MONTEREY COUNTY PLANNING COMMISSION

Meeting: April 8, 2009. Time: *10:00 A.M.*	**Agenda Item No.:** 4
Project Description: Combined Development Permit Consisting of 1) A Coastal Development Permit to allow the construction of a 525 foot long bridge at Pitkins Curve and a 240 foot long rock shed at Rain Rocks over Highway 1 for the purpose of rock fall and landslide mitigation including approximately 25,000 cubic yards of grading; 2) A Coastal Development Permit for development on slopes greater than 30%; 3) A Coastal Development Permit to allow development within the critical viewshed; 4) A Coastal Development Permit to allow development with the potential to cause a significant environmental impact; and 5) A Design Approval.	
Project Location: State Route 1, Big Sur between Post Mile 21.3 and 21.6 just north of Limekiln State Park	**APN:** Public Road right-of-way
Planning File Number: PLN080218	**Name:** California Department of Transportation (Caltrans), Applicant
Plan Area: Big Sur Land Use Plan	**Flagged and staked:** Staked
Zoning Designation: : WSC/40 (CZ) [Watershed and Scenic Conservation, 40 acres per unit (in the Coastal Zone)]	
CEQA Action: EIR	
Department: RMA - Planning Department	

RECOMMENDATION:
Staff recommends that the Planning Commission:

1. Consider the Final Environmental Impact Report (EIR) prepared by the California Department of Transportation (Caltrans) **(Exhibit E)**;
2. Adopt a Statement of Overriding Considerations and approve the Development Permit for the new bridge and rock shed on Highway 1, based on the Findings and Evidence **(Exhibit B)** and subject to the recommended Conditions **(Exhibit C)**, and
3. Approve the Condition Compliance and Mitigation Monitoring Reporting Plan **(Exhibit C & D).**

PROJECT SUMMARY:
The California Department of Transportation (Caltrans) and the Federal Highway Administration propose to build a new bridge at Pitkins Curve and a rock shed at the northern chute of Rain Rocks on Highway 1 between Post Miles 21.3 and 21.6, just north of Limekiln State Park, in Monterey County. This project is proposed to improve:

1) The safety and reliability of Highway 1, which is the only direct coastal link between San Simeon in San Luis Obispo County and Carmel;
2) Reduce cost associated with continued maintenance of this stretch of highway; and
3) Protect highway workers at Pitkins Curve and Rain Rocks from hazardous working conditions also associated with continued maintenance of the road in this area.

Unpredictable and extensive landslides repeatedly occur at the Pitkins Curve/Rain Rocks site which ultimately requires road closures and expensive and dangerous clean-up efforts. According to Caltrans, restoration and maintenance at Pitkins Curve and Rain Rocks costs more than in any other location along the Big Sur Coast (Estimated over $1 million/year). The proposed improvements will alleviate significant amounts of highway closures and clean-up

efforts; however, there are some significant impacts to consider because of the extraordinary location and qualities of the area in which the project is located.
Staff's review of the proposed project focused on consistency with the Big Sur Land Use Plan, the California Coastal Act, and review of the project pursuant to the requirements of CEQA. Issues identified include Visual Resources, Hazardous Area Development, Public Services and Recreation, Community Resources for transportation and temporary construction impacts, and Biological Resources. Ultimately, the project was found to be consistent with the applicable land use documents as designed and mitigated.

Due to the aesthetic impacts of the project, Caltrans, as "lead agency", prepared and certified an Environmental Impact Report (EIR) on October 16, 2006 (**Exhibit E**) pursuant to the California Environmental Quality Act (CEQA). The County is a "Responsible Agency" because of its permitting authority. As the decision-making body of a Responsible Agency, the Planning Commission must certify that it reviewed and considered the information contained in the Lead Agency's (Caltrans) environmental documents including the statement of overriding considerations and affirm the conclusions therein prior to acting upon or approving the project.

