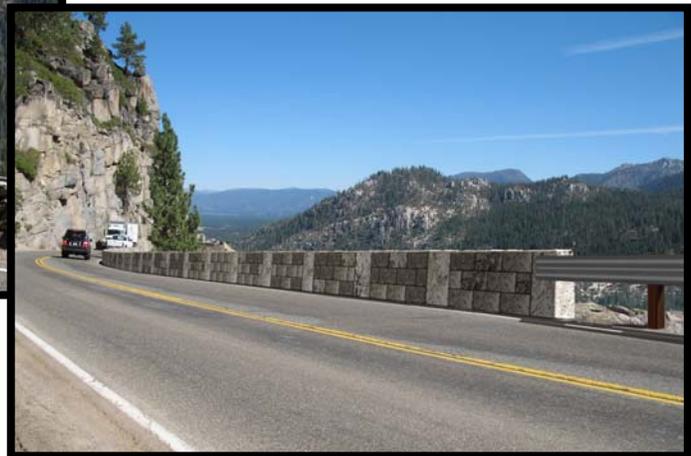


Echo Summit Rock Wall Parapet Replacement/ Water Quality Improvement Project

EL DORADO COUNTY, CALIFORNIA
DISTRICT 3 – ED – 50 (PM 66.7/67.8)
1E14U

Initial Study with Proposed Mitigated Negative Declaration/Environmental Assessment [and Section 4(f) Evaluation]



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 the Department under its assumption of responsibility pursuant to 23 U.S. Code 327.

February 2009



General Information About This Document

What's in this document?

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration, has prepared this Initial Study/Environmental Assessment, which examines the potential environmental impacts of alternatives being considered for the proposed project located in El Dorado County, California. The document describes why the project is being proposed, alternatives for the project, the existing environment that could be affected by the project, and potential impacts from each of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures.

What should you do?

- Please read this Initial Study/Environmental Assessment. Additional copies of this document as well as the technical studies are available for review at the Caltrans North Region Office of Environmental Management at 2800 Gateway Oaks Drive, Sacramento CA 95833; and at the Caltrans District 3 Office, 703 B Street, Marysville CA 95901. A copy of the Initial Study/Environmental Assessment is also available at the following El Dorado County Libraries: South Lake Tahoe Branch, 1000 Rufus Allen Blvd, South Lake Tahoe, Ca 96150, and the Main Branch, 345 Fair Lane, Placerville, CA 95667.
- The document is also available for review on the following website by visiting <http://www.dot.ca.gov/dist3/departments/envinternet/eldorado.htm>
- Attend the public information meeting:
Monday May 11, 2009: 4:30-7:30 PM
Inn By The Lake in South Lake Tahoe, 3300 Lake Tahoe Blvd, South Lake Tahoe, CA
- We welcome your comments. If you have any concerns regarding the proposed project, please attend the public information meeting or public hearing, or send your written comments to Caltrans by the deadline. Submit comments via U.S. mail to Caltrans at the following address:

Jody Brown; Environmental Branch Chief
Attn: Brenda Powell-Jones
California Department of Transportation
2800 Gateway Oaks Drive
Sacramento CA 95833

- Submit comments via email to: bpowellj@dot.ca.gov.
- Submit comments by the deadline: **May 22, 2009**.

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, large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Department of Transportation, Attn: Brenda Powell-Jones, Environmental Planning, 2800 Gateway Oaks Drive, Sacramento CA 95833; (916) 274-5911 Voice, or use the California Relay Service 1 (800) 735-2929 (TTY), 1 (800) 735-2929 (Voice) or 711.

SCH# TBD
03-ED-50-PM 66.7/67.8
EA 03-1E14U

Echo Summit Rock Wall Parapet Replacement and Water Quality Improvement
Project on US 50 at Echo Summit, PM 66.7 to PM 67.8 in El Dorado County

**INITIAL STUDY with
Proposed Mitigated Negative Declaration**

**ENVIRONMENTAL ASSESSMENT
Section 4(f) Evaluation**

Submitted Pursuant to: (State) Division 13, California Public Resources Code
(Federal) 42 U.S. Code 4332(2)(C) and 23 U.S. Code 327 and 49 U.S. Code 303

THE STATE OF CALIFORNIA
Department of Transportation

13 April 2009
Date of Approval



John D. Webb
Chief, Office of Environmental Service – South
California Department of Transportation

Proposed Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

Caltrans proposes to upgrade the deteriorating masonry rock wall parapets at seven locations on US Highway (US) 50 in El Dorado County from Robbins Run Sidehill to Rockwall Sidehill 2 (within the proposed project limits: PM 66.7/67.8) by constructing modified Type 736 concrete barriers on Portland cement concrete slabs. The proposed project will also include replacement or lining of existing cross culverts, digging out and replacing areas of loose and damaged asphalt concrete pavement and placing a ¾-inch asphalt overlay.

Determination

This proposed Mitigated Negative Declaration is included to give notice to interested agencies and the public that it is Caltrans' intent to adopt a Mitigated Negative Declaration for this project. This does not mean that Caltrans' decision regarding the project is final. This Mitigated Negative Declaration is subject to modification based on comments received by interested agencies and the public.

Caltrans has prepared an Initial Study for this project and, pending public review, expects to determine from this study that the proposed project would not have a significant effect on the environment for the following reasons:

The proposed project will have no effect on: Land Use, Growth, Farmlands/Timberlands, Utilities, Environmental Justice, Hydrology and Floodplains, Geology/Soils, Paleontology, Air Quality, and Special Status Species.

In addition, the proposed project would have no significant effect on: Traffic and Transportation, Aesthetics, Water Quality, Hazardous Waste, Wetlands and Other Waters, and Noise.

In addition, the proposed project would have no significantly adverse effect on a historic property eligible for the National Register of Historic Places, because the following mitigation measures would reduce potential effects to insignificance:

- Replacing the rock parapet walls with methods and materials that mimic the texture and color of the existing rock parapet walls would mitigate the adverse affects to Upper Meyers Grade.

John D Webb, Office Chief
Office of Environmental Service - South
California Department of Transportation

Date

Summary of Potential Impacts and Avoidance, Minimization, and Mitigation Measures

Resource	Potential Impact	Avoidance, Minimization and Mitigation Measures
Traffic and Transportation	Traffic delays to the driving public due to lane closures for purposes of constructing the project.	Implementation of Traffic Management Plan and extensive Public Outreach Program to inform public of upcoming lane closures.
Visual/Aesthetics	The replacement of the wall will improve the safety and improve the visual quality of the area by providing a more uniform appearance to the existing wall.	The new barrier wall shall be constructed in such a way that will mimic the texture and color of the existing wall.
Cultural Resources	Replacement of the rock parapet walls will have an adverse effect on Upper Meyers Grade, a National Register Eligible, historic property	Per Memorandum of Agreement between Caltrans, SHPO and US Forest Service, the new barrier wall shall be constructed in such a way that will mimic the texture and color of the existing wall.
Water Quality and Storm Water Runoff	The project may have minimal impacts during construction to Upper Truckee River (below Christmas Valley), which eventually flows into Lake Tahoe after flowing approximately ten miles north.	Caltrans BMPs and practices will be implemented to prevent receiving water pollution as a result of construction activities related to the Echo Summit Rockwall project.
Hazardous Waste/Materials	Hazardous materials have not been identified within the project limits.	Although there is no identified potential for hazardous materials to occur during the construction of this project, USEPA and El Dorado County must be notified 10 days prior to demolition activities per NESHAP requirements.
Air Quality	Potential for construction related dust and exhaust emissions	Measures to be included in contract specifications to reduce the potential for fugitive dust and reduce exhaust emissions.
Noise	During construction, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Depending on the lane closure strategy that is ultimately chosen for construction of this project, construction activities may occur in the nighttime hours as well as during the day.	Measures shall be implemented to ensure that impacts related to construction noise remains minimal.
Wetlands and other Waters	Wetlands have been identified near the project study area at the Echo Summit Maintenance station; Construction of this project will not directly impact jurisdictional wetlands. Because the maintenance station may be used for equipment storage and staging, measures will be implemented to ensure there are no impacts to identified wetland areas.	Areas delineated as jurisdictional wetlands shall be protected by orange fencing and designated as environmentally sensitive areas that may not be used or disturbed by construction equipment or materials.

Summary

Resource	Potential Impact	Avoidance, Minimization and Mitigation Measures
Invasive Species	A minimal risk exists for construction equipment to spread noxious weeds into the project area from areas outside the project work areas.	Although no areas of noxious weeds were identified within the project limits, measures shall be implemented to prevent the introduction and spread of invasive species into the project area. These measures include activities such as requiring construction equipment to be cleaned before entering the work areas.

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List of Abbreviated Terms

ADL	Aerially Deposited Lead
APE	Area of Potential Effect
BMP	Best Management Practices
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CNEL	Community Noise Level Equivalent
CWA	Clean Water Act
DOT	Department of Transportation
ESA	Environmentally Sensitive Area
FHWA	Federal Highway Administration
FOE	Finding of Effect
HRER	Historic Resource Evaluation Report
Lahontan	Lahontan Regional Water Quality Control Board
LRWQCB	Lahontan Regional Water Quality Control Board
LTBMU	Lake Tahoe Basin Management Unit
LTHU	Lake Tahoe Hydrologic Unit
NEPA	National Environmental Policy Act
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NOC	Notice of Construction
NPDES	National Pollution Discharge Elimination System
PM	Post mile
PS&E	Plans Specifications and Estimates
RWQCB	Regional Water Quality Control Board
SEZ	Stream Environment Zone
SHPO	State Historic Preservation Officer
SOIS	Secretary of Interior Standards
SWMP	Storm Water Management Program
SWPPP	Storm Water Pollution Prevention Program
TRPA	Tahoe Regional Planning Agency
USEPA	United States Environmental Protection Agency
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
WPCP	Water Pollution Control Program

Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans) proposes to upgrade the deteriorating masonry rock wall parapets at seven locations within the proposed project limits (PM 66.7/67.8) on US Highway (US) 50 in El Dorado County from Robbins Run Sidehill (PM 67.1) to Rockwall Sidehill 2 (PM 67.6) by constructing modified Type 736 concrete barriers on Portland cement concrete slabs. The proposed project will also include replacement or lining of existing cross culverts, digging out and replacing areas of loose and damaged asphalt concrete pavement and placing a ¾ inch asphalt overlay. The District 3 Traffic Safety Branch initiated the proposal for this project on April 2, 2004. This project is programmed for funding in the 20010/11 State Highway Operations and Protection Program (SHOPP) under the 015 (Collision Severity Reduction program) at an estimated cost of \$6,097,000.

1.2 Purpose and Need

1.2.1 Purpose

The primary purpose of this project is to improve safety along the section of US 50 known as Upper Meyers Grade at Echo Summit. The secondary purpose of this project is to improve drainage features within the project limits.

1.2.2 Need

The existing roadway and its features, such as the rock wall parapets and the drainage systems, were built in 1939. The masonry rock wall parapets along this section of roadway have severely deteriorated over the years requiring an excessive degree of maintenance and do not meet current state and federal safety standards. In addition, the drainage systems within the project limits are in poor condition and in need of repair. All culverts that outlet from the rock retaining walls are corroded or damaged.

1.3 Background / Environmental Setting

US Highway 50 is a major east-west route of the National Highway System, stretching just over 3000 miles from West Sacramento, California, to Ocean City Maryland, on the Atlantic Ocean.

US 50 is a two-lane facility at this location that winds along a steep hillside with two 12-foot lanes and very narrow shoulders. A steep cut slope abuts the westbound edge of shoulder and a steep drop-off runs along the eastbound edge of the shoulder that is protected by seven masonry rock parapet walls. Constructed in approximately 1939, these rock wall parapets have been identified as contributing elements to a larger historic property determined eligible for the National Register of Historic Places (National Register) that is on the California Register of Historical Resources.

The project is located on the Echo Lake USGS 7.5-minute topographic quadrangle within the Lake Tahoe Basin. The Lake Tahoe Basin is an intermountain basin formed by the faulting of the rocks of the Sierra Nevada to the west and the Carson Range on the east. The study area along US 50 reaches an elevation of approximately 7,380 feet at Echo Summit and decreases to approximately 7,100 feet at the northern edge of the project area. The surrounding terrain is characterized by steep rocky slopes of decomposed granite interspersed with large outcrops of granite and scattered granite boulders. Sunny dry summers and cold snowy winters characterize the climate of the Tahoe Basin area. Temperatures within the basin may range from approximately 85 to 90 degrees Fahrenheit in the summer and from 15 to 35 degrees Fahrenheit in the winter. Total precipitation for the year ranges from about 20 inches along the eastern shore in Nevada to up to 50 inches along the western edge of the basin in California, including an average total 100 to 130 inches of snow at the lower elevations.

The location of the proposed project is within the scenic region of the Lake Tahoe recreational area of northern California. The region is recognized for its picturesque natural setting and beauty, as well as its recreational attractions, which draw millions of visitors to the basin annually. The visual landscape of the Lake Tahoe Basin has a quality of its own. The region's distinctiveness is due to its rugged granitic mountainous terrain combined with heavily forested slopes and a backdrop of a vast blue serene lake. The combination of these elements truly makes the region extraordinary.

The United States Congress, the Department of Agriculture, and the states of California and Nevada through a Bi-State Tahoe Regional Planning Compact, which was approved in 1980 under public law 96-551, have recognized the Lake Tahoe Basin as a unique and environmentally sensitive area. The Tahoe Regional Planning Agency (TRPA) has adopted environmental thresholds required by the Tahoe Regional Planning Compact. The threshold standards define a level of environmental

quality that the region desires to achieve. The TRPA is the responsible transportation-planning agency for the Tahoe Basin and carefully evaluates environmental impacts for each project.

1.4 Alternatives

1.4.1 Build Alternative

The masonry parapet walls are above roadway grade guardrail structures that were placed on top of a masonry retaining wall at the time of construction, approximately 1939. The parapets can be removed without damaging the existing retaining wall. The existing parapets will be replaced with a Type 736 concrete barrier rail that will be cast from a mold of the existing walls and aesthetically treated to mimic the texture and color of the existing walls.

Roadway excavation of approximately 1.5 to 3 feet deep and 8-feet wide will be necessary to place a Portland Concrete Cement (PCC) slab foundation under the existing eastbound lane of the highway. The new Type 736 barrier will be placed and anchored on top of the new barrier rail slab, so that no direct connection will be made to the existing retaining wall.

Thirteen cross culverts currently exist within the project limits are in need of repair or replacement.

The existing Metal Beam Guard Rail (MBGR) between the rock wall parapets will be reconstructed.

Roadway asphalt will be ground down and replaced with an overlay of approximately 3 inches of hot mix asphalt.

Potential Lane Closure Options

The following methods of detours and closures are proposed on US 50 in order to construct this proposed project.

Option 1: One-Way Reversing Control; two lanes available on weekends

On the two-lane, two-way section of US 50, one lane would be open at all times during all construction periods. A pilot vehicle will guide traffic through the traffic control zone during reverse control procedures. No work would occur after 12:00 pm (noon) on Fridays, weekends, legal holidays, and special event days. The two lanes

of US 50 would remain open at all times when construction is not actively in progress. The duration of the project using this option has been estimated at 261 working days under normal working conditions (this option assumes daytime working hours: five day work weeks, eight hour work shifts, 21 working days per month).

This option will cause minimum daily traffic delays; however, it will have the longest cumulative delays due to the length of time that it will take to complete the project. It is estimated that it will take three construction seasons to complete the project with this lane closure option.

Option 2: One-Way Directional Closure; close eastbound lane behind k-rail, shift eastbound traffic to westbound lane, and direct westbound traffic to detour route.

This option would keep one lane of US 50, dedicated to eastbound traffic, open for the duration of the project, with the highway closed to westbound traffic at all times during the construction period. There would be continuous flow of traffic in the eastbound direction (into the Lake Tahoe area) and a detour would be provided for the westbound (leaving the Lake Tahoe area) traffic flow.

Westbound traffic would be detoured at the US 50/SR 89 junction, follow SR89 to SR88 to SR49 and would terminate at US 50 in Placerville. The detour is 113 miles long and takes 2 hours 30 minutes to negotiate. The existing route along US 50 is 53 miles and takes 1 hour and 5 minutes to travel from the US50/SR89 junction to Placerville.

The duration of the project using this option has been estimated at 149 working days under the assumption that with use of the K-rail, work could proceed on a 24/7 schedule. It is estimated that it will take two construction seasons to complete the project with this lane closure option.

Option 3: Reversing Control 24/7; close eastbound lane behind k-rail, provide one-way reversing control

Option 3 is similar to Option 1, with one lane of US 50 kept open at all times during construction periods and traffic guided by a pilot vehicle through the traffic control zone during reverse control procedure. The major difference between the two options is that closure of one lane of US 50 through the construction zone would be allowed 24 hours a day, seven days a week under Option 3.

The duration of the project using this option has been estimated at 149 working days under the assumption that with use of the K-rail, work could proceed on a 24/7 schedule. It is estimated that it will take two construction seasons to complete the project with this lane closure option.

It is estimated that it will take two construction seasons to complete the project with this lane closure option.

Option 4: One-Way Reversing Control with Movable Barrier; two lanes available on weekends

This option is similar to Option 1 except that movable barrier will be used from Monday to Friday to allow work to continue on a 24/7 schedule and since the barrier can easily be moved, both lanes will be open to traffic Friday at noon through Sunday.

The duration of the project using this option has been estimated at 222 working days under the assumption that with use of the movable barrier, work could proceed on a 24/7 schedule during the week. It is estimated that it will take two construction seasons to complete the project with this lane closure option.

Option 5: Full Closure of US 50; direct all traffic to detour route

This option will include a complete closure of US 50 in El Dorado County from PM 66.6 to PM 67.8 during the construction period. Eastbound traffic will be detoured from US 50 to SR 49 in Placerville, to SR 88, then to SR 89, and back to US 50 near Meyers; westbound traffic will be detoured using the reverse route. The closure will affect both eastbound and westbound traffic on US 50, coming in and out of the Tahoe Basin. The detour route is 113 miles long and takes approximately two hours and 30 minutes to negotiate. The existing route along US 50 is 53 miles long and takes approximately one hour and five minutes to travel from Placerville to the US 50/ SR 89 junction.

With the detour, it is estimated that the project could be built in 44 days (approximately seven weeks), with extended working conditions (five day work weeks, three eight-hour or two 12-hour work shifts). Full closure of the highway is expected to last 18-24 days. Following the full closure there will be a period of standard reversing traffic control for 20 working days (similar to Option 1). This 20-day period will only occur on weekdays and there will not be traffic control in place

from Friday at noon to Sunday. Work is anticipated to begin in early May and be completed prior to the Fourth of July weekend of the construction year (it is anticipated that the full closure portion of construction will be complete prior to Memorial Day weekend).

1.4.2 No-Build Alternative

The No-Build Alternative for this project would entail leaving the existing rock parapet walls in their current condition. This alternative is not feasible or prudent as the existing rock parapet walls in their current damaged condition presents a potential safety concern to the traveling public and requires correction. Furthermore, the existing masonry parapets do not meet the current state and federal safety standards and would not meet the standards with routine maintenance and repair.

Final Decision- Making Process

After the public circulation period for this environmental document, all comments will be considered, and Caltrans will make the final determination of the project's effect on the environment. In accordance with the California Environmental Quality Act, if after mitigation no significant adverse impacts are identified, Caltrans will prepare a Mitigated Negative Declaration. Similarly, if Caltrans determines the action does not significantly impact the environment, Caltrans, as assigned by the Federal Highway Administration, will issue a Finding of No Significant Impact in accordance with the National Environmental Policy Act.

1.4.3 Alternatives Considered and Withdrawn

Several alternatives have been considered for improvement to this segment of U.S US 50.

- Widen existing roadway to 39 feet.
- Widen existing roadway to 31 feet.
- Construct new east bound roadway.

Due to the cost and potential environmental impacts associated with widening the highway or constructing a new lane at this location, these alternatives have not been advanced further in the planning stages.

Although there were other options considered for widening the highway at this location to provide for wider shoulders and other highway features, all of the options

included replacement of the rock wall parapets as a necessary feature of each alternative considered.

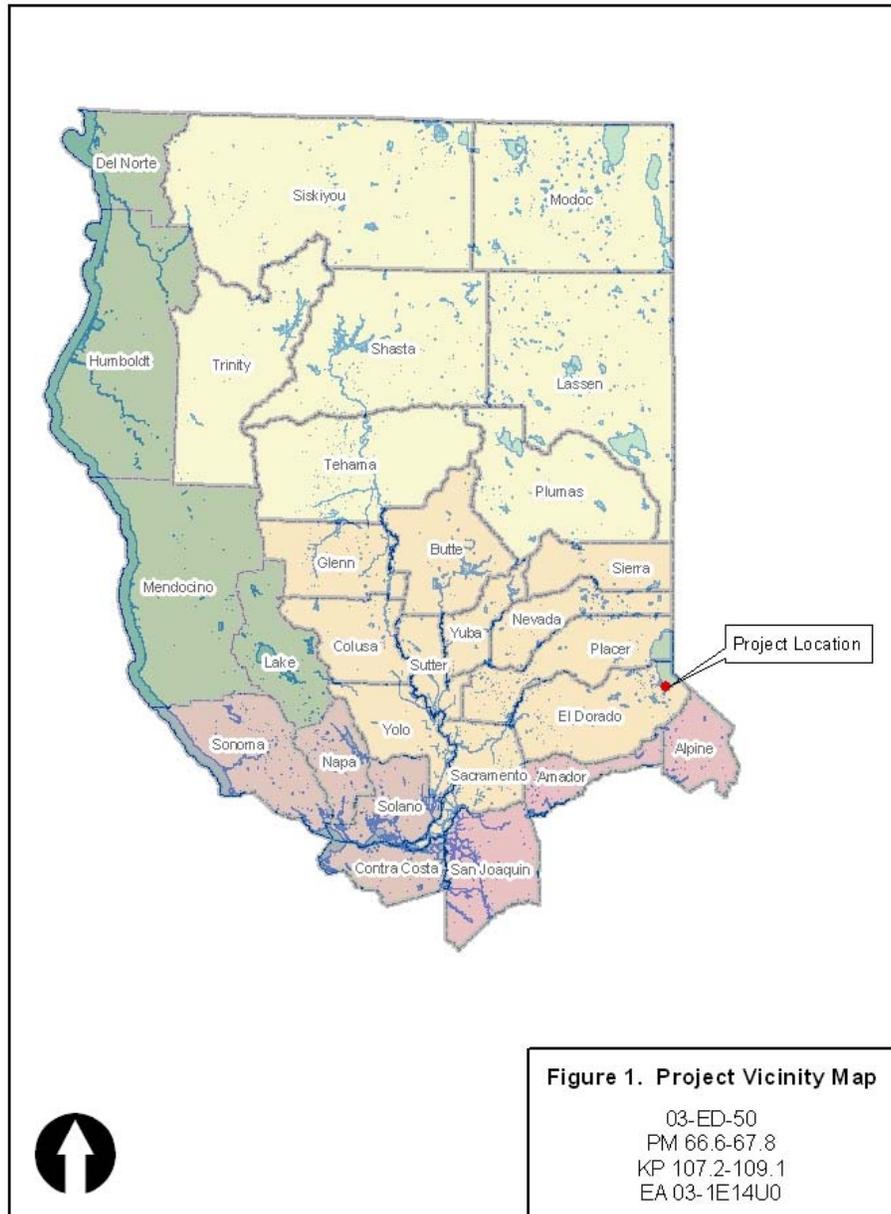


Figure 1-1 Project Vicinity Map

*Echo Summit Rock Wall Parapet Replacement/Water Quality Improvement Project
Initial Study/Environmental Assessment/4(f) Evaluation*

