Tree Removal Locations



Figure 1-2d Tree Removal Locations



Figure 1-2e Tree Removal Locations



Figure 1-2f Tree Removal Locations



Figure 1-2g Tree Removal Locations

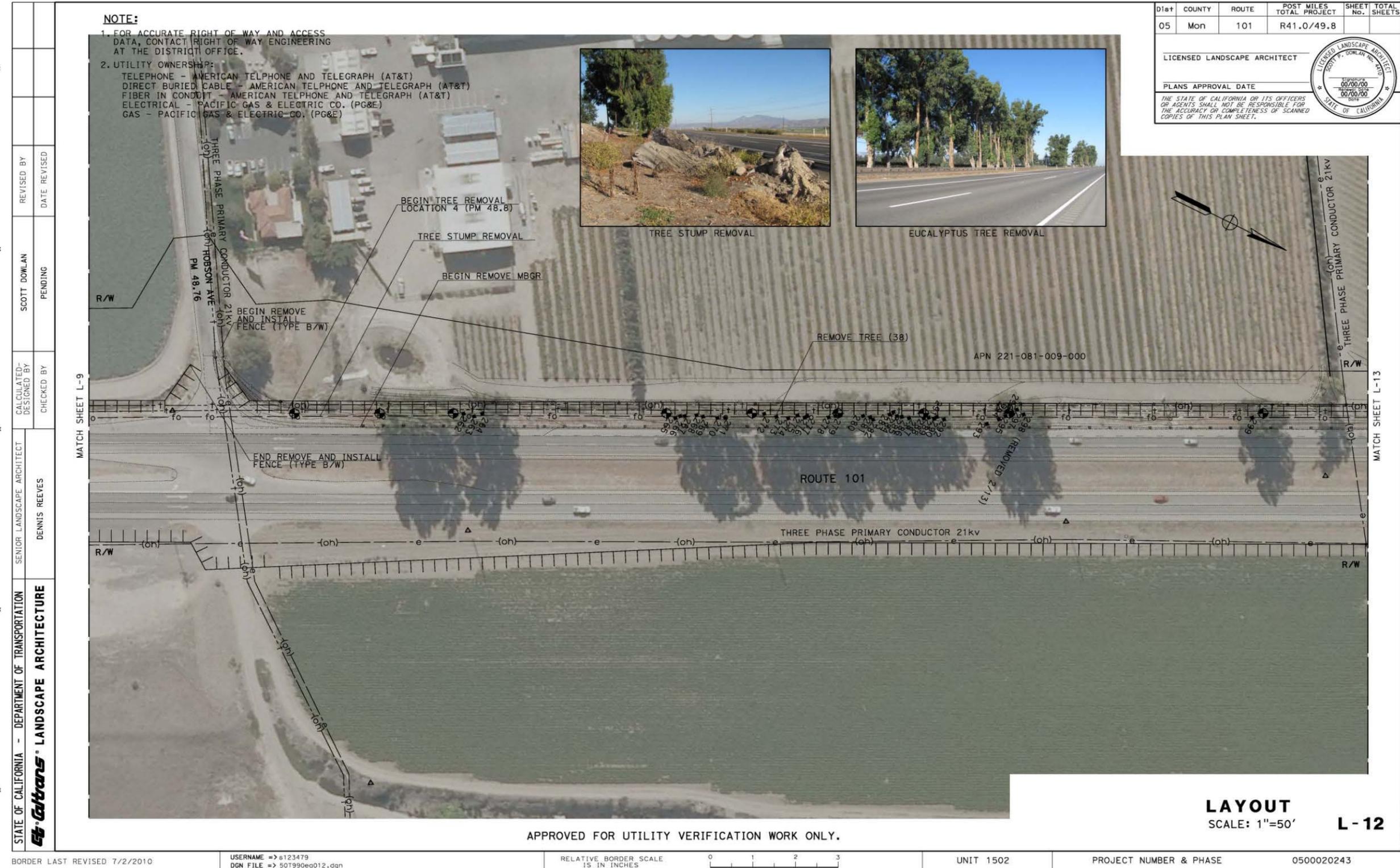


Figure 1-2h Tree Removal Locations



Figure 1-2i Tree Removal Locations

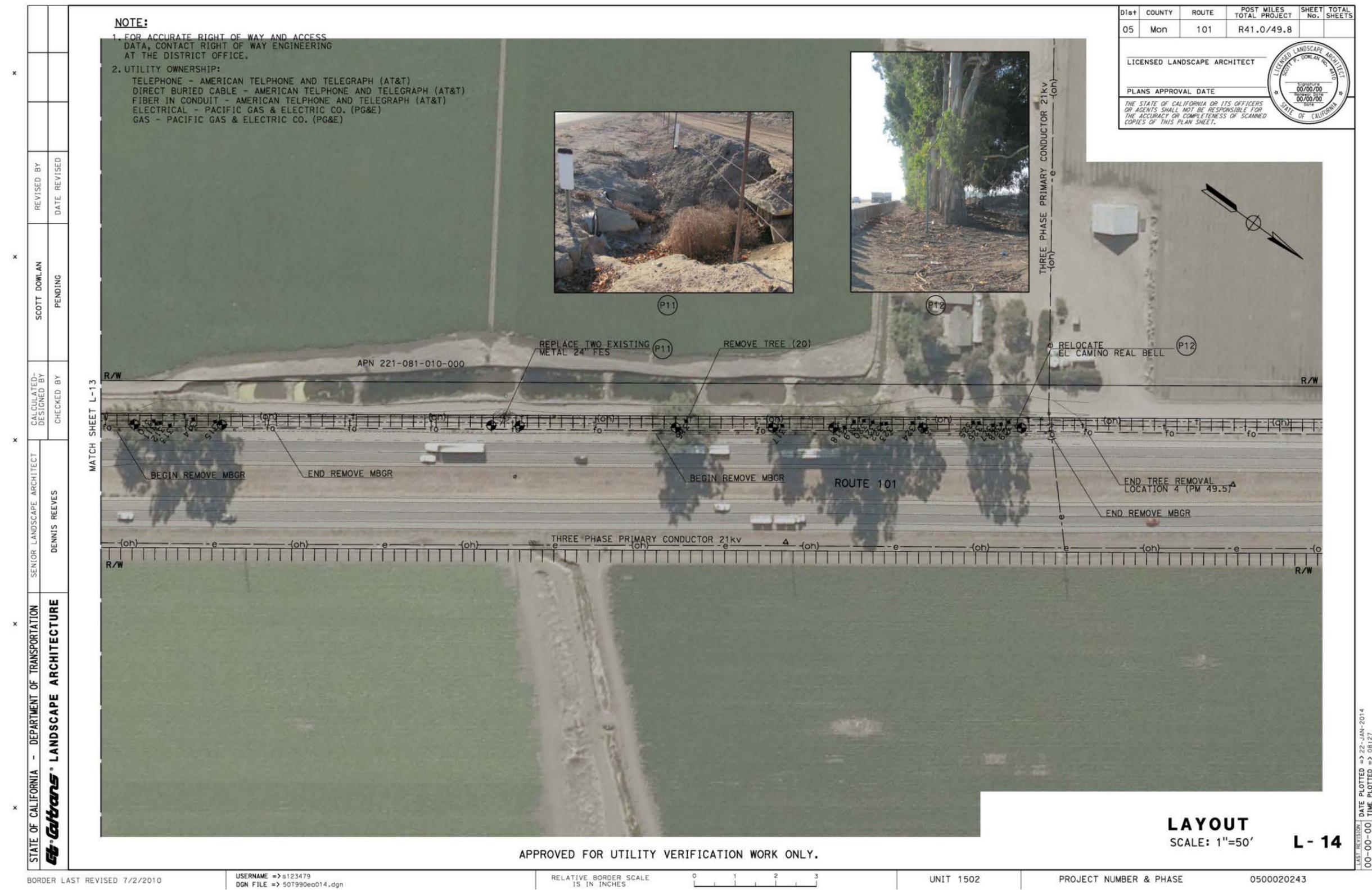


Figure 1-2j Tree Removal Locations

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

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 of these issues in this document.

- Existing and Future Land Use—There would be no impacts on existing and future land uses because no land would be acquired and no expansion in highway capacity would occur.
- Consistency with State, Regional and Local Plans and Programs—The project is not inconsistent with *Monterey County's Scenic Highway Corridors and Visual Sensitivity Map* for the Central Salinas Valley (Monterey County Resource Management Agency, January 26, 2010).
- Coastal Zone—The proposed project is not in the coastal zone.
- Wild and Scenic Rivers—There are no wild or scenic rivers within the project footprint.
- Park and Recreational Facilities—There are no parks or recreational facilities within the project footprint.
- Growth—Due to the nature of the project, there would be no impacts on growth from the project. This is a project to remove trees.
- Farmlands/Timberlands—A temporary construction easement would be acquired at Location 1 where trees are to be removed. This would allow for safe construction access behind metal beam guardrail on the dirt farm road, away from the roadway. All work would occur 20 to 30 feet from any agriculture. Damage to existing crops would not be allowed. The agricultural land is outside the legal jurisdiction, and workers would not be able to encroach beyond the legal boundary.

- **Community Character and Cohesion**—No communities would be affected by construction of the project. Recognizability of the highway would change with the tree removal, but the removal would not impact the growth, character, or socio-economics of the adjacent communities.
- **Relocations and Real Property Acquisition**—No relocations or real property acquisitions are associated with this project. A temporary construction easement would be acquired so that trucks can drive along the dirt road to assist the cutting of the trees. This area is a dirt road that lies between the agricultural land and the highway.
- **Environmental Justice**—No environmental justice issues are associated with this project. The removal of trees does not disproportionately impact the health or environment of any minority or low-income population.
- **Traffic and Transportation/Pedestrian and Bicycle Facilities**—Temporary construction impacts. A Traffic Management Plan has been provided for the project to reduce delays and minimize construction-related activities. Plan elements include changeable message signs, a public awareness campaign, and use of the Construction Zone Enhanced Enforcement Program (COZEEP). Traffic management strategies include daytime single-lane and shoulder closures and limited work windows. No bicycles are allowed on this highway.
- **Cultural Resources**—No cultural resources would be affected. Letters were sent to interested parties (county and local historical agencies and organizations), and Native American consultation was initiated at the beginning of cultural resources studies. The tree rows were formally evaluated in a Historical Resources Evaluation Report and were determined not to be eligible for listing in the National Register of Historic Places (either as an individual resource or as a contributor to a potential historic district). They were similarly determined not to meet the criteria for eligibility to the California Register of Historical Resources and do not constitute historical resources for the purposes of the California Environmental Quality Act. The State Historic Preservation Officer concurred with Caltrans' eligibility determinations and did not object to Caltrans' finding of No Historic Properties Affected on September 5, 2013 (see Appendix F).
- **Water Quality and Storm Water Runoff**—The proposed project would not affect water quality or storm water runoff (Water Compliance Study, November 25, 2013).

- **Geology/Soils/Seismic/Topography**—There would be no impacts on geology, soils, seismicity, or topography at the project site (Geotechnical Memo, March 12, 2014).
- **Paleontology**—There is low or no probability of encountering paleontological resources within the project footprint (Paleontology Report, June 6, 2011).
- **Wetlands and other Waters**—The project would not have any impacts on wetlands or other waters (Natural Environment Study, November 13, 2013).
- **Hazardous Waste/Materials**—Aerially deposited lead (ADL) will not be an issue because only minor grading will be performed on this project. Treated wood posts from existing metal beam guard railing will be disposed of in conformance with established procedures.
- **Air Quality**—The only air impacts anticipated are temporary construction impacts. Dust could occur from cutting down the trees and digging out tree stumps. Emissions from tree cutting and excavating equipment could also occur. Caltrans Standard Specifications for dust control, storm water pollution prevention and emissions reductions would minimize construction dust.
- **Noise**—The project lies in a mostly rural setting, with a few residences near the highway within the project limits. During construction activities, noise may intermittently dominate the environment in the immediate area of construction. After completion of the project, local noise levels would be the same as they were before.
- **Energy**—Caltrans incorporates energy efficiency, conservation and climate change measures into transportation planning, project development, design, operations and maintenance of transportation facilities, fleets, buildings and equipment to minimize use of fuel supplies and energy sources and reduce greenhouse gas emissions (see Chapter 3). When balancing energy used during construction and operation against energy saved by relieving congestion and other transportation efficiencies, the project would not have substantial energy impacts.
- **Plant Species**—Biological studies indicate that there are no special-status plants within the project limits (Natural Environment Study, November 13, 2013).
- **Animal Species**—Presence of nesting migratory birds in the eucalyptus trees could hinder the removal of the trees. It is highly likely that active nests could be

in the trees during the nesting season because of the large number of trees proposed for removal. No trees within approximately 100 feet of any active nests would be removed until after all birds have fledged. Removal of the invasive eucalyptus trees and non-native plants along with replacement of native plants would benefit animal species that may reside in the vicinity (Natural Environment Study, November 13, 2013).

- Threatened and Endangered Species—No threatened or endangered species will be affected by this project (Natural Environment Study, November 13, 2013).

2.1 Human Environment

2.1.1 Utilities/Emergency Services

Relocation of one utility anchor pole is required because it is in the clear recovery zone and would not be protected from traffic once the existing metal beam guardrail is removed. Utility relocation of this pole would be required before construction.

Five overhead telephone pole guy wires have been identified as being in the clear recovery zone. AT&T, the owner of this facility, has been contacted and it has advised that these wires can be removed and no additional guy wires will be required. Removal of these guy wires would occur before construction.

2.1.2 Visual/Aesthetics

Regulatory Setting

The National Environmental Policy Act of 1969 as amended 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. Code 4331[b][2]). To further emphasize this point, the Federal Highway Administration in its implementation of National Environmental Policy Act (23 U.S. Code 109[h]) directs that final decisions on 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.

The California Environmental Quality Act 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 Section 21001[b]).