As part of the EIR mitigation measures were identified to reduce or avoid some potentially significant effects on the environment. Staff, throughout the project, has participated and commented on the EIR, reviewed the Final EIR and the proposed mitigations, and has considered the Alternatives analyzed in the project. For a more detailed discussion and analysis of the project refer to **Exhibit A.**

OTHER AGENCY INVOLVEMENT:

- ✓ California Department of Forestry (South Coast)
- ✓ California Department of Transportation, District 5
- ✓ Public Works Department
- ✓ Parks Department
- ✓ Environmental Health Division
- ✓ Water Resources Agency
- ✓ Regional Water Quality Control Board
- ✓ Monterey Bay National Marine Sanctuary
- ✓ U.S. Fish & Wildlife Services
- ✓ Monterey County Sheriff's Office
- ✓ California Coastal Commission

The above checked agencies and departments have reviewed this project. Conditions recommended by Caltrans, the Sheriff's Office, and the Monterey County Planning Department have been incorporated into the condition compliance reporting plan **(Exhibit C)**.

LAND USE ADVISORY COMMITTEE:
Two committees were involved in the review and recommendation for this project. First, the Big Sur LUAC and the South Coast LUAC jointly reviewed the project because of the nature of the Big Sur community and of the project, which could have indirect impacts on tourism and business. Because the project site is within the South Coast LUAC boundary, those LUAC members made a recommendation on the project. Areas of concern are described generally in the LUAC minutes to include a concern about traffic control. Ultimately the LUAC recommended approval of the project by a vote of 3-0.

Also involved in the review and recommendation process was the Aesthetic Design Advisory Committee (ADAC) which was established as mitigation for this project. The ADAC consisted of representative's from Caltrans, Monterey County Planning Department, the Coastal Commission, both LUACs, the Big Sur Chamber of Commerce, State Parks, and any other interested parties wishing to attend. The role of the ADAC was to help define the visual issues and aid in the

development of a final design. **Exhibit M** is attached outlining ADAC meeting dates and a summary of those meetings.

Note: The decision on this project is appealable to the Board of Supervisors and the California Coastal Commission.

Craig W. Spencer
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March 5, 2009

cc: Front Counter Copy; California Coastal Commission; Planning Commission Members (10); County Counsel; California Department of Forestry (Coastal); Public Works Department; Parks Department; Environmental Health Division; Water Resources Agency; Sheriff's Office; Monterey Bay National Marine Sanctuary; Big Sur Chamber of Commerce; San Luis Obispo County Planning Department; Laura Lawrence, Planning Services Manager; Craig Spencer, Planner; Carol Allen; California Department of Transportation District 5, Applicant; Cecilia Boudreau, Agent; File PLN080218.

Attachments:

Exhibit A	Project Discussion
Exhibit B	Recommended Findings and Evidence
Exhibit C	Recommended Conditions of Approval
Exhibit D	California Department of Transportation Project Findings Pursuant to the California Environmental Quality Act and Mitigation Monitoring and Reporting Plan
Exhibit E	CD containing the Final Environmental Impact Report (EIR) Adopted by the California Department of Transportation (Previously Sent to Planning Commissioners on March 11, 2009)
Exhibit F	Vicinity Map
Exhibit G	Project Plans
Exhibit H	LUAC Minutes
Exhibit I	Statement of Overriding Considerations
Exhibit J	Design information including photo simulations
Exhibit K	Natural Environment Study
Exhibit L	Transportation Management Plan
Exhibit M	Aesthetic Design Advisory Committee information

This report was reviewed by Laura Lawrence, Planning Services Manager

EXHIBIT A
PROJECT DISCUSSION
PLN080218 (Caltrans –Pitkins Curve/Rain Rocks)

I. PROJECT SETTING, DESCRIPTION, AND NEED:

Setting

The site is located on Highway 1, just north of Limekiln State Park, between Post Mile 21.3 and 21.6 in Big Sur. The area of the project is commonly referred to as Pitkins Curve and Rain Rocks. This area includes a portion on State Route 1 that is into a bluff that traverses a steep coastal mountain springing almost vertically from the Pacific Ocean below to the ridge top above. Pitkins Curve is an inward (east) jog in the road that has obvious scarring from landslide activity both above and below the road. Just as the landslide scarring transitions to a more natural appearing rock and cliff formation on the southern side of the landslide is Rain Rocks. Rain Rocks is a nearly vertical granite rock formation that towers above Highway 1 on the inland side and continues down to the Pacific Ocean on the western side. Evidence of rock fall activity can be seen along the bluff all the way to Ocean. Currently, at Pitkins Curve, there is a large berm constructed on the inland side of the road. At the Rain Rocks location, there is cable mesh and rock fall netting previously installed on the inland side of the road.