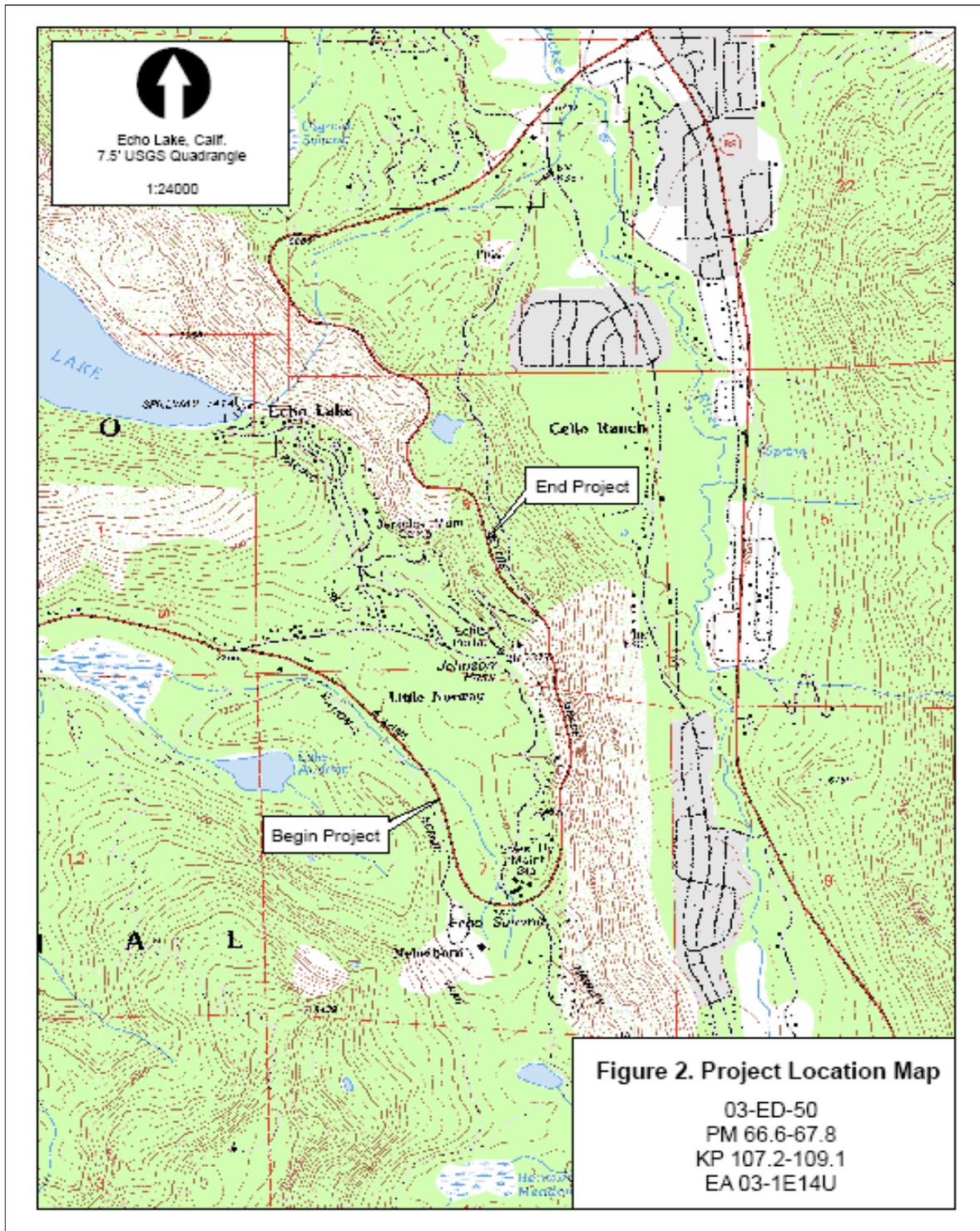


Figure 1-2 Project Location Map

1.5 Permits and Approvals Needed

The following permits, reviews, and approvals would be required for project construction:

Agency	Permit/Approval	Status
US Forest Service Lake Tahoe Basin Management Unit (LTBMU)	Special Use Permit Amendment	Preliminary discussions have occurred with USFS
Tahoe Regional Planning Agency	Construction Permit	Initiated preliminary discussions with TRPA
State Historic Preservation Officer	Concurrence on Findings of Effect and Memorandum of Agreement	Completed. Signed by SHPO, USFS, Caltrans, and sent to Advisory Council on Historic Preservation

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

This chapter explains the impacts that the project would have on the human, physical, and biological environments in the project area. It describes the existing environment that could be affected by the project; potential impacts from the proposed build alternative, and proposed avoidance, minimization, and/or mitigation measures. Any indirect impacts are included in the general impacts analysis and discussions that follow.

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

- Land Use: The proposed project will be constructed within land owned and operated by the United States Forest Service under a Special Use Permit Issued to the California Department of Transportation for use and maintenance of the roadway features. Either an amended Special Use Permit will be requested from LTBMU or a DOT Easement will be pursued. Either method will not change the existing land ownership or use and therefore will be consistent with land use goals and policies applicable to the project area.
- Growth: The proposed project will repair an existing facility and will not promote additional growth to the region or local communities.
- Farmlands/Timberlands: The proposed project site is not within a designated farmland or timberland area.
- Utilities: No utility relocations or conflicts are expected to occur as a result of the construction of this project.
- Environmental Justice: This project will not cause disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations. All considerations under Title VI of the Civil Rights Act of 1964 and related statutes have also been included in this project. Caltrans' commitment to upholding the mandates of Title VI is evidenced by its Title VI

Policy Statement, signed by the Director, which can be found in Appendix C of this document.

- Hydrology and Floodplain: a Caltrans Hydraulics Engineer prepared a Preliminary Drainage Report in August 2005. The project location on the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps is included on Panel 0600400609B (effective date 10/18/83) for El Dorado County. The entire project segment on US 50 is in Zone C that is defined as "Areas of minimal flooding" (no shading).
- Geology/Soils/Seismic/Topography: The proposed project does not involve the construction of habitable structures or other structures or other facilities that would result in substantial adverse impacts on people, property or the environment if damaged by ground shaking. The proposed project also does not involve any construction activities that would destabilize existing geologic units or increase existing landslide hazards.
- Paleontology: Due to the nature of this project, paleontology resources are not expected to be encountered or affected.
- Plant Species: A Natural Environment Study (NES) was completed in December 2007. After field reviews and pertinent data resource reviews it was determined that the proposed project would have "no effect" on plants protected by the Native Plant Protection Act that exist within the project area.
- Animal Species: Due to the location of the project and lack of habitat for various animal species, no impacts to non-status wildlife is expected to occur. Should the project scope change to require tree or woody vegetation removal, contract specifications shall be included for compliance with the Migratory Bird Treaty Act (MBTA)
- Special Status Species: Caltrans biologists compared specific habitat requirements, life history notes, elevation, species distribution, and species lists from USFWS, TRPA, LTBMU and CNDDDB to determine if any special-status species may be present in the project area. Special-status species (including Threatened and Endangered Species) that have been recorded in or adjacent to the Lake Tahoe Region were identified in the Natural Environment Study (NES). No special-status wildlife species were found or identified on any of the project sites and none are expected to occur within the project area and this project is expected to have "no effect" to Endangered or Threatened Species.

2.1.1 Community Impacts

A Community Impact Assessment was completed October 30, 2007, by Caltrans staff and was later updated in December 2008, to include an analysis of potential impacts related to construction detour options.

Regulatory Setting

The National Environmental Policy Act of 1969, as amended, established that the federal government use all practicable means to ensure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings [42 United States Code 4331(b)(2)]. The Federal Highway Administration in its implementation of the National Environmental Policy Act [23 United States Code 109(h)] directs that final decisions regarding projects are to be made in the best overall public interest. This requires taking into account adverse environmental impacts, such as destruction or disruption of human-made resources, community cohesion, and the availability of public facilities and services.

Under the California Environmental Quality Act, an economic or social change by itself is not to be considered a significant effect on the environment. However, if a social or economic change is causally related to a physical change, then social or economic change may be considered in determining whether the physical change is significant.

Affected Environment

The project limits cover a stretch of approximately 1.1 miles along US 50 at the Echo Summit area of the Tahoe Basin. US 50 is the main corridor connecting the Sacramento Valley and the San Francisco Bay Area to the mountain, lake, and entertainment/gaming resort locations of the Lake Tahoe Basin. It is a heavily traveled route by seasonal visitors, local commuters, and commercial trucking operators. Caltrans 2007 traffic census data indicates an average annual daily traffic count (AADT) of 13,200 vehicles with a peak hour vehicle count of 1,900 for the Echo Summit area of US 50. During the month of heaviest traffic flow, average daily traffic volumes on US 50 at this location increase to 15,200 vehicles.

State Route (SR) 89 (Luther Pass Road) intersects with US 50 at PM 70.5 (2.7 miles east of the project area). At that point US 50 and SR 89 join together and become Emerald Bay Road for about 4.5 miles east to the US 50/SR 89 junction at Lake Tahoe Boulevard (where US 50 becomes the main street through South Lake Tahoe).

According to Caltrans traffic studies and Systems Planning, peak hour recreational traffic periods at the busier portions of the Lake Tahoe Basin generally are classified with a Level of Service (LOS) of “E” (operations at or near capacity and unstable), or a LOS of “F” (forced or breakdown flow, demand exceeds capacity, considerable delays).

Curves and steep slopes characterize the road terrain within the project limits. According to the Caltrans Transportation Concept Report (TCR) dated April 1998, in contrast to the greater Lake Tahoe Basin area, this segment has a current Level of Service (LOS) of “B” with a forecasted 20-year LOS of “F.”

The most pronounced areas of congestion within the greater project area are at the US 50/SR 89 “Y” and on US 50 near Stateline. Construction activity that slows or diverts traffic at these locales tends to exacerbate the already degrading levels of service. Caltrans records indicate complaints have been made by the hotel/gaming industry concerning a reduced number of patrons during past roadway construction periods.

Land uses within the greater project area consist of the Department of Agriculture lands, National Forest Wilderness Areas, California State Parks, resort areas, Lake Tahoe Airport and the Tahoe Paradise Golf Course.

According to the South Lake Tahoe (SLT) Chamber of Commerce, tourism is a large part of the local economies of the area and accounts for as much as 80% of the total revenue of the area. During the winter months the major employers are the hotels, motels, vacation properties, and restaurants that benefit from ski season related activities. In the summer months, employment shifts to those businesses that support tourism, such as restaurants, bars, motels, and small specialty shops. Beyond the project area on US 50, the state of Nevada’s gaming and hotel industry provides a substantial steady year round source of business revenue and is a major local and regional employment center.

According to research done by the City of South Lake Tahoe and the Strategic Marketing Group it is estimated that that the Lake Tahoe Basin generates approximately two billion dollars in annual revenue. In 1997 US 50 was closed for a period of about three months due to fire and mudslide activity. It has been estimated that the loss to local revenues during that period was substantial.

Research on Lake Tahoe’s economy has shown that most of the travel related tax revenues remain in the area because nine out of ten tax dollars generated by visitor

spending are attributable to point of sale taxes. Almost one-half (47%) of all tax impacts generated by travel spending accrues to local government in the form of transient occupancy taxes and local sales taxes according to a study produced by Dean Runyan Associates (2002).

There are a number of representative business and homeowner groups that are active stakeholders in the Lake Tahoe EIP process. These groups include the Lake Tahoe Visitors Authority, South Lake Tahoe Lodging Association, South Shore Transit Management Association, South Lake Tahoe Chamber of Commerce, Tahoe-Douglas Visitors Authority, Tahoe Meadows Homeowner Association, the South Lake Tahoe Transportation Management Association and Tahoe Lakefront Association.

Environmental Consequences

Construction of the Echo Summit Project under all lane closure options (as discussed in Section 1.4.1 Build Alternative section of this document) could temporarily impede access to the southern part of the Lake Tahoe Basin. The stability and sustainability of the Lake Tahoe economy is extremely dependent on revenue from tourism, and it is important to recognize that the effects of actions that substantially delay visitor access to the hubs of commerce in the Lake Tahoe Basin over extended periods of time are likely to impact local business revenues, employment, and tax revenues.

All proposed traffic-handling options have a potential to affect the sales and local tax revenue to businesses operating in and around the Lake Tahoe Basin. Caltrans has assumed, based on past projects that the traffic handling option that would cause the least amount of closures or delays would result in the least effect on local businesses.

CEQA considerations

No significant impacts to the community are expected as a result of this project,

Avoidance/Minimization Measures

Congestion and delays will likely cause inconvenience to the traveling public and Tahoe region business owners. In addition to the Traffic Management Strategies included in the Traffic section of this document, the following public outreach measures are recommended in order to minimize the inconvenience that may occur:

- Informational brochures included in utility bill mailings to homeowners, renters, and business operators with updates regarding construction related details that are located in the greater project area.

- Use of public service announcements through local media outlets. Purchase and use of radio air time to publicize the projects and update information.
- Use of newspaper ads that use detailed mapping of Lake Tahoe Basin (including US 50) and I-80 construction projects that is produced annually by the Caltrans Transportation Management Unit in association with the TRPA, the Tahoe Basin counties, other lead agencies, and Nevada Department of Transportation (NDOT).
- Updates should be provided prior to actual construction dates on local radio and in newspaper ads. The Caltrans District 3 Public Information Officer (PIO) is usually delegated responsibility by project management in this area.
- Distribution of informational brochures at frequented local outlets such as busy local resorts and retail commercial locations along the impacted corridor, the South Lake Tahoe Chamber of Commerce, the local chapters of the American Automobile Association, and the California Highway Patrol office.
- Extensive utilization of the Caltrans Tahoe Basin web site. The web site should be updated and expanded to include links to the PIO's project information hotline and/or roadway condition list. Informational mailers and brochures should consistently refer readers to the web site for the most current project related information.
- Focused mailers to representative organizations and stakeholders including, but not limited to; the California and Nevada Trucking Associations, the Owner Operated Independent Drivers Association, the Teamsters local chapters, the Lake Tahoe Visitors Authority, the South Lake Tahoe Lodging Association, the South Shore Transit Management Association, Tahoe-Douglas Visitors Authority, the Nevada Hotel and Lodging Association, Greyhound, and the major charter bus operators in the San Francisco Bay area and Sacramento area.
- Implementation of an 800 number for the traveling public and other impacted parties to call to voice concerns and point out trouble spots during construction.

2.1.2 Emergency Services

Affected Environment

Lake Valley Fire Department provides fire and emergency services in the project area. The USFS provides fire protection for the El Dorado National Forest and wilderness areas within and surrounding the project limits. The El Dorado County Sheriff's Department and the California Highway Patrol provide police protection. Emergency medical services are provided at Barton Memorial Hospital, which is located behind the northeast quadrant of the US 50/SR 89 "Y" in the city of South Lake Tahoe.

Environmental Consequences

Once completed, the proposed project will have no effect on police and fire protection or on emergency response or evacuation plans. During construction, there is a potential for temporary traffic congestion and delays to result where active construction work is underway. However, emergency vehicles are exempt from roadway lane closures, and every effort will be made to allow police and fire vehicles to pass through construction zones without delay. If implementation of an emergency response plan or emergency evacuation plan is necessary during project construction, response or evacuation delays could also occur. Emergency vehicle access would not be restricted, and any necessary action to support safe movement of vehicles along evacuation routes would be taken. Implementation of a Traffic Management Plan (TMP) for each of the detour options will address the issues of safe and efficient movement of emergency vehicles through the construction zone as well as provide a provide planning for handling of evacuation during an emergency event such as a forest fire.

CEQA considerations

The proposed project will not cause a significant impact to emergency services or public safety.

Minimization, Measures

The following measures will be implemented to ensure public safety during construction.

These measures include the following:

- The contract Standard Special Provisions (SSPs) will require the contractor to coordinate with local emergency agencies/workers prior to construction and

through construction. As part of this coordination, a plan for emergencies, to include any agreed upon detour plan, will be developed.

- The Caltrans Construction Resident Engineer (RE) shall ensure the required emergency plan includes provisions to cease operations to allow the roadway to be used as an escape route in case of an emergency event such as forest fire.
- When an emergency occurs, the RE and California Highway Patrol (CHP) have the authority and responsibility to suspend and modify work for the safety of the public. This is provided by the Public Safety Specifications in the Caltrans standard plans.

2.1.3 Traffic and Transportation

Affected Environment

US 50, within the project limits, is a two-lane conventional highway with 12-foot lanes in each direction of travel, with minimal shoulders and very steep slopes on either side of the highway. This route is the main corridor connecting the Sacramento Valley and the San Francisco Bay area to the mountain, lake, and entertainment gaming resort locations of the Lake Tahoe basin. Seasonal visitors, local commuters and commercial trucking heavily use US 50. Caltrans 2007 traffic census data indicates an average annual daily traffic count (AADT) of 13,200 vehicles with a peak hour vehicle count of 1,900 for the Echo Summit area of US 50. During the month of heaviest traffic flow, average daily traffic volumes on US 50 at this location increase to 15,200 vehicles.

In contrast to the greater Lake Tahoe Basin area, this segment has a current Level of Service (LOS) of “B” with a forecasted 20-year LOS of “F.”

Environmental Consequences

Traffic Impacts Related to the Completed Project

Because the purpose of the proposed project is to repair existing facilities, the completed project will have no impact on current traffic and transportation patterns. However, due to the topography of and access to the proposed project area, lane closures during construction will have a temporary impact on the traffic.

Construction Related Traffic Impacts

Currently there are five traffic-handling scenarios under consideration for this proposed project; these alternatives are discussed in detail in Section 1.4.1 Build Alternatives.

With the exception of temporary traffic delays during the construction of the new rock wall parapets and culvert replacement, this project will neither exacerbate nor improve the current level of service for this segment of the highway, thus there will be a minimal impact pursuant to NEPA and a less than significant impact pursuant to CEQA to the current level of traffic on US 50.

Cumulative Impacts to Traffic and Transportation

Several projects are planned for construction in the Lake Tahoe Basin and immediate surrounding areas (see appendix J for maps of proposed Caltrans projects in the Lake Tahoe Basin and on the Interstate 80 corridor).

Other agencies such as Nevada Department of Transportation and other Caltrans Districts (such as District 10) are likely to have projects planned for construction at the same as planned construction activities for the proposed project at Echo Summit. Caltrans District 3 will ensure coordination occurs with other transportation entities so that multiple routes, especially those planned for detour routes, will not be closed at the same time as US 50 at Echo Summit. This coordination effort should ensure that temporary traffic congestion would not be exacerbated due to multiple road closures occurring at the same time. With this coordination effort, the proposed project is not expected to contribute to cumulatively considerable traffic and transportation impacts.

CEQA considerations

The proposed project will not create a significant impact on the long-term traffic and transportation circulation patterns of US 50.

Minimization Measures

The traveling public as well as local businesses will experience delays and inconvenience during construction of this project under all proposed traffic handling options and the following measures are proposed to minimize and potentially alleviate some of the inconvenience.

Based on past projects that required extensive freeway closures, it is anticipated that if the public is made aware of the upcoming road closures, they will likely adjust their travel plans and/or driving patterns to avoid major delays if possible.

The Community Impact Assessment prepared for this project recommends a Traffic Management Plan (TMP)* as well as a public outreach program to reduce the impact of this project. In addition to these measures, the following measures are recommended for implementation for all lane closure/construction options.

General recommendations that should be applied to all options:

- Construction bidding measures and incentive/disincentive provisions should be used to expedite construction of the Echo Summit Rock Wall replacement project.
- Coordination with projects within and nearby the project limits should be required to avoid conflicts with other projects. This coordination needs to extend to projects in both Caltrans Districts 3 and 10.
- Coordination with El Dorado County should be required to address traffic-impact concerns within the vicinity of the Echo Summit Project or along the detour route.
- Adequate public outreach funding should be identified and required for the projects public outreach program.
- The project construction contractor should be required to leave access to Johnson Pass Road open during the duration of project construction activities. Caltrans Maintenance may be required to plow and maintain Johnson Pass Road during project construction. Although Johnson Pass Road will not be advertised or recommended as a detour route for US 50 traffic, it is an important and viable detour for local traffic.

The following specific measures are recommended for the construction options and for the cumulative impacts of the project.

Option 1: Reversing Control; two lanes available on weekends

The TMP for Option 1 should include the following measures:

- On the two-lane, two-way section of US 50, one lane should be open at all times.

* A Traffic Management Plan will outline construction requirements and restrictions to minimize

- Truck traffic will be guided by a pilot vehicle through the traffic control zone during reverse control procedures.
- Trucks shall be held prior to the work area. The holding locations for trucks will be developed at the Plans and Estimates (P&E) stage of project planning.
- Provide an alternative route plan for this project. From Sacramento use US50 to SR49, then to SR88, to SR89 and back to US50 at South Lake Tahoe.
- Place additional changeable message signs at US 50/SR 89 and US 50/Sly Park Road.
- When implementing one-way (reversible) traffic control, advance flaggers are recommended in areas where there is inadequate approaching sight distance.
- If closures occur within 200 feet of an intersection, flaggers will need to be used to control all legs of the intersection.
- Due to safety consideration in relation to the vertical and horizontal alignment of this section of US 50, work at this location should use a Construction Zone Enhanced Enforcement Program (COZEEP) for both daytime and nighttime construction lane closures.
- No lane closures will be allowed after Friday noon, Saturday, Sunday, legal holidays, the day before and after most legal holidays, and on Special Days.
- The two lanes of US 50 will remain open at all times when construction operations are not actively in progress.
- Portable changeable message signs will be required in the direction of traffic during construction for each lane or shoulder closure.
- Lane closure charts will be developed during the engineering design phase of project planning.

Option 2: One Way Directional Closure; close eastbound lane behind k-rail, shift eastbound traffic to westbound lane, and direct westbound traffic to detour route

The TMP for Option 2 should include the following:

- On the two-lane, two-way section of US 50, one lane should be open at all times.

traffic delays and maximize safety within the construction areas.

- A detour plan for westbound traffic shall be developed: use US50 to SR 89, then to SR 88, to SR 49 and back to US 50.
- Place additional changeable message signs at US 50/SR 89 and US 50/Sly Park Road.
- Due to safety consideration in relation to the vertical and horizontal alignment of this section of US 50, work at this location should use a Construction Zone Enhanced Enforcement Program (COZEEP) for both daytime and nighttime construction lane closures.
- This option will need extensive public outreach efforts, with paid advertising and the use of multiple changeable message signs. The public outreach plan will advise drivers of the construction activities, anticipated delays, and provide alternate routes.
- Coordination with projects within or nearby the project limits will be required to avoid conflicts.
- Portable changeable message signs will be required in the direction of traffic during construction for each lane or shoulder closure.
- This directional closure option will require the use of reversing control. For the days that reversing control is used, follow recommendations listed for Option 1.
- Lane closure charts will be developed during the engineering design phase of the project planning.

Option 3: Reversing Control 24/7; close eastbound lane behind k-rail, provide one-way reversing control.

The TMP for Option 3 should include the following:

- On the two-lane, two-way section of US 50, one lane should be open at all times.
- Truck traffic will be guided by a pilot vehicle through the traffic control zone during reverse control procedures.
- Trucks shall be held prior to the work area. The holding locations for trucks will be developed at the Plans and Estimates (P&E) stage of project planning.

- Provide an alternative route plan for this project. From Sacramento use US50 to SR49, then to SR88, to SR89 and back to US50 at South Lake Tahoe.
- Place additional changeable message signs at US 50/SR 89 and US 50/Sly Park Road.
- When implementing one-way (reversible) traffic control, advance flaggers are recommended in areas where there is inadequate approaching sight distance.
- If closures occur within 200 feet of an intersection, flaggers will need to be used to control all legs of the intersection.
- Due to safety consideration in relation to the vertical and horizontal alignment of this section of US 50, work at this location should use a Construction Zone Enhanced Enforcement Program (COZEEP) for both daytime and nighttime construction lane closures.
- COZEEP shall be required during weekend closures and for closures after Friday noon.
- Portable changeable message signs will be required in the direction of traffic during construction for each lane or shoulder closure.
- Lane closure charts will be developed during the engineering design phase of project planning.