Affected Environment

The Visual/Aesthetics section is based on the Visual Impact Assessment (November 2013) produced for the project. The Visual Impact Assessment was prepared using a process developed by the Federal Highway Administration in conjunction with the American Society of Landscape Architects, specifically for assessing projects related to highways and roadway corridors.

Existing Visual Setting

The visual quality of the highway corridor through the project area is moderate to moderately high, based mainly on the broad vistas of working agricultural land and open space. The Coast Range and Gabilan Hills also contribute to the visual quality, providing a scenic backdrop in the distance to the east and west. The nearby cities of King City and Greenfield are relatively compact and are typical of smaller towns seen along Highway 101. These communities, though visible from the highway, do little to diminish the overall rural visual character of the corridor.

The visual character within the project limits is distinctly rural, and development is sparse except for farms, agricultural operations and associated support buildings. A few ranch houses are seen scattered throughout the area, and the geometric patterns of the fields are a defining characteristic of the landscape. Vegetation patterns along the corridor include low crops and vineyards, a few riparian corridors crossing the flat valley, and occasional taller windrows of trees associated with farms, field boundaries, and trees lining the highway.

Within the project limits are approximately 320 blue gum eucalyptus trees concentrated in four locations along the highway (see Figure 1-1 Project Vicinity and Location Map). The trees proposed for removal range from approximately 60 feet tall to over 100 feet tall. Of the four tree removal locations, two are in the form of large windrows. Location 1 is the longest, running about 6,500 feet (1.23 miles) along the roadside. The other windrow is at Location 4, running about 4,000 feet (0.76 mile).

The windrows found at Locations 1 and 4 are dominant visual elements as seen from the surrounding area, due to their large stature, numbers, and proximity to the highway. The trees at Locations 2 and 3 contribute to the overall vegetative character, but are less visually dominant than the windrows found at Locations 1 and 4.

Analysis Methodology

This study used an analysis model developed by the Federal Highway Administration in conjunction with the American Society of Landscape Architects. Main components of the process included establishing the visual environment of the project, assessing the visual resources of the project area, and identifying the viewer response to those resources. Those components defined the existing or baseline conditions. Resource change introduced by the project and the associated viewer response were then assessed, providing a basis for determination of potential visual impacts. The visual impact was determined by assessing the extent of physical change (resource change) and comparing that with the degree of viewer sensitivity (viewer response).

Visual Resource Change

Physical changes caused by the project are seen mainly in terms of form, line, color and texture as well as relational aspects of scale, dominance, diversity and continuity. These physical attributes are visually experienced as an integrated whole, defining the perceived visual character of the landscape. How these attributes relate to one another and their setting is assessed by analyzing what is defined in the Federal Highway Administration methodology guidance as the view's *vividness*, *intactness* and *unity*, described as follows:

- Vividness is the visual power or memorability of the landscape components as they combine in striking and distinctive visual patterns.
- Intactness is the visual integrity of the landscape and its freedom from non-typical encroaching elements. If all of the various elements of a landscape seem to “belong” together, there will be a high level of intactness.
- Unity is the visual harmony of the landscape considered as a whole. Unity represents the degree to which potentially diverse visual elements maintain a coherent visual pattern.

To assess the degree of resource change caused by the project, the Federal Highway Administration method recommends a numerical rating process that compares the visual quality in terms of vividness, intactness and unity, of both the existing and proposed conditions for each project alternative and option under consideration. Separate Resource Change (RC) evaluations were done from each of the seven representative Observer Viewpoints. A numerical rating from 1 to 7 was assigned for the visual quality of existing conditions from each viewpoint, with 1 having the lowest value and 7 the highest. Photo simulations were then prepared showing the

likely appearance of each view after project construction. After a combination of field reviews and photo simulation study, numerical ratings were then assigned to each of the “proposed” views. The numerical difference, if any, between the existing and proposed conditions quantified the degree of resource change that could occur as a result of the project.

The Resource Change evaluation determined which specific criterion contributed most to the existing quality of each view and if change would occur to that criterion as a result of the project. If a numerical change in a visual criterion was identified, this change was analyzed for its potential effect on the existing visual quality.

Ultimately, the degree of change (as determined by the Resource Change evaluation) must be combined with the anticipated viewer response to understand and determine potential levels of visual impact. The numerical resource change and visual impact rating tables for each of the Observer Viewpoints are included in Appendix A of the Visual Impact Assessment.

Viewer Response

To understand and predict viewer response to the appearance of a highway project, we must know something about the viewers who may see the project and the aspects of the visual environment to which they are likely to respond. We can differentiate major viewer groups by physical factors that modify perception. For highway projects, we begin with the basic distinction of the views from the road and the views of the road, as well as the physical location of each viewer group, number of people in each group, and duration of their view. The receptivity of different viewer groups to the visual environment is not equal. This variable receptivity is defined as *viewer sensitivity* and is strongly related to visual preference. It modifies visual experience directly by means of viewer activity and awareness; indirectly, sensitivity modifies experience by means of values, opinions and preconceptions.

Viewer response assumptions include consideration of viewing proximity, duration of views, activity while viewing, and overall viewing context. Local values based on visual preferences, historical associations, community aspirations and goals are also important factors in predicting viewer sensitivity and response to change.

Based on a project’s proximity to high quality visual resources, as well as the importance of the visual environment, highway and community aesthetics as identified in local, state and national planning documents, this analysis assumes an overall high level of viewer sensitivity throughout the project’s length and in the

surrounding area. At any given viewpoint, this generally high level of viewer sensitivity is modified by the previously mentioned factors such as viewing distance, location and availability. The overall number of viewers and duration of views can also amplify or diminish the high degree of visual sensitivity generally assumed for a certain viewpoint.

Separate Viewer Response (VR) ratings were made for each of the seven representative Observer Viewpoints. A numerical rating between 0 and 7 was assigned for the expected viewer sensitivity and response from each viewpoint, with 0 having the lowest value and 7, the highest.

Viewer Groups

Two general viewer groups were considered for the evaluation of viewer response: those with views from the road and those with views of the road. The awareness of visual resources by these viewer groups is expected to vary with their specific activity. Tourists, which make up a moderate number of viewers on Highway 101, generally have a high awareness of the visual resources around them, yet are less sensitive to specific changes in that environment. Local residents are generally the most sensitive to aesthetic changes due to their familiarity as well as their personal investment in the area. Commuters are often familiar with an area, but the repetitive nature of the activity reduces awareness of the visual experience. In general, highway users in motor vehicles will perceive the area as a cumulative sequence of views and may not focus on specific roadway features. Pedestrians and bicyclists can be very aware of their visual surroundings because of the duration of views, slower pace and viewing proximity.

Viewers from the road are Highway 101 users. The viewers along this segment of the highway are primarily in motor vehicles; pedestrian and bicycle activity along the highway is not commonly seen. Highway 101 provides a variety of local, regional and statewide uses. Commuters, freight movement, farm service and commercial vehicles, tourism, and recreational travelers are part of the group experiencing the area from the highway.

Viewers of the road are those who can see the road project or any of its components from offsite locations. In the project vicinity, a few local roadways cross the landscape and would be able to provide views of the trees. Scattered farm and ranch houses are also within view of the project. Another group with offsite views of the

project would be the workers tending and processing the field crops in the surrounding area.

Viewer Sensitivity

Viewer sensitivity regarding changes to visual quality in the area is considered to be moderate. No local- or state-designated scenic roadways are identified within view of the project. The hills west of the project are the only nearby sensitive visual resources defined by Monterey County planning policy. Viewers traveling Highway 101 and within the surrounding area represent a wide range of users and associated viewing expectations. On one hand, the overall landscape of the project area is typical of much of the greater Salinas Valley, and its visual character may be considered commonplace. On the other hand, the baseline visual quality of the region is fairly high due to the combination of rural development and agriculture, with a backdrop of scenic hillsides. This level of visual quality may create an increased appreciation for scenic values and the overall landscape setting.

Although this project includes four separate tree removal locations over a distance of about 3.9 miles, the overall viewer-group characteristics are expected to be similar for all locations. Travelers on Highway 101 will typically experience each of the locations as they travel through the corridor. The mix of viewer groups will likely be the same for each of the four locations. As a result, the same numerical Viewer Response Rating of 4.0 (Moderate) has been assigned throughout the project's length.

Observer Viewpoints

Consistent with Federal Highway Administration guidance, representative viewing locations have been called Observer Viewpoints (OV). This selection best represents the typical visual character of the project and shows unique project components or affected resources that represent affected viewer groups.

A total of seven viewing locations were selected based on which would best reveal the project features and any potential visual character change.

Observer Viewpoint locations are shown in Table 2-1 and Figure 2-1.

Table 2-1 Observer Viewpoint (OV) Locations

OV Number	Observer Viewpoint Location
1	From Highway 101 about 0.4 mile north of Central Avenue looking northbound toward Work Location 1.
2	From Highway 101 about 1.2 miles north of Central Avenue looking southbound toward Work Location 1.
3	From Highway 101 about 0.4 mile south of Teague Avenue looking southbound toward Work Location 1.
4	From Highway 101 near the intersection of Teague Avenue looking northbound toward Work Location 2.
5	From Highway 101 about 0.3 mile south of Hobson Avenue looking northbound toward Work Location 3.
6	From Highway 101 near the intersection of Hobson Avenue looking northbound toward Work Location 4.
7	From Highway 101 about 0.5 mile south of Lagomarsino Avenue looking northbound toward Work Location 4.

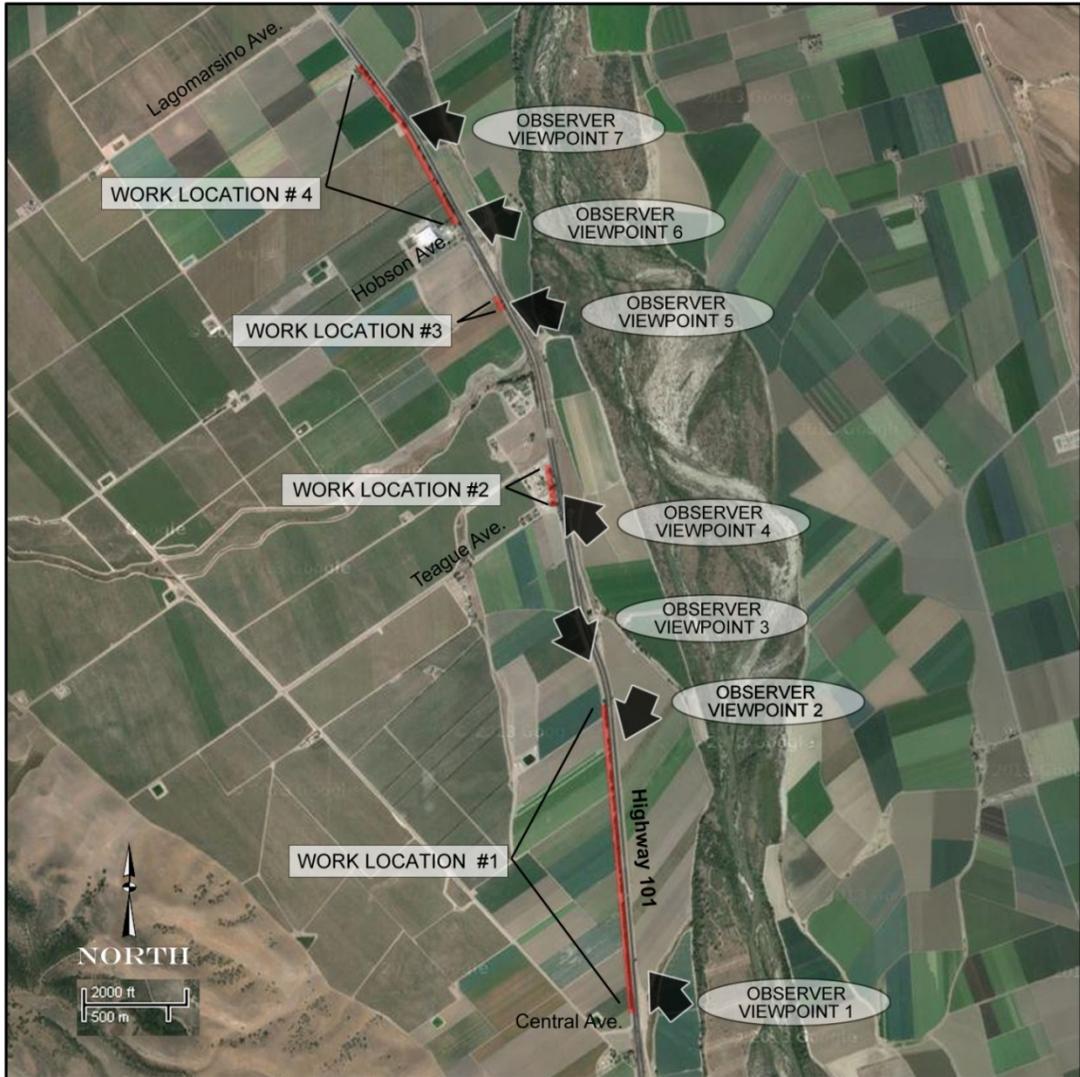


Figure 2-1 Observer Viewpoint Location Map

Environmental Consequences

Photographs of the existing conditions along with photo simulations of the conditions after the project are provided below so you can understand the visual changes proposed by the project.

OBSERVER VIEWPOINT 1 – From Highway 101 about 0.4 mile north of Central Avenue looking northbound toward Work Location 1

OV-1 Existing Condition



Observer Viewpoint 1 is considered to be of moderately high baseline visual quality, due to the combination of rural agricultural land and memorability of the eucalyptus windrow. The ratings for this viewing location show that the visual intactness and unity are fairly high because the composition is cohesive and no atypical elements dominate the scene. The vividness rating is very high because of the large scale of the eucalyptus trees, their proximity to the highway viewer, and their uniqueness in the view and along the corridor. From this viewpoint, the landmark-level quality of the trees is evident.