Because of the active geology at this site, there is little native vegetation. Some segments and individual plants were found in the survey area including pockets of coastal scrub and one individual buckwheat plant. Non-native plants such as Kikuyu grass and pampas grass are growing in and around the project site. The drainage system associated with the highway includes two culverts that collect water from uphill and direct it under the highway to the bluff above the Pacific Ocean. The setting of the project site expands beyond the physical location of the proposed structures to include the use of several turnout areas near the project site. Existing turnouts that may be used for the project extend up to 1 mile north of the project site. These turnouts were included in the study area.

The site is zoned Watershed and Scenic Conservation in the Coastal Zone. Limekiln State Park is located approximately 2,200 feet south of the proposed rock shed and the Camaldolese Hermitage retreat is approximately 7,100 feet to the north. Other than the visual scaring from active land movement, the site is typical of this stretch of highway with soaring coastal mountains and vast Ocean Views.

Project Description

The selected project (Alternative 1) consists of a new 525 foot long bridge at Pitkins Curve and a new 240 foot long rock shed at the northern chute of Rain Rocks. The other Alternatives analyzed include the construction of only the bridge (Alternative 2) and the no-build alternative (Alternative 3). The project would relocate and straighten the Highway 1 at Pitkins Curve away from the active landslide by spanning the area with a bridge then tying it back in with the existing roadway. Just south of the new bridge would be a rock shed structure that would act to protect motorists and the highway itself from falling debris and boulders. The rock shed will protrude out from the face of the inland cliff covering the highway with a shed roof that will be supported on the western side of the road by large columns connected by arches. The road would remain a two-lane road but would be reconstructed to maintain 12-foot wide lanes and 4-foot wide shoulders throughout the project site. Guardrails will be installed along the bridge and rock shed, drainage systems will be removed, two telephone poles would be relocated under ground,

the existing cable mesh will be removed, and approximately half of the rock netting will be removed.

The proposed bridge and rock shed would be large structures and building them involves time and presents challenges. Caltrans estimates that the bridge and rock shed would take between 4.1 and 5.7 years to construct, in contrast to just the bridge that is estimated to take between 3.0 and 3.7 years. Large amounts of grading would also be necessary. An estimated 25,000 cubic yards of cut will be balanced at the site for backfill, for finishing the surfaces of the rock shed, and re-contouring. Construction operations for the project would require a phased approach. A description of the activities expected to occur in the six expected phases of construction can be found in **Exhibit G**. Essentially there would be some temporary realignment of roads, creation of working areas, grading, construction of structures, backfilling, restoration of temporary roads and working areas and finally opening of the new bridge and roadway alignment. Traffic controls and many other maintenance activities will also be associated with the construction of the project.

Need for the Project

Caltrans has identified the need for landslide and rock fall management at the Pitkins Curve and Rain Rocks site years ago. The 2003 Coast Highway Management Plan acknowledges this area as having the highest level of landslide activity from San Carpoforo Creek to Point Lobos. According to Caltrans, on average over $1 million is spent per year, to conduct clean-up efforts from debris and rock fall events in this area. Falling rocks cause hazardous and unsafe driving conditions for motorists and for maintenance workers who are cleaning the debris from the roadway. To date, three vehicles traveling through Pitkins Curve/Rain Rocks have been damaged by falling rocks. In addition to hazards and expensive clean-up efforts, the rock and debris falls can cause unexpected and extensive road closures. The need for the project stems from these and other issues, with the overriding goal to improve access and safety on Highway 1. Many factors and alternatives to were considered. Ultimately, the bridge and rock shed were decided upon because the offer the most protection and reliability at the site and allow the natural process of erosion to occur with little to no interference. Caltrans has a web-link including many photos and facts that explain the need and intent of the bridge and rock shed project. Those interested are encouraged to visit this site at:
http://www.dot.ca.gov/dist05/projects/pitkins/whybridge_shed.pdf