Option 4: One Way Reversing Control with Movable Barrier; two lanes available on weekends

The TMP for Option 4 will be similar to those in Option 1

Option 5: Full Closure of U.S. 50; direct all traffic to detour route.

The TMP for Option 5 should include the following:

- Full closure will not be allowed from the Fourth of July weekend through Labor Day.
- A detour plan shall be developed for this project, using US 50 to SR 49, then to SR 88 and back to US 50.

- This option will need extensive public outreach efforts, with paid advertising and the use of multiple changeable message signs. The public outreach plan will advise drivers of the construction activities, anticipated delays, and provide alternate routes.
- Coordination with projects within or nearby the project limits will be required to avoid conflicts.

2.1.4 Visual/Aesthetics

A Visual Impact Assessment was completed by Caltrans in October 2007, and includes discussion and photographic depictions of the existing rock wall parapets and potential impacts to the scenic quality of the surrounding area as a result of the proposed replacement.

Regulatory Setting

Federal

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* (emphasis added) and culturally pleasing surroundings [42 United States Code 4331(b)(2)]. To further emphasize this point, the Federal Highway Administration in its implementation of the National Environmental Policy Act [23 United States Code 109(h)] directs that final decisions regarding projects are to be made in the best overall public interest taking into account adverse environmental impacts, including among others, the destruction or disruption of aesthetic values.

State

Likewise, 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)]

State Scenic Highway Program

The California Scenic Highway Program, created by the California Legislature in 1963, was established to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. A highway is officially designated under this program when a local jurisdiction adopts a scenic corridor protection program, applies to Caltrans for scenic highway approval, and

receives notification from Caltrans that the highway has been designated a scenic highway.

Tahoe Regional Planning Agency

TRPA is charged with protecting Lake Tahoe and the basin for the benefit of current and future generations. The 1980 revised Compact, between state and federal agencies, gives TRPA the authority to adopt and enforce environmental quality standards. These standards were designed to achieve desired thresholds and were adopted in 1982.

One of the primary objectives embodied in the TRPA revised Compact is the preservation of the scenic values of the Lake Tahoe Basin, which are closely linked to the social and economic health of the region (TRPA Compact: Public Law 96-551, December 19, 1980: Article I). TRPA has inventoried and rated roadway segments and travel routes in the region, including segments within the proposed project area, to determine scenic resource values from roadway vantage points. Based on TRPA's 1982 inventory of resources in the Lake Tahoe Basin, TRPA established threshold standards for the protection and enhancement of scenic quality, and evaluated performance in achieving those levels on a regional basis. TRPA requires that the numerical threshold assigned to each rated roadway segment or travel route, be maintained or improved.

From the final 2006 Threshold Evaluation Report (Tahoe Regional Planning Agency 2007), the following TRPA thresholds apply to scenic resources:

- SR-1 Travel Route Rating
- SR-2 Scenic Quality Rating
- SR-3 Public Recreation Areas and Bike Trails
- SR-4 Community Design

Affected Environment

The proposed project located within the scenic region of the Lake Tahoe recreational areas of northern California. The region is recognized for its picturesque natural setting and beauty, as well as its recreational attractions, which draw millions of visitors to the basin annually. The rugged granite mountainous terrain combined with heavily forested slopes includes a backdrop of a vast blue serene lake. The combination of these elements truly makes the region extraordinary. These features

and elements enhance the driver's experience, as one travels through this unique landscape it creates a memorable and vivid encounter.

Land use within the proposed project area is predominately recreational. During the summer months this route is heavily used at times by recreational and local traffic. This section of US 50 is officially designated as a State Scenic Highway. This designation warrants special attention and every effort should be made to maintain and/or enhance the driver's experience.

The views along this section of highway are spectacular. There are steep drop-offs on the eastbound side of the highway with steep-sided granite rock outcroppings rising up on the other side. The view is open and expansive of the valley below and to Lake Tahoe in the distance.

US 50 within the proposed project area can be viewed from the Christmas Valley Area, which is located south of the highway and at a lower elevation. Because the highway is so distant, the proposed project will have little to no impact on the visual quality of the Christmas Valley community.

According to the 2001 TRPA Scenic Threshold Evaluation, the proposed project area at Echo Summit is considered to be in attainment and has a high scenic threshold, so it is necessary to construct the project in a manner that will protect the scenic resources of the area.

Figure 2.1.4a Views from the road



These two views are of Christmas Valley and a slight glimpse of Lake Tahoe looking north from US 50

Figure 2.1.4b Views of the road from below



View of the road from the Christmas Valley community south of the proposed project

Environmental Consequences

The existing rock wall parapets have portions that are deteriorating to the point that sections of the parapets are missing. The replacement of the parapets will improve the safety and improve the visual quality of the area by providing a more uniform appearance to the existing parapets. The finished product will mimic the existing parapet by using form liner with a 5/8-inch relief on the face of the rock. The replaced barrier will replicate the undamaged portions of the rock wall in order to keep the original design. The replacement parapets will be approximately three feet high; currently they are 18 inches high. The replacement barrier will have no visual impact on the area because the proposed work for the barrier is in keeping with the original design of the rock wall.

The rehabilitation of the existing drainage system (replace and/or retrofit culverts and drainage inlets) will not have a visual impact on the area.

Avoidance/Minimization Measures

Although the replacement of the rock wall parapets will not cause a negative impact on the visual quality/aesthetics of the project area, the following measures, many of which are project design features, will be implemented to ensure the rock wall parapet replacement will be consistent with the visual setting.

- Rock wall parapet shall be replaced in such a way that it will visually replicate the existing wall (as seen in the photo simulations in Appendix H).
- Form-liner shall be used to reproduce the natural rock for the replacement barrier. The form liner shall be of a design pattern that depicts the original design of the historical cut rock (ashlar) wall that is to be replaced and the staining of the parapets shall reflect the texture and color of the historical rock retaining wall as well.
- The maximum relief on the face of the parapets shall be 5/8-inch. Color and design shall also be in keeping with the original rock wall parapets.
- All culvert work shall be completed in a manner that minimizes disturbance to the surrounding area. Rock slope protection shall utilize indigenous rock when possible. Headwalls shall imitate the look of cut stone when possible (same form-liner used for barrier should be used on headwalls with the same type of staining)
- Minimize the disturbance of soil, and established vegetation and trees.
- During construction, any trees that need to be removed shall be identified and approved by the Resident Engineer, prior to removal.

- At the completion of construction, all areas used for staging, access or other construction activities will be evaluated for compaction, and if necessary, re-established by ripping and/or incorporating mulch to minimum depth of 12 inches.
- All disturbed soil areas will receive organic fertilizer, native grass/forb seed, and mulch (pine needles or a mixture of needles and wood chips) to a depth of 1½ inch to provide passive erosion control.

2.1.5 Cultural Resources

In order to assess the impacts of the proposed project on cultural resources, several reports, field reviews, and coordination efforts have occurred. In 1997, Dorene Clement, Caltrans architectural historian, conducted a field survey for a guardrail replacement project, which occurred within the same Area of Potential Effects (APE) as the current proposed project. This 1997 field review was followed by completion of a Historic Resource Evaluation Report (HRER) in July 1997. Gail St John, Caltrans architectural historian, conducted a field survey for the current proposed project on October 16, 2006, to verify the 1997 findings and document any changes to the resource.

Regulatory Setting

“Cultural resources” as used in this document refers to historic and archaeological resources, regardless of significance. Laws and regulations dealing with historic and archaeological resources are discussed below:

The National Historic Preservation Act of 1966, as amended, sets forth national policy and procedures regarding historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for the National Register of Historic Places. Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on such properties and to allow the Advisory Council on Historic Preservation the opportunity to comment on those undertakings, following regulations issued by the Advisory Council on Historic Preservation (36 Code of Federal Regulations 800). On January 1, 2004, a Section 106 Programmatic Agreement among the Advisory Council, the Federal Highway Administration, the State Historic Preservation Officer, and Caltrans (Section 106 PA) went into effect for Caltrans projects, both state and local, with Federal Highway Administration involvement. The Programmatic Agreement implements the Advisory Council’s regulations, 36 Code of Federal Regulations 800,

streamlining the Section 106 process and delegating certain responsibilities to Caltrans. The Federal Highway Administration's responsibilities under the agreement have been assigned to Caltrans as part of the Surface Transportation Delivery Pilot Program (23 Code of Federal Regulations 773) (July 1, 2007).

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

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

Affected Environment

Upper Meyers Grade is the only identified historic property within the APE for the proposed project.

Upper Meyers Grade is a one-mile segment of US 50 from post mile (PM) 66.8 to 67.8. The contributing elements of this property include the roadway, the Echo Sidehill Viaduct (Bridge #25 0044), the granite rock parapets, and masonry retaining walls.

Upper Meyers Grade winds along between a sheer cliff on the west and a sheer drop into Christmas Valley viewed over mortared ashlar rock parapets. The highway at this location is a two-lane road that occupies the original roadbed. The road has very narrow shoulders, with turnouts on the eastbound side only.

At post mile 67.3, the road is carried on the Echo Summit Sidehill Viaduct, a three-span concrete girder sidehill viaduct constructed in 1939. The viaduct is 113 feet long and 24 feet wide, with masonry parapets, abutments, and retaining wall. Due to

the difficult nature of the terrain, the road has not been widened or modified in any substantive way since it was built.

At eight locations along the one-mile section of highway, rubble masonry retaining walls topped with low masonry parapets support the highway on the downhill side. The wall is constructed of roughly shaped blocks of granite rock of varying size, some showing drill marks from the splitting process, laid in random coursing. In places the walls incorporate boulders or protruding bedrock.

The parapets are laid in level coursing and vary slightly in appearance from the walls below, presenting a more rustic surface, and are lighter colored granite. The parapet blocks vary in length and every fourth or fifth block is a deeper “through stone” connecting the top two rows. Metal beam guardrails mounted on steel posts fill the space between masonry sections to provide a continuous barrier on the downhill side of the highway. The guardrails originally installed in the 1950s have been replaced as needed.

Upper Meyers Grade was determined eligible for listing in the National Register of Historic Places under Criterion C at the state level of significance (pursuant to NHRP) for its engineering and aesthetic qualities (period of significance: 1939). The property is an outstanding example of the Department of Highway’s careful design and engineering in an effort to meld a roadway into the natural beauty of the terrain and in mind of the spectacular views that would be afforded to the driving public. The effort resulted in the construction of numerous retaining walls and a viaduct made of local granite, which allows full function of the facility while minimizing construction impacts to a recreational/scenic route. This was a challenging engineering feat with impressive results.

No archaeological resources were identified within the APE during field surveys. No known ethnographic settlements are located in the vicinity of the project, and no known archaeological resources are documented to exist within the project area. The area is considered to have low to moderate sensitivity level for archaeological resources.

Environmental Consequences

Caltrans has applied the Criteria of Adverse Effect in accordance with Stipulation X.A of the Section 106 PA and 36 CFR Part 800.5(a)(1) and has determined that the proposed project will have an Adverse Effect on Upper Meyers Grade, a National

Register eligible property, and has received concurrence from the SHPO (see Appendix H) with this finding, pursuant to stipulation X.C.1. of the Section 106 PA.

In order to bring the facility into conformance with current safety standards, Caltrans proposes to replace the ashlar rock wall parapets, which are important aesthetic features of the property, with modified Type 736 concrete barriers. This replacement would result in the “physical destruction of ...part of the property,” “rehabilitation...that is not consistent with Secretary’s Standards for the Treatment of Historic Properties,” and “change of...physical features within the property’s setting that contribute to its historic significance.” Removing the original rock wall parapets will diminish the property’s integrity of design, materials, workmanship, and feeling and would have an adverse effect on the character- defining features of the property.

Section 4(f) of the Transportation Act of 1966

The replacement of the rock parapet walls will constitute a “use” of a Section 4(f) property and as such a Section 4(f) analysis has been completed and can be found in Appendix C of this document.

CEQA considerations

This adverse effect finding will cause a significant impact pursuant to CEQA, but with mitigation measures discussed below shall reduce the impact to a less than significant level.

Cumulative Impacts to Upper Meyers Grade

Although not part of this project, preliminary studies have been conducted by Caltrans (Project Scope Summary Report completed 11/2/01) on the feasibility and necessity of replacing the Echo Sidehill Viaduct (Bridge #25 0044), which is also a contributing element to Upper Meyers Grade, a property determined eligible for the National Register of Historic Places. The replacement of Echo Summit Sidehill Viaduct is not currently programmed nor funded; however, its aging condition may necessitate replacement in the future. The replacement of this structure could have an adverse impact on Upper Meyers Grade, which in combination with the replacement of the rock parapet walls may have a potentially cumulatively considerable impact on a historic resource. Any potentially significant impacts would require mitigation and coordination with the appropriate resource agencies. Such mitigation would also reduce the cumulative impacts to less than significant pursuant to CEQA.

Mitigation Measures

Historic Resources

A Memorandum of Agreement Between the California Department of Transportation, The California State Historic Preservation Officer, and The United States Forest Service (which shall be hereto referred to as the MOA), regarding the proposed project was executed on July 15, 2008. The MOA includes stipulations on the treatment of historic properties that shall be carried out by Caltrans in order to reduce the project's effect on the property.

Caltrans proposes to install modified Type 736 barriers that simulate the appearance of the original rock parapets. A photo simulation is included in Appendix H. The construction contractor shall create a form liner taken from a cast mold of the intact portions of the existing rock wall parapets for use in replicating the existing parapet features onto the new parapets. The concrete barrier will mimic the existing rock parapets in color as well as texture by using concrete dyes and stains. In keeping with the standard plan for Type 736 barriers, the inboard side will be battered to narrow slightly at the top. The outboard side will be vertical and flush with the existing surface of the rock retaining wall. In order to achieve safety standards, the relief of the textured concrete surface will be limited to 5/8-inch and the height of the wall will be approximately three feet. As agreed upon in the MOA, signatory parties shall have the opportunity to review and approve the sample/prototype wall prior to final placement.

Currently, the proposed project calls for lining the existing culverts; however, should culvert replacement be deemed necessary, Caltrans will avoid additional impacts to the property by conducting the work in a manner consistent with the Secretary of Interior Standards. The culverts protrude through the rock retaining wall, which are character-defining features of Upper Meyers Grade. Replacing the culverts would not alter the original purpose, historic character, or distinctive features of the property. The metal culverts would be replaced (if needed) in kind with 24-inch corrugated metal pipe and the contractor would be required to rebuild the retaining wall using the original granite blocks to restore its original appearance.

Archaeological Resources

Although Caltrans does not anticipate encountering archaeological resources during the construction of this project, language will be included in the project specifications outlining procedural requirements in the unlikely event that cultural materials are discovered:

If cultural materials are discovered during construction, all earth-moving activity within a 60-foot perimeter around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to Public Resources Code Section 5097.98, if the remains were thought to be Native American, the coroner would notify the Native American Heritage Commission, who would then notify the Most Likely Descendent. At this time, the person who discovered the remains would contact Caltrans District 3 Office of Environmental Management so that they may work with the Most Likely Descendent on the respectful treatment and disposition of the remains. Further provisions of Public Resources Code Section 5097.98 are to be followed as applicable.

2.2 Physical Environment

2.2.1 Water Quality and Storm Water Runoff

A Water Quality Assessment was prepared by Caltrans staff in October 2007 to identify potential impacts to water quality of the surrounding watersheds, surface and ground water resource that may be affected by this project.

Regulatory Setting

Section 401 of the Clean Water Act (CWA) requires water quality certification from the State Water Resources Control Board (SWRCB) or from a Regional Water Quality Control Board (RWQCB) when the project requires a CWA Section 404 permit. Section 404 of the CWA requires a permit from the U.S. Army Corps of Engineers (Corps) to discharge dredged or fill material into waters of the United States.

Along with CWA Section 401, CWA Section 402 establishes the National Pollutant Discharge Elimination System (NPDES) permit for the discharge of any pollutant (except for dredge or fill material) into waters of the United States. The federal Environmental Protection Agency has delegated administration of the NPDES program to the SWRCB and nine RWQCBs. The SWRCB and RWQCB also regulate other waste discharges to land within California through the issuance of

waste discharge requirements under authority of the Porter-Cologne Water Quality Act.

The SWRCB has developed and issued a statewide NPDES permit to regulate storm water discharges from all Department activities on its highways and facilities. Department construction projects are regulated under the statewide permit, and projects performed by other entities on Department right-of-way (encroachments) are regulated by the SWRCB's Statewide General Construction Permit. All construction projects over 1 acre require a Storm Water Pollution Prevention Plan (SWPPP) to be prepared and implemented during construction. Department activities less than 1 acre require a Water Pollution Control Program (WPCP).

The project area is within the jurisdiction of the (Lahontan Regional Water Quality Control Board (LRWQCB). The LRWQCB has the authority to implement water quality protection standards through the issuance of permits for discharge to waters at locations within its jurisdiction. In addition, the governments of Nevada and California, as well as the United States, have designated Lake Tahoe as an Outstanding National Resource Water, which provides that no further degradation of Lake Tahoe can be allowed. Accordingly, projects and facilities in the hydrologic unit that drains to Lake Tahoe, identified as the Lake Tahoe Hydrologic Unit (LTHU), must satisfy more stringent requirements than in most other parts of the United States. In addition to LRWQCB requirements, TRPA, whose jurisdiction covers the entire LTHU, regulates environmental conditions through the TRPA Code of Ordinances. The LRWQCB regulates activities within wetlands and waters of the U.S. and TRPA Stream Environment Zones (SEZs).

Water quality objectives for the Lake Tahoe drainage basin apply to the Upper Truckee River and its tributaries and are specified in Basin Plan prepared by the LRWQCB. The Basin Plan establishes water quality objectives and implementation programs to meet stated objectives and to protect the beneficial uses of water in the LTHU.

Tahoe Regional Planning Agency

TRPA is designated by California and the USEPA as the area wide water quality-planning agency under Section 208 of the federal Clean Water Act. It adopted a bi-state plan entitled the *Water Quality Management Plan for the Lake Tahoe Region* (208 Plan; TRPA 1988). Most appropriate provisions of the 208 Plan, however, are incorporated into the Basin Plan.

TRPA water quality thresholds are as follows:

- WQ1: Decrease sediment load as required to attain turbidity values not to exceed 3 Nephelometric Turbidity Units (NTU) in littoral Lake Tahoe. In addition, turbidity shall not exceed 1 NTU in shallow waters of Lake Tahoe not directly influenced by stream discharges.
- WQ2: Average Secchi depth, December–March, shall not be less than 33.4 meters.
- WQ3: Annual mean phytoplankton primary productivity shall not exceed 52 gC/m²/yr. California: algal productivity shall not be increased beyond levels recorded in 1967–1971, based on a statistical comparison of seasonal and annual mean values.
- WQ4: Attain a 90th percentile value for suspended sediment of 60 milligrams per liter (mg/L).
- WQ5: Dissolved inorganic nitrogen, 0.5 mg/L; dissolved phosphorous, 0.1 mg/L; dissolved iron, 0.5 mg/L; suspended sediment, 250 mg/L.
- WQ6: Surface water infiltration into the groundwater shall comply with the Uniform Regional Runoff guidelines. For total nitrogen, 5 mg/L; total phosphorous, 1 mg/L; total iron, 4 mg/L; turbidity, 200 NTU; and grease and oil, 40 mg/L.
- WQ7: For other lakes in California/Nevada, the standards are the same as the tributary standards.

For Caltrans projects, a Memorandum of Understanding (MOU) between TRPA and the LRWQCB acknowledges that LRWQCB is the lead regulator for water quality. LRWQCB water quality thresholds can be found in the Lahontan Basin Plan. The LRWQCB numeric effluent limits for runoff discharged to infiltration systems mirrors TRPA Threshold WQ-6. The Lahontan numeric effluent limits for surface discharges are similar to TRPA Threshold WQ-5 but also place limits of 20 NTU for turbidity and 2.0 mg/L for grease and oil.

If the project requires permits from the LRWQCB for 401 Water Quality Certification to comply with any necessary USACE or RWQCB permit, or for a discharge related to pavement cutting/grinding operations, any requirements defined in those permits will be implemented as part of the project.

Affected Environment

The project falls within the South Tahoe Hydrologic Area, undefined (634.10) Hydrologic Sub Area (HSA). The HSA includes the following 303(d) listed water bodies; Big Meadow Creek, Heavenly Valley Creek, Lake Tahoe, Tallac Creek, Trout Creek, and Upper Truckee River. The Upper Truckee River is impaired for Iron, Pathogens and Phosphorous. The Upper Truckee River, below Christmas Valley, is only impaired for iron and phosphorous. The project is at an elevation of approximately 7000 ft and has average annual rainfall of 45.5 inches for the HSA.

The project falls within Lahontan Regional Water Quality Control Board (Lahontan) jurisdiction. The rainy season is identified as August 1 to October 1 and November 1 to May 1. Lahontan prohibits soil disturbance from Oct 15 to May 1 in the project area, unless a variance is obtained.

The anticipated approximate Disturbed Soil Area (DSA) for total project is 0.5 acres. Construction site BMPs shall be deployed to protect water bodies within or near to the project limits during construction, specifically sediment control BMPs are recommended to control sediment transportation. The project shall follow Lake Tahoe Erosion Control guidelines. The project shall be coordinated with LRWQCB through the Caltrans NPDES coordinator as required by NPDES general permit section L.8.a.

Beneficial uses are the basis of the water quality protection under the Lahontan Region Water Quality Control Plan (Basin Plan). Every surface water body within the jurisdiction of (LRWQCB) is designated with a set of beneficial uses that are protected by appropriate water quality objectives. These beneficial uses include MUN, AGR, GWR, NAV, REC-1, REC-2, COMM, COLD, WILD, MIGR, and SPWN. Definitions of these beneficial uses are presented in Appendix A of the Water Quality Assessment prepared for this project. The proposed Project would not impact the beneficial uses of the water bodies that are identified in the Basin Plan.

Environmental Consequences

The project will not impact Big Meadow Creek, Heavenly Valley Creek, Tallac Creek or Trout Creek. The project may have minimal impacts during construction to Upper Truckee River (below Christmas Valley), which eventually flows into Lake Tahoe after flowing approximately ten miles north.

CEQA considerations

There are no significant impacts expected to water quality as a result of this project.

Avoidance/Minimization Measures

Adherence to the following is recommended to prevent receiving water pollution as a result of construction activities and/or operation of the Echo Summit Rockwall project.

- The project shall adhere to the conditions of the Caltrans Statewide NPDES Permit CAS # 000003, (Order # 99-06-DWQ), issued by the State Water Resources Control Board. Adherence to the compliance requirements of the WDR General Permit WDID NO. 6A0999999999, Order # 6-91-31, for small Construction Activities in Lake Tahoe is also required.
- The project has an estimated DSA of 0.5 acres and it is anticipated that a Water Pollution Control Program (WPCP) level of temporary pollution controls will be specified for the project; Standard Special Provision 07-340 or 07-345 will be included in the Plans, Specifications and Estimates (PS&E) to address these temporary construction water pollution control measures. These measures must address soil stabilization practices, sediment control practices, tracking control practices, and wind erosion control practices. In addition, the project plan must include non-storm water controls, waste management, and material pollution controls.
- As directed by Caltrans' Storm Water Management Plan (SWMP) and the Project Planning and Design Guide (PPDG) an evaluation of the project using the most recent approved evaluation guide is essential in determining if the incorporation of permanent storm water runoff treatment measures shall be considered for this project.
- If the project has a SWPPP, a Notification of Construction (NOC) shall be submitted to the Lahontan Regional Water Quality Control Board during PS&E phase through the Caltrans NPDES Coordinator.
- Special care is required when handling and storing contaminated soil, including soil contaminated with aerially deposited lead (ADL). The quantity of the contaminated soil, its level of contamination, where it will be stored, and when this activity will take place (winter / summer season) are all storm water pollution concerns and should be described in detail in the appropriate section of Special Provisions. These issues should also be addressed in the WPCP. Section H.9 of the Caltrans Statewide NPDES Permit requires notification of the appropriate Regional Water Quality Control Board (RWQCB) if the project involves reuse of

ADL contaminated soil, 30 days prior to advertisement for bids. This is to allow the RWQCB to determine any need for the development of Waste Discharge Requirements.