OV-1 Proposed Condition



The project would remove the windrow of eucalyptus trees at this location. The resulting view would maintain a relatively high degree of unity and intactness because the surrounding agricultural fields and rural character would be dominant. The change in view quality would be due to the dramatic loss of visual scale and memorability associated with the trees. The existing utility poles and lines would also be more noticeable. The overall view quality would remain slightly above moderate and would be typical of much of the scenery along the highway through the Salinas Valley. However, the view at this location would have a substantial loss of memorable qualities and a dramatic alteration of the spatial characteristic currently provided by the eucalyptus trees.

**OBSERVER VIEWPOINT 2 – From Highway 101 about 1.2 miles north of
Central Avenue looking southbound toward Work Location 1**

OV-2 Existing Condition



At Observer Viewpoint 2, similar to Observer Viewpoint 1, the visual quality from this location is of moderately high visual quality due to the overall rural agricultural character of the area. As you travel in the southbound direction, views of the Coast Range are somewhat more noticeable, which increases all three visual rating criteria. Along this area, the existing row of eucalyptus trees is the most dominant visual element, substantially adding to the view quality and memorability of the scene.

OV-2 Proposed Condition



With removal of the existing row of eucalyptus trees, the view quality remains somewhat above average, due mostly to the rural and agricultural nature of the surrounding landscape. Southbound views in this area provide more direct visibility of the Coast Range, which somewhat elevates the unity, intactness and vividness ratings. As with the other viewpoints in the vicinity of the tree removal, the loss of the landmark characteristics currently provided by the eucalyptus windrow results in a substantial reduction in the memorability of the view.

**OBSERVER VIEWPOINT 3 – From Highway 101 about 0.4 mile south of
Teague Avenue looking southbound toward Work Location 1**

OV-3 Existing Condition



Observer Viewpoint 3 represents the more distant views of the proposed tree removal locations. From this viewpoint, the eucalyptus trees occupy a smaller percentage of the overall view, and the surrounding landscape is more dominant. From more distant viewpoints, the surrounding hills to the west can generally be seen more easily. As a result, the overall unity and intactness ratings are increased to above-average levels. The intactness or memorability rating, however, is not as high as other viewpoints closer to the eucalyptus trees because the visual dominance of the roadside trees is not as pronounced.

OV-3 Proposed Condition



As seen from this viewpoint, the removal of the eucalyptus trees would result in less of an alteration of visual quality than viewpoints closer to the tree removal. Because the roadside windrow contributes less to the overall character of the view at this distance, both the unity and intactness would remain above average. The memorability of the view from this location would be somewhat reduced, but to a lesser extent than from viewpoints nearer the eucalyptus trees.

**OBSERVER VIEWPOINT 4 – From Highway 101 near the intersection of
Teague Avenue looking northbound toward Work Location 2**

OV-4 Existing Condition



As seen from Observer Viewpoint 4, the existing memorability or vividness of the view is somewhat high, but not to the extent of some other views where the eucalyptus trees form a dominant windrow along the roadside. Here, the overall agricultural and rural character is still a major contributor to the visual quality, though the adjacent development somewhat affects the unity of the view. As a result, all three of the rating criteria are in the above-average range.

OV-4 Proposed Condition



As seen from this viewpoint, most of the mature trees seen are located on private property and would not be removed as part of the project. The resulting loss of trees in this area would not be readily noticed because the remaining adjacent trees would maintain the basic visual character and quality of the view. Because of this, the unity, intactness and vividness ratings would not be affected by the project at this viewing location, and no visual impact would be perceived.

**OBSERVER VIEWPOINT 5 – From Highway 101 about 0.3 mile south of
Hobson Avenue looking northbound toward Work Location 3**

OV-5 Existing Condition



As seen from this vantage point, the overall existing view quality is considered somewhat above moderate, and the general agricultural and rural character of the setting defines the view. Buildings and other agriculture-related development are more evident along this northern section of the project limits, which adds a certain amount of visual clutter to the view, slightly reducing the landscape unity rating. The view is fairly intact because most of the visual elements are typically seen in this type of setting. The memorability of the view is somewhat higher because of the large stature and solitary position of the eucalyptus trees along the southbound lanes.

OV-5 Proposed Condition



After construction, the view would maintain most of its unity and intactness because the agricultural and rural landscape would still dominate the character of the setting. Because of the loss of roadside trees, the nearby development would become slightly more noticeable. The removal of the large eucalyptus trees would also cause a moderate reduction in the vividness or memorability of the view.

**OBSERVER VIEWPOINT 6 – From Highway 101 near the intersection of
Hobson Avenue looking northbound toward Work Location 4**

OV-6 Existing Condition



The existing view quality from Observer Viewpoint 6 is moderately high due to the rural agricultural land combined with the memorability of the windrows along the highway and on the adjacent farmland. The ratings for this viewing location show that the visual intactness and unity are fairly high because the composition is generally cohesive and most of the visual elements appear to belong in the scene. The vividness rating is high because of the large scale and dominance of the eucalyptus trees, and their uniqueness in the view and along the corridor. The landmark characteristic of the eucalyptus trees is noticeable from this viewpoint.

OV-6 Proposed Condition



The greatest aspect of visual change seen from Observer Viewpoint 6 would be the reduction of memorability caused by the removal of the eucalyptus trees. This effect would be somewhat moderated by the remaining windrow on the adjacent farmland, but the loss of visual dominance and spatial characteristics associated with the roadside eucalyptus trees would be greatly noticed in this area. Although the overall unity and intactness would remain basically the same, the vividness rating would be substantially reduced.

**OBSERVER VIEWPOINT 7 - From Highway 101 about 0.5 mile south of
Lagomarsino Avenue looking northbound toward Work Location 4**

OV-7 Existing Condition



From Observer Viewpoint 7, the overall existing view quality is considered somewhat above average, due mostly to the rural and agricultural setting. The view is generally intact because most of the visual elements seen in the landscape support the overall visual character. The unity rating is also above average because the visual composition of the view is generally harmonious. The memorability of the view is also increased because of the large stature and landmark characteristics of the eucalyptus trees along the southbound lanes.

OV-7 Proposed Condition



The proposed view from Observer Viewpoint 7 would maintain a moderately high degree of unity and intactness because the adjacent agricultural fields and rural character would remain dominant. The general view quality would still be slightly above average and would be consistent with much of the view elsewhere along the highway corridor. However, an overall alteration of view quality would be caused by the noticeable loss of visual scale and memorability associated with the removal of the trees. The view at this location would have a substantial loss of memorable qualities and a dramatic alteration of the spatial characteristics currently provided by the eucalyptus trees.

Environmental Consequences

Much of the area's visual character depends on landscape elements other than the trees proposed for removal. Views of the surrounding agricultural land, open space and distant hills are important contributors to the visual context. Following project implementation, casual observers unfamiliar with the area would likely be unaware of the tree removal because the project locations would look similar to much of the rest of the corridor. Even with the tree removal, the regional landscape would retain most of its rural and agricultural appearance.

Visual quality ratings, however, show that the trees proposed for removal, particularly at Locations 1 and 4, exhibit a high degree of memorability in the landscape. Their large size and proximity to the highway make them very noticeable even from distant viewpoints. Also, their stature and linear forms are very recognizable visual elements in the view. Because of their noticeability and recognizability over a wide area, the trees at Locations 1 and 4 have local and regional landmark characteristics. Although the general baseline agricultural setting would remain, removal of these windrows would result in the loss of high-value visual landmarks for highway travelers and local residents. Loss of these landmark windrows would result in a substantial adverse effect on the visual environment.

Avoidance, Minimization, and/or Mitigation Measures

Recommended Measures to Reduce Visual Impacts

The following measures would reduce the project's potential visual impact as seen from Highway 101 and the surrounding area. The intent of the following measures would be to mitigate the effect of the project caused primarily by the loss of vegetated character along the highway corridor. See Figures 2-2a through 2-2d.

1. Plant a minimum of 350 trees along Highway 101 within the area between the southbound Broadway Street on-ramp in King City and the northbound Jolon Road on-ramp north of the Salinas River. In addition, plant a minimum of 150 shrubs within this described area.
2. Provide a minimum of a three-year plant establishment period (PEP) for all new planting. The plant establishment contract shall include language requiring that at the end of the plant establishment period, 100 percent of the plants shall be alive and successfully established.

These measures would recreate some of the vegetative character lost due to the tree removal and would partially mitigate for the loss of visual quality along the highway corridor. This mitigation, however, would not reestablish the landmark characteristics associated with the removed trees, resulting in substantial long-term visual impacts.