II. ANALYSIS

Development Standards

The site is a public right-of-way, State Scenic Highway, and All-American byway zoned Watershed and Scenic Conservation in the Coastal Zone (WSC/40(CZ)). The proposed development site is located in the Big Sur Land Use Plan (LUP) area which is part of the Monterey County Local Coastal Plan and is within the area covered by the *Big Sur Coast Highway Management Plan Guidelines for Landslide Management and Storm Damage Response*. The proposal was reviewed for consistency with these adopted plans and policies in addition to many other state and federal policies and permit requirements. Required permits for the development include a Combined Development Permit from Monterey County within the Coastal Zone which is also governed by the State Coastal Act, funding from the Federal Highway Administration which requires National Environmental Policy Act (NEPA) review, U.S. Army Corps of Engineers Section 404 permits, and Regional Water Quality Control Board (RWQCB) 401 Water Quality Certification.

The Monterey County Local Coastal Program (LCP) was certified by the California Coastal Commission to carry out the requirements of the California Coastal Act and to allow Monterey County to permit development in the Coastal Zone. The purpose of both the LCP and the Coastal Act are avoid or mitigate environmental effects and to promote public access. The *Coast Highway Management Plan* (CHMP) provides implementing procedures used by Caltrans to address many of the policy issues that apply, in the Big Sur Land Use Plan (LUP). These three documents and the California Environmental Quality Act (CEQA) were the focus of review for the proposed project. In this case, Monterey County has the role of a responsible agency for permitting and issuance of Coastal Development Permits. All resource and policy issues of the proposed development identified in the CEQA checklist were evaluated for this project. The main resource issues identified include Visual Resources, Hazardous Area Development, Public Services and Recreation, Community Resources for transportation and temporary construction impacts, and Biological Resources.

Critical Viewshed/Visual Resources

Protection of the incomparable beauty and cultural characteristics of the Big Sur Coast is identified as the main philosophy and goal of the Big Sur Land Use Plan (LUP Section 2.1 and 2.2). To this end, the "critical viewshed" was defined as everything visible from Highway 1 and associated major public viewing areas including turnouts. The critical viewshed heavily restricts development and in most cases prohibits development visible from Highway 1. Although development is generally not allowed within the critical viewshed, there is an exception for road maintenance and safety improvements (Policy 3.2.5.C.1). Road maintenance and safety improvements are allowed if they are consistent with the Policies of Section 4 of the LUP. Section 4 of the LUP. Section 4 of the LUP directs Monterey County to take an active role in guiding the use and improvement of Highway 1, with the objective to maintain and enhance the highway's aesthetic beauty and to protect its primary function as a recreational route (Key Policy 4.1.1). The guiding policies require improvements to Highway 1 in order to increase its service capacity and safety, consistent with its retention as a scenic two-lane road (General Policy 4.1.2.1). Road capacity and safety improvements along Highway 1, require standard 12-foot lanes and 2 to 4-foot wide shoulders where physically practical and consistent with other policies, in order to maximize vehicular access to the Big Sur coast (Specific Policy 4.1.3.A.1). The proposed project is consistent with these goals and objectives as a safety improvement designed to protect the integrity of the highway, thereby increasing enjoyment and reliability of this recreational route, while retaining its capacity as a two-lane road with 12-foot lanes and 4-foot shoulders throughout the project site.