2.2.2 Hazardous Waste or Materials

Regulatory Setting

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

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

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

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

Hazardous waste in California is regulated primarily under the authority of the federal Resource Conservation and Recovery Act of 1976, and the Hazardous Waste Control Act (California Health and Safety Code, 14CCR). Other California laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup and emergency planning.

Worker health and safety and public safety are covered under CCR Title 8, Industrial Relations and are key issues when dealing with hazardous materials that may affect human health and the environment. Proper disposal of hazardous material is vital if it is disturbed during project construction.

The U.S. EPA has declared asbestos to be a hazardous air pollutant under the Clean Air Act and has issued a National Emissions Standard for Hazardous Air Pollutants (NESHAP) that regulates the demolition and renovation of facilities containing asbestos (40 CFR Part 61).

Affected Environment

Caltrans staff conducted a hazardous waste Initial Site Assessment (ISA) in December 2006 and involved discussions with Caltrans design staff, a site field visit, and a review of project plans and aerial photographs. In June 2007, the seven existing rock wall parapets were tested for the presence of asbestos. The conclusions of this study were that no asbestos was found to exist. An updated ISA was prepared in July 2008.

Environmental Consequences

Based on the above review, the potential for hazardous waste does not exist for this project.

Geocon consultants conducted the asbestos site investigation, under Caltrans direction, on June 5th, 2007 to determine whether asbestos exists in the seven retaining walls and bridge at the above post mile limits. The conclusion of this study was that no asbestos is present in the rock parapet walls or bridge.

Avoidance/Minimization Measures

Although no asbestos has been identified in the rock wall parapets to be removed as a result of this proposed project, NESHAP rules pursuant to 40 CFR 61 and California Health and Safety Code Section 39658(b)(1) require the contractor to notify the US EPA and El Dorado County at least ten working days prior to demolition of the seven rock wall parapets.

Contract specifications have been prepared and shall be included in the bid package to address the specific notification and construction method requirements.

2.2.3 Air Quality

Regulatory Setting

The Clean Air Act as amended in 1990 is the federal law that governs air quality. Its counterpart in California is the California Clean Air Act of 1988. These laws set standards for the quantity of pollutants that can be in the air.

Under the 1990 Clean Air Act Amendments, the U.S. Department of Transportation cannot fund, authorize, or approve Federal actions to support programs or projects that are not first found to conform to the State Implementation Plan for achieving the goals of the Clean Air Act requirements. Conformity with the Clean Air Act takes place on two levels—first, at the regional level and second, at the project level. The proposed project must conform at both levels to be approved.

Regional level conformity in California is concerned with how well the region is meeting the standards set for carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), and particulate matter (PM). California is in attainment for the other criteria pollutants. At the regional level, Regional Transportation Plans (RTP) are developed that include all of the transportation projects planned for a region over a period of years, usually at least 20. Based on the projects included in the RTP, an air quality model is run to determine whether or not the implementation of those projects would conform to emission budgets or other tests showing that attainment requirements of the Clean Air Act are met. If the conformity analysis is successful, the regional planning organization, such as TRPA for the Lake Tahoe Region and the appropriate federal agencies, such as the Federal Highway Administration, make the determination that the RTP is in conformity with the State Implementation Plan for achieving the goals of the Clean Air Act. Otherwise, the projects in the RTP must be modified until conformity is attained. If the design and scope of the proposed transportation project are the same as described in the RTP, then the proposed project is deemed to meet regional conformity requirements for purposes of project-level analysis.

Affected Environment

The proposed project is included in the 2007 Federal Transportation Improvement Plan (FTIP) for the Lake Tahoe Region adopted by the Tahoe Regional Planning Agency. El Dorado County is listed as an area of maintenance for carbon monoxide.

This project is exempt from all air quality conformity requirements per Table 2 of 40 Code of Federal Regulations (CFR) §93.126, subsection “Safety”(“Shoulder

improvement; Pavement resurfacing and/or rehabilitation”) and “Guardrails, median barriers, crash cushions.” No further analysis is required.

Environmental Consequences

Mobile Source Air Toxics (MSAT's)

The purpose of this project is to improve safety and improve drainage features within the proposed project limits by replacing a series of rock parapet walls and lining damaged culverts. This project will not result in any meaningful changes in traffic volumes, vehicle mix, location of the existing facility, or any other factor that would cause an increase in emissions impacts relative to the no-build alternative. As such, Caltrans has determined that this project will generate minimal air quality impacts for Clean Air Act criteria pollutants and has not been linked with any special MSAT concerns. Consequently, this effort is exempt from analysis for MSATs.

Construction Related Impacts

During construction, short-term degradation of air quality may occur due to the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and various other activities. Emissions from construction equipment also are anticipated and would include CO, nitrogen oxides (NO_x), volatile organic compounds (VOCs), directly emitted particulate matter (PM₁₀ and PM_{2.5}), and toxic air contaminants such as diesel exhaust particulate matter. Ozone is a regional pollutant that is derived from NO_x and VOCs in the presence of sunlight and heat.

Site preparation and roadway construction would involve grading, removing or improving existing roadways, and paving roadway surfaces. Construction-related effects on air quality from most highway projects would be greatest during the site preparation phase because most engine emissions are associated with the excavation, handling, and transport of soils to and from the site. If not properly controlled, these activities would temporarily generate PM₁₀, PM_{2.5}, and small amounts of CO, SO₂, NO_x, and VOCs. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. PM₁₀ emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM₁₀ emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Caltrans' Standard Specifications (Section 10) pertaining to dust minimization requirements requires use of water or dust palliative compounds and will reduce potential fugitive dust emissions during construction.

In addition to dust-related PM10 emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO₂, NO_x, VOCs and some soot particulate (PM10 and PM2.5) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles are delayed. These emissions would be temporary and limited to the immediate area surrounding the construction site.

SO₂ is generated by oxidation during combustion of organic sulfur compounds contained in diesel fuel. Off-road diesel fuel meeting Federal Standards can contain up to 5,000 parts per million (ppm) of sulfur, whereas on-road diesel is restricted to less than 15 ppm of sulfur. However, under California law and Air Resources Board regulations, off-road diesel fuel used in California must meet the same sulfur and other standards as on-road diesel fuel, so SO₂-related issues due to diesel exhaust will be minimal. Some phases of construction, particularly asphalt paving, would result in short-term odors in the immediate area of each paving site(s). Such odors would be quickly dispersed below detectable thresholds as distance from the site(s) increases.

Avoidance/Minimization Measures

Most of the construction impacts to air quality are short-term in duration and, therefore, will not result in adverse or long-term conditions. Implementation of the following measures will reduce any air quality impacts resulting from construction activities:

- The construction contractor shall comply with Caltrans' Standard Specifications Section 7-1.01F and Section 10 of Caltrans' Standard Specifications (1999).
 - Section 7, "Legal Relations and Responsibility," addresses the contractor's responsibility on many items of concern, such as: air pollution; protection of lakes, streams, reservoirs, and other water bodies; use of pesticides; safety; sanitation; and convenience of the public; and damage or injury to any person or property as a result of any construction operation. Section 7-1.01F specifically requires compliance by the contractor with all applicable laws and regulations

related to air quality, including air pollution control district and air quality management district regulations and local ordinances.

- Section 10 is directed at controlling dust. If dust palliative materials other than water are to be used, material specifications are contained in Section 18.
- Water or dust palliative will be applied to the site and equipment as frequently as necessary to control fugitive dust emissions.
- Soil binder will be spread on any unpaved roads used for construction purposes, and all project construction related parking areas.
- Trucks will be washed off as they leave the right of way as necessary to control fugitive dust emissions.
- Construction equipment and vehicles shall be properly tuned and maintained. Low-sulfur fuel shall be used in all construction equipment as provided in California Code of Regulations Title 17, Section 93114.
- Develop a dust control plan documenting sprinkling, temporary paving, speed limits, and expedited revegetation of disturbed slopes as needed to minimize construction impacts to existing communities.
- Locate equipment and materials storage sites as far away from residential and park uses as practical. Keep construction areas clean and orderly.
- Cover all transported loads of soils and wet materials prior to transport, or provide adequate freeboard (space from the top of the material to the top of the truck) to reduce PM10 and deposition of particulate during transportation.
- Remove dust and mud that are deposited on paved, public roads due to construction activity and traffic to decrease particulate matter.
- To the extent feasible, route and schedule construction traffic to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times.
- Install mulch or plant vegetation as soon as practical after grading to reduce windblown particulate in the area.

2.2.4 Noise and Vibration

Regulatory Setting

The National Environmental Policy Act of 1969 and the California Environmental Quality Act provide the broad basis for analyzing and abating the effects of highway traffic noise. The intent of these laws is to promote the general welfare and to foster a healthy environment. The requirements for noise analysis and consideration of noise

abatement and/or mitigation, however, differ between the National Environmental Policy Act and the California Environmental Quality Act.

California Environmental Quality Act

The California Environmental Quality Act requires a strictly no-build versus build analysis to assess whether a proposed project will have a noise impact. If a proposed project is determined to have a significant noise impact under the California Environmental Quality Act, then the act dictates that mitigation measures must be incorporated into the project unless such measures are not feasible

National Environmental Policy Act and 23 Code of Federal Regulations 772

For highway transportation projects with Federal Highway Administration involvement, (and Caltrans, as assigned), the Federal-Aid Highway Act of 1970 and the associated implementing regulations (23 Code of Federal Regulations 772) govern the analysis and abatement of traffic noise impacts. The regulations require that potential noise impacts in areas of frequent human use be identified during the planning and design of a highway project. The regulations contain noise abatement criteria that are used to determine when a noise impact would occur. The noise abatement criteria differ depending on the type of land use under analysis. Table 2.2.3a shows the noise levels of typical activities.

Tahoe Regional Planning Agency

TRPA establishes noise limitations in the TRPA Code of Ordinances, Chapter 23. These limitations apply to single-event noises from aircraft, marine crafts, motor vehicles, motorcycles, off-road vehicles, and snowmobiles, as well as community noise levels in the Lake Tahoe region. TRPA-approved construction is exempt from these provisions, provided that construction activities are limited to the hours of 8:00 a.m. to 6:30 p.m.

TRPA's thresholds for noise include numerical community noise equivalent level (CNEL) values for various land use categories and transportation corridors, as well as single-event (maximum sound level standards for specific sources, including motor vehicles, off-road vehicles, boats, snowmobiles, and aircraft. CNEL is also used to characterize average sound levels over a 24-hour period, with weighting factors included for evening and nighttime sound levels.

Applicable TRPA noise threshold indicators are listed below:

N-2—Single-Event Noise Standards for Other Than Aircraft: This indicator is any single-event noise measurement made with a Type I sound level meter using the A-weighting and “slow” response pursuant to applicable manufacturer’s instructions (except for sounds lasting 2 seconds or less, for which the “fast” response will be used). (A-weighted decibels are weighted to approximate the sensitivity of the human ear to various frequencies.) Chapter 23 of the TRPA Code of Ordinances contains additional information.

N-3—Community Noise Equivalent Levels: This indicator is the CNEL calculated pursuant to Section 23.4 of the TRPA Code of Ordinances. TRPA will review proposed activities in the region and account for site-specific analyses, estimated impacts on affected land uses, consistency with other provisions of the TRPA Regional Plan, and reasonable tests of significance of change in noise levels.

Affected Environment

Currently there are homes within approximately 150 feet of the proposed project location that may be affected by temporary construction noise.

Environmental Consequences

This project does not qualify as a Federal Type 1 Project. A Type 1 project is defined by 23 CFR 772 as follows: “...*A proposed Federal or Federal-aid highway project for the construction of a highway on a new location, or the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment, or increases the number of through traffic lanes...*” Because this project proposes to replace existing facilities and the horizontal or vertical alignment will not change, no further noise analysis for the completed project is required.

During construction, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Depending on the lane closure strategy that is ultimately chosen for construction of this project, construction activities may occur in the nighttime hours as well as during the day. Daytime construction activities would be maximized and nighttime construction activities would be minimized to the extent possible. This approach would be used in order to minimize traffic interruptions and delays while maximizing worker and public safety. The Department or its contractor would conduct noise monitoring of construction activities as needed to verify compliance with specified noise limits (Per Caltrans Standard Specifications Section 7-1.01I, instantaneous noise from construction equipment is not to exceed 86

decibels at a distance of 50 feet). Public awareness measures would be taken as needed to inform the public of potential noise disturbances. Based on a review of the proposed construction activities and schedule, it is not anticipated that construction activities for the proposed project would violate TRPA’s CNELs or Caltrans’ instantaneous noise limits, nor would this change the impact determination made pursuant to CEQA.

The following table shows the noise levels of typical construction equipment used on projects. Maximum noise levels from this equipment are in the range of 74 to 89 dBA. Construction activity is a point source from which noise attenuates (i.e., becomes quieter) at a rate of about 6 dB per doubling of distance. Additional attenuation of 1 to 2 dB per doubling of distance occurs as a result of ground absorption (Federal Highway Administration 2006) The closest home is approximately 150 feet from the proposed project location and noise levels at these locations are not expected to exceed 86 decibels.

Table 2.2.3a Typical Construction Noise Levels

		Noise Level (dBA) at 50 Feet					
		60	70	80	90	100	110
Equipment Powered by Internal Combustion Engines	Earth Moving	Compactors (Rollers)		-			
		Front Loaders		—			
		Backhoes		—			
		Tractors		—			
		Scrapers, Graders		—			
		Pavers			—		
		Trucks			—		
	Materials Handling	Concrete Mixers		—			
		Concrete Pumps			—		
		Cranes (Moveable)		—			
		Cranes (Derrick)				—	
	Stationary	Pumps		—			
		Generators		—			
		Compressors		—			
Impact Equipment	Pneumatic Wrenches			—			
	Jackhammers and Rock Drills			—			
	Impact Pile Drivers (Peaks)				—		
Other	Vibrator		—				
	Saws		—				

REFERENCE: "Traffic Noise Analysis and Mitigation Manual,"
Environmental Section, Oregon State Highway Division, January 1990.

Exposure to Groundborne Vibration from Construction

Construction activities associated with the proposed project may result in a minor amount of ground vibration. Vibration from construction typically falls below the threshold of perception when the activity is more than about 50 feet from the receiver. In addition, vibration from these activities would be short-term and would end when construction was completed. Construction for the proposed project is not expected to involve high-impact activities (i.e., pile driving).

CEQA considerations

Because of the short-term and minor nature of the activities from which vibrations could be generated, this impact is considered less than significant. No mitigation is necessary.

Avoidance/Minimization Measures

The following measures shall be implemented to ensure that that construction noise impacts remain minimal.

- All internal combustion engine–driven equipment would be equipped with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Unnecessary idling of internal combustion engines would be strictly prohibited. This includes idling of unattended vehicles and idling of more than 2 minutes for waiting trucks.
- Property owners would be notified if the staging of construction equipment would need to occur within 200 feet of residences. Additionally, all stationary noise-generating construction equipment, such as air compressors and portable power generators, would be located as far as practical from existing noise-sensitive receptors.
- Temporary barriers would be constructed to screen stationary noise-generating equipment when located immediately adjacent to noise-sensitive land uses. The barriers would be sufficient to reduce the noise level by a minimum 5 dBA.
- “Quiet” air compressors and other stationary noise sources would be used where such technology exists and is feasible. Quiet technology may include the use of rotary screw air compressors (as opposed to noisier air-cooled

reciprocating compressors) and equipment provided with factory-installed sound-attenuating enclosures.

- Before construction begins, residences adjacent to construction areas would be notified of the construction schedule in writing. Caltrans or its contractor would designate a noise disturbance coordinator, who would be responsible for responding to any local complaints about construction noise. The coordinator would determine the cause of any noise complaint and ensure that reasonable measures to correct the problem were implemented. A telephone number for the coordinator would be posted conspicuously at the construction site and included in the notice sent to neighbors about the construction schedule.

2.3 Biological Environment

2.3.1 Wetlands and Other Waters

Regulatory Setting

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

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

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

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

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

Affected Environment

A positive determination for jurisdictional wetlands in the project area as defined in Section 404 of the Clean Water Act was made based on the presence of hydrophytic vegetation, hydric soils, and wetland hydrology. Areas meeting the three-parameter definition of wetlands were observed at the Echo Summit Maintenance Station, an area within the proposed project study area, but outside of the area proposed for active construction.

Environmental Consequences

Due to the fact that there is no direct construction activities occurring near the identified wetlands, direct fill/impacts are not anticipated to occur. Since there is a potential for the maintenance station to be used as a staging/storage area, there is a very slight potential for indirect impacts to identified wetlands.

Avoidance/Minimization Measures

Although direct impacts to wetlands are not expected to occur as a result of this project, the following avoidance measures shall be implemented to prevent potential indirect impacts.

Establish Environmentally Sensitive Areas: Indirect impacts to wetland resources within the Echo Summit Maintenance station will be avoided by designating these features outside of the construction impact area as “environmentally sensitive areas” (ESAs) on project plans and in project specifications. ESA information will be shown on contract plans and discussed in the Special Provisions. ESA provisions may include, but are not limited to, the use of temporary orange fencing to delineate the proposed limit of work in areas adjacent sensitive resources, or to delineate and exclude sensitive resources from potential construction impacts. Contractor encroachment into ESAs will be restricted (including the staging/operation of heavy equipment or casting of excavation materials). ESA provisions shall be implemented as a first order of work, and remain in place until all construction activities are complete.

Containment Measures/Construction Site Best Management Practices: Measures will be employed to prevent any construction material or debris from entering surface waters or their channels. BMPs for erosion control will be implemented and in place prior to during, and after construction in order to ensure that no silt or sediment enters surface waters. Caltrans' Standard Specifications require the contractor to submit a Water Pollution Control Plan. This plan must meet the standards and objectives to minimize water pollution impacts set forth in section 7-1.01G of Caltrans' Standard Specifications. The Water Pollution Control Plan must also be in compliance with the goals and restrictions identified in the Lahontan Water Quality Control Board's Basin Plan. Any additional measures included in the TRPA permit will be complied with. These standards/objectives are referred to as “Best Management Practices” (BMPs), and include but are not limited to:

Where working areas encroach on live or dry streams, lakes, or wetlands, TRPA and Lahontan RWQCB-approved physical barriers adequate to prevent the flow or discharge of sediment into these systems shall be constructed and maintained between working areas and streams, lakes, and wetlands. During construction of the barriers, discharge of sediment into streams shall be held to a minimum. Discharge will be contained through the use TRPA and Lahontan RWQCB-approved measures that will keep sediment from entering protected waters.

Oily or greasy substances originating from the contractor's operations shall not be allowed to enter or be placed where they will later enter a live or dry stream, pond, or wetland.

Asphalt concrete shall not be allowed to enter a live or dry stream, pond, or wetland.

2.3.2 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 noxious weed list to define the invasive plants that must be considered as part of the National Environmental Policy Act analysis for a proposed project.

Affected Environment

Currently there are no infestations of noxious weeds or invasive species within the project limits

Environmental Consequences

A minimal risk exists for construction equipment to spread noxious weeds into the project area from areas outside the project work areas.

Avoidance/Minimization Measures

Although there is currently no identified population or infestation of noxious weeds within the project area, the following measures shall be implemented to prevent the spread of invasive plants.

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

2.4 Climate Change under the California Environmental Quality Act

Regulatory Setting

While climate change has been a concern since at least 1988, as evidenced by the establishment of the United Nations and World Meteorological Organization's Intergovernmental Panel on Climate Change (IPCC), the efforts devoted to greenhouse gas¹ (GHG) emissions reduction and climate change research and policy have increased dramatically in recent years. In 2002, with the passage of Assembly Bill 1493 (AB 1493), California launched an innovative and pro-active approach to dealing with GHG emissions and climate change at the state level. AB 1493 requires the Air Resources Board (ARB) to develop and implement regulations to reduce automobile and light truck GHG emissions; these regulations will apply to automobiles and light trucks beginning with the 2009 model year.

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05. The goal of this Executive Order is to reduce California's GHG emissions to: 1) 2000 levels by 2010, 2) 1990 levels by the 2020 and 3) 80% below the 1990 levels by the year 2050. In 2006, this goal was further reinforced with the passage of Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006. AB 32 sets the same overall GHG emissions reduction goals while further mandating that ARB create a plan, which includes market mechanisms, and implement rules to achieve

¹ Greenhouse gases related to human activity, as identified in AB 32, include: Carbon dioxide, Methane, Nitrous oxide, Tetrafluoromethane, Hexafluoroethane, Sulfur hexafluoride, HFC-23, HFC-134a*, and HFC-152a*.

“real, quantifiable, cost-effective reductions of greenhouse gases.” Executive Order S-20-06 further directs state agencies to begin implementing AB 32, including the recommendations made by the state’s Climate Action Team.

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

Climate change and GHG reduction is also a concern at the federal level; at this time, no legislation or regulations have been enacted specifically addressing GHG emissions reductions and climate change. However, California, in conjunction with several environmental organizations and several other states, sued to force the U.S. Environmental Protection Agency (EPA) to regulate GHGs as a pollutant under the Clean Air Act (*Massachusetts vs. Environmental Protection Agency et al.*, U.S. Supreme Court No. 05–1120. 549 U.S.

Argued November 29, 2006—Decided April 2, 2007). The court ruled that GHGs do fit within the Clean Air Act’s definition of a pollutant, and that EPA does have the authority to regulate GHGS. Despite the Supreme Court ruling, there are no promulgated federal regulations to date limiting greenhouse gas emissions.

Affected Environment

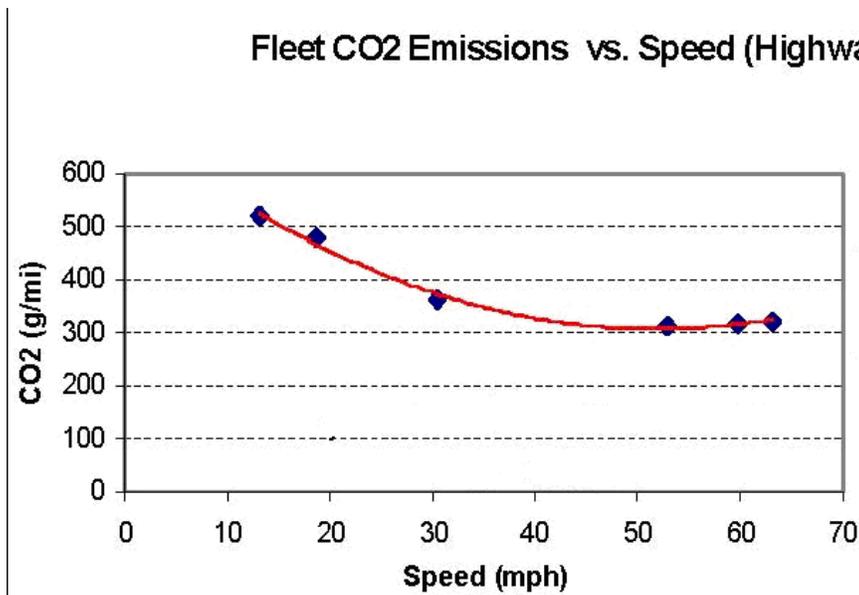
According to a recent white paper by the Association of Environmental Professionals², an individual project does not generate enough greenhouse gas emissions to significantly influence global climate change. Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of greenhouse gases.