Figure 2-2a Tree Planting Locations and Maintenance Vehicle Locations



Figure 2-2b Tree Planting Locations

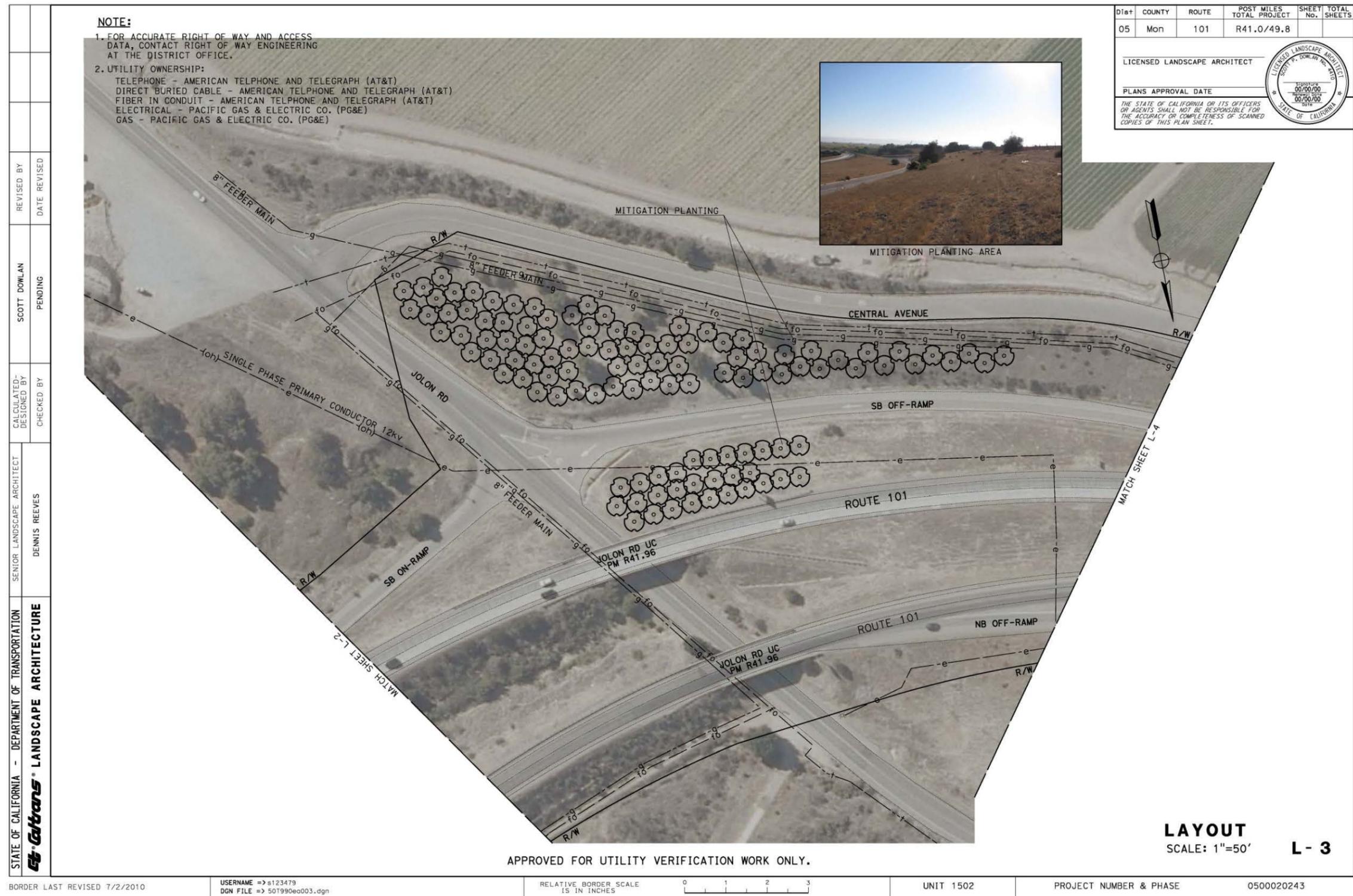


Figure 2-2c Tree Planting Locations

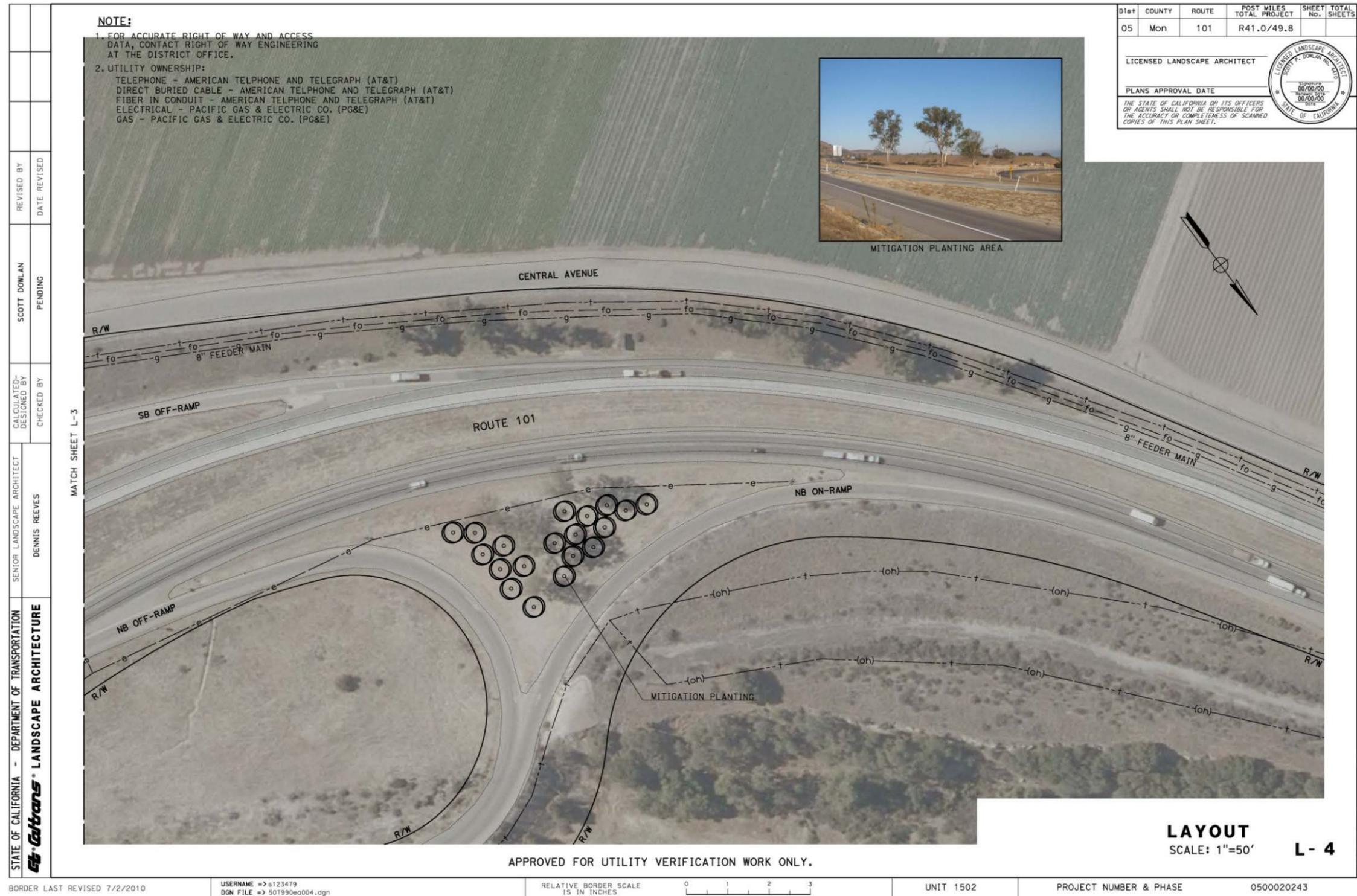


Figure 2-2d Tree Planting Locations

2.1.3 Hydrology and Floodplain

Regulatory Setting

Executive Order 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. The Federal Highway Administration requirements for compliance are outlined in 23 Code of Federal Regulations 650 Subpart A.

The base floodplain is defined as “the area subject to flooding by the flood or tide having a one percent chance of being exceeded in any given year.” An encroachment is defined as “an action within the limits of the base floodplain.”

Affected Environment

The only location where the 100-year floodplain encroaches into the project area is in the median, on the west side of the Salinas River, at the Salinas River Bridge in King City. The floodplain extends into the median to a point about halfway between the west end of the bridge and Jolon Road, at elevation 293 feet.

Removal of the trees in this area would not affect the 100-year flood elevation because the area is bounded by the northbound and southbound lanes of Highway 101. It is a backwater area, not an area of active flow. The rest of the project area is outside the 100-year floodplain.

Environmental Consequences

There are no consequences associated with this project.

Avoidance, Minimization, and/or Mitigation Measures

This project is exempt from the Disturbed Soil Area (DSA) calculation requirement in the Construction General Permit, so requires the preparation of a Water Pollution Control Program (WPCP).

Temporary Soil Stabilization

- Minimize the active Disturbed Soil Areas during the rainy season using scheduling techniques.
- Preserve existing vegetation to the maximum extent feasible.

- Implement temporary protective cover/erosion control on all non-active Disturbed Soil Areas and soil stockpiles.
- Control erosive forces of storm water runoff with effective storm flow management such as temporary concentrated flow conveyance devices, earthen dikes, drainage swales, lined ditches, outlet protection/velocity dissipation devices, and slope drains as determined feasible.

Temporary Sediment Controls

- Implement linear sediment controls such as silt fence, fiber rolls, check dams, or gravel bag berms on all active and non-active Disturbed Soil Areas during the rainy season.
- To further help prevent sediment discharge, stabilized construction site entrances, temporary drainage inlet protection, and street sweeping and vacuuming will be necessary. Street sweeping is paid for under the Job Site Management bid item.
- Implement appropriate wind erosion controls year-round.

Non-Storm Water Management

The appropriate non-storm water Best Management Practices (BMPs) will be implemented year-round as follows:

- Water conservation practices are implemented on all construction sites and wherever water is used.
- Procedures and practices have been designed for construction contractors to recognize illicit connections or illegally dumped or discharged materials on a construction site and report incidents to the Resident Engineer.
- The following activities must be performed at least 100 feet from concentrated flows of storm water, drainage courses, and inlets if within the floodplain and at least 50 feet if outside of the floodplain: stockpiling materials, storing equipment and liquid waste containers, washing vehicles or equipment, and fueling and maintaining vehicles and equipment.

2.2 Biological Environment

2.2.1 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.

Affected Environment

A Natural Environment Study (Minimal Impact) was completed for the project in November 2013. A focused botanical survey revealed a mix of agricultural, native, and non-native plants (grasses, trees and shrubs) in the biological study area. Eucalyptus trees, coyote brush (*Baccharis pilularis*) as well as annual grasses and forbs appear to be the dominant species in the Caltrans right-of-way. Most areas can be described as disturbed roadside vegetation and ruderal plant communities.

Environmental Consequences

Impacts to natural communities and habitats within the biological study area have been quantified based on ground disturbance, disturbed vegetation, tree removal and new plantings.

Due to the new plantings, approximately 14.2 acres of non-native grassland would be replaced with native trees and shrubs. The project-related impacts to natural communities and habitats are shown in Table 2-2.

Table 2-2 Estimated Impacts to Natural Communities

Community/Habitat	Permanent Impact	Temporary Impact
Eucalyptus Series (semi-natural)	6.29 acres (~320 trees)	0.00 acres
Ruderal/Disturbed (semi-natural)	0.00 acres	3.04 acres
Non-native Grassland (semi-natural)	14.20 acres	8.23 acres
Coyote Brush Series	0.00 acres	2.10 acres

The project would have a beneficial effect on natural communities as a result of removing the eucalyptus trees, which are a noxious and invasive plant species.

Avoidance, Minimization, and/or Mitigation Measures

The planting of native trees and shrubs in areas of non-native grassland would mitigate the loss of any nesting habitat the eucalyptus trees might have provided.

The following re-vegetation measures for all disturbed soils would reduce the potential to introduce or spread invasive plant species and noxious weeds from or into the project area:

1. The contract specifications for permanent erosion control will require the use of California native forbs and grasses, from the same elevation and geographic area as the project site.
2. All soils disturbed by construction will be treated for permanent erosion control with a seed mix composed of local native grasses and forbs.
3. Mulches used on the project will be from source materials that will not introduce exotic species.

2.2.2 Invasive Species

Regulatory Setting

On February 3, 1999, President Bill Clinton signed Executive Order 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 invasive species list, maintained by the California Invasive Species Council, to define the invasive plants that must be considered as part of the National Environmental Policy Act analysis for a proposed project.

Affected Environment

A Natural Environment Study (Minimal Impacts) was completed on November, 2013. The project impact area is defined as the area directly affected, plus adjacent areas that may be indirectly affected. Study methods included a review of resource agency databases, inventories of special-status species, agency coordination, field studies, assessment of vegetation and habitat characteristics, and evaluation of impacts to identified resources. These methods were designed to meet both state and federal regulations.

During the preliminary field review and focused botanical survey, a mixture of agricultural, native, and non-native plants (grasses, trees and shrubs) were observed. Eucalyptus trees, coyote brush (*Baccharis pilularis*), as well as annual grasses and forbs appear to be the dominant species in the Caltrans right of way. Most areas can be described as disturbed roadside vegetation and ruderal plant communities. The following vegetation types were observed in the project area:

Ruderal/Disturbed

Ruderal/disturbed areas are dominated by non-native weedy and/or invasive species tolerant of disturbed conditions (compacted soils, roadsides subjected to vehicle disturbances, etc). The edges of Highway 101 are mostly vegetated with ruderal/disturbed species. Considering the low habitat value of this vegetation and that it is subject to vehicular disturbances, ruderal/disturbed areas of the biological study area have a low potential to support habitat for special-status species.

Non-native Grassland

Areas of non-native annual grassland habitat tend to integrate with landscaping and other upland habitats along the highway. The non-native annual grasslands are dominated by non-native species of common grasses, with a mix of annual and perennial native and introduced forbs.

Eucalyptus

Tasmanian blue gum (eucalyptus) trees are not native to California and are included in the California Invasive Plant Council's (Cal-IPC) "Invasive Plant Inventory Database." Eucalyptus was widely planted in California during the late 1800s for agricultural windbreaks. These trees have become invasive along the coast from Northern California to Southern California. Many native plants are unable to grow underneath eucalyptus trees because the leaf litter that falls from eucalyptus adds volatile organic chemicals to the soil.

Environmental Consequences

Impacts to natural communities and habitats within the biological study area have been quantified based on ground disturbance, disturbed vegetation, tree removal and new plantings. Due to the new plantings, approximately 14.2 acres of non-native grassland would be replaced with native trees and shrubs. The project-related impacts to natural communities and habitats are shown in Table 2-2.

Avoidance, Minimization, and/or Mitigation Measures

The project would have a beneficial effect on natural communities as a result of removing the eucalyptus trees, a noxious and invasive plant species. The planting of native trees and shrubs in areas of non-native grassland would mitigate the loss of any nesting habitat the eucalyptus trees might have provided.

The following re-vegetation measures for all disturbed soils would reduce the potential to introduce or spread invasive plant species and noxious weeds from or into the project area:

1. The contract specifications for permanent erosion control will require the use of California native forbs and grasses from the same elevation and geographic area as the project site.
2. All soils disturbed by construction will be treated for permanent erosion control with a seed mix composed of local native grasses and forbs.
3. Mulches used on the project will be from source materials that will not introduce exotic species.
4. Erosion control measures should be implemented in areas of ground disturbance and should specify the use of sterile or certified weed-free mulches and straw applications and/or re-vegetation with the use of native species appropriate for the project vicinity.

2.3 Cumulative Impacts

Regulatory Setting

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of the proposed project. A cumulative impacts 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 agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, and 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.

California Environmental Quality Act Guidelines Section 15130 describes when a cumulative impact analysis is necessary and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts under the California Environmental Quality Act can be found in Section 15355 of the California Environmental Quality Act Guidelines. A definition of cumulative impacts under the National Environmental Policy Act can be found in 40 Code of Federal Regulations Section 1508.7 of the CEQ Regulations.

Affected Environment

Records show that these eucalyptus trees existed before construction of the original two-lane highway built in 1933 and were originally planted as a windrow to protect agriculture from the strong northwest winds that funnel down the Salinas Valley. Over the years, the original stand of eucalyptus trees has thinned due to either being removed for safety or toppled during storms. Today, the trees continue to be pruned for safety on a regular basis. The trees have a high degree of memorability in the landscape. Their large size and proximity to the highway make them very noticeable even from a distance; their stature and linear forms are recognizable visual elements.

In Table 2-3, potential cumulative visual impacts of the project are considered along with several other highway projects in the area.

Table 2-3 Monterey County–Highway 101 Current/Foreseeable Projects

Post Mile	EA	Phase	Location	Type of Work
61.0/64.6	0Q570	Construction	On Highway 101 in Soledad	Install median barrier
47.6/53.9	1E060	Project Acceptance and Environmental Document	Teague Ave. to Walnut Ave.	Concrete median barrier, inside shoulder widening and rumble strip
53.4/54.3	0P160	Project Acceptance and Environmental Document	In Greenfield, 0.5 mile south of Walnut Ave. and 0.4 mile north of Walnut Ave.	New interchange
57.1/60.8	1C330	Plans, Specifications and Estimate/Right of Way	North of Hudson Road to Salinas River Bridge	Construct median barrier and rumble strips
68.4/70.4	0P930	Project Initiation	Between 1.0 mile north of Gloria Road Interchange and 1.0 mile south of Gloria Road Interchange in the City of Gonzales	Interchange improvements

Over the past several years, safety projects have been implemented to add concrete median barrier, widen highway shoulders, extend turn lanes, and provide other improvements. These projects have also caused the removal of a few scattered shrubs and small trees along the highway. Several more safety projects have been programmed for the Highway 101 corridor through the southern Salinas Valley. These programmed projects would include installation of more concrete median barrier, shoulder widening, gore paving and other features, as well as tree and shrub removal.

Environmental Consequences

This project would be seen in the same context as other safety projects along the Highway 101 corridor. Cumulatively, these projects would have an unavoidable urbanizing effect on the visual quality of the area due to the vegetation loss and increase in paved surfaces. As a result, this project would contribute to an adverse cumulative effect on the visual environment.

Avoidance, Minimization, and/or Mitigation Measures

See measures under Visual/Aesthetics 2.1.2.

2.4 Construction Impacts

Visual/ Aesthetics

Impacts would be related to construction vehicles, cranes, equipment and other elements at and near the project work locations. Temporary storage of construction materials would also be visible in the area. In addition, required safety devices such as orange cones, fencing and signs would affect views. Workers would be present and visible throughout the construction phase. Views of stopped and slowed vehicles on the highway may also increase due to construction operations. But, the overall duration of work would be relatively short.

Additional vehicles, equipment, materials, safety devices and workers would not be unexpected visual elements seen at a construction site. As a result, the potential visual impacts of construction activities would be minimal.

Air Quality

Monterey County is in attainment for all federal pollutants, but is in non-attainment for the state pollutants of particulate matter (PM₁₀) and 1-hour ozone. Air conformity is a federal requirement and does not apply because the project area sits within a county that is in attainment for federal pollutants.