In designing management, maintenance, and safety improvements, the objective is to maintain the highest possible standard of visual beauty and interest (General Policy 4.1.2.2). Overall design themes for the construction and appearance of improvements within the Highway 1 right-of-way are set forth to ensure that all improvements to the extent feasible, are inconspicuous and in harmony with the rustic natural setting of the Big Sur Coast (20.145.130.B.2 of the Coastal Implementation Plan Part 3). Design and aesthetic improvement guidelines were developed by Caltrans, in cooperation with other agencies and local citizens, to ensure that new construction, where it occurs, is in keeping with the unique character and setting to the Big Sur corridor (Aesthetic Improvement Policy 4.1.3.B.4). Consistent with the Big Sur Land Use Plan policies Caltrans used the aesthetic improvement guidelines in developing the improvements at Pitkins Curve and Rain Rocks. Additionally, consistent with proposed mitigation measures, the project design was developed in consultation with an Aesthetic Design Advisory Committee (ADAC) made-up of responsible agencies and the public. The proposed new bridge has been designed to complement but not duplicate the other historic bridges along Highway 1 in Big Sur by keeping

to the same general concept of an arched main span and use of concrete. The rock shed has been designed to provide arched openings on the western side which will help frame views of the ocean and eliminate the need for lighting which was of major concern. To maintain a natural appearance, stone masonry will be used. Many other techniques were used in developing the rock shed to blend the structure with the site and character of the area. While there is an obligation to find solutions that are visually compatible with the setting, there is a corresponding need for acceptance of visual changes that are necessitated by actions needed to keep the highway open and safe. The scenic qualities here demand creative solutions that can avoid and minimize overall impacts.

Opinions on the impacts and appropriateness of the rock shed vary. Ultimately, it boils down to two view points. One is that the rock shed is inappropriate and out-of-place in the vast unobstructed openness of the Big Sur Coast in this area and that the rock fall netting and continued maintenance in this area is appropriate. The other is that the rock shed provides the greatest degree of reliability and protection and that ultimately the rock shed will be part of the Highway 1 experience and can add to the enjoyment and rugged character of the viewshed. Tunneling, rock sheds, and similar types of structures are often found in rugged mountainous and scenic areas throughout the state and country. Overall, the project in consistent with the goals and policies of the LUP, the CHMP, and the California Coastal Act given the overriding intent of improved reliability and safety.

It should also be noted that there is an estimated five (5) to six (6) year construction period during which there will be significant construction related visual impacts including equipment and grading activities. This is a relatively long duration of construction but these impacts are still considered temporary in nature. Mitigations are also recommended to reduce the temporary construction impacts. See **Exhibit D** for all proposed Mitigation Measures.

Figure 1 (Existing Conditions)