The Department and its parent agency, the Business, Transportation, and Housing Agency, have taken an active role in addressing GHG emission reduction and climate change. Recognizing that 98 percent of California’s GHG emissions are from the burning of fossil fuels and 40 percent of all human made GHG emissions are from transportation, the Department has created and is implementing the *Climate Action Program at Caltrans* (December 2006). Transportation’s contribution to GHG

² Hendrix, Micheal and Wilson, Cori. *Recommendations by the Association of Environmental Professionals (AEP) on How to Analyze Greenhouse Gas Emissions and Global Climate Change in CEQA Documents* (March 5, 2007), p. 2.

emissions is dependent on 3 factors: the types of vehicles on the road, the type of fuel the vehicles use, and the time/distance the vehicles travel.

One of the main strategies in the Department's Climate Action Program to reduce GHG emissions is to make California's transportation system more efficient. The highest levels of carbon dioxide from mobile sources, such as automobiles, occur at stop-and-go speeds (0-25 miles per hour) and speeds over 55 mph; the most severe emissions occur from 0-25 miles per hour (see Figure below). Relieving congestion by enhancing operations and improving travel times in high congestion travel corridors will lead to an overall reduction in GHG emissions.



Environmental Consequences

The Department recognizes the concern that carbon dioxide emissions raise for climate change. However, accurate modeling of GHG emissions levels, including carbon dioxide at the project level, at the project level is not currently possible. No federal, state or regional regulatory agency has provided methodology or criteria for GHG emission and climate change impact analysis. Therefore, the Department is unable to provide a scientific or regulatory based conclusion regarding whether the project's contribution to climate change is cumulatively considerable.”

The Department continues to be actively involved on the Governor's Climate Action Team as ARB works to implement AB 1493 and AB 32. As part of the *Climate Action Program at Caltrans* (December 2006), 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 is working closely with local jurisdictions on planning activities; however, the Department does not have local land use planning authority. The Department is also supporting efforts to improve the energy efficiency of the transportation sector by increasing vehicle fuel economy in new cars, light and heavy-duty trucks. However it is important to note that the control of the fuel economy standards is held by the United States Environmental Protection Agency and ARB. Lastly, the use of alternative fuels is also being considered; the Department is participating in funding for alternative fuel research at the University of California Davis.

Chapter 3 Comments and Coordination

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

In an effort to share and gather information regarding the proposed lane closure strategies, Caltrans staff has met with several agencies in the Tahoe Basin. The agencies and dates of meetings are listed below:

- September 3, 2008, November 5, 2008 & February 4, 2009: Tahoe Regional Planning Agency
- October 3, 2008: South Shore Transportation Management Association
- October 10, 2008: Tahoe Transportation District/Commission
- November 5, 2008: Tahoe Regional Planning Agency
- November 6, 2008-: Truckee/North Tahoe Transportation Management Association
- November 7, 2008: South Shore Transportation Management Association and Nevada Department of Transportation
- January 24, 2009: South Lake Tahoe Chamber of Commerce
- January 27, 2009: City of South Lake Tahoe City Council
- February 24, 2009: El Dorado County Board of Supervisors

Caltrans will hold an open house format meeting to give the public an opportunity to comment on the Initial Study/Environmental Assessment prepared for this project.

Caltrans has consulted with the State Historic Preservation Officer, as well as the US Forest Service; Lake Tahoe Basin Management Unit, on the proposed project and the effect on a historic property eligible for listing on the National Register of Historic Places.

Chapter 4 List of Preparers

The following Caltrans North Region staff contributed to the preparation of this document:

- Brenda Powell-Jones: Associate Environmental Planner
Contribution: Project Environmental Coordinator, Preparer of IS/MND/EA, and Section 4(f) Evaluation
- Jody Brown: Senior Environmental Planner
Contribution: Environmental Oversight
- Charles Wooten: Transportation Engineer
Contribution: Design Engineer
- Ken Menkveld: Transportation Engineer
Contribution: Project Engineer, Project Report
- Rajive Chadha: Transportation Engineer
Contribution: Initial Site Assessment, Oversight of Asbestos Testing
- Kathleen Grady: Landscape Associate
Contribution: Visual Impact Assessment
- Gail St John: Associate Environmental Planner, Architectural History
Contribution: Finding of Effect, Historic Resource Evaluation Report, Memorandum of Agreement, Coordination with SHPO and Forest Service
- Julia Green: Associate Environmental Planner, Archaeology
Contribution: Archaeological Survey Report
- Michele Lukkarila: Associate Environmental Planner, Natural Sciences
Contribution: Natural Environment Study Report
- Anand Maganti: Transportation Engineer
Contribution: Water Quality Assessment
- Andrew Agustinovich: Transportation Planner
Contribution: Community Impact Assessment

Roger Trott: Economist for ICF Jones and Stokes

Contribution: Supplement to Community Impact Assessment

Chapter 5 Distribution List

The following agencies, organizations, and individuals received copies of this document or were notified of its availability.

Federal Agencies and Tribal Representatives

U.S. Department of Interior
Office of Environmental Policy
1849 C Street, NW
Washington, DC 20585

U.S. Department of Housing and
Urban Development
600 Harrison Street, 3rd floor
San Francisco, CA 94107-6400

U.S. Department of Agriculture
Natural Resources Conservation
Service
430 G Street, #4164
Davis, CA 95616-4164

U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105

U.S. Fish and Wildlife Service
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

USDA Forest Service
Lake Tahoe Basin Management Unit
35 College Drive
South Lake Tahoe, CA 96150

Washoe Tribe of CA & NV
919 Highway 395 South
Gardnerville, NV 89410

Lake Tahoe Basin Federal Advisory
Commission (LRFAC)
Ms. A. Rochelle Nason:
Environmental
Lake Tahoe Basin Management Unit
35 College Drive
South Lake Tahoe, CA 96150

State Agencies

Executive Director
Office of Planning and Research
State Clearinghouse
1400 Tenth Street
Sacramento, CA 95814

California Department of
Conservation*
801 K Street, MS 24-01
Sacramento, CA 95814

California Department of Fish and
Game*
District 2: North Central Region
1707 Nimbus Road
Rancho Cordova, CA 95670

California Department of Forestry and
Fire Protection*
Sacramento Headquarters
1416 Ninth Street
P.O. Box 944246
Sacramento, CA 94244

Office of Historic Preservation
1416 Ninth Street, Room 1442
Sacramento, CA 95814

California Department of Parks and
Recreation
Resources Management Division
P.O. Box 942896
Sacramento, CA 94296

California Department of Water
Resources*
Reclamation Board
1416 Ninth Street, Room 1601
Sacramento, CA 95814

California Department of Water
Resources*
Environmental Services Office
3251 S Street, Room 111
Sacramento, CA 95816

California Highway Patrol*
Office of Special Projects
2555 1st Avenue
Sacramento, CA 95818

California Office of Emergency
Services*
3650 Schriever Avenue
Mather, CA 95655

California Resources Agency*
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

Environmental Services Section
1325 J Street, Suite 1910
Sacramento, CA 95814

California Transportation Commission
1120 N Street, Room 2221 (MS-52)
Sacramento Ca 95814

California Air Resources Board*
Transportation Projects
1102 Q Street
Sacramento, CA 95812

California State Water Resources
Control Board*
Division of Water Quality
P.O. Box 100
Sacramento, CA 95812

California Department of Toxic
Substances Control*
700 Heinz Avenue, Suite 200
Berkeley, CA 94710

California Energy Commission
1516 Ninth Street, MS-29
Sacramento, CA 95814

Native American Heritage
Commission*
915 Capitol Mall, Room 364
Sacramento, CA 95814

Public Utilities Commission*
505 Van Ness Avenue
San Francisco, CA 94102

California State Lands Commission*
100 Howe Avenue, Suite 100 South
Sacramento, CA 95825

Regional Agencies

Tahoe Regional Planning Agency
P.O. Box 5310
Stateline, NV 89449

Lahontan Regional Water Quality Control Board*
2501 Lake Tahoe Blvd.
South Lake Tahoe, CA 96150

Local Agencies and Organizations

City of South Lake Tahoe
Administrative Center
1901 Airport Rd. Suite 206
South Lake Tahoe, CA 96150

South Lake Tahoe Public Library
1000 Rufus Allen Blvd.
South Lake Tahoe, CA 96150

California-Tahoe Conservancy
1061 Third Street
South Lake Tahoe, CA 96150

El Dorado County Board of Supervisors
330 Fair Lane
Placerville, CA 95667

El Dorado County Parks and Recreation Commission
3000 Fairlane Court, Ste 1
Placerville, CA 95667

Lake Tahoe Unified School District
Superintendent
1021 Al Tahoe Blvd.
South Lake Tahoe, CA 96151

Lake Tahoe Community College Board
One College Drive
South Lake Tahoe, CA 96150

League to Save Lake Tahoe
Rochelle Nason, Exec. Director
955 Emerald Bay Rd
South Lake Tahoe, CA 96150

Tahoe Area Sierra Club
P.O. Box 16936
South Lake Tahoe, CA 96150

Tahoe Chapter California Native Plant Society
P.O. Box 580
Tahoma, CA 96142

Tahoe Rim Trail Association
948 Incline Way
Incline Village, NV 89451

El Dorado County Library
345 Fair Lane
Placerville, CA 95667

Placerville Mountain Democrat
1360 Broadway, PO Box 1088
Placerville, CA 95667

Tahoe Daily Tribune
3079 Harrison Avenue
South Lake Tahoe, CA 96150

Tahoe Mountain News
PO Box 8974
South Lake Tahoe, CA 96158

Appendix A California Environmental Quality Act Checklist

The following checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. The California Environmental Quality Act impact levels include “potentially significant impact,” “less than significant impact with mitigation,” “less than significant impact,” and “no impact.”

Supporting documentation of all California Environmental Quality Act checklist determinations is provided in Chapter 2 of this Initial Study/Environmental Assessment. 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 Chapter 2.

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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AESTHETICS - Would the project:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Have a substantial adverse effect on a scenic vista? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

AGRICULTURE RESOURCES - In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <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"/> |
| c) Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

AIR QUALITY - Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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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"/>
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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 that exceed quantitative thresholds for ozone precursors)?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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d) Expose sensitive receptors to substantial pollutant concentration?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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e) Create objectionable odors affecting a substantial number of people?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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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, and 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"/>
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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"/>
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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"/>
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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"/>
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Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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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"/>
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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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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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"/>
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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"/>
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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"/>
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GEOLOGY AND SOILS - Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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ii) Strong seismic ground shaking?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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iii) Seismic-related ground failure, including liquefaction?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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iv) Landslides?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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b) Result in substantial soil erosion or the loss of topsoil?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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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"/>
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e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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HAZARDS AND HAZARDOUS MATERIALS -
Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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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"/>
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c) Emit hazardous emissions or handle hazardous or acutely hazardous material, 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"/>
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d) Be located on a site that 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"/>
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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"/>
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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"/>
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g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
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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"/>
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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 that 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"/>
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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 that would result in substantial erosion or siltation on or offsite?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or offsite?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

e) Create or contribute runoff water that would exceed the capacity of existing or planned storm water 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 that would impede or redirect flood flows?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
--------------------------------	--	------------------------------	-----------

i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

j) Result in inundation by a seiche, tsunami, or mudflow?

LAND USE AND PLANNING - Would the project:

a) Physically divide an established community?

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

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

MINERAL RESOURCES - Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

NOISE - Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
--------------------------------	--	------------------------------	-----------

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 checked="" type="checkbox"/>	<input 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"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

f) 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"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

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"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

PUBLIC SERVICES -

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

Fire protection?

<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"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
--------------------------------	--	------------------------------	-----------

Parks?

Other public facilities?

RECREATION -

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

TRANSPORTATION/TRAFFIC - Would the project:

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

b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

e) Result in inadequate emergency access?

f) Result in inadequate parking capacity?

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

UTILITY AND SERVICE SYSTEMS - Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
--------------------------------	--	------------------------------	-----------

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 determination by the wastewater treatment provider that 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"/>

MANDATORY FINDINGS OF SIGNIFICANCE -

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have environmental effects that 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 Tahoe Regional Planning Agency – Initial Environmental Checklist



INITIAL ENVIRONMENTAL CHECKLIST FOR DETERMINATION OF ENVIRONMENTAL IMPACT

I. Assessor's Parcel Number (APN)/Project

Location:

Various APNs on US Highway 50 at Echo Summit

Project Name

Echo Summit Rock Wall Parapet Replacement

County/City

El Dorado County at
Echo Summit

Brief Description of Project

The California Department of Transportation (Caltrans) proposes to upgrade the deteriorating masonry rock wall parapets at seven locations within the proposed project limits (PM 66.7/67.8) on US Highway (US) 50 in El Dorado County from Robbins Run Sidehill (PM 67.1) to Rockwall Sidehill 2 (PM 67.6) by constructing modified Type 736 concrete barriers on Portland cement concrete slabs. The proposed project will also include replacement or lining of existing cross culverts, digging out and replacing areas of loose and damaged asphalt concrete pavement and placing a ¾ inch asphalt overlay. The District 3 Traffic Safety Branch initiated the proposal for this project on April 2, 2004. This project is programmed for funding in the 2006 State Highway Operations and Protection Program (SHOPP) under the 015 (Collision Severity Reduction program at an estimated cost of \$4,100,000.

The following questionnaire will be completed by the applicant based on evidence submitted with the application. All "Yes" and "No, With Mitigation" answers will require further written comments.

II. Environmental Impacts:

1. Land

Will the proposal result in:

a. Compaction or covering of the soil beyond the limits allowed in the land capability or Individual Parcel Evaluation System (IPES)?

- Yes No
 No, With Mitigation Data Insufficient

b. A change in the topography or ground surface relief features of site inconsistent with the natural surrounding conditions?

- Yes No
 No, With Mitigation Data Insufficient

c. Unstable soil conditions during or after completion of the proposal?

- Yes No
 No, With Mitigation Data Insufficient

d. Changes in the undisturbed soil or native geologic substructures or grading in excess of 5 feet?

- Yes No
 No, With Mitigation Data Insufficient

e. The continuation of or increase in wind or water erosion of soils, either on or off the site?

- Yes No
 No, With Mitigation Data Insufficient

f. Changes in deposition or erosion of beach sand, or changes in siltation, deposition or erosion, including natural littoral processes, which may modify the channel of a river or stream or the bed of a lake?

- Yes No
 No, With Mitigation Data Insufficient

g. Exposure of people or property to geologic hazards such as earthquakes, landslides, backshore erosion, avalanches, mud slides, ground failure, or similar hazards?

- Yes No
 No, With Mitigation Data Insufficient

Explanation:

d. Final qualities of soil disturbance will be determined in the final design phase of the project and the appropriate approval shall be obtained by TRPA through the Caltrans / TRPA liaison.

2. Air Quality

Will the proposal result in:

a. Substantial air pollutant emissions?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

b. Deterioration of ambient (existing) air quality?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

c. The creation of objectionable odors?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

d. Alteration of air movement, moisture or temperature, or any change in climate, either locally or regionally?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

e. Increased use of diesel fuel?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

3. Water Quality

Will the proposal result in:

a. Changes in currents, or the course or direction of water movements?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

b. Changes in absorption rates, drainage patterns, or the rate and amount of surface water runoff so that a 20 yr. 1 hr. storm runoff (approximately 1 inch per hour) cannot be contained on the site?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

c. Alterations to the course or flow of 100-yearflood waters

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

d. Change in the amount of surface water in any water body?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

e. Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen or turbidity?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

f. Alteration of the direction or rate of flow of ground water

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

g. Change in the quantity of groundwater, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

h. Substantial reduction in the amount of water otherwise available for public water supplies?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

i. Exposure of people or property to water related hazards such as flooding?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

j. The potential discharge of contaminants to the groundwater or any alteration of groundwater quality?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

k. Is the project located within 600 feet of a drinking water source?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

4. Vegetation

Will the proposal result in:

a. Removal of native vegetation in excess of the area utilized for the actual development permitted by the land capability/IPES system?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

b. Removal of riparian vegetation or other vegetation associated with critical wildlife habitat, either through direct removal or indirect lowering of the groundwater table?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

c. Introduction of new vegetation that will require excessive fertilizer or water, or will provide a barrier to the normal replenishment of existing species?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

d. Change in the diversity or distribution of species, or number of any species of plants (including trees, shrubs, grass, crops, micro flora and aquatic plants)?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

e. Reduction of the numbers of any unique, rare or endangered species of plants?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

f. Removal of stream bank and/or backshore vegetation, including woody vegetation such as willows?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

g. Removal of any native live, dead or dying trees 30 inches or greater in diameter at breast height (dbh) within TRPA's Conservation or Recreation land use classifications?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

h. A change in the natural functioning of an old growth ecosystem

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

5. Wildlife

Will the proposal result in:

a. Change in the diversity or distribution of species, or numbers of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms, insects, mammals, amphibians or microfauna)?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

b. Reduction of the number of any unique, rare or endangered species of animals?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

c. Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

d. Deterioration of existing fish or wildlife habitat quantity or quality?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

6. Noise

Will the proposal result in:

a. Increases in existing Community Noise Equivalency Levels (CNEL) beyond those permitted in the applicable Plan Area Statement, Community Plan or Master Plan?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

b. Exposure of people to severe noise levels

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

c. Single event noise levels greater than those set forth in the TRPA Noise Environmental Threshold?

- | | | | |
|-------------------------------------|---------------------|--------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input type="checkbox"/> | No |
| <input checked="" type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

Explanation

Single event noise levels may be exceeded during times of heavy or sustained construction activities. TRPA-approved construction projects are exempt from the TRPA Noise Ordinance if the construction activities occur between the daytime hours of 8:00 a.m. and 6:30 p.m. Evening construction work shall be monitored so that levels do not exceed the 24-hour average CNEL thresholds.

7. Light and Glare

Will the proposal:

a. Include new or modified sources of exterior lighting?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

b. Create new illumination, which is more substantial than other lighting, if any, within the surrounding area?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

c. Cause light from exterior sources to be cast off –site or onto public lands?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

d. Create new sources of glare through the siting of the improvements or through the use of reflective materials?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

8. Land Use

Will the proposal:

a. Include uses which are not listed as permissible uses in the applicable Plan Area Statement, adopted Community Plan, or Master Plan?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

b. Expand or intensify an existing non-conforming use?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

9. Natural Resources

Will the proposal result in:

a. A substantial increase in the rate of use of any natural resources?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

b. Substantial depletion of any non-renewable natural resource?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

10. Risk of Upset

Will the proposal:

a. Involve a risk of an explosion or the release of hazardous substances including, but not limited to, oil, pesticides, chemicals, or radiation in the event of an accident or upset conditions?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

b. Involve possible interference with an emergency evacuation plan?

- | | | | |
|-------------------------------------|---------------------|--------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input type="checkbox"/> | No |
| <input checked="" type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

Explanation:

The following measures will be implemented to ensure public safety during construction.

- The contract Standard Special Provisions (SSPs) will require the contractor to coordinate with local emergency agencies/workers prior to construction and through construction. As part of this coordination, a plan for emergencies, to include any agreed upon detour plan, will be developed.
- The Caltrans Construction Resident Engineer (RE) shall ensure the required emergency plan includes provisions to cease operations to allow the roadway to be used as an escape route in case of an emergency event such as forest fire.
- When an emergency occurs, the RE and California Highway Patrol (CHP) have the authority and responsibility to suspend and modify work for the safety of the public. This is provided by the Public Safety Specifications in the Caltrans standard plans.

11. Population

Will the proposal:

a. Alter the location, distribution, density, or growth rate of the human population planned for the Region?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

b. Include or result in the temporary or permanent displacement of residents?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

12. Housing

Will the proposal:

- a. Affect existing housing, or create a demand for additional housing?

To determine if the proposal will affect existing housing or create a demand for additional housing, please answer the following questions:

- (1) Will the proposal decrease the amount of housing in the Tahoe Region?

Yes No
 No, With Mitigation Data Insufficient

- (2) Will the proposal decrease the amount of housing in the Tahoe Region historically or currently being rented at rates affordable by lower and very-low-income households?

Yes No
 No, With Mitigation Data Insufficient

- b. Will the proposal result in the loss of housing for lower-income and very-low-income households?

Yes No
 No, With Mitigation Data Insufficient

Number of Existing Dwelling Units: _____

Number of Proposed Dwelling Units: _____

13. Transportation/Circulation

Will the proposal result in:

- a. Generation of 100 or more new Daily Vehicle Trip Ends (DVTE)?

Yes No
 No, With Mitigation Data Insufficient

- b. Changes to existing parking facilities, or demand for new parking?

Yes No
 No, With Mitigation Data Insufficient

- c. Substantial impact upon existing transportation systems, including highway, transit, bicycle or pedestrian facilities?

Yes No
 No, With Mitigation Data Insufficient

- d. Alterations to present patterns of circulation or movement of people and/or goods?

Yes No
 No, With Mitigation Data Insufficient

- e. Alterations to waterborne, rail or air traffic?

Yes No
 No, With Mitigation Data Insufficient

- f. Increase in traffic hazards to motor vehicles, bicyclists, or pedestrians?

Yes No
 No, With Mitigation Data Insufficient

Explanation:

c. Temporary Impacts to transportation systems will likely occur during the construction period of this project. Due to the topography and nature of the existing roadway, road closures, whether one lane or a full closure of the highway, delays will occur to the traveling public.

d. Present patterns of circulation will be altered temporarily during construction if a decision is made to implement a full closure of the Highway to construct this project. Detours will be necessary and will be fully disclosed to the public. Detours may still be necessary if other alternatives for lane closures are chosen

14. Public Services

Will the proposal have an unplanned effect upon, or result in a need for new or altered governmental services in any of the following areas?

a. Fire protection?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

b. Police protection?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

c. Schools?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

d. Parks or other recreational facilities?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

e. Maintenance of public facilities, including roads?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

f. Other governmental services?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

15. Energy

Will the proposal result in:

a. Use of substantial amounts of fuel or energy?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

b. Substantial increases in demand upon existing sources of energy, or require the development of new sources of energy?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

16. Utilities

Except for planned improvements, will the proposal result in a need for new systems, or substantial alterations to the following utilities:

a. Power or natural gas?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

b. Communication systems?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

c. Utilize additional water which amount will exceed the maximum permitted capacity of the service provider?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

d. Utilize additional sewage treatment capacity which amount will exceed the maximum permitted capacity of the sewage treatment provider?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

e. Storm water drainage?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

f. Solid waste and disposal?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

17. Human Health

Will the proposal result in:

a. Creation of any health hazard or potential health hazard (excluding mental health)?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

b. Exposure of people to potential health hazards?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

18. Scenic Resources/Community Design

Will the proposal:

a. Be visible from any state or federal highway, Pioneer Trail or from Lake Tahoe?

- | | | | |
|-------------------------------------|---------------------|--------------------------|-------------------|
| <input checked="" type="checkbox"/> | Yes | <input type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

b. Be visible from any public recreation area or TRPA designated bicycle trail?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

c. Block or modify an existing view of Lake Tahoe or other scenic vista seen from a public road or other public area?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

d. Be inconsistent with the height and design standards required by the applicable ordinance or Community Plan?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

e. Be inconsistent with the TRPA Scenic Quality Improvement Program (SQIP) or Design Review Guidelines?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

Explanation: a- The project will be visible from US Highway 50 .

19. Recreation

Does the proposal:

a. Create additional demand for recreation facilities?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

b. Create additional recreation capacity?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

c. Have the potential to create conflicts between recreation uses, either existing or proposed?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

d. Result in a decrease or loss of public access to any lake, waterway, or public lands?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

20. Archaeological/Historical

a. Will the proposal result in an alteration of or adverse physical or aesthetic effect to a significant archaeological or historical site, structure, object or building?

- | | | | |
|-------------------------------------|---------------------|--------------------------|-------------------|
| <input checked="" type="checkbox"/> | Yes | <input type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

b. Is the proposed project located on a property with any known cultural, historical, and/or archaeological resources, including resources on TRPA or other regulatory official maps or records?