The only air impacts anticipated are temporary construction impacts. Dust could occur from cutting down the trees and digging out tree stumps. Emissions from tree cutting and excavating equipment could also occur. Caltrans Standard Specifications for dust control, storm water pollution prevention and emissions reductions would minimize construction dust.

To minimize dust emissions from the project, the following minimization measures are recommended. These come from California Environmental Quality Act Air Quality Guidelines (Monterey Bay Unified Air Pollution Control District, June 2004). In addition to the daily watering of all disturbed areas that is required by Caltrans Standard Specifications, implementation of appropriate measures from this list can further reduce PM₁₀ emissions. This list will be included with the Resident Engineer's instructions from the environmental generalist. Applicable measures from this list would be used, at the Resident Engineer's discretion, when daily watering is insufficient to minimize particulate emissions from the project.

1. Water all active construction areas at least twice daily. Frequency should be based on the type of operation, soil and wind exposure.
2. Prohibit all grading activities during periods of high wind (over 24.1 km/h [15 mph].)
3. Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).
4. Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations and hydro-seed area.
5. Haul trucks shall maintain at least 0.6m (2.0 feet) of freeboard.
6. Cover all trucks hauling dirt, sand, or loose materials.
7. Plant vegetative cover in disturbed areas as soon as possible.
8. Cover inactive storage piles.
9. Sweep streets if visible soil is carried out from the construction site.

In addition, to minimize emissions of ozone precursors, the contractor shall use California Air Resources Board-approved low-sulfur diesel fuel in any (diesel) construction vehicles when it is locally available.

Noise

The project lies in a mostly rural setting, with a few residences near the highway within the project limits. During construction activities, noise may intermittently dominate the environment in the immediate area of construction. After completion of the project, local noise levels would be the same as they were before.

Local noise levels in the vicinity of the construction would experience a short-term increase due to construction activities. The amount of the increased noise would vary with the types of equipment used. Caltrans' policy states that normal construction equipment should not emit noise levels greater than 86 dBA at 50 feet from the source. Noise levels generated during construction must comply with applicable local, state and federal regulations.

Traffic and Transportation/Pedestrian and Bicycle Facilities

A Traffic Management Plan has been provided for the project to reduce delays and minimize construction-related activities. Plan elements include changeable message signs, a public awareness campaign, and use of the Construction Zone Enhanced Enforcement Program (COZEEP). Traffic management strategies include daytime single-lane and shoulder closures and limited work windows. No bicycles are allowed on this highway.

Animal Species

Presence of nesting migratory birds in the eucalyptus trees could hinder the removal of the trees. It is highly likely that active nests could be in the trees during the nesting season because of the large number of trees proposed for removal. No trees within approximately 100 feet of any active nests would be removed until after all birds have fledged. The following measures would serve to avoid or minimize potential impacts to biological resources in the vicinity of the project:

- Pre-construction surveys for migratory birds shall be conducted by a Caltrans biologist no more than 10 days prior to the tree removal if the trees are proposed for removal during the nesting season, February 1–August 15. If the trees will be removed outside of the nesting season, August 16–January 31, no pre-construction surveys shall be required.

- The Federal Migratory Bird Treaty Act (MBTA) protects most North American migratory birds, nests, and eggs. California Department of Fish and Wildlife Code Sections 3503, 3513, and 3800 also protect migratory birds.
- All trash and construction-related debris shall be properly contained and regularly removed from the project. Following construction, all trash and construction debris shall be removed from work areas.
- When not in use, motorized equipment shall be shut down.

Chapter 3 California Environmental Quality Act Evaluation

3.1 Determining Significance under the California Environmental Quality Act

The proposed project is a joint project by Caltrans and the Federal Highway Administration 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 Federal Highway Administration'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 Caltrans under its assumption of responsibility pursuant to 23 U.S. Code (USC) 327. Caltrans is the lead agency under both CEQA and NEPA.

One of the main differences between NEPA and CEQA is the way significance is determined. Under NEPA, significance is used to determine whether an Environmental Impact Statement, or a lower level of documentation, will be required. NEPA requires that an Environmental Impact Statement 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 Environmental Impact Statement, 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 Caltrans 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 must be prepared. Each and every significant effect on the environment must be disclosed in the Environmental Impact Report and mitigated if feasible. In addition, the CEQA Guidelines list a number of mandatory findings of significance, which also require the preparation of an Environmental Impact Report. There are no types of actions under NEPA that parallel the findings of mandatory significance of CEQA.

This chapter discusses the effects of this project and CEQA significance.

3.1.1 Discussion of Significant Impacts

The existing visual quality of the highway corridor through the project area is moderate to moderately high, based mainly on the broad vistas of working agricultural land and open space. The Coast Range and Gabilan Hills also contribute to the visual quality, providing a scenic backdrop in the distance to the east and west. The nearby cities of King City and Greenfield are relatively compact and are typical of smaller towns seen along Highway 101. These communities, though visible from the highway, do little to diminish the overall rural visual character of the corridor.

The visual character within the project limits is rural, and development is sparse except for farms, agricultural operations and associated support buildings. A few ranch houses are scattered throughout the area, and the geometric patterns of the fields are a defining characteristic of the landscape. Vegetation patterns along the corridor include low crops and vineyards, a few riparian corridors crossing the flat valley, and occasional taller windrows of trees associated with farms, field boundaries and vegetation lining the highway.

The project would remove approximately 320 mature Tasmanian blue gum (*Eucalyptus globulus*) trees from four locations alongside the southbound lanes of Highway 101. The trees proposed for removal range from about 60 feet tall to over 100 feet tall. Removal of these trees would result in a significant change to the visual environment.

3.1.2 Less than Significant Effects of the Proposed Project

As discussed in Chapter 2, the project would have no adverse impacts on the following resources:

- Existing and Future Land Use
- Consistency with State, Regional and Local Plans and Programs
- Coastal Zone
- Wild and Scenic Rivers
- Park and Recreational Facilities
- Growth

- Farmlands/Timberlands
- Community Impacts
- Relocations and Real Property Acquisitions
- Environmental Justice
- Utilities/Emergency Services
- Cultural Resources
- Hydrology and Floodplain
- Water Quality and Storm Water Runoff
- Geology/Soils/Seismic/Topography
- Paleontology
- Hazardous Waste/Materials
- Air Quality
- Noise
- Wetlands and other Waters
- Energy
- Natural Communities
- Plant Species
- Threatened and Endangered Species
- Invasive Species
- Construction Impacts

3.1.3 Unavoidable Significant Effects of the Proposed Project

The following impacts would have a significant effect on the environment.

Regarding cumulative visual/aesthetics impacts, the project corridor from King City going north toward Salinas in Monterey County has several projects either currently under construction or planned for the future as funding becomes available. This project would be seen in the same context as other safety projects along the Highway 101 corridor.

Because of their noticeability and recognizability over a wide area, the tall eucalyptus trees in the project area have local and regional landmark characteristics. Although the general baseline agricultural setting would remain, removal of these windrows would result in the loss of high-value visual landmarks for highway. Cumulatively, these various projects together would have an unavoidable urbanizing effect on the visual quality of the area due to the vegetation loss and increase in paved surfaces. As a result, this project would contribute to an adverse cumulative effect on the visual environment.

Although each of the projects would individually minimize or mitigate visual impacts, the cumulative visual effect of those projects could be substantial even with implementation of the avoidance, minimization and mitigation measures listed for this project in Chapter 2, Section 2.1.2.

3.1.4 Climate Change

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to greenhouse gases, particularly those generated from the production and use of fossil fuels.

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change by the United Nations and World Meteorological Organizations in 1988 has led to increased efforts devoted to greenhouse gas emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of greenhouse gases related to human activity that include carbon dioxide (CO₂), methane, nitrous oxide, tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, HFC-23 (fluoroform), HFC-134a (s, s, s, 2 – tetrafluoroethane), and HFC-152a (difluoroethane).

Typically, two terms are used when discussing the impacts of climate change: greenhouse gas mitigation and adaptation. “Greenhouse gas mitigation” is a term for reducing greenhouse gas emissions in order to reduce or “mitigate” the impacts of climate change. “Adaptation” refers to the effort of planning for and adapting to impacts due to climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels). Transportation sources (passenger cars, light-duty trucks, other trucks, buses and motorcycles) in the state of California make up the largest source (second to electricity generation) of greenhouse gas-emitting sources. Conversely, the main source of greenhouse gas emissions in the United States is electricity generation followed by transportation. The dominant greenhouse gas emitted is CO₂, mostly from fossil fuel combustion.

There are four main strategies for reducing greenhouse gas emissions from transportation sources: 1) improve system and operation efficiencies; 2) reduce growth of vehicle miles traveled; 3) transition to lower greenhouse gas fuels; and 4) improve vehicle technologies. To be most effective, all four should be pursued collectively. The following regulatory setting section outlines state and federal efforts to comprehensively reduce greenhouse gas emissions from transportation sources.

Regulatory Setting

This section outlines state and federal efforts to comprehensively reduce greenhouse gas emissions from transportation sources.

State

With the passage of several pieces of legislation including State Senate and Assembly bills and Executive Orders, California launched an innovative and proactive approach to dealing with greenhouse gas emissions and climate change.

Assembly Bill 1493 (AB 1493), Pavley, Vehicular Emissions: Greenhouse Gases, 2002: This bill requires the California Air Resources Board (ARB) to develop and implement regulations to reduce automobile and light truck greenhouse gas emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year.

Executive Order S-3-05 (EO) (June 1, 2005): The goal of this order is to reduce California’s greenhouse gas emissions to: 1) year 2000 levels by 2010, 2) year 1990 levels by the 2020, and 3) 80 percent below the year 1990 levels by 2050. In 2006, this goal was further reinforced with the passage of Assembly Bill 32.

Assembly Bill 32 (AB 32), Núñez and Pavley, The Global Warming Solutions Act of 2006: AB 32 sets the same overall greenhouse gas emissions reduction goals as outlined in Executive Order S-3-05, while further mandating that the California Air Resources Board create a scoping plan and implement rules to achieve “real, quantifiable, cost-effective reductions of greenhouse gases.”

Executive Order S-20-06 (October 18, 2006): This order establishes the responsibilities and roles of the Secretary of the California Environmental Protection Agency (Cal/EPA) and state agencies with regard to climate change.

Executive Order S-01-07 (January 18, 2007): This order set forth the low carbon fuel standard for California. Under this order, the carbon intensity of California’s transportation fuels is to be reduced by at least 10 percent by 2020.

Senate Bill 97 (SB 97) Chapter 185, 2007, Greenhouse Gas Emissions: This bill required the Governor’s Office of Planning and Research (OPR) to develop recommended amendments to the California Environmental Quality Act Guidelines for addressing greenhouse gas emissions. The amendments became effective on March 18, 2010.

Senate Bill 375 (SB 375), Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires the California Air Resources Board to set regional emissions reduction targets from passenger vehicles. The Metropolitan Planning Organization (MPO) for each region must then develop a “Sustainable Communities Strategy” (SCS) that integrates transportation, land use, and housing policies to plan for the achievement of the emissions target for their region.

Senate Bill 391 (SB 391) Chapter 585, 2009 California Transportation Plan: This bill requires the State’s long-range transportation plan to meet California’s climate change goals under AB 32.

Federal

Although climate change and greenhouse gas reduction are a concern at the federal level, currently no regulations or legislation have been enacted specifically addressing greenhouse gas emissions reductions and climate change at the project level. Neither the U.S. Environmental Protection Agency (U.S. EPA) nor the Federal Highway

Administration has issued explicit guidance to conduct project-level greenhouse gas analysis.¹

The Federal Highway Administration supports the approach that climate change considerations should be integrated throughout the transportation decision-making process, from planning through project development and delivery. Addressing climate change mitigation and adaptation up front in the planning process will assist in decision-making and improve efficiency at the program level, and will inform the analysis and stewardship needs of project-level decision-making. Climate change considerations can be integrated into many planning factors, such as supporting economic vitality and global efficiency, increasing safety and mobility, enhancing the environment, promoting energy conservation, and improving the quality of life.

The four strategies outlined by the Federal Highway Administration to lessen climate change impacts correlate with efforts that the State is undertaking to deal with transportation and climate change; these strategies include improved transportation system efficiency, cleaner fuels, cleaner vehicles, and a reduction in travel activity.

Climate change and its associated effects are being addressed through various efforts at the federal level to improve fuel economy and energy efficiency, such as the “National Clean Car Program” and Executive Order 13514 - Federal Leadership in Environmental, Energy and Economic Performance.

Executive Order 13514 (October 5, 2009): This order is focused on reducing greenhouse gases internally in federal agency missions, programs and operations, but also directs federal agencies to participate in the Interagency Climate Change Adaptation Task Force, which is engaged in developing a national strategy for adaptation to climate change.

The U.S. EPA’s authority to regulate greenhouse gas emissions stems from the U.S. Supreme Court decision in *Massachusetts v. EPA* (2007). The Supreme Court ruled that greenhouse gases meet the definition of air pollutants under the existing Clean Air Act and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the court’s ruling, the U.S. EPA finalized an endangerment finding in December 2009. Based on scientific evidence, it found that six greenhouse gases constitute a threat to public health and welfare. Thus, it is the Supreme Court’s interpretation of the existing act and EPA’s assessment of the scientific evidence

¹To date, no national standards have been established regarding mobile source greenhouse gases, nor has the U.S. EPA established any ambient standards, criteria or thresholds for greenhouse gases resulting from mobile sources.

that form the basis for the EPA's regulatory actions. The U.S. EPA in conjunction with National Highway Traffic Safety Administration (NHTSA) issued the first of a series of greenhouse gas emission standards for new cars and light-duty vehicles in April 2010.²

The U.S. EPA and the NHTSA are taking coordinated steps to enable the production of a new generation of clean vehicles with reduced greenhouse gas emissions and improved fuel efficiency from on-road vehicles and engines. These next steps include developing the first-ever greenhouse gas regulations for heavy-duty engines and vehicles, as well as additional light-duty vehicle greenhouse gas regulations.