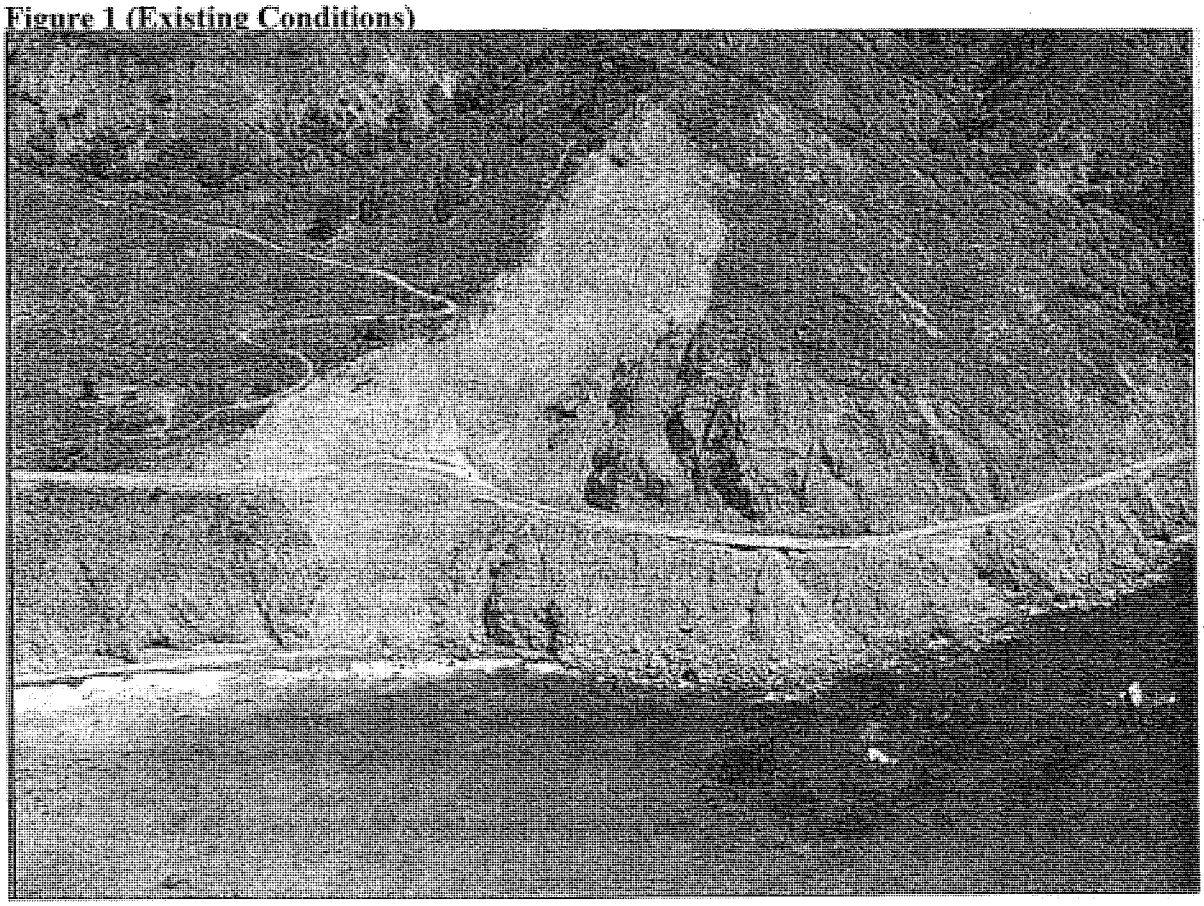
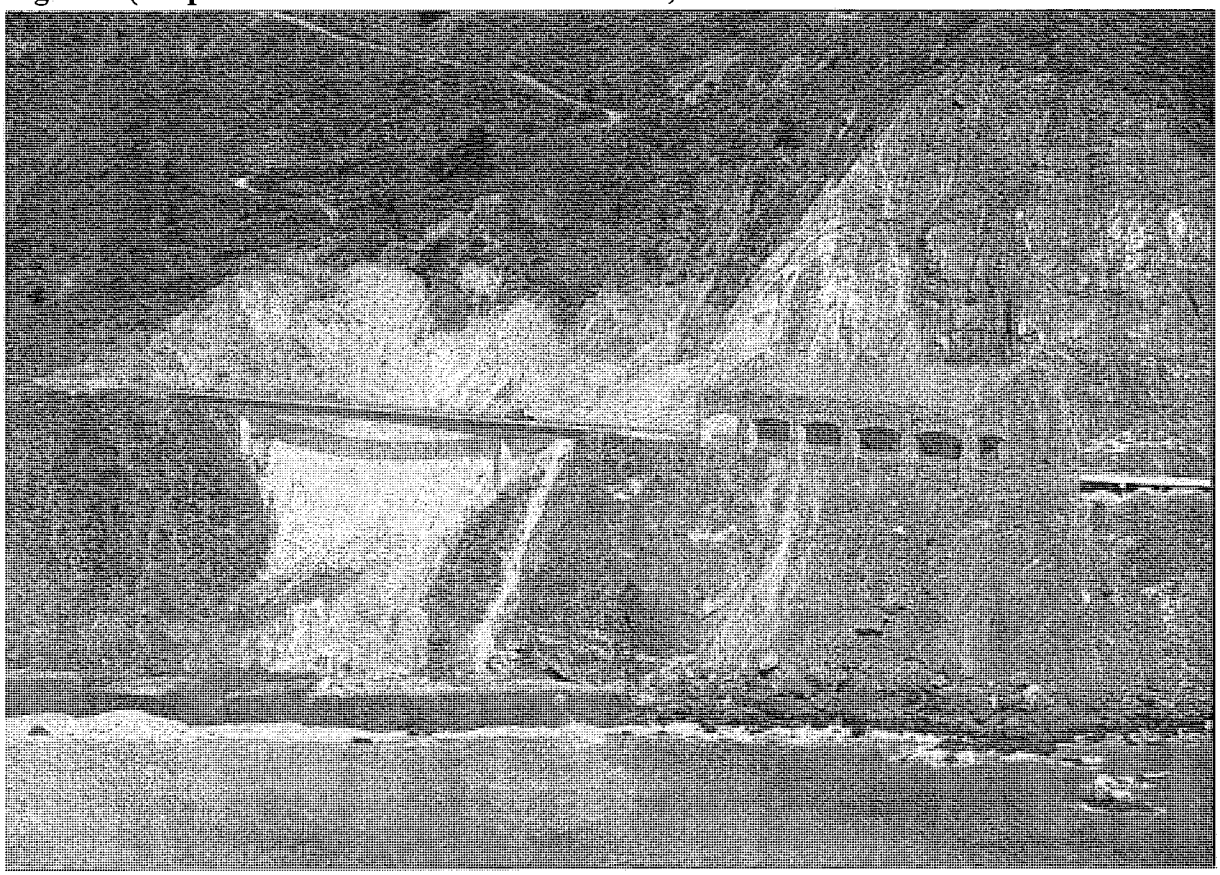