- | | | | |
|-------------------------------------|---------------------|--------------------------|-------------------|
| <input checked="" type="checkbox"/> | Yes | <input type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

c. Is the property associated with any historically significant events and/or sites or persons?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

d. Does the proposal have the potential to cause a physical change, which would affect unique ethnic cultural values?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

e. Will the proposal restrict historic or pre-historic religious or sacred uses within the potential impact area?

- | | | | |
|--------------------------|---------------------|-------------------------------------|-------------------|
| <input type="checkbox"/> | Yes | <input checked="" type="checkbox"/> | No |
| <input type="checkbox"/> | No, With Mitigation | <input type="checkbox"/> | Data Insufficient |

Explanation:

a/b- The rock wall parapets are contributing elements to Upper Meyers Grade, a property determined eligible for the National Register of Historic Places. Replacement of the parapets will cause an adverse effect. Caltrans has consulted with SHPO and LTBMU and received concurrence on the Finding of Effect. As a result of extensive coordination, Caltrans has entered into a Memorandum of Agreement with SHPO and LTBMU for the treatment / mitigation of the replacement of the rock wall parapets.

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Date Received _____ By: _____

Determination:

On the basis of this evaluation

The proposed project could not have a significant effect on the environment and a finding of no significant effect shall be prepared in accordance with TRPA's Rules of Procedure.

Yes No

The proposed project could have a significant effect on the environment, but due to the listed mitigation measures which have been added to the project, could have no significant effect on the environment and a mitigated finding of no significant effect shall be prepared in accordance with TRPA's Rules and Procedures.

Yes No

The proposed project may have a significant effect on the environment and an environmental impact statement shall be prepared in accordance with this chapter and TRPA's Rules of Procedure

Yes No

Signature of Evaluator

Date: _____

Title of Evaluator

Appendix C Section 4(f) Evaluation

1.1 Introduction

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

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 United States Code, Section 303, declares that “it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.”

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

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

Section 4(f) further requires consultation with the Department of the Interior and, as appropriate, the involved offices of the Departments of Agriculture and Housing and Urban Development in developing transportation projects and programs that use lands protected by section 4(f). If historic sites are involved, then coordination with the State Historic Preservation Officer is also needed.

1.2 Description of Proposed Project

Caltrans proposes to replace the deteriorating rock parapet walls at seven locations on US Highway 50 (US 50) in El Dorado County from Robbins Run Sidehill (Post Mile 67.1) to Rockwall Sidehill 2 (Post Mile 67.6) by constructing modified Type 736 concrete barriers on Portland cement concrete slabs. The proposed project will also include lining or replacement of existing cross culverts within the project limits, digging out and replacing areas of loose and damaged asphalt concrete pavement and placing a 3-inch asphalt overlay.

The project also proposes to improve water quality by rehabilitating and upgrading existing drainage inlets to comply with the National Pollutant Discharge Elimination System (NPDES) Permit requirements (See Section 2.2.1 Water Quality and Storm Water Runoff section of the IS/EA for more information regarding NPDES requirements). Other alternatives considered for this analysis include repair of the existing rock parapet walls and the no-build alternative. These alternatives are discussed in further detail in section 1.5.

Purpose and Need for Proposed Project

The primary purpose of this project is to improve safety along the section of US 50 known as Upper Meyers Grade at Echo Summit. The secondary purpose of this project is to improve drainage features within the project limits.

The rock parapet walls along this section of roadway have severely deteriorated over the years requiring an excessive degree of maintenance and do not meet current state and federal safety standards.

The National Cooperative Highway Research Program (NCHRP) standards and the current load and resistance factor design (LRPD) standards specified by the American Association of State Highway and Transportation Officials (AASHTO) require all traffic railings be able to withstand 54,000 pounds of force and be at least 32 inches in height. The existing rock wall parapets are approximately 18 inches tall and do not meet the strength requirement. It is Caltrans conclusion that the current rock wall parapet/barrier rail is unsafe and that there is nothing short of replacement to make it safe according to current standards.

In addition, the drainage systems within the project limits are in poor condition and in need of repair. All 13 culverts located within the proposed project area are corroded or damaged.

1.3 Description of Section 4(f) Property

Upper Meyers Grade was determined eligible for listing in the National Register of Historic Places under Criterion C at the state level of significance (pursuant to NHRP) for its engineering and aesthetic qualities (period of significance: 1939). The property is an outstanding example of the Department of Public Works, Division of Highway's careful design and engineering in an effort to meld a roadway into the natural beauty of the terrain and in mind of the spectacular views that would be afforded to the driving public. The effort resulted in the construction of numerous retaining walls, rock wall parapets, and a viaduct made of local granite, which allows full function of the facility while minimizing construction impacts to a recreational / scenic route. This was a challenging engineering feat with impressive results.

Upper Meyers Grade is a one-mile segment of US 50 from Post mile (PM) 66.8 to 67.8. The contributing elements of this property include the roadway, the Echo Sidehill Viaduct (Bridge #25 0044), rock parapet walls, and masonry retaining walls.

The property is located on land owned by the United States Dept of Agriculture/ Forest Service Lake Tahoe Basin Management Unit (LTBMU). Caltrans operates the highway under a special use permit from the LTBMU. Caltrans anticipates obtaining a highway easement along this route for continued maintenance and operations activities.

The highway at this location is a two-lane road that occupies the original roadbed. The road has very narrow shoulders, with turnouts on the eastbound side only.

At post mile 67.3 the road is carried on the Echo Summit Sidehill Viaduct, a three-span concrete girder sidehill viaduct constructed in 1939. The bridge is 113 feet long and 24 feet wide, with masonry/rock parapets, abutments, and retaining wall. Due to the difficult nature of the terrain, the road has not been widened or modified in any substantive way since it was built.

At eight locations (including at the viaduct, which is not included in the current proposed project scope of work) along the one-mile section of highway, masonry retaining walls topped with low rock parapets support the highway on the downhill side. The retaining wall is constructed of roughly shaped blocks of granite rock of varying size, some showing drill marks from the splitting process, laid in random coursing. In places the walls incorporate boulders or protruding bedrock. No work on the rock retaining wall is included in the scope of the proposed project.

The rock wall parapets are laid in level coursing and vary slightly in appearance from the retaining walls below, presenting a more rustic surface, and are lighter colored granite. The parapet blocks vary in length and every fourth or fifth block is a deeper “through stone” connecting the top two rows. Metal beam guardrails mounted on steel posts fill the space between masonry sections to provide a continuous barrier on the downhill side of the highway. The railings originally installed in the 1950s have been replaced as needed.

1.4 Impacts on Section 4(f) Property

In order to bring the facility into conformance with current safety standards (see section 1.2 of this analysis for more information regarding safety standards), Caltrans proposes to replace the rock parapet walls, which are important aesthetic features of the property, with modified Type 736 concrete barriers. This replacement would result in the “physical destruction of ...part of the property,” “rehabilitation...that is not consistent with Secretary’s Standards for the Treatment of Historic Properties,” and “change of...physical features within the property’s setting that contribute to its historic significance.” Removing the original rock parapets will diminish the property’s integrity of design, materials, workmanship, and feeling and would have an adverse effect on the character- defining features of the property. The State Historic Preservation Officer (SHPO) has concurred with this finding of adverse effect in October 2007.

The replacement of the rock parapet walls will have an adverse effect on a property eligible for the National Register and therefore constitute a “use” of a Section 4(f) property and as such a Section 4(f) analysis has been completed.

Since the removal of the original rock parapets is the action by which an adverse effect would occur, all other alternatives considered for this analysis (repair, no-build alternatives) would also have an adverse effect on Upper Meyers Grade. If the parapet walls were to be repaired using the original materials, including similar mortar, an adverse effect would not occur. See section 1.5 for more details regarding these alternatives.

The work proposed on all of the aforementioned alternatives, considered for this analysis, will not have an effect on other contributing elements of Upper Meyers Grade.

1.5 Avoidance Alternatives

An avoidance alternative is prudent and feasible if it avoids using the Section 4(f) property and does not cause other severe problems of a magnitude that substantially outweighs the importance of protecting the Section 4(f) property. In assessing the importance of protecting the Section 4(f) property, it is appropriate to consider the relative value of the Section 4(f) property to the preservation purpose of the Section 4(f) statute.

An avoidance alternative is not feasible if it cannot be built as a matter of sound engineering judgment. 23 CFR 774.117 sets forth six factors to consider when determining whether an alternative is prudent:

1. Compromises the project so that it is unreasonable given the purpose and need;
2. Results in unacceptable safety or operational problems;
3. After reasonable mitigation, still causes:
 - Severe social, economic, or environmental impacts;
 - Severe disruption to established communities;
 - Severe environmental justice impacts; or
 - Severe impacts to other federally protected resources;
4. Results in additional construction, maintenance, or operational costs of an extraordinary magnitude;
5. Causes other unique problems or unusual factors; or
6. Involves multiple factors listed above that while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude.

The following alternatives were considered in this analysis:

1. Repair Existing Parapet: Due to the extensive damage that has occurred to the rock wall parapets (see photos in Appendix H) from errant drivers as well as avalanches and rock falls over the years, repairing the parapets presents many challenges. Large sections of many of the parapets are currently missing. The first challenge is that due to the historic significance of the parapets as well as the aesthetic importance of the area, repairs would need to be made in

kind in order to avoid an adverse effect and a 4(f) use. This would involve recovery of the original rock, which has fallen down a steep cliff, and repairing the wall with original type mortar. The repair activities would potentially pose a safety issue for someone to rappel down the wall to recover the rock and these activities would require lane closures, which may also pose a safety risk to workers and traveling public. If the parapets were repaired without recovering the original materials, this could still be considered an adverse effect to the historic resource and a Memorandum of Agreement would be necessary to address these effects. This alternative is feasible, as it can be built but this alternative is not a prudent alternative as it meets the conditions 1, 2 and 5 set forth in CFR 774.117.

2. Replace Rock Wall Parapets with materials similar to original construction:

If the rock wall parapets were to be replaced in kind with the exact materials (coarsely carved granite rocks and mortar similar to those used in original construction), the purpose and need of the project “to improve safety” would not be met as the current parapets do not meet current safety standards due to the existing height and strength capabilities. Due to the historic significance of the parapets as well as the aesthetic importance of the area, repairs would need to be made in kind in order to avoid an adverse effect and a 4(f) use. If the rock wall parapets were not replaced with original, recovered, material an adverse effect would still likely occur and a Memorandum of Agreement would need to be implemented to obtain agreement from SHPO and LTBMU on the types and color of materials used.

This alternative is feasible, as it can be built but this alternative is not a prudent alternative as it meets the conditions 1 and 2 set forth in CFR 774.117.

3. No-build/Do Nothing Alternative: The no-build alternative would involve leaving the existing rock parapets in their existing condition. Due to the age and current condition of the existing rock parapet walls, not doing anything to repair or replace them would mean that the wall will continue to deteriorate and could lead to “demolition by neglect”. The no-build alternative could also lead to an adverse effect and is not an alternative that would completely avoid the “use” or impact to the protected Section 4(f) resource. The no-build alternative would not meet the purpose and need of the project, which is to

improve safety. Therefore, this alternative is not prudent as it meets the conditions 1 and 2 set forth in CFR 774.117.

1.6 Measures to Minimize Harm

A Memorandum of Agreement between the California Department of Transportation, the California State Historic Preservation Officer, and the United States Forest Service (MOA), regarding the proposed project was executed on July 15, 2008. The MOA includes stipulations on the treatment of historic properties that shall be carried out by Caltrans in order to reduce the projects effect on the property. The MOA is included in Appendix G of the IS/EA prepared for this proposed project.

Caltrans proposes to install modified Type 736 barriers that simulate the appearance of the original rock parapets. A photo simulation is included in (Appendix H). The construction contractor shall create a form liner taken from a cast mold of the intact portions of the existing rock wall parapets for use in replicating the existing parapet features onto the new parapets. The concrete barrier will mimic the existing rock parapets in color as well as texture, by using concrete dyes and stains. In keeping with the standard plan for Type 736 barriers, the inboard side will be battered to narrow slightly at the top. The outboard side will be vertical and flush with the existing surface of the rock retaining wall. In order to achieve safety standards, the relief of the textured concrete surface will be limited to 5/8 of an inch and the height of the wall will be approximately three feet. As agreed upon in the MOA, signatory parties shall have the opportunity to review and approve the sample/prototype wall prior to final placement.

Currently, the proposed project calls for lining the existing culverts; however, should culvert replacement be deemed necessary, Caltrans will avoid additional impacts to the property by conducting the work in a manner consistent with the Secretary of Interior Standards. The culverts protrude through the rock retaining wall, which is a character-defining feature of Upper Meyers Grade. Replacing the culverts would not alter the original purpose, historic character, or distinctive features of the property. The metal culverts would be replaced (if needed) in kind with 24 inch corrugated metal pipe and the contractor would be required to rebuild the retaining wall using the original granite blocks to restore its original appearance.

1.7 Coordination

SHPO consultation began with the submittal of a Historic Property Survey Report (HPSR) and supporting technical studies in July 2007. The SHPO concurred with the eligibility determinations in August 2007. The rock parapet walls were determined to be contributing elements to Upper Meyers Grade, a National Register eligible property.

Caltrans applied the Criteria of Adverse Effect in accordance with Stipulation X.A of the PA and 36 CFR Part 800.5(a)(1) and has determined that the proposed project will have an Adverse Effect on Upper Meyers Grade, a National Register eligible property, and requested concurrence from the SHPO with this finding, pursuant to stipulation X.C.1. in September 2007. SHPO provided concurrence with this determination by letter dated October 24, 2007.

Caltrans entered into a Memorandum of Agreement (MOA) with SHPO and the US Forest Service Lake Tahoe Basin Management Unit (LTBMU) for the treatment of an adverse effect on a historic property found eligible for the National Register of Historic Places. This MOA was executed in July 2008 and is included in Appendix G of the IS/EA prepared for the proposed project.

Caltrans will provide copies of the draft Section 4(f) Evaluation, appended to the Draft Environmental Assessment, to the Department of Interior (DOI) during the public review circulation period.

1.8 Least Harm Analysis

If there is no prudent and feasible alternative to avoid harm to the Section 4(f) property, then only the alternative that causes the least overall harm in light of the statute's preservation purpose can be chosen. The least overall harm is determined by balancing the:

1. Ability to mitigate adverse impacts to each Section 4(f) resource
 - a. Replacement of Rock Wall Parapets (proposed build alternative): The adverse effect of replacing the rock wall parapets will be mitigated by replacing the walls with materials and techniques that will mimic the original wall in texture and color.

- b. Repair of Rock Wall Parapets: If the parapets were repaired in kind with the original materials, no mitigation would be required. Due to the inherent difficulty of recovery of the fallen rocks, it is likely that new materials would be needed. If newer materials are used for repair, the possibility of an adverse effect still exists.
 - c. No-build alternative: No mitigation would be required under this alternative; however, in time, this alternative may lead to an adverse effect due to “demolition by neglect”.
2. Relative severity of the remaining harm, after mitigation, to the protected activities and attributes or features:
- a. Replacement of Rock Wall Parapets (proposed build alternative): After mitigation, an adverse effect to the original property will still exist.
 - b. Repair of Rock Wall Parapets: If repairs were implemented with original materials, it likely that there would not be an adverse effect to the property. However, it is likely that new materials would be needed which would likely result in an adverse effect.
 - c. No-build alternative: Leaving the rock wall parapets in their current condition would not create an immediate adverse effect that would require mitigation. In time, the parapets will continue to deteriorate and may lead to “demolition by neglect”.
3. Relative significance of each Section 4(f) property:

Upper Meyers Grade is the only identified Section 4(f) resource within the proposed project limits. Upper Meyers Grade was determined eligible for listing in the National Register of Historic Places under Criterion C at the state level of significance (pursuant to NHRP) for its engineering and aesthetic qualities (period of significance: 1939). The property is an outstanding example of the Department of Public Works, Division of Highway’s careful design and engineering in an effort to meld a roadway into the natural beauty of the terrain and in mind of the spectacular views that would be afforded to the driving public

4. Views of the officials with jurisdiction over each Section 4(f) property:

SHPO and USFS /LTBMU concur with the proposal to replace the existing rock wall parapets and measures to resolve the adverse effects of the undertaking.

5. Degree to which each alternative meets the purpose and need:
 - a. Replacement of Rock Wall Parapets (proposed build alternative): This alternative meets the Purpose and Need of the proposed project to improve safety.
 - b. Repair of Rock Wall Parapets: This alternative does not meet the Purpose and Need of the project, as repairing the parapets would not bring the wall to current safety standards.
 - c. No-build alternative: This alternative does not meet the Purpose and Need of the project, due to the continued deterioration of the rock wall parapets.
6. After reasonable mitigation, the magnitude of any adverse impacts to resources not protected by Section 4(f):

The project will result in temporary impacts to traffic and circulation in the area of construction for replacement of the parapets. During construction, lane closures will create delays for the traveling public who may be required to use detour routes.

If the rock parapets were not replaced, continued maintenance and repair activities would also cause traffic delays due to the need for lane closures in the steep terrain of the project area.

There are no other adverse impacts to non 4(f) resources.

7. Substantial differences in costs among alternatives:

Replacement of the Rock Wall Parapets would incur the greatest immediate cost for construction of the project. However, continued maintenance and repair would incur substantial costs over time. The no-build alternative would incur the least cost.

1.9 Concluding Statement

Based on the above considerations, there is no feasible and prudent alternative to the use/adverse effect to Upper Meyers Grade and the proposed action includes all possible planning to minimize harm to the rock wall parapets, which are contributing elements of Upper Meyers Grade. All possible planning was included in the process to formulate the MOA. The MOA and coordination and consultation letters are included in Appendices F and G of the IS/EA prepared for the proposed project.

Appendix D Title VI Policy Statement

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY

ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
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*Flex your power!
Be energy efficient!*

January 14, 2005

TITLE VI 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, and age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

A handwritten signature in black ink that reads "Will Kempton".

WILL KEMPTON
Director

"Caltrans improves mobility across California"

Appendix E Avoidance, Minimization and/or Mitigation Summary

Resource	Mitigation Measures to reduce an impact to Less than Significant pursuant to CEQA
Cultural Resources	<p>The following Mitigation Measures will be required to reduce significant impacts to Upper Meyers Grade to a level of less than significant, pursuant to CEQA.</p> <ul style="list-style-type: none"> • Caltrans proposes to install modified Type 736 barriers that simulate the appearance of the original rock parapets. • The construction contractor shall create a form liner taken from a cast mold of the intact portions of the existing rock wall parapets for use in replicating the existing parapet features onto the new parapets. • The concrete barrier will mimic the existing rock parapets in color as well as texture, by using concrete dyes and stains. • In keeping with the standard plan for Type 736 barriers, the inboard side will be battered to narrow slightly at the top. • The outboard side will be vertical and flush with the existing surface of the rock retaining wall. • In order to achieve safety standards, the relief of the textured concrete surface will be limited to 5/8-inch and the height of the wall will be approximately three feet. • As agreed upon in the MOA, signatory parties shall have the opportunity to review and approve the sample/prototype wall prior to final placement. • Should culvert replacement be deemed necessary, Caltrans will avoid additional impacts to the property by conducting the work in a manner consistent with the Secretary of Interior Standards. The culverts protrude through the rock retaining wall, which are character-defining features of Upper Meyers Grade.

Resource	Avoidance/Minimization Measures
Cultural Resources	<p>Although no archaeological resources are anticipated during the construction of this project, language will be included in the project bid specification in the unlikely event that cultural materials are discovered.</p> <p>If cultural materials are discovered during construction, all earth-moving activity within a 60-foot perimeter around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.</p> <p>If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to Public Resources Code Section 5097.98, if the remains were thought to be Native American, the coroner would notify the</p>

Resource	Avoidance/Minimization Measures
	<p>Native American Heritage Commission, who would then notify the Most Likely Descendent. At this time, the person who discovered the remains would contact Caltrans District 3 Office of Environmental Management so that they may work with the Most Likely Descendent on the respectful treatment and disposition of the remains. Further provisions of Public Resources Code Section 5097.98 are to be followed as applicable</p>
<p>Traffic and Transportation</p>	<p>The following measures are proposed to minimize potential travel delays to the public.</p> <ul style="list-style-type: none"> • Implementation of General TMP guidelines as well as measures proposed specific to each lane closure option. • Implement an extensive Public Outreach effort to notify the public of upcoming lane closures and delays.
<p>Community Impact</p>	<p>Congestion and delays will likely cause inconvenience to the traveling public and Tahoe region business owners. In addition to the Traffic Management Strategies included in the Traffic section of this document, the following public outreach measures are recommended in order to minimize the inconvenience that may occur:</p> <ul style="list-style-type: none"> • Informational brochures included in utility bill mailings to homeowners, renters, and business operators with updates regarding construction related details that are located in the greater project area. • Use of public service announcements through local media outlets. Purchase and use of radio air time to publicize the projects and update information. • Use of Newspaper ads that use detailed mapping of Lake Tahoe Basin and I-80 construction projects that is produced annually by Caltrans' Transportation Management Unit in association with the TRPA, the Tahoe Basin counties, Nevada DOT and other agencies. • Updates should be provided prior to actual construction dates on local radio and in newspaper ads. The Caltrans District 3 Public Information Officer (PIO) is usually delegated responsibility by project management in this area. • Distribution of informational brochures at frequented local outlets such as busy local resorts and retail commercial locations along the impacted corridor, the South Lake Tahoe Chamber of Commerce, the local chapters of the American Automobile Association, and the California Highway Patrol office. • Extensive utilization of the Caltrans Tahoe Basin web site. The web site should be updated and expanded to include links to the PIO's project information hotline and/or roadway condition list. Informational mail outs and brochures should consistently refer readers to the web site for the most current project related info. • Focused mailers to representative organizations and stakeholders including, but not limited to; the California and Nevada Trucking Associations, the Owner Operated Independent Drivers Association, the Teamsters local chapters, the Lake Tahoe Visitors Authority, the

Resource	Avoidance/Minimization Measures
	<p>South Lake Tahoe Lodging Association, the South Shore Transit Management Association, Tahoe-Douglas Visitors Authority, the Nevada Hotel and Lodging Association, Greyhound, and the major charter bus operators in the San Francisco Bay area and Sacramento area.</p> <ul style="list-style-type: none"> • Implementation of an 800 number for the traveling public and other impacted parties to call to voice concerns and point out trouble spots during construction.
Visual Aesthetics	<p>Although the replacement of the rock wall parapets will not cause a negative impact on the visual quality/aesthetics of the project area, the following measures, many of which are project design features, will be implemented to ensure the rock wall replacement will be consistent with the visual setting.</p> <ul style="list-style-type: none"> • Rock wall shall be replaced in such a way that it will visually replicate the existing wall (as seen in the photo simulations in Appendix H). • Form–liner shall be used to reproduce the natural rock for the replacement barrier. The form liner shall be of a design pattern that depicts the original design of the historical cut rock wall that is to be replaced and the staining of the wall shall reflect the texture and color of the historical wall as well. • The maximum relief on the face of the wall shall be 5/8-inch. Color and design of wall shall be in keeping with the original wall. • All culvert work shall be completed in a manner that minimizes disturbance to the surrounding area. Rock slope protection will utilize indigenous rock when possible. Headwalls shall implement the look of cut stone when possible (same form-liner used for barrier should be used on headwalls with the same type of staining) • Minimize the disturbance of soil, and established vegetation and trees. • During construction, any trees that need to be removed shall be identified and approved by the Resident Engineer, prior to removal. • At the completion of construction, all areas used for staging, access or other construction activities will be evaluated for compaction, and if necessary re-establish by ripping and/or incorporating mulch to minimum depth of 12 inches. • All disturbed soil areas will receive organic fertilizer, native grass/forb seed, and mulch (pine needles or a mixture of needles and wood chips) to a depth of 1½ inch to provide passive erosion control.
Water Quality / Storm Water Runoff	<p>Adherence to the following is recommended to prevent receiving water pollution as a result of construction activities and/or operation of the Echo Summit Rockwall project.</p> <ul style="list-style-type: none"> • The project shall adhere to the conditions of the Caltrans Statewide NPDES Permit CAS # 000003, (Order # 99-06-DWQ), issued by the State Water Resources Control Board. Adherence to the compliance requirements of the WDR General Permit WDID NO. 6A0999999999,