The final combined standards that made up the first phase of this national program apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The standards implemented by this program are expected to reduce greenhouse gas emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016).

On August 28, 2012, the U.S. EPA and NHTSA issued a joint Final Rulemaking to extend the National Program for fuel economy standards to model year 2017 through 2025 passenger vehicles. Over the lifetime of the model year 2017-2025 standards, this program is projected to save approximately four billion barrels of oil and two billion metric tons of greenhouse gas emissions.

The complementary U.S. EPA and NHTSA standards that make up the Heavy-Duty National Program apply to combination tractors (semi trucks), heavy-duty pickup trucks and vans, and vocational vehicles (including buses and refuse/utility trucks). Together, these standards will cut greenhouse gas emissions and domestic oil use significantly. This program responds to President Barack Obama's 2010 request to jointly establish greenhouse gas emissions and fuel efficiency standards for the medium- and heavy-duty highway vehicle sector. The agencies estimate that the combined standards will reduce CO₂ emissions by about 270 million metric tons and save about 530 million barrels of oil over the life of model year 2014 to 2018 heavy-duty vehicles.

Project Analysis

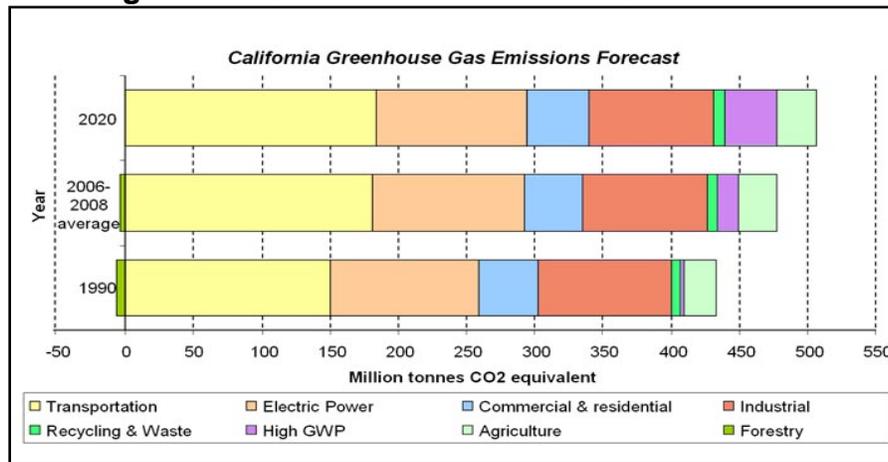
An individual project does not generate enough greenhouse gas emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may contribute to a potential impact through its incremental

² <http://www.c2es.org/federal/executive/epa/greenhouse-gas-regulation-faq>

change in emissions when combined with the contributions of other inventory sources of greenhouse gas.³ In assessing cumulative impacts, it must be determined if a project’s incremental effect is “cumulatively considerable” (CEQA Guidelines Sections 15064(h)(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 to make this determination is a difficult, if not impossible, task.

The AB 32 Scoping Plan mandated by AB 32 includes the main strategies California will use to reduce greenhouse gas emissions. As part of its supporting documentation for the Draft Scoping Plan, the Air Resources Board released the greenhouse gas inventory for California (forecast last updated: October 28, 2010). The forecast (see Figure 3-1) is an estimate of the emissions expected to occur in 2020 if none of the foreseeable measures included in the Scoping Plan were implemented. The base year used for forecasting emissions is the average of statewide emissions in the greenhouse gas for 2006, 2007, and 2008.

Figure 3-1 California Greenhouse Gas Forecast



Source: <http://www.arb.ca.gov/cc/inventory/data/forecast.htm>

The Department and its parent agency, the Transportation Agency, have taken an active role in addressing greenhouse gas emission reduction and climate change. Recognizing

³This approach is supported by the AEP: *Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate Change in CEQA Documents* (March 5, 2007), as well as the South Coast Air Quality Management District (Chapter 6: The CEQA Guide, April 2011) and the U.S. Forest Service (Climate Change Considerations in Project-Level NEPA Analysis, July 13, 2009).

that 98 percent of California's greenhouse gas emissions are from the burning of fossil fuels and 40 percent of all human-made greenhouse gas emissions are from transportation, the Department has created and is implementing the Climate Action Program at Caltrans that was published in December 2006.⁴

The operation of this project would result in low-to-no potential for an increase in greenhouse gas emissions. The purpose of the project is to ensure the safety of motorists along Highway 101 by removing from alongside the highway approximately 320 mature eucalyptus trees that are diseased or have the potential of toppling onto the road. The project would also remove metal beam guardrails and drainage headwalls. The Tree Risk Assessment Report concluded that approximately 320 trees have reached their maximum age and show signs of poor health and damage, posing a risk to nearby motorists. Because the mature trees have stopped growing, they generally no longer take any carbon dioxide (CO₂) from the atmosphere⁵. The removal of these trees would not likely reduce the amount of CO₂ taken out of the atmosphere per year compared to the no-build condition. Also, because the Department is committed to replanting a minimum of 350 trees and 150 shrubs, the additional sequestration (taking CO₂ out of the atmosphere) potential of these younger trees and shrubs would help offset any lost sequestration potential from the existing trees onsite being removed.

As discussed below, construction emissions will be unavoidable.

Construction Emissions

Greenhouse gas emissions for transportation projects can be divided into those produced during construction and those produced during operations. Construction greenhouse gas 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.

⁴ Caltrans Climate Action Program is found at the following web address:
http://www.dot.ca.gov/hq/tpp/offices/ogm/key_reports_files/State_Wide_Strategy/Caltrans_Climate_Action_Program.pdf

⁵ http://ceres.ca.gov/foreststeward/carbon_sequest-climate.html

CEQA Conclusion

While the project will result in a slight increase in greenhouse gas emissions during construction, it is anticipated that the project will not result in any increase in operational greenhouse gas emissions. While it is Caltrans' determination that in the absence of further regulatory or scientific information related to greenhouse gas emissions and California Environmental Quality Act 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 greenhouse gas emissions. These measures are outlined in the following section.

Greenhouse Gas Reduction Strategies

The Department continues to be involved on the Governor's Climate Action Team as the Air Resources Board works to implement Executive Orders S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. Many of the strategies the Department is using to help meet the targets in AB 32 come from then-Governor Arnold Schwarzenegger's Strategic Growth Plan for California. The Strategic Growth Plan targeted a significant decrease in traffic congestion below 2008 levels and a corresponding reduction in greenhouse gas emissions, while accommodating growth in population and the economy. The Strategic Growth Plan relies on a complete systems approach to attain CO₂ reduction goals: system monitoring and evaluation, maintenance and preservation, smart land use and demand management, and operational improvements, as shown in Figure 3-2 Mobility Pyramid.

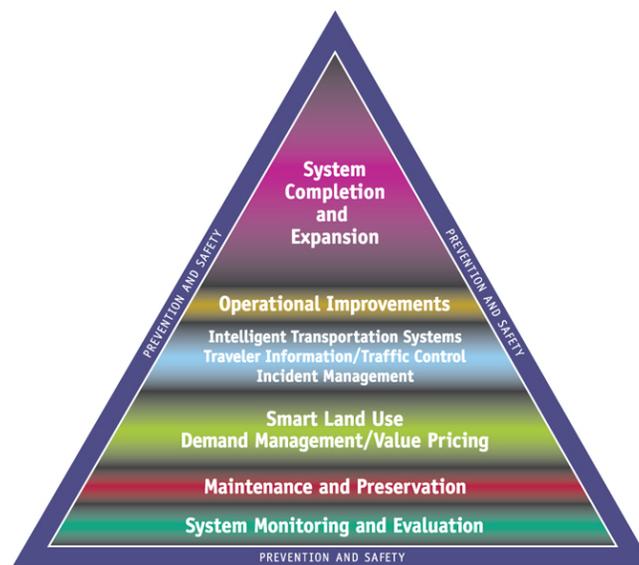


Figure 3-2 Mobility Pyramid

The Department 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. The Department works closely with local jurisdictions on planning activities, but does not have local land use planning authority. The Department also assists efforts to improve the energy efficiency of the transportation sector by increasing vehicle fuel economy in new cars, light and heavy-duty trucks; the Department is doing this by supporting ongoing research efforts at universities, by supporting legislative efforts to increase fuel economy, and by participating on the Climate Action Team. It is important to note, however, that control of fuel economy standards is held by the U.S. EPA and the Air Resources Board.

The Department is also working toward enhancing the State's transportation planning process to respond to future challenges. Similar to requirements for regional transportation plans under Senate Bill (SB) 375 (Steinberg 2008), Senate Bill 391 (Liu 2009) requires the State's long-range transportation plan to meet California's climate change goals under Assembly Bill 32.

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce greenhouse gas emissions.

The California Transportation Plan defines performance-based goals, policies, and strategies to achieve our collective vision for California's future statewide integrated multimodal transportation system. The purpose of the plan is to provide a common policy framework that will guide transportation investments and decisions by all levels of government, the private sector, and other transportation stakeholders. Through this policy framework, the California Transportation Plan 2040 will identify the statewide transportation system needed to achieve maximum feasible greenhouse gas emission reductions while meeting the State's transportation needs.

Table 3-1 summarizes the Department and statewide efforts being implemented to reduce greenhouse gas emissions. More detailed information about each strategy is included in the Climate Action Program at Caltrans (December 2006).

Table 3-1 Climate Change/CO₂ Reduction Strategies

Climate Change/CO ₂ Reduction Strategies						
Strategy	Program	Partnership		Method/Process	Estimated CO ₂ Savings Million Metric Tons (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 Transportation System (ITS) Deployment	Strategic Growth Plan	Caltrans	Regions	State ITS; Congestion Management Plan	0.07	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, ARB, 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 0.045 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	1.2	4.2
				25% fly ash cement mix > 50% fly ash/slag mix	0.36	3.6
Goods Movement	Office of Goods Movement	Cal EPA, ARB, BT&H, MPOs		Goods Movement Action Plan	Not Estimated	Not Estimated
Total					2.72	18.18

Caltrans Director's Policy 30 (DP-30) Climate Change (June 22, 2012) is intended to establish a Department policy that will ensure coordinated efforts to incorporate climate change into departmental decisions and activities.

Caltrans Activities to Address Climate Change (April 2013)⁶ provides a comprehensive overview of activities undertaken by Caltrans statewide to reduce greenhouse gas emissions resulting from agency operations.

The following measures will also be included in the project to reduce the greenhouse gas emissions and potential climate change impacts from the project:

1. The Department and the California Highway Patrol are working with regional agencies to implement Intelligent Transportation Systems (ITS) to help manage the efficiency of the existing highway system. Intelligent Transportation Systems commonly consist of electronics, communications, or information processing used singly or in combination to improve the efficiency or safety of a surface transportation system.
2. Landscaping reduces surface warming and, through photosynthesis, decreases CO₂. As stated under the recommended measures for visual impacts, Caltrans proposes to plant a minimum of 350 trees along Highway 101 within the area between the southbound Broadway Street on-ramp in King City and the northbound Jolon Road on-ramp north of the Salinas River. In addition, Caltrans will plant a minimum of 150 shrubs within this described area. These trees will help offset a potential CO₂ emissions increase.

According to the Caltrans Standard Specifications, the contractor must comply with all local Air Pollution Control District (APCD) rules, ordinances, and Monterey Bay Unified Air Pollution Control District regulations for air quality restrictions.

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, variability in storm surges and intensity, and the frequency and intensity of wildfires. These changes may affect the transportation infrastructure in various ways, such as damage to roadbeds

⁶ http://www.dot.ca.gov/hq/tpp/offices/orip/climate_change/projects_and_studies.shtml

from 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.

At the federal level, the Climate Change Adaptation Task Force, co-chaired by the Council on Environmental Quality (CEQ), the Office of Science and Technology Policy (OSTP), and the National Oceanic and Atmospheric Administration (NOAA), released its interagency task force progress report on October 28, 2011⁷, outlining the federal government's progress in expanding and strengthening the nation's capacity to better understand, prepare for, and respond to extreme events and other climate change impacts. The report provides an update on actions in key areas of federal adaptation, including: building resilience in local communities, safeguarding critical natural resources such as freshwater, and providing accessible climate information and tools to help decision-makers manage climate risks.

Climate change adaptation 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, then-Governor Arnold 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. This order set in motion several agencies and actions to address the concern of sea level rise.

In addition to addressing projected sea level rise, the California Natural Resources Agency (Resources Agency) was directed to coordinate with local, regional, state and federal public and private entities to develop *The California Climate Adaptation Strategy* (Dec 2009)⁸, which summarizes the best-known science on climate change impacts to California, assesses California's vulnerability to the identified impacts, and then outlines solutions that can be implemented within and across state agencies to promote resiliency.

⁷ <http://www.whitehouse.gov/administration/eop/ceq/initiatives/adaptation>

⁸ <http://www.energy.ca.gov/2009publications/CNRA-1000-2009-027/CNRA-1000-2009-027-F.PDF>

The strategy outline is in direct response to Executive Order S-13-08 that specifically asked the Resources Agency to identify how state agencies can respond to rising temperatures, changing precipitation patterns, sea level rise, and extreme natural events. Other state agencies were involved in the creation of the Adaptation Strategy document, including the California Environmental Protection Agency; Business, Transportation and Housing; Health and Human Services; and the Department of Agriculture. The document is broken down into strategies for different sectors that include the following: public health; biodiversity and habitat; ocean and coastal resources; water management; agriculture; forestry; and transportation and energy infrastructure.

As data continues to be developed and collected, the State's adaptation strategy will be updated to reflect current findings.

Sea Level Rise

The National Academy of Science was directed to prepare a Sea Level Rise Assessment Report⁹ to recommend how California should plan for future sea level rise. The report was released in June 2012 and included the following:

- Relative sea level rise projections for California, Oregon, and Washington 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.