Figure 2 (Proposed Conditions-Photo Simulation)



Hazardous Area Development

County regulations generally prohibit development on slopes greater than 30% (Section 20.64.230 Title 20). However, the development is allowed if there is no feasible alternative. The bridge and rock shed have been designed to separate the road from the hazardous conditions including landslides and rock fall. The project is intended to be placed in areas of steep slopes and or moving slopes. Staff finds that no feasible alternatives exist for the development to occur on slopes less than 30% and the project cannot be relocated or redesigned to avoid geological hazards. Caltrans has conducted numerous studies to identify stability factors associated with construction of the structures within this hazardous area. Current information is supported by evidence to demonstrate that the structures will maintain an acceptable degree of stability. Therefore, the proposed project is consistent with and better achieves the goals, policies, and objectives of the Local Coastal Plan for Hazardous Area Development.

Public Services and Recreation

The project would result in physically altered facilities including two (2) new Caltrans maintained structures. The construction of the structures has the potential to cause environmental effects and will require ongoing maintenance and inspections to insure safety and reliability. To address bicycle and pedestrian uses Caltrans is proposing to provide a uniform 4-foot wide shoulder throughout the project area. The California Coastal Commission, under the guise of the Coastal Act, has suggested that in order to provide an enjoyable and safe pedestrian recreational experience, Caltrans should provide hiking trails that bypass Pitkins Curve and Rain Rocks. Caltrans, in response to this suggestion/requirement, is working with the California Department of Parks and recreation to contribute a fair share contribution to a California Coastal Trail system that would bypass the project site by connecting the Twitchell flats fire road (north of the project site) with existing trails at Limekiln State Park (east and south of the site). The requirement for

contributions to the California Coastal Trail system has been incorporated in the conditions of approval for the project **Exhibit B**.

Community Resources and Transportation

Other than the visual impacts, the source of comments and concern from the public was in regard to temporary construction impacts and anticipated road closures. Particularly concerned were business owners of visitor-serving uses in Big Sur. Almost uniformly the comments from this group suggested that road closures were highly detrimental to business. Opinions on the project itself were varied. The proposed project construction is estimated to last five approximately (5) to six (6) years during which traffic may be constrained to one lane through the site. Complete road closures are expected for construction activities that cannot be accomplished with the roads open. To address the traffic circulation during the construction period Caltrans, in consultation with the stakeholders including the Big Sur Chamber of Commerce and Tree Bones Resort, has developed a Traffic Management Plan (TMP). In summary, the TMP outlines steps to minimize traffic impacts and delays associated with construction. There will be four types of traffic control measures available according to the TMP:

- Type I: single open lane, 12-feet wide, regulated by a traffic signal, no advance notification required, allowed throughout the construction period (maximum 15 minute delay).

- Type II: single open lane, 12-feet wide, regulated by flaggers, no notification required, allowed Monday – Friday 8AM to 4PM (maximum 15 minute delay).

- Type III: Full road closure during nighttime hours. Closures would begin 9PM Sunday evening opening by 6AM the following morning, One week notification required (9 hours total duration).