Resource	Avoidance/Minimization Measures
	<p>Order # 6-91-31, for small Construction Activities in Lake Tahoe is also required.</p> <ul style="list-style-type: none"> • The project has an estimated DSA of 0.5 acres and it is anticipated that a Water Pollution Control Plan (WPCP) level of temporary pollution controls will be specified for the project; Standard Special Provision 07-340 therefore shall be included in the PS&E to address these temporary construction water pollution control measures. These measures must address soil stabilization practices, sediment control practices, tracking control practices, and wind erosion control practices. In addition, the project plan must include non-storm water controls, waste management, and material pollution controls. • As directed by Caltrans Storm Water Management Plan (SWMP) and the Project Planning and Design Guide (PPDG) an evaluation of the project using the most recent approved evaluation guide is essential in determining if the incorporation of permanent storm water runoff treatment measures shall be considered for this project. • If the project has SWPPP, a Notification of Construction (NOC) shall be submitted to the Lahontan Regional Water Quality Control Board during PS&E through the Caltrans NPDES Coordinator. • Special care is required when handling and storing contaminated soil, including soil contaminated with aerially deposited lead. The quantity of the contaminated soil, its level of contamination, where it will be stored, and when this activity will take place (winter/summer season) are all storm water pollution concerns and should be described in detail in the appropriate section of Special Provisions. These issues should also be addressed in the WPCP. Section H.9 of the Caltrans Statewide NPDES Permit requires notification of the appropriate Regional Water Quality Control Board (RWQCB) if the project involves reuse of ADL contaminated soil, 30 days prior to advertisement for bids. This is to allow the RWQCB to determine any need for the development of Waste Discharge Requirements.
Hazardous Materials	<p>Although no asbestos has been identified in the rock wall parapets to be removed as a result of this proposed project, NESHAP rules pursuant to 40 CFR 61 and California Health and Safety Code Section 39658(b)(1) require the contractor to notify the US EPA and El Dorado County at least ten working days prior to demolition of the seven rock wall parapets.</p> <p>Contract specifications have been prepared and shall be included in the bid package to address the specific notification and construction method requirements.</p>
Wetlands and other waters	<p>Although direct impacts to wetlands are not expected to occur as a result of this project, the following avoidance measures shall be implemented to prevent potential indirect impacts.</p> <p>Establish Environmentally Sensitive Areas: Indirect impacts to wetland resources, within the Echo Summit Maintenance station will be avoided by designating these features outside of the construction impact area as “environmentally sensitive areas” (ESAs) on project plans and in project specifications. ESA information will be shown on contract plans and discussed in the Special Provisions. ESA provisions may include, but are not</p>

Resource	Avoidance/Minimization Measures
	<p>limited to, the use of temporary orange fencing to delineate the proposed limit of work in areas adjacent sensitive resources, or to delineate and exclude sensitive resources from potential construction impacts. Contractor encroachment into ESAs will be restricted (including the staging/operation of heavy equipment or casting of excavation materials). ESA provisions shall be implemented as a first order of work, and remain in place until all construction activities are complete.</p> <p>Containment Measures/Construction Site Best Management Practices: Measures will be employed to prevent any construction material or debris from entering surface waters or their channels. BMPs for erosion control will be implemented and in place prior to during, and after construction in order to ensure that no silt or sediment enters surface waters. Caltrans' Standard Specifications require the contractor to submit a Water Pollution Control Plan. This plan must meet the standards and objectives to minimize water pollution impacts set forth in section 7-1.01G of Caltrans' Standard Specifications. The Water Pollution Control Plan must also be in compliance with the goals and restrictions identified in the Lahontan Water Quality Control Board's Basin Plan. Any additional measures included in the TRPA permit will be complied with. These standards/objectives are referred to as "Best Management Practices" (BMPs), include but are not limited to:</p> <p>Where working areas encroach on live or dry streams, lakes, or wetlands, TRPA and Lahontan RWQCB-approved physical barriers adequate to prevent the flow or discharge of sediment into these systems shall be constructed and maintained between working areas and streams, lakes and wetlands. During construction of the barriers, discharge of sediment into streams shall be held to a minimum. Discharge will be contained through the use TRPA and Lahontan RWQCB-approved measures that will keep sediment from entering protected waters.</p> <p>Oily or greasy substances originating from the contractor's operations shall not be allowed to enter or be placed where they will later enter a live or dry stream, pond, or wetland.</p> <p>Asphalt concrete shall not be allowed to enter a live or dry stream, pond, or wetland.</p>
Invasive Species	<p>Although there is currently no identified population or infestation of noxious weeds within the project area, the following measures shall be implemented to prevent the spread of invasive plants.</p> <p>In compliance with the Executive Order on Invasive Species, Executive Order 13112, and subsequent guidance from the Federal Highway Administration, the landscaping and erosion control included in the project would not use species listed as noxious weeds. In areas of particular sensitivity, extra precautions would be taken if invasive species were found in or adjacent to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur.</p>
Construction Related Air Quality	<p>Most of the construction impacts to air quality are short-term in duration and, therefore, will not result in adverse or long-term conditions. Implementation of the following measures will reduce any air quality impacts resulting from</p>

Resource	Avoidance/Minimization Measures
	<p>construction activities:</p> <ul style="list-style-type: none"> • The construction contractor shall comply with Caltrans' Standard Specifications Section 7-1.01F and Section 10 of Caltrans' Standard Specifications (1999). • Section 7, "Legal Relations and Responsibility," addresses the contractor's responsibility on many items of concern, such as: air pollution; protection of lakes, streams, reservoirs, and other water bodies; use of pesticides; safety; sanitation; and convenience of the public; and damage or injury to any person or property as a result of any construction operation. Section 7-1.01F specifically requires compliance by the contractor with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances. • Section 10 is directed at controlling dust. If dust palliative materials other than water are to be used, material specifications are contained in Section 18. • Water or dust palliative will be applied to the site and equipment as frequently as necessary to control fugitive dust emissions. • Soil binder will be spread on any unpaved roads used for construction purposes, and all project construction parking areas. • Trucks will be washed off as they leave the right of way as necessary to control fugitive dust emissions. • Construction equipment and vehicles shall be properly tuned and maintained. Low-sulfur fuel shall be used in all construction equipment as provided in California Code of Regulations Title 17, Section 93114. • Develop a dust control plan documenting sprinkling, temporary paving, speed limits, and expedited revegetation of disturbed slopes as needed to minimize construction impacts to existing communities. • Locate equipment and materials storage sites as far away from residential and park uses as practical. Keep construction areas clean and orderly. • Cover all transported loads of soils and wet materials prior to transport, or provide adequate freeboard (space from the top of the material to the top of the truck) to reduce PM10 and deposition of particulate during transportation. • Remove dust and mud that are deposited on paved, public roads due to construction activity and traffic to decrease particulate matter. • To the extent feasible, route and schedule construction traffic to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times. • Install mulch or plant vegetation as soon as practical after grading to reduce windblown particulate in the area.
Construction Noise	The following measures shall be implemented to ensure that that construction

Resource	Avoidance/Minimization Measures
	<p>noise impacts remain minimal.</p> <ul style="list-style-type: none"> • All internal combustion engine–driven equipment would be equipped with intake and exhaust mufflers that are in good condition and appropriate for the equipment. • Unnecessary idling of internal combustion engines would be strictly prohibited. This includes idling of unattended vehicles and idling of more than 2 minutes for waiting trucks. • Property owners would be notified if the staging of construction equipment would need to occur within 200 feet of residences. Additionally, all stationary noise-generating construction equipment, such as air compressors and portable power generators, would be located as far as practical from existing noise-sensitive receptors. • Temporary barriers would be constructed to screen stationary noise-generating equipment when located immediately adjacent to noise-sensitive land uses. The barriers would be sufficient to reduce the noise level by a minimum 5 dBA. • “Quiet” air compressors and other stationary noise sources would be used where such technology exists and is feasible. Quiet technology may include the use of rotary screw air compressors (as opposed to noisier air-cooled reciprocating compressors) and equipment provided with factory-installed sound-attenuating enclosures. • Before construction begins, residences adjacent to construction areas would be notified of the construction schedule in writing. A noise disturbance coordinator, who would be responsible for responding to any local complaints about construction noise, would be designated by Caltrans or its contractor. The coordinator would determine the cause of any noise complaint and ensure that reasonable measures to correct the problem were implemented. A telephone number for the coordinator would be posted conspicuously at the construction site and included in the notice sent to neighbors about the construction schedule.
Emergency Services	<p>The following measures will be implemented to ensure public safety during construction.</p> <p>These measures include the following:</p> <ul style="list-style-type: none"> • The contract SSPs will require the contractor to coordinate with local emergency agencies/workers prior to construction and through construction. As part of this coordination, a plan for emergencies, to include any agreed upon detour plan, will be developed. • The Caltrans Construction Resident Engineer (RE) shall ensure the required emergency plan includes a plan to cease operations to allow the roadway to be used as an escape route in case of an emergency event such as forest fire. • When an emergency occurs, the RE and California Highway Patrol (CHP) have the authority and responsibility to suspend and modify work for the safety of the public. This is provided by the Public Safety Specifications in the Caltrans standard plans.

Appendix F Agency Concurrence / Correspondence



United States
Department of
Agriculture

Forest
Service

Lake Tahoe Basin Management
Unit

35 College Drive
South Lake Tahoe, CA 96150
(530) 543-2600

File Code: 2360-3

Date: October 12, 2007

Jody Brown
Chief, Office of Program Project Management S3
Caltrans, District 3
Office of Environmental Management
2800 Gateway Oaks Drive
Sacramento, CA 95833

Re: Finding of Effects and Draft Memorandum of Agreement, Proposed U.S. Highway 50 Improvement Project, Echo Summit, El Dorado County, CA; TB-2007-051, R2007051900089.

Dear Ms. Brown:

In response to your letter dated September 26, 2007 regarding your Finding of Effects and Draft Memorandum of Agreement (DMOA) for the proposed rock wall barriers replacement project at Upper Meyers Grade, U.S. Highway 50 at Echo Summit, Lake Tahoe Basin Management Unit's (LTBMU) Heritage Resources Program has reviewed this documentation. Based on this review, it is my opinion that Caltrans has appropriately assessed the affects the proposed undertaking will have on the Upper Meyers Grade, a property determined eligible for inclusion in the National Register of Historic Places (NRHP).

Furthermore, I believe that Caltrans has developed appropriate mitigative measures for the Upper Meyers Grade, as reflected in the DMOA, for the proposed project. Upon finalization of the Memorandum of Agreement, please forward the document to the LTBMU for my concurrence. I appreciate the opportunity to be of assistance to Caltrans in this proposed undertaking.

If you have any questions or need additional information, please contact Michael Weichman, Assistant Heritage Resources Program Manager, at (530) 543-2678.

Sincerely,

TERRI MARCERON
Forest Supervisor

cc: Heritage Resources



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

P.O. BOX 942896
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(916) 653-6624 Fax: (916) 653-9824
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October 24, 2007

Reply To: FHWA070712A

Gregory P. King, Chief
Cultural and Community Studies Office
Division of Environmental Analysis
Department of Transportation
PO Box 942874
Sacramento, CA 94274-0001

Re: Finding of Effect for the Proposed Improvements at Echo Summit, Highway 50, El Dorado County, CA

Dear Mr. King:

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)*.

The Federal Highway Administration (FHWA) is requesting my concurrence that the proposed project will have an adverse effect on historic properties, specifically the Upper Meyers Grade, a property previously determined eligible for the National Register of Historic Places under Criterion C at the state level of significance. Based on my review of the submitted documentation I concur.

Please consider these comments to be my comments under Public Resources Code 5024.5 as well. The Memorandum of Agreement written for this document in order to satisfy 36 CFR Part 800 will constitute prudent and feasible measures under 5024.5.

Thank you for considering historic properties as part of your project planning. If you have any questions, please contact Natalie Lindquist of my staff at your earliest convenience at (916) 654-0631 or e-mail at nlindquist@parks.ca.gov or Dwight Dutschke at (916) 653-9134 or ddutschke@parks.ca.gov.

Sincerely,

A handwritten signature in cursive script that reads "Susan K Stratton for".

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer



Preserving America's Heritage

August 1, 2008

Gregory P. King, Chief
Cultural and Community Studies Office
Division of Environmental Analysis
Department of Transportation
1120 N Street
P.O. Box 942874
Sacramento, CA 94274-0001

**REF: *Proposed Echo Summit Improvement Project on U.S. Highway 50
El Dorado County, California***

Dear Mr. King:

On July 31, 2008, the Advisory Council on Historic Preservation (ACHP) received the Memorandum of Agreement (MOA) for the above referenced project. In accordance with Section 800.6(b)(1)(iv) of the ACHP's regulations, the ACHP acknowledges receipt of the MOA. The filing of the MOA, and execution of its terms, completes the requirements of Section 106 of the National Historic Preservation Act and the ACHP's regulations.

We appreciate your providing us with a copy of this MOA and will retain it for inclusion in our records regarding this project. Should you have any questions or require additional assistance, please contact me at (202) 606-8509 or ljohnson@achp.gov.

Sincerely,

LaShavio Johnson
Historic Preservation Technician
Federal Permitting, Licensing and Assistance Section
Office of Federal Agency Programs

ADVISORY COUNCIL ON HISTORIC PRESERVATION

1100 Pennsylvania Avenue NW, Suite 803 • Washington, DC 20004
Phone: 202-606-8503 • Fax: 202-606-8647 • achp@achp.gov • www.achp.gov

Appendix G Memorandum of Agreement

**MEMORANDUM OF AGREEMENT
BETWEEN
THE CALIFORNIA DEPARTMENT OF TRANSPORTATION,
THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER, AND
THE UNITED STATES FOREST SERVICE
REGARDING THE PROPOSED IMPROVEMENT PROJECT
AT ECHO SUMMIT,
U.S. HIGHWAY 50, EL DORADO COUNTY, CALIFORNIA**

WHEREAS, the Federal Highway Administration (FHWA) has assigned and the California Department of Transportation (Caltrans) has assumed FHWA responsibility for environmental review, consultation, and coordination under the provisions of the *Memorandum of Understanding (MOU) between the Federal Highway Administration and the California Department of Transportation Concerning the State of California's Participation in the Surface Transportation Project Delivery Pilot Program*, which became effective on July 1, 2007 and applies to this project; and,

WHEREAS, the United States Forest Service (USFS) is the legal owner of the land underlying U.S. Highway 50 in the project area; and,

WHEREAS, the USFS, Lake Tahoe Basin Management Unit, has agreed that Caltrans will be the lead agency for compliance with the National Environmental Policy Act (NEPA), in accordance with the terms of the aforementioned MOU; and,

WHEREAS, Caltrans has determined that the proposed improvement project on U. S. Highway 50 (U.S. 50) between post miles 66.6 and 67.8 at Echo Summit, El Dorado County, California (Undertaking), will have an adverse effect on Upper Meyers Grade (historic property), which Caltrans has determined in consultation with the State Historic Preservation Officer (SHPO) to be eligible for inclusion in the National Register of Historic Places (National Register) and therefore historic properties as defined at 36 CFR§ 800.16(1)(1); and,

WHEREAS, Caltrans has consulted with the SHPO pursuant to Stipulations X.C.1 and XI of 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), and, where the PA so directs, in accordance with 36 CFR Part 800, the regulation that implements Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. 470f), as amended (NHPA), regarding the Undertaking's effect on historic properties, and has notified the Advisory Council on Historic Preservation (ACHP) of the adverse effect finding pursuant to 36 CFR§ 800.6(a)(1); and,

WHEREAS, Caltrans has thoroughly considered alternatives to the Undertaking, has determined that statutory and regulatory constraints on the design of the Undertaking preclude the possibility

of avoiding effects to the historic property during the Undertaking's implementation, and has further determined that it will resolve adverse effects of the undertaking on the subject historic property through the execution and implementation of this Memorandum of Agreement (MOA); and,

WHEREAS, Caltrans District 3 (District 3) and the United States Department of Agriculture – Forest Service, Lake Tahoe Basin Management Unit have participated in the consultation and have been invited to concur in this MOA;

NOW, THEREFORE, Caltrans and the SHPO agree that, upon Caltrans' decision to proceed with the Undertaking, Caltrans shall ensure that the Undertaking is implemented in accordance with the following stipulations in order to take into account the effects of the Undertaking on historic properties and further agree that these stipulations shall govern the Undertaking and all of its parts until this MOA expires or is terminated.

STIPULATIONS

Caltrans shall ensure that the following measures are carried out:

I. AREA OF POTENTIAL EFFECTS

- A.** The Area of Potential Effects (APE) for the Undertaking is depicted in Figure 3 of the *Finding of Effect for Proposed Improvement at Echo Summit, U.S. Highway 50, El Dorado County, California* (September 2007). The APE was established to include all cultural resources that would be directly or indirectly affected by the Undertaking. The APE includes the existing highway right-of-way between post miles 66.6 and 67.8. Julia Green, District 3 Professionally Qualified Staff and Ali Kiani, Project Manager, approved the APE map on July 3, 2007
- B.** If modifications to the Undertaking, subsequent to the execution of this MOA necessitate the revision of the APE, Caltrans will consult with District 3, the SHPO, and the USFS to facilitate mutual agreement on the subject revisions. If Caltrans, District 3, the SHPO, and the USFS cannot reach such agreement, then the parties of this MOA shall resolve the dispute in accordance with Stipulation IV.B below. If Caltrans, District 3, the SHPO, and the USFS reach mutual agreement on the proposed revisions, then Caltrans will submit a final map of the revisions, consistent with the requirements of stipulations VIII.A and XVI.A of the PA, no later than 30 days following such agreement.

II. TREATMENT OF HISTORIC PROPETIES

A. Design of New Concrete Barriers

- 1. The new concrete barriers will closely resemble the appearance of the existing rock wall parapets in color and texture. Molds of intact portions of the existing structure will be used to form the concrete barriers. Stains and/or dyes will be used on the concrete to

imitate the color of the existing stone. The outboard side of the new barrier will be vertical and flush with the existing surface of the rock retaining wall. In addition to materials, the concrete barrier will differ from the existing parapet, as follows:

- a. The shape of the inboard side will slope slightly, narrowing at the top; and,
- b. The relief of the textured concrete surface will be limited to 5/8 of an inch to achieve safety standards.

2. Signatory parties will have the opportunity to review and approve a prototype wall.

B. Replacement of Cross Culverts through Rock Retaining Walls

If Caltrans determines that replacement, rather relining, of the culverts is required, Caltrans will ensure that the contractor reuses the original materials to rebuild the wall to match its current appearance.

III. DISCOVERIES AND UNANTICIPATED EFFECTS

If Caltrans determines after construction of the Undertaking has commenced that the Undertaking will affect a previously unidentified property that may be eligible for the National Register, or affect a known historic property in an unanticipated manner, Caltrans will address the discovery or unanticipated effect in accordance with 36 CFR § 800.13(b)(3). Caltrans at its discretion may hereunder assume any discovered property to be eligible for inclusion in the National Register in accordance with 36 CFR § 800.13(c).

IV. ADMINISTRATIVE STIPULATIONS

A. Standards

1. **Professional Qualifications.** All activities prescribed by stipulations I, II, III, IV and V of this MOA shall be carried out under the authority of Caltrans by or under the direct supervision of a person or persons meeting at a minimum the Secretary of Interior's Standards *Professional Qualifications Standards* (48 FR 44738-39, September 29, 1983) (PQS) in the appropriate disciplines. However, nothing in this stipulation may be interpreted to preclude Caltrans or any agent or contractor thereof from using the properly supervised services of persons who do not meet the PQS.
2. **Historic Preservation Standards.** Written documentation of activities prescribed by stipulations I, II, III, IV and V of this MOA shall conform to the *Secretary of the Interior's Guidelines for Archaeology and Historic Preservation* (48 FR 44716-44740) as well as applicable standards and guidelines established by the SHPO.

B. Resolving Objections

1. Should any MOA party object to the manner in which the terms of this MOA are implemented, to any action carried out or proposed with respect to implementation of the MOA (other than the Undertaking itself), or to any documentation prepared in accordance with and subject to the terms of this MOA, Caltrans shall immediately notify the other MOA parties of the objection and consult with the objecting party and the other parties to this MOA for no more than 14 days to resolve the objection. Caltrans shall reasonably determine when this consultation will commence and may extend this consultation period. If the objection is resolved through such consultation, the action in dispute may proceed in accordance with the terms of that resolution. If, after initiating such consultation, Caltrans determines that the objection cannot be resolved through consultation, then Caltrans shall forward all documentation relevant to the objection to the ACHP, including Caltrans' proposed response to the objection, with the expectation that the ACHP will, within thirty (30) days after receipt of such documentation:
 - a. advise Caltrans that the ACHP concurs in Caltrans' proposed response to the objection, whereupon Caltrans will respond to the objection accordingly. The objection shall thereby be resolved; or,
 - b. provide Caltrans with recommendations, which Caltrans will take into account in reaching a final decision regarding its response to the objection. The objection shall thereby be resolved; or,
 - c. notify Caltrans that the objection will be referred for comment pursuant to 36 CFR §800.7(c), and proceed to refer the objection and comment. Caltrans shall take the resulting comments into account in accordance with 36 CFR § 800.7(c)(4) and Section 110(1) of the NHPA. The objection shall thereby be resolved.
2. Should the ACHP not exercise one of the aforementioned options within 30 days after receipt of all pertinent documentation, Caltrans may assume the ACHP's concurrence in its proposed response to the objection. The objection shall thereby be resolved.
3. Caltrans shall take into account any ACHP recommendation or comment provided in accordance with section B.1 of this stipulation with reference only to the subject of the objection. Caltrans' responsibility to carry out all actions under this MOA that are not the subject of the objection will remain unchanged.
4. At any time during implementation of the measures stipulated in this MOA, should an objection pertaining to such implementation be raised by a member of the public, Caltrans shall notify the MOA parties in writing of the objection and take the objection into consideration. Caltrans shall consult with the objecting party and, if the objecting party so requests, with the other MOA parties for no more than fifteen

(15) days. Within ten (10) days following closure of this consultation period, Caltrans will render a decision regarding the objection and notify all consulting parties of its decision in writing. The objection will thereby be resolved. In reaching its decision, Caltrans will take into account any comments from the consulting parties regarding the objection, including the objecting party. Caltrans' decision regarding the resolution of the objection will be final.

5. Caltrans shall provide all MOA parties, the ACHP, when the ACHP has issued comments hereunder, and any parties that have objected pursuant to section C.4 of this stipulation with a copy of its final written decision regarding any objection addressed pursuant to this stipulation.
6. Caltrans may authorize any action subject to objection under section B of this stipulation to proceed after the objection has been resolved in accordance with the terms of section B.

C. Amendments

Any MOA party may propose that this MOA be amended, whereupon the MOA parties will consult for no more than 30 days to consider such amendment. Caltrans may extend this consultation period. The amendment process shall comply with 36 CFR §800.6(c)(1) and 800.6(c)(7). This MOA may be amended only upon the written agreement of the signatory parties. If it is not amended, this MOA may be terminated by either signatory party in accordance with section D of this stipulation.