In 2010, interim guidance was released by the Coastal Ocean Climate Action Team (CO-CAT) as well as Caltrans as a method to initiate action and discussion of potential risks to the state's infrastructure due to projected sea level rise. Subsequently, CO-CAT updated the Sea Level Rise guidance to include information presented in the National Academy's Study.

⁹ *Sea Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future* (2012) is available at: http://www.nap.edu/catalog.php?record_id=13389.

All state agencies that are planning to construct projects in areas vulnerable to future sea level rise have been directed to consider a range of sea level rise scenarios for the years 2050 and 2100 to assess project vulnerability and, to the extent feasible, reduce expected risks and increase resiliency to sea level rise. Sea level rise estimates should also be used in conjunction with information on local uplift and subsidence, coastal erosion rates, predicted higher high water levels, storm surge, and storm wave data.

All projects that have filed a Notice of Preparation (NOP) as of the date of Executive Order S-13-08, and/or are programmed for construction funding through 2013, or are routine maintenance projects may, but are not required to, consider these planning guidelines. The proposed project is outside the coastal zone, and direct impacts to transportation facilities due to projected sea level rise are not expected.

Executive Order S-13-08 also directed the Business, Transportation, and Housing Agency (now the Transportation Agency) to prepare a report to assess vulnerability of transportation systems to sea level rise 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.

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 effects, 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 to review its current design standards to determine what changes, if any, may be needed to protect the transportation system from sea level rise.

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 in response to Executive Order S-13-08 and is mobilizing to be able to respond to the National Academy of Science Sea Level Rise Assessment Report.

Chapter 4 Comments and Coordination

Early and continuing coordination with the general public and public agencies is an essential part of the environmental process. It helps planners determine the necessary scope of environmental documentation and the level of analysis required, and identify potential impacts and avoidance, minimization, and/or 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, interagency coordination meetings and public information meetings.

This chapter summarizes the results of Caltrans' efforts to identify, address, and resolve project-related issues through early and continuing coordination.

4.1 Notice of Preparation

A Notice of Preparation (NOP) was mailed to 10 state and federal agencies and the State Clearinghouse on September 3, 2013. The Notice of Preparation informed the recipients of Caltrans' intent to prepare an Environmental Impact Report and provide the project description, alternatives under consideration, and the environmental resources the project has the potential to affect. Recipients were alerted to the state law requiring submittal of their comments to Caltrans no later than 30 days after receipt of the Notice of Preparation.

In response to the Notice of Preparation, written comments were received from Dave Singleton of the Native American Heritage Commission (September 17, 2013), and the California Department of Fish and Wildlife requested to review the Draft Environmental Impact Report/Environmental Assessment.

4.2 Coordination

Early and continuing coordination with the general public and public agencies is an essential part of the environmental process. It helps planners determine the necessary scope of environmental documentation and the level of analysis required, and to identify potential impacts and avoidance, minimization, and/or 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 identify, address, and resolve project-related issues through early and continuing coordination.

Project Development Team Meetings

Since November 2, 2012, multiple Project Development Team meetings have been held to discuss various project issues: roles and responsibilities, a project overview, coordination with the arborist, reviews of the schedule, and data needs. These meetings consisted of an interdisciplinary team involving environmental, landscape, project management, traffic safety from Caltrans and our consulting arborist partner.

Cultural Resources

Letters were sent to interested parties (county and local historical agencies and organizations), and Native American consultation was initiated at the beginning of cultural resources studies.

The tree rows were formally evaluated in a Historical Resources Evaluation Report and were determined not to be eligible for listing in the National Register of Historic Places (either as an individual resource or as a contributor to a potential historic district). They were similarly determined not to meet the criteria for eligibility to the California Register of Historical Resources and do not constitute historical resources for the purposes of the California Environmental Quality Act. The State Historic Preservation Officer concurred in Caltrans' eligibility determinations and did not object to Caltrans' finding of No Historic Properties Affected on September 5, 2013 (see Appendix F).

Biology

On October 28, 2013, a species list was received from the U.S. Fish and Wildlife Service for the project area. This list was confirmed on June 23, 2014 that it remains valid.

In response to the Caltrans Notice of Preparation for the project (September 13, 2013), the California Department of Fish and Wildlife requested to review the Draft Environmental Impact Report/Environmental Assessment.

4.3 Public Information Meetings and Outreach

Two public information meetings were held in September 2013 in King City and Greenfield. The purpose of the meetings was to provide a project update and an overview of the alternatives under study. Explanations of the processes used to develop key technical studies and the certified arborist's findings on the health of the trees were provided. These meetings were also used as an opportunity to inform the public about the

upcoming release of the draft environmental document and the opportunities for public input.

A public notice announcing the open house ran on two separate occasions. The first was a press release on August 27, 2013 to local radio and television stations, newspapers, emergency services, schools, Monterey County, the Transportation Agency for Monterey County, and the Chamber of Commerce in Santa Barbara, San Luis Obispo, Monterey, San Benito and Santa Cruz counties. The second announcement appeared on August 28, 2013 in the *King City Rustler*, *Soledad Bee*, *Gonzales Tribune*, *Greenfield News*, and local *Daily Sound* newspaper.

In addition, flyers announcing the open house were mailed to Monterey public officials. A week before the open house, flyers were hand-delivered and posted throughout public buildings (such as libraries) in King City and Greenfield. All newspaper advertisements and flyers appeared in both English and Spanish.

The public meetings for the proposed CURE Safety Improvement Project were conducted from 5:00 p.m. to 7:00 p.m. on September 4, 2013 at the Chalone Peaks Middle School at 667 Meyer Street in King City and on September 5, 2013 at the Mary Chapa Literacy and Technology Academy at 490 El Camino Real in Greenfield.

Five people attended the King City meeting; there were no attendees at the Greenfield meeting. Three comment cards were completed and were in favor of the project. One comment favored the trees being replaced. Two attendees said that they were not in favor of the project.

Chapter 5 List of Preparers

This document was prepared by the following Caltrans Central Region staff:

Carr, Robert. Associate Landscape Architect (RLA 3473). B.S., Landscape Architecture, California Polytechnic State University San Luis Obispo; more than 25 years experience preparing visual impact studies. Contribution: Prepared Visual Impact Assessment.

Carr, Paula Juelke. Associate Environmental Planner (Architectural History). B.A., Cultural Anthropology, and M.A., Multidisciplinary Studies (History, Art History, Anthropology, Folklore and Mythology), University of California, Santa Barbara; more than 20 years of experience in California history. Contribution: Contributed to the Historic Resources Evaluation Report and co-authored the Historic Property Survey Report.

Dwivedi, Rajeev L. Engineering Geologist. M.S., Geology, Wichita State University; M.S., Civil Engineering, Oklahoma State University; Ph.D., Environmental Science, Oklahoma State University; 25 years of environmental science/engineering experience. Contribution: Contributed to the Water Quality, Air and Noise Assessment.

Fowler, Matt C. Senior Environmental Planner. B.A., Geographic Analysis, San Diego State University; 13 years of experience in environmental planning. Contribution: Oversaw preparation of the Environmental Impact Report.

Kiaha, Krista. Associate Environmental Planner, Archaeology. B.A., Anthropology, University of California, Santa Cruz; M.S., Anthropology, Idaho State University; more than 15 years of cultural resource management experience. Contribution: Co-authored the Historic Property Survey Report.

Leyva, Isaac. Engineering Geologist. B.S., Geology, California State University, Bakersfield; 25 years of experience in petroleum geology, geotechnical engineering and environmental engineering. Contribution: Paleontological Assessment.

McGuigan, Julie. Associate Environmental Planner. B.S., Wildlife and Fisheries, Conservation Biology, University of California, Davis; 14 years of environmental planning experience. Contribution: Wrote the Environmental

Impact Report/Environmental Assessment and coordinated the environmental process for the project.

Moule, John. Associate Biologist/Environmental Planner. B.S., Biology, Humboldt State University; 17 years of experience in natural resources. Contribution: Prepared the Natural Environment Study.

Levulett, Valerie A. PhD; 40 years experience in environmental and cultural resource studies. Contribution: Responsible for technical staff oversight, including archaeology and architectural history.

Tkach, James, Transportation Engineer. B.S., Soil Science, California Polytechnic State University, San Luis Obispo; Certificate in Hazardous Materials Management, University of California, Santa Barbara; 5 years of experience in project design and construction; 24 years of experience in hazardous waste management. Contribution: Prepared the Initial Site Assessment for hazardous waste.

Chapter 6 Distribution List

Federal Agencies

U.S. Fish and Wildlife Service
Advisory Council on Historic Preservation
Federal Highway Administration

State Agencies

State Historic Preservation Officer
California Department of Fish and Wildlife
State Department of Water Resources
California Highway Patrol
California Transportation Commission
Native American Heritage Commission
California Rural Legal Assistance

Local Agencies

Regional Water Quality Control Board
King City Chamber of Commerce and Agriculture
Salinas Valley Chamber of Commerce
City of Greenfield
King City Planning Department
Monterey County Farm Bureau
Monterey County Historical Advisory Commission
Monterey County Agricultural and Rural Life Museum
Monterey County Historical Society
Waiting on Dave Rasmussen for Monterey Officials

Local Libraries

Monterey County Library

Stakeholder Organizations

Sierra Club, Ventana Chapter

Monterey Audubon Society

National Steinbeck Center

Museum of Ventura County

Appendix A California Environmental Quality Act Checklist

This checklist identifies physical, biological, social and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects indicate no impacts. A NO IMPACT answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included either following the applicable section of the checklist or is within the body of the environmental document itself. The words “significant” and “significance” used throughout the following checklist are related to California Environmental Quality Act, not National Environmental Policy Act, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Supporting documentation of all California Environmental Quality Act (CEQA) checklist determinations is provided in Chapters 2 and 3 of this Environmental Impact Report/Environmental Assessment (EIR/EA). Documentation of “No Impact” determinations is provided at the beginning of Chapter 2. Discussion of all impacts, avoidance, minimization, and/or mitigation measures is under the appropriate topic headings in Chapters 2 and 3.

	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	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
II. AGRICULTURE AND FOREST 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. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Explanation:</i> Projects that eliminate a hazardous feature or location are exempt from this determination. Nonetheless, the contractor would have to comply with emissions thresholds and follow Caltrans standard practices that pertain to air quality control. Therefore, the project is not expected to exceed the maximum thresholds. (Source: air quality memorandum, December 2013.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

V. CULTURAL RESOURCES: Would the project:

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

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

VII. GREENHOUSE GAS EMISSIONS: Would the project:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

An assessment of the greenhouse gas emissions and climate change is included in the body of environmental document. While Caltrans has included this good faith effort in order to provide the public and decision-makers as much information as possible about the project, it is Caltrans determination that in the absence of further regulatory information related to greenhouse gas emissions and CEQA significance, it is too speculative to make a significance determination regarding the project's direct and indirect impact with respect to climate change. Caltrans does remain firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in the body of the environmental document.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
IX. HYDROLOGY AND WATER QUALITY: Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

X. LAND USE AND PLANNING: Would the project:

a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XI. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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XII. 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|) 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

XIII. 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)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

XIV. 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: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XV. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XVI. TRANSPORTATION/TRAFFIC: Would the project:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XVII. UTILITIES AND SERVICE SYSTEMS: Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XVIII. 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, substantially 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Appendix B Title VI Policy Statement

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
P.O. BOX 942873, MS-49
SACRAMENTO, CA 94273-0001
PHONE (916) 654-5266
FAX (916) 654-6608
TTY 711
www.dot.ca.gov



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March 2013

NON-DISCRIMINATION POLICY STATEMENT

The California 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, religion, sexual orientation, 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.

For information or guidance on how to file a complaint based on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, please visit the following web page: http://www.dot.ca.gov/hq/bep/title_vi/t6_violated.htm.

Additionally, if you need this information in an alternate format, such as in Braille or in a language other than English, please contact the California Department of Transportation, Office of Business and Economic Opportunity, 1823 14th Street, MS-79, Sacramento, CA 95811. Telephone: (916) 324-0449, TTY: 711, or via Fax: (916) 324-1949.

A handwritten signature in blue ink, appearing to read "Malcolm Dougherty".

MALCOLM DOUGHERTY
Director

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Appendix C Minimization and/or Mitigation Summary

Visual/Aesthetics and Cumulative

The following measures would reduce the project's potential visual impact as seen from Highway 101 and the surrounding area. The intent of the following measures would be to mitigate the effect of the project caused primarily by the loss of vegetated character along the highway corridor.

1. Plant a minimum of 350 trees along Highway 101 within the area between the southbound Broadway Street on-ramp in King City and the northbound Jolon Road on-ramp north of the Salinas River. In addition, plant a minimum of 150 shrubs within this described area.
2. Provide a minimum of a three-year plant establishment period for all new planting. The plant establishment contract shall include language requiring that, at the end of the plant establishment period, 100 percent of the plants shall be alive and successfully established.

Biological/Animal Species

The following measures would serve to avoid or minimize potential impacts to biological resources in the vicinity of the proposed project:

- Pre-construction surveys for migratory birds shall be conducted by a Caltrans Biologist no more than 10 days prior to the tree removals if the trees are proposed for removal during the nesting season, February 1–August 15. If the trees will be removed outside of the nesting season, August 16–January 31, no pre-construction surveys shall be required.
- All trash and construction-related debris shall be properly contained and regularly removed from the project. Following construction, all trash and construction debris shall be removed from work areas.
- When not in use, motorized equipment shall be shut down.

Invasive Species/Natural Communities

The following re-vegetation measures for all disturbed soils will support natural communities and reduce the potential to introduce or spread invasive plant species and noxious weed from or into the project area.

- The contract specifications for permanent erosion control will require the use of California native forbs and grasses, from the same elevation and geographic area as the project site.
- All soils disturbed by construction will be treated for permanent erosion control with a seed mix comprised of local native grasses and forbs.
- Mulches used on the project will be from source materials that will not introduce exotic species.