- Type IV: Allows a total of 12 daytime extended delays lasting between 15 and 120 minutes. These delays would occur between the hours of 9AM and 4PM Monday – Thursday. The contractor may request this type of traffic control 12 times per calendar year for the life of the project. One-week notification is required.

Ongoing notification is proposed to include six (6) temporary changeable message signs including two signs within the project limits, two signs north of the site at the Carmel River Bridge and at Coast Gallery, and two south of the project in San Luis Obispo County, one near San Simeon and the other at the intersection of Highway 1 and Highway 46. Construction area signs will be provided to alert motorists, in addition to including information on the Caltrans planned lane closures. The Caltrans resident engineer and District Traffic Manager will be responsible for updating the signs throughout construction. Additional methods of notification include a fax/email list for interested parties (to get on the list contact Susana Cruz at (805) 549-3318 or via email at info-d5@dot.ca.gov), the Caltrans Highway Information Network phone line (1-800-427-7623) and the Pitkins Curve Website (http://www.dot.ca.gov/dist05/projects/pitkins/index.htm).

Other traffic impacts include vehicle and construction equipment transportation. For the construction of the bridge (Alternative 2) an estimated 550 round-trip, large vehicle truck trips are estimated and for the bridge and rock shed combined (Alternative 1) an estimated 850 round-trip truck trips would be required. In both cases these trips would be appropriately scheduled to minimize traffic impact by transporting during non-peak hours. The no-project scenario (Alternative 3) would require untold numbers of truck-trips to transport slide material to receiver

sites. Without the proposed project, Caltrans estimates about 700 truck-trips occur annually for maintenance and clean-up efforts.

All three alternatives would require traffic management and lane closures. However, Alternative 2 (Bridge only) would require fewer lane closures and a shorter duration of construction with continued maintenance at Rain Rocks. Short and notified road closures will be less significant than long unexpected closures for maintenance of the road after a debris fall event. The Traffic Management Plan developed by Caltrans is attached as **Exhibit L**.

Natural Environment and Biology

A Natural Environment Study (NES) was prepared by Caltrans that covers native vegetation, wetlands, the marine environment, and animal species that could potentially be affected either directly or indirectly by the proposed project. The study area covered all turnouts, potential staging areas, and adjacent areas potentially impacted by construction activity including the water below. The EIR prepared for the project references and summarizes the information contained in the NES.

Vegetation

The area in which the actual structures will be located are void of any vegetation due to landslide and continued slope movement and the shear nature of the vertical rock face where the rock shed is proposed. For the most part, there is coastal scrub habitat and intermixed invasive plant species present. According to the NES, seventeen (17) rare or endangered plant species were found to have the potential to occur in the project vicinity. Of these 17 plants, only one plant (Hutchinson's Larkspur) was likely to occur within the Coastal Scrub habitat. Pre-construction surveys are recommended for the project regardless of the Hutchinson's Larkspur. It is anticipated that the Hutchinson's Larkspur and other sensitive vegetation, if present at the site, can be identified in the pre-construction survey and flagged to avoid any "take" or impact on vegetation if safe and possible. If rare or endangered plants are found that cannot be avoided, construction will not begin until all the appropriate consultations and permits are first secured. During construction, a biological monitor will be on-site and will have the ability to halt work if necessary to prevent unauthorized impacts. Invasive plant species will be removed in the project area and erosion control measures will include non-invasive seed mixes. Mitigation measures requiring fencing of sensitive habitat, re-vegetation and restoration of the site, and biological monitoring are outlined in **Exhibit D** (Mitigation Measures 2.3.1.A – 2.3.1.E). With these mitigation measures in place the project will be consistent with the Big Sur Land Use Plan Section 3.3 (Environmentally Sensitive Habitats) and impacts will be maintained at a less than significant level.

Wetlands

There are no wetlands in the project area as defined by the Clean Water Act but there are two wetlands as defined in the Coastal Act. The two wetlands occur outside of the construction area on the side of the highway at turnouts 1 and 2 that are proposed for construction staging areas. These areas will be fenced, refueling and maintenance of equipment will be done 60 feet or more away from these areas and a biological monitor will be observing the