D. Termination

1. If this MOA is not amended as provided for in section C of this stipulation, or if either signatory party proposes termination of this MOA for other reasons, the signatory party proposing termination shall, in writing, notify the other MOA parties, explain the reasons for proposing termination, and consult with the other parties for at least 30 days to seek alternatives to termination. Such consultation shall not be required if Caltrans proposes termination because the Undertaking no longer meets the definition set forth in 36 CFR § 800.16(y).
2. Should such consultation result in an agreement on an alternative to termination, then the MOA parties shall proceed in accordance with the terms of that agreement.
3. Should such consultation fail, the signatory party proposing termination may terminate this MOA by promptly notifying the other MOA parties. Termination hereunder shall render this MOA without further force or effect.
4. If this MOA is terminated hereunder, and if Caltrans determines that the Undertaking will nonetheless proceed, then Caltrans shall comply with the requirements of 36 CFR 800.3-800.6.

E. Duration of the MOA

1. Unless terminated pursuant to section D of this stipulation, or unless superceded by an amended MOA, this MOA will be in effect following execution by the signatory parties until Caltrans, in consultation with the other MOA parties, determines that all of its stipulations have been satisfactorily fulfilled. This MOA will terminate and have no further force or effect on the day that Caltrans notifies the other MOA parties in writing of its determination that all stipulations of this MOA have been satisfactorily fulfilled.
2. The terms of this MOA shall be satisfactorily fulfilled within six (6) years following the date of execution by the signatory parties. If Caltrans determines that this requirement cannot be met, the MOA parties will consult to reconsider its terms. Reconsideration may include continuation of the MOA as originally executed, amendment of the MOA, or termination. In the event of termination, Caltrans will comply with section D.4 of this stipulation if it determines that the Undertaking will proceed notwithstanding termination of this MOA.
3. If the Undertaking has not been implemented within six (6) years following execution of this MOA by the signatory parties, this MOA shall automatically terminate and have no further force or effect. In such event, Caltrans shall notify the other MOA parties in writing and, if it chooses to continue with the Undertaking, shall reinstate review of the Undertaking in accordance with 36 CFR Part 800.

F. Effective Date

This MOA will take effect on the date that it has been executed by Caltrans and the SHPO.

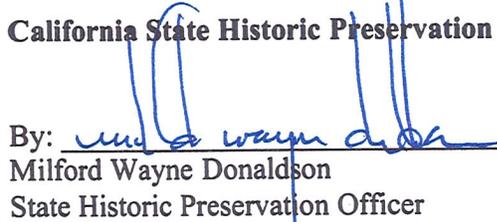
EXECUTION of this MOA by Caltrans, the SHPO, and the USFS, its transmittal by Caltrans to the ACHP in accordance with 36 CFR § 800.6(b)(1)(iv), and subsequent implementation of its terms, shall evidence, pursuant to 36 CFR § 800.6(c), that this MOA is an agreement with the ACHP for purposes of Section 110(1) of the NHPA and shall further evidence that Caltrans has afforded the ACHP an opportunity to comment on the Undertaking and its effect on historic properties, and that Caltrans has taken into account the effects of the undertaking on historic properties.

SIGNATORY PARTIES:

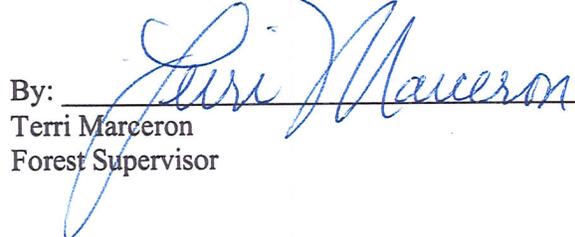
California Department of Transportation

By:  Date: 7/10/08
Jay Norvell, Chief
Division of Environmental Analysis

California State Historic Preservation Officer

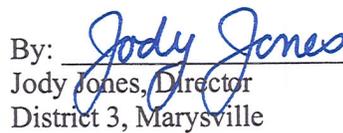
By:  Date: 15 JUL 2008
Milford Wayne Donaldson
State Historic Preservation Officer

United States Forest Service, Lake Tahoe Basin Management Unit

By:  Date: 7-3-08
Terri Marceron
Forest Supervisor

CONCURRING PARTY:

California Department of Transportation

By:  Date: 7/17/08
Jody Jones, Director
District 3, Marysville

Appendix H Project Photographs (Existing and Proposed)

Photos of Existing Conditions



Photo 1. Rockwall Sidehill 1, view southeast (DSCN1872).



Photo 2. Rockwall Sidehill 2, view southeast (DSCN1873).



Photo 3. Johnson Pass Sidehill, view southwest (DSCN1875).



Photo 4. Johnson Pass Sidehill, view south (DSCN1877).



Photo 5. Johnson Pass Sidehill, view north (DSCN1878).



Photo 6. Midway Sidehill, view southeast (DSCN1879).



Photo 7. Midway Sidehill, view south (DSCN1880).



Photo 8. Meyers Grade Sidehill, north end, view south (DSCN1883).



Photo 9. Meyers Grade Sidehill, damage at south end, view southeast (DSCN1885).



Photo 10. Lauren's Lookout Sidehill, view southeast (DSCN1886).



Photo 11. Lauren's Lookout Sidehill, view south (DSCN1887).



Photo 12. Lauren's Lookout Sidehill, damage at midpoint, view northeast (DSCN1888).



Photo 13. Robbin's Run Sidehill, view south (DSCN1890).



Photo 14. Robbin's Run Sidehill, view southeast (DSCN1891).

Photo Simulation of Proposed Wall Barrier



Echo Summit - Photo simulation of the proposed wall barrier - viewing it from the highway.



Echo Summit - Photo simulation of the proposed wall barrier - viewing the outside of the wall.

Appendix I Project Layout Sheets

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	66/67		

KEN MENKVELD
 REGISTERED CIVIL ENGINEER DATE _____

PLANS APPROVAL DATE _____

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.



NOTES:
 1. FOR COMPLETE RIGHT OF WAY ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
 2. A PORTION OF THE ECHO SUMMIT MAINTENANCE STATION WILL BE AVAILABLE FOR THE CONTRACTOR'S USE.
 3. METAL BEAM RAIL TERMINAL SYSTEM (TYPE SRT) WILL BE ABRIVIATED TO SRT.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

FUNCTIONAL SUPERVISOR
ISAM TABSHOURI

REVISOR BY
DATE REVISED

CALCULATED-DESIGNED BY
CHECKED BY

ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN

LAYOUT

SCALE 1 INCH = 50 FEET **L-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR ISAM TABSHOURI
 REVISIONS: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED	50	66/67		

KEN MENKVELD
 REGISTERED CIVIL ENGINEER DATE _____
 PLANS APPROVAL DATE _____
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.



NOTES:
 1. FOR COMPLETE RIGHT OF WAY ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

MATCH LINE L-1

MATCH LINE L-1



MATCH LINE L-3

MATCH LINE L-3

ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN

LAYOUT

SCALE 1INCH = 50 FEET **L-2**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	66/67		

KEN MENKVELD
REGISTERED CIVIL ENGINEER DATE _____

PLANS APPROVAL DATE _____

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

CURVE DATA

No.	R	Δ	T	L
5	535.00'	36°42'16"	177.48'	342.73'
6	450.00'	23°12'41"	92.42'	182.30'
7	300.00'	38°53'40"	105.92'	203.65'
8	435.00'	29°24'02"	114.12'	223.22'

NOTES:
1. FOR COMPLETE RIGHT OF WAY ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.



+62.3 CONFORM
END AC OVERLAY (TYPE A)
END COLD PLANE AC PVMT

+59.3 CONFORM
BEGIN AC OVERLAY (TYPE A)
BEGIN COLD PLANE AC PVMT

+61.4 END RECONSTRUCT MBGR

+61.1 BEGIN RECONSTRUCT MBGR

+86.2 BEGIN RECONSTRUCT MBGR

+85.3 END REPLACE PARAPET
(SEE STRUCTURE PLANS)

BARRIER RAIL SLAB
(SEE STRUCTURE PLANS)

+75.1 BEGIN REPLACE PARAPET
(SEE STRUCTURE PLANS)

+73.4 END RECONSTRUCT MBGR

BARRIER RAIL SLAB
(SEE STRUCTURE PLANS)

+75.5 END REPLACE PARAPET
(SEE STRUCTURE PLANS)

+79.6 BEGIN RECONSTRUCT MBGR

+20.3 END RECONSTRUCT MBGR

+21.5 BEGIN REPLACE PARAPET
(SEE STRUCTURE PLANS)

+35.3 END REPLACE PARAPET
(SEE STRUCTURE PLANS)

+38.5 BEGIN RECONSTRUCT MBGR

BARRIER RAIL SLAB
(SEE STRUCTURE PLANS)

ALL DIMENSIONS ARE IN FEET
UNLESS OTHERWISE SHOWN

LAYOUT
SCALE 1 INCH = 50 FEET **L-3**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

FUNCTIONAL SUPERVISOR
ISAM TABSHOURI

REVISIONS:

NO.	DATE	BY	REVISION



USERNAME => s135818
DGN FILE => 03_1E14U1ea003.dgn

CU 00000 EA 000000

DATE PLOTTED => 03-DEC-2008
TIME PLOTTED => 13:46
LAST REVISION: 00-00-00

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	ED	50	66/67		

KEN MENKVELD
 REGISTERED CIVIL ENGINEER DATE _____
 PLANS APPROVAL DATE _____
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.



NOTES:
 1. FOR COMPLETE RIGHT OF WAY ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE

No.	R	Δ	T	L
(8)	435.00'	29°24'02"	114.12'	223.22'
(9)	600.00'	27°40'51"	147.82'	289.87'
(10)	385.00'	59°36'13"	220.51'	400.51'



ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN

LAYOUT
 SCALE 1INCH = 50 FEET **L-4**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 Caltrans

FUNCTIONAL SUPERVISOR
 ISAM TABSHOURI

CALCULATED-DESIGNED BY
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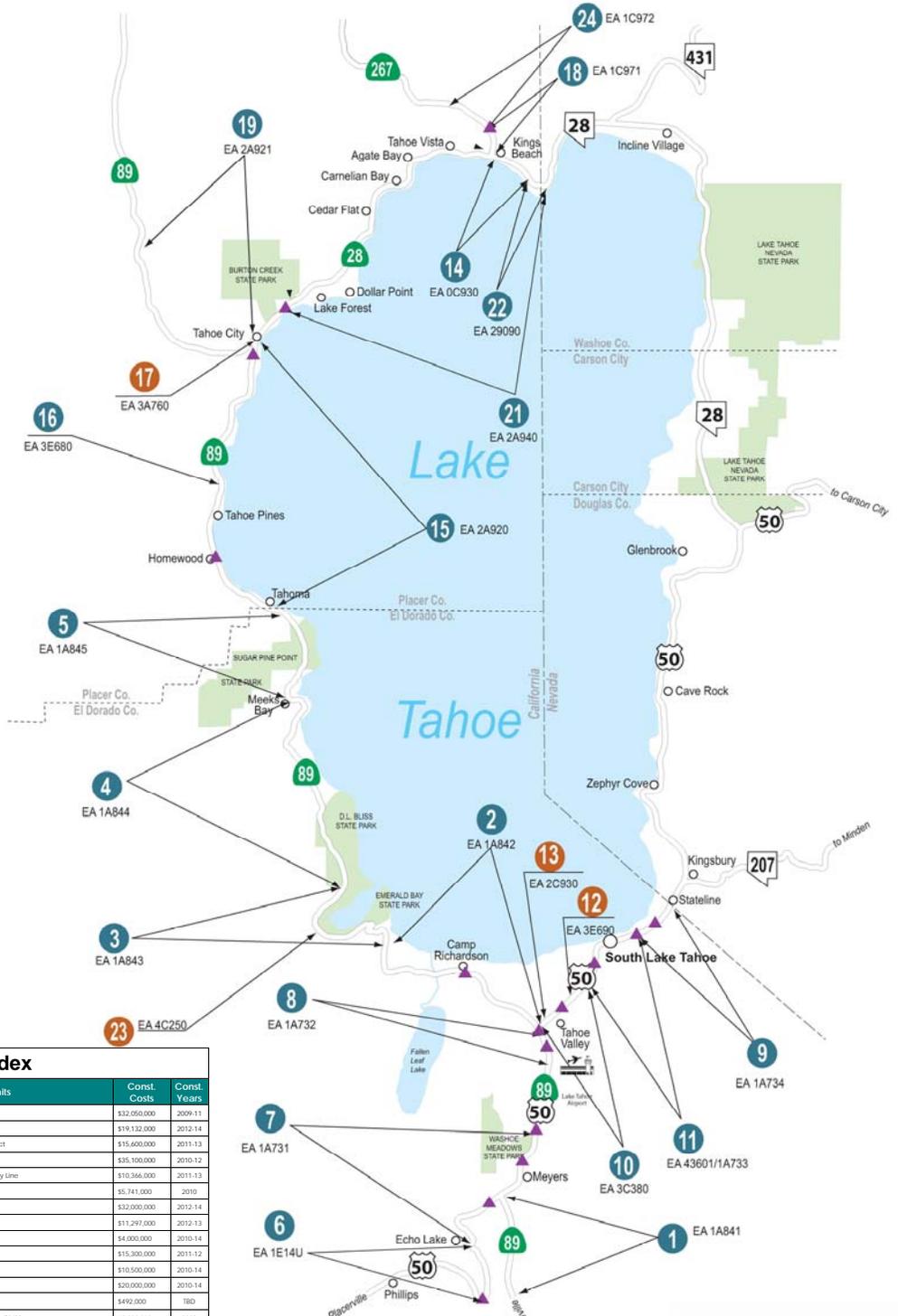
REVISED BY
 DATE REVISED

Appendix J Maps of Planned Caltrans Projects in the Tahoe Basin and I-80 corridor



State Highway Projects in the Tahoe Basin

Caltrans Improves Mobility Across California



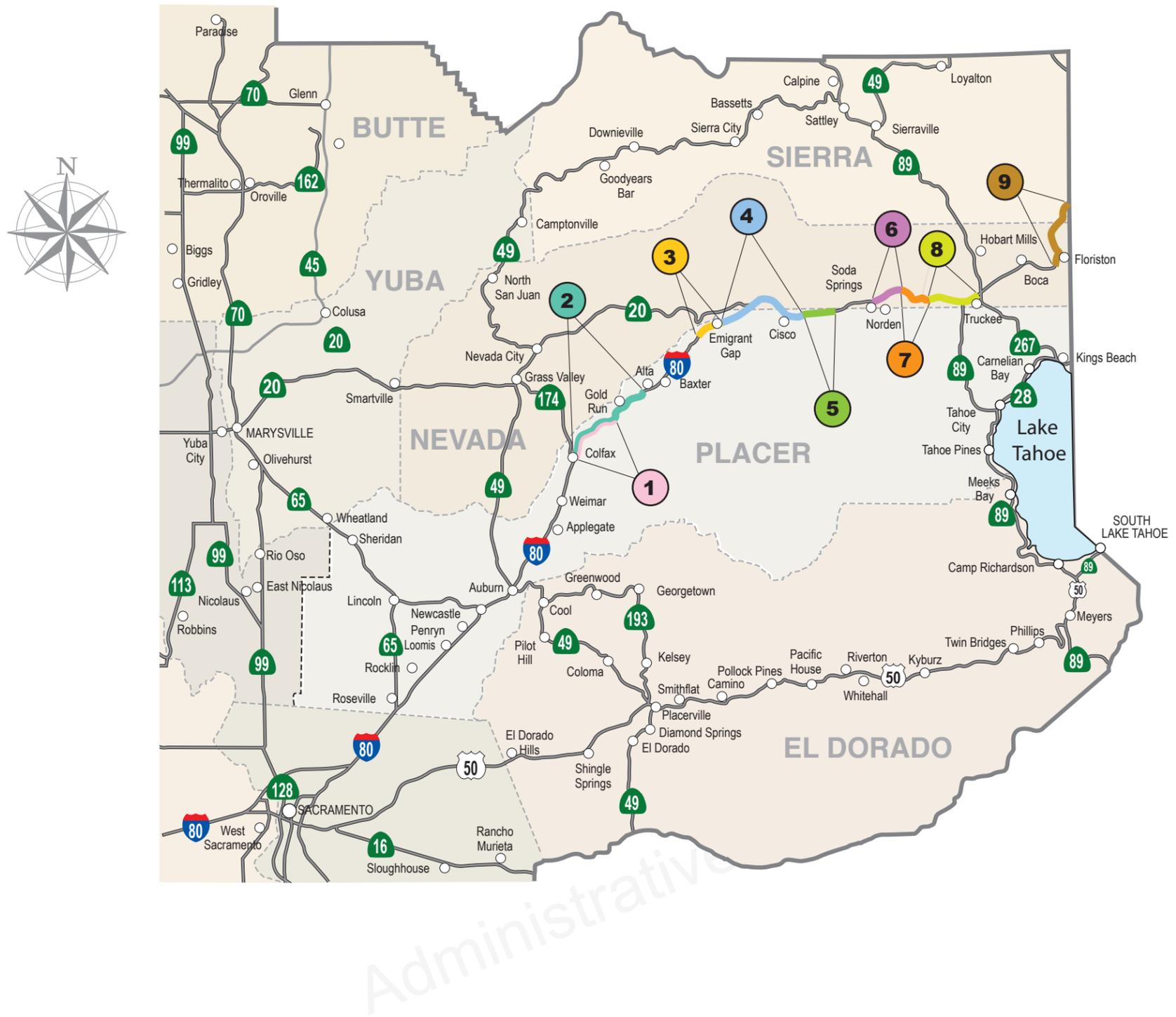
Tahoe Basin Project Index

Project ID/Postmile	Type of Work	Project Limits	Const. Costs	Const. Years
1 1A841 ED-89 0.0/8.6	Water Quality Improvements	Alpine County Line to State Route 50	\$32,050,000	2009-11
2 1A842 ED-89 8.6/13.8	Water Quality Improvements	Junction State Route 50/89 to Cascade Rd.	\$19,132,000	2012-14
3 1A843 ED-89 13.8/18.0	Water Quality Improvements	Cascade Road to north of Eagle Falls Viaduct	\$15,600,000	2011-13
4 1A844 ED-89 18.0/24.9	Water Quality Improvements	North of Eagle Falls Viaduct to Meeks Creek	\$35,100,000	2010-12
5 1A845 ED-89 24.9/27.4	Water Quality Improvements	Improvements Meeks Creek to Placer County Line	\$10,366,000	2011-13
6 1E140 ED-50 66.7/67.8	Upgrade Rock Barrier & Water Quality	0.1 mile to 1.3 miles east of Echo Summit	\$5,741,000	2010
7 1A731 ED-50 67.7/72.9	Water Quality Improvements	Meyers Road to Incline Road	\$32,000,000	2012-14
8 1A732 ED-50 73.7/75.4	Water Quality Improvements	South Lake Tahoe Airport to Junction State Route 50/89	\$11,297,000	2012-13
9 1A734 ED-50 79.3/80.4	Water Quality Improvements	Sk Run Blvd. to State Line	\$4,000,000	2010-14
10 1C380 ED-50 75.4/77.3	Water Quality Improvements	Junction 50/89 to Trout Creek	\$15,300,000	2011-12
11 43601 ED-50 77.3/79.3	Streetscape/Drainage Improvements	Trout Creek to Ski Run Blvd.	\$10,500,000	2010-14
12 1A733 ED-50 77.3/79.3	Water Quality Improvements	Trout Creek to Ski Run Blvd.	\$20,000,000	2010-14
13 3E690 (new EA) ED-50 76.7	Signal Improvement	Siena Blvd.	\$492,000	TBD
14 1C970 (new EA) ED-50 25.4	Traffic Improvements	South Lake Tahoe "Y" at Junction State Route 50/89	\$2,200,000	2008
15 1C930 PLA-28 9.3/10.2**	Streetscape/Drainage Improvements	Route 267 to Chipmunk Street	\$31,300,000	2009-12
16 2A920 PLA-89 0.0/8.6	Water Quality Improvements	El Dorado County Line to Junction 89/28	\$49,000,000	2011-13
17 3E680 (new EA pending approval) EA-89 4.2/5.2	Water Quality Improvements	.2 mile north of Elizabeth Drive to .1 mile south of Sugar Pine Rd.	\$450,000	2012
18 3A760 PLA-89 15.0/4.1**	Resign/Replace	Fanny Bridge: 0.9 mile South of Fanny Bridge to 0.9 mile North of Fanny Bridge	TBD	TBD
19 1C971 PLA-267 8.3/9.9	Water Quality Improvements	From Stewart Way to Junction 267/28	\$10,102,000	2009-10
20 2A921 PLA-89 8.6/13.7	Water Quality Improvements	Junction 89/28 to Squaw Valley Road	\$24,900,000	2008-10
21 2A940 PLA-28 0.0/9.4	Water Quality Improvements	Tahoe State Park to Route 267 and Chipmunk Street to Nevada State Line	\$47,000,000	2008-12
22 2A960 PLA-28 10.2/11.0	Water Quality Improvements	Chipmunk Street to Nevada State Line	\$2,921,000	2007
23 1C250 ED-89 16.6/16.7	Rock Wall Repair	Emerald Bay Viaduct	\$1,459,000	2007
24 1C972 PLA-267 7.3/8.1	Water Quality Improvements	0.6 mile South of Backway Summit to Stewart Way	\$2,800,000	2007
1C111 ED, PLA-VAR-VAR	Install Traffic Operation System	Various Locations on Routes 28, 50, 89, and 267	\$4,100,000	2008-09

LEGEND
● Water Quality Improvement Project
● Non-Water Quality Improvement Project

Water Quality Improvement Project
 Non-Water Quality Improvement Project
 * City of South Lake Tahoe is Lead Agency
 ** Placer County is Lead Agency
 *** Tahoe Regional Planning Agency is Lead Agency

I-80 Corridor Improvement Plan Proposed Projects



Project Information

Map Location	EA	County Route	P.M.	Name	Project Description	Project Limit	Begin Construction	End Construction	Cost in millions of \$
1	1A790	Pla-80	33.3/39.0	Colfax Narrows	Rehab and Widen	Near Colfax, from 0.2 mile east of Route 174 to Magra OH	TBD	TBD	200
2	3E040	Pla-80	33.3/44.6	Colfax/ Gold Run III	Digouts and AC Overlay	5 mi. east of Colfax from Secret Town OC to Alta Rd. UC	2009	2010	70 *
3	4A700	Pla-80	54.4/56.4	Nyack Rehab	PCC Overlay	Near Emigrant Gap from Putts Lake UC to Carpenter Flat UC	2008	2010	26.6
4	2C860	Pla-80	56.1/66.3	Emigrant Gap	PCC Lane Replacement	From Carpenter Flat UC to Hampshire Rocks UC	2010	2012	167 *
5	0C770	Pla-80	66.3/68.5	Rainbow Rehab	PCC Overlay	Near Kingvale from Hampshire Rocks UC to Troy UC	2008	2010	31.5
6	0A632	Nev-80	R2.5/R5.6	Donner 2	PCC Overlay	From Soda Springs OC to west of Donner Summit	2007	2009	71
7	0A633	Nev-80	R5.6/R11.5	Donner 3	PCC Lane Replacement	From Donner Summit to west of Donner Park OC	2009	2012	78
8	0A631	Nev-80	R9.2/R13.6	Donner 1	PCC Overlay	In Truckee from east of Donner Lake UC to east of West Truckee UC	2008	2010	71
9	3A220	Nev-80 Sie-80	28.1/31.8 0.0/1.6	Truckee River Canyon	PCC Lane Replacement	Near Floriston from the Truckee River Bridge to the Nevada State Line	2009	2012	73 *

* Garvee-Bond Funded



Appendix K List of Technical Studies that are Bound Separately

Air Quality Report

Noise Study Report

Water Quality Report

Natural Environment Study

Location Hydraulic Study

Historical Property Survey Report

- Historic Resource Evaluation Report
- Historic Architectural Survey Report
- Archaeological Survey Report
- Finding of Effect
- Memorandum of Agreement

Hazardous Waste Reports:

- Initial Site Assessment
- Preliminary Site Investigation (Geophysical Survey)

Visual Impact Assessment

Community Impact Analysis