Erosion control measures should be implemented in areas of ground disturbance and should specify the use of sterile or certified weed free mulches and straw applications and/or re-vegetation with the use of native species appropriate for the project vicinity.

Hydrology and Floodplain

- Minimize active Disturbed Soil Areas during the rainy season using scheduling techniques.
- Preserve existing vegetation to the maximum extent feasible.
- Implement temporary protective cover/erosion control on all non-active Disturbed Soil Areas and soil stockpiles.
- Control erosive forces of storm water runoff with effective storm flow management such as temporary concentrated flow conveyance devices, earthen dikes, drainage swales, lined ditches, outlet protection/velocity dissipation devices, and slope drains as determined feasible.

Temporary Sediment Controls

- Implement linear sediment controls such as silt fence, fiber rolls, check dams, or gravel bag berms on all active and non-active Disturbed Soil Areas during the rainy season.
- To further help prevent sediment discharge, stabilized construction site entrances, temporary drainage inlet protection, and street sweeping and vacuuming will be necessary. Street sweeping is paid for under the Job Site Management bid item.
- Implement appropriate wind erosion controls year-round.

Non-Storm Water Management

The appropriate non-storm water Best Management Practices (BMPs) will be implemented year-round as follows:

- Water conservation practices are implemented on all construction sites and wherever water is used.
- Procedures and practices have been designed for construction contractors to recognize illicit connections or illegally dumped or discharged materials on a construction site and report incidents to the Resident Engineer.
- The following activities must be performed at least 100 feet from concentrated flows of storm water, drainage courses, and inlets if within the floodplain and at least 50 feet if outside of the floodplain: stockpiling materials, storing equipment and liquid waste containers, washing vehicles or equipment, and fueling and maintaining vehicles and equipment.

Air Quality

- Water all active construction areas at least twice daily. Frequency should be based on the type of operation, soil and wind exposure.
- Prohibit all grading activities during periods of high wind (over 24.1 km/h [15 mph].)
- Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).
- Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations and hydro-seed area.
- Haul trucks shall maintain at least 0.6m (2.0 feet) of freeboard.
- Cover all trucks hauling dirt, sand, or loose materials.
- Plant vegetative cover in disturbed areas as soon as possible.
- Cover inactive storage piles.
- Sweep streets if visible soil is carried out from the construction site.

Appendix D List of Acronyms

APCD—Air Pollution Control District
ARB—Air Resources Board
BMP—Best Management Practices
Caltrans—California Department of Transportation
CEQA—California Environmental Quality Act
CURE—Clean Up Roadside Environment
CFR—Code of Federal Regulations
COZEEP—Construction Zone Enhanced Enforcement Program
dBA—A-weighted decibels, the measurement of noise that best represents human perception
DSA—Disturbed Soil Area
EA—Environmental Assessment (federal environmental document/NEPA);
Environmental Assessment (federal environmental document/NEPA compliance);
also used as Expenditure Authorization, a Caltrans billing/project tracking code
EIR—Environmental Impact Report
EIS—Environmental Impact Statement
EO—Executive Order
FHWA—Federal Highway Administration
FONSI—Finding of No Significant Impact
ITS—Intelligent Transportation System
ml—milliliters
NEPA—National Environmental Policy Act
NOA—Notice of Availability
NOP—Notice of Preparation
OV—Observer Viewpoints
PEP—Plant Establishment Period
PM—post mile
PM₁₀—particulate matter less than 10 microns in diameter
PM_{2.5}—particulate matter 2.5 microns in diameter or smaller
PRC—Public Resources Code
RC—Resource Change

RPM—Realigned Post Mile

SR—State Route

VR—Viewer Response

WPCP—Water Pollution Control Program

Appendix E Notice of Preparation



Edmund G. Brown Jr.
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Ken Alex
Director

Notice of Preparation

September 13, 2013

To: Reviewing Agencies

Re: (CURE) Clean Up Roadside Environment - Safety Improvement Project
SCH# 2013091046

Attached for your review and comment is the Notice of Preparation (NOP) for the (CURE) Clean Up Roadside Environment - Safety Improvement Project draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Julie McGuigan
California Department of Transportation, District 5
50 Higuera
San Luis Obispo, CA 93401

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Appendix F Cultural Transmittal and Concurrence Letters

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY

ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION

50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3111
FAX (805) 549-3329
TDD (805) 549-3259
<http://www.dot.gov/dist05>



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August 1, 2013

Dr. Carol Roland-Nawi
State Historic Preservation Officer
Office of Historic Preservation
1725 23rd Street, Suite 100
Sacramento, CA 95816

05-MON-101-40.5/55.0
EA 05-0T9900 (05-0002-00243)
CURE Safety Improvements Near King
City

RE: Determinations of Eligibility and Finding of No Historic Properties Affected for the CURE Safety Improvements Near King City, Monterey County, California

Dear Dr. Roland-Nawi:

The California Department of Transportation (Caltrans) is initiating consultation with the State Historic Preservation Officer (SHPO) regarding the CURE Safety Improvements Near King City Project. This consultation is undertaken in accordance with the January 2004 *Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (PA).

Enclosed you will find the Historic Property Survey Report (HPSR) for the proposed undertaking. The HPSR fulfills three responsibilities under Section 106 of the National Historic Preservation Act: (1) determination of the Area of Potential Effects (APE); (2) identification of cultural resources located within the APE; and (3) evaluation of historic properties for eligibility to the National Register of Historic Places (NRHP). Under the PA, Caltrans is responsible for ensuring the appropriateness of the APE (PA Stipulation VIII.A) and the adequacy of historic property identification efforts (PA Stipulation VIII.B). Pursuant to PA Stipulation IX.A.2, Caltrans is notifying you of a Finding of No Historic Properties Affected.

Caltrans is proposing the CURE Safety Improvements Near King City Project to remove roadside objects in the highway clear recovery zone at four locations along a four-mile section of the southbound roadside of US Highway 101 (US 101) in Monterey County between King City and Greenfield, within the postmiles 40.5 to 55.0 (Figures 1 and 2). The project would remove approximately 332 mature eucalyptus (*Eucalyptus globulus*) trees flanking the south side of the highway. The trees have reached full size, are continuing to decline in health, and are at risk of falling onto the roadway. Removal of the eucalyptus trees will include cutting them at the base and felling them away from the highway into the adjacent agricultural fields. The tree trunks and branches will be cut into smaller segments and chipped on site. The base of the trees and root balls will be stump ground to a minimum of 12-inches below grade. The area will then be graded

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with a motor grader to fill in voids and re-establish drainage ditches. Additional work at these locations includes removing the existing metal beam guard rail on the outside shoulder, replacing drainage headwalls with flared end sections, and replacing damaged fencing.

Identification efforts for the CURE Safety Improvements Near King City Project resulted in the evaluation of three historic buildings and a set of tree rows within the APE. One building, the Superintendent's Residence / Headquarters Building on the California Orchard Company parcel (Map Reference No. 1) has been determined to be eligible for the NRHP and CRHR.

The three other evaluated resources in the APE – the Kelly Ranch (Map Reference No. 2), Oliveira Ranch / Scheid Vineyards (Map Reference No. 3), and the eucalyptus tree row (Map Reference No. 4) – do not appear to meet the criteria for listing in the NRHP or CRHR because they lack historical significance or integrity.

In addition to assessing whether or not the buildings and tree rows are individually eligible for the NRHP, the built-environment resources were also assessed for their potential to be eligible for the NRHP as contributing resources of a Rural Historic Landscape or Historic District. The results of that study document that, rather than conveying a sense of the period of time in which the Study Area achieved its significance for its associations with Salinas Land Company and California Orchard Company agricultural developments, the landscape today exhibits a rural agriculture property than has continued to evolve, change, and modernize to the present. Therefore, while the Salinas Land Company property within the Study Area appears to meet the significance requirements under Criterion A, and while the California Orchard Company property within the Study Area appears to meet the significance requirements under Criteria A and C, each of these properties lacks sufficient integrity to convey that significance. The HRER concludes that alterations and loss of contributing elements constitute a loss of integrity that eliminates any potential for a historic landscape or historic district comprising the Study Area.

Although the California Orchard Company Supervisor's Residence/Headquarters is eligible for listing in the NRHP, it will not be affected either directly or indirectly by this project. Because the landscaping and features surrounding the building have changed over time, the boundary for the historic property is limited to the building itself. Since this building is located more than 250 feet beyond the area of construction impact, there is no potential for the building to be impacted by the project.

Pursuant to Stipulation VIII.C of the PA, Caltrans is requesting your concurrence that the following resources are not eligible:

Name	Address / Location	City	Year Built	CHR Status Code	Map Reference No.
California Orchard Company Headquarters Complex*	44557 Teague Ave. (APN 221-092-008-000)	Greenfield	1919-2000s	6Z	1

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Carol Roland-Nawi, State Historic Preservation Officer
 August 1, 2013
 Page 3

Oliveira Ranch; Scheid Vineyards	1972 Hobson Ave. (APN 221-081-009-000)	Greenfield	1920s- 2000s	6Z	2
Kelly Ranch	43690 Lagomarsino Ave. (APN 221-081-010- 000)	Greenfield	1920s- 1950s	6Z	3
Eucalyptus Tree Row	Southbound side of US 101 (PM 45.7 to PM 49.6)	Greenfield	1918- 1920s	6Z	4

*Excepting the individually eligible Supervisor's Residence / Headquarters Buildings

Pursuant to Stipulation VIII.C of the PA, Caltrans is requesting your concurrence that the following resource is eligible:

Name	Address / Location	City	Year Built	CHR Status Code	Map Reference No.
California Orchard Company Supervisor's Residence / Headquarters	44557 Teague Ave. (APN 221-092-008-000)	Greenfield	1919	3S	1

We look forward to receiving your response within 30 days of your receipt of this HPSR submittal, in accordance with PA Stipulation VIII.C.5a of the PA. Pending your concurrence regarding Caltrans' eligibility determinations, Caltrans' finding for the undertaking (pursuant to PA Stipulation IX.A.S) is "No Historic Properties Affected."

Caltrans is transmitting this Historic Property Survey Report for the proposed CURE Safety Improvements Near King City Project as the NEPA lead agency. This consultation is being undertaken in accordance with the January 1, 2004 Federal-Aid Highway Programmatic Agreement (PA). Caltrans is initiating consultation as part of its NEPA assignment of federal responsibilities by the Federal Highway Administration (FHWA), effective October 1, 2012 and pursuant to 23 USC 326.

Therefore, as a project covered under the MAP-21, FHWA has assigned and Caltrans has assumed FHWA responsibility for environmental review, consultation and coordination on the CURE Safety Improvements Near King City Project. Please direct all future correspondence on this project to Caltrans.

This letter and the attached documentation are concurrently being distributed to Caltrans Cultural Studies Office (CCSO).

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Carol Roland-Nawi, State Historic Preservation Officer
August 1, 2013
Page 4

Thank you for your assistance with this undertaking. If you need any additional information please contact Paula Carr, Caltrans PQS Principal Architectural Historian, at (805) 542-4659 (paula_carr@dot.ca.gov) or Krista Kiaha PQS Principal Investigator - Prehistoric Archaeology at (805) 542-4799 (krista_kiaha@dot.ca.gov).

Sincerely,



VALERIE LEVULETT
Chief, Central Region Technical Studies Branch
Heritage Resource Coordinator
Caltrans District 5, San Luis Obispo

Enc: *Historic Property Survey Report for the CURE Safety Improvements Near King City*
cc: Anmarie Medin, Caltrans Community Studies Office

"Caltrans improves mobility across California"

**OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION**

1725 23rd Street, Suite 100
SACRAMENTO, CA 95816-7100
(916) 445-7000 Fax: (916) 445-7053
calshpo@parks.ca.gov
www.ohp.parks.ca.gov



September 5, 2013

Reply To: FHWA_2013_0805_001

Valerie Levulett, Chief
Central Region Technical Studies Branch
Heritage Resource Coordinator
Caltrans District 5
50 Higuera Street
San Luis Obispo, CA 93401-5415

Re: Determination of Eligibility for the Proposed CURE Safety Improvements Near King City,
Monterey County, CA

Dear Ms. Levulett:

Thank you for consulting with me about the subject undertaking in accordance with the *Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California (PA)*.

Caltrans has determined that the California Orchard Company Supervisor's Residence/Headquarters at 44557 Teague Avenue in Greenfield is eligible for the National Register of Historic Places (NRHP) under Criterion A for its association with the California Orchard Company. The building served as headquarters for the California Orchard Company where many important early decisions about the company emanated and day-to-day plans for the company were made in this building. Based on review of the submitted documentation, I concur with your determination.

In addition Caltrans has determined that the following properties are not eligible for the NRHP, to which I also concur:

- California Orchard Company Headquarters Complex – 44557 Teague Avenue, Greenfield
- Oliveira Ranch/Scheid Vineyards – 1972 Hobson Avenue, Greenfield
- Kelly Ranch – 43690 Lagomarsino Avenue, Greenfield
- Eucalyptus Row – Southbound side of US 101, Greenfield

Thank you for considering historic properties during project planning. If you have any questions, please contact Natalie Lindquist of my staff at (916) 445-7014 or email at natalie.lindquist@parks.ca.gov.

Sincerely,

A handwritten signature in black ink that reads "Carol Roland-Nawi, Ph.D.".

Carol Roland-Nawi, Ph.D.
State Historic Preservation Officer

Appendix G Technical Studies

Air Quality, Noise Technical Report – June 2011

Water Quality Report – November 2013

Natural Environment Study – November 2013

Hydraulics, Floodplain Impacts – June 2014

Historic Property Survey Report

- Historical Resources Evaluation Report – August 2013
- Archaeological Survey Report (restricted access) – August 2013

Hazardous Waste Reports

- Initial Site Assessment – November 2013

Visual Impact Assessment – November 2013

Paleontology Study – June 2011

Tree Risk Assessment Report – March 2013

Geotechnical Memo – March 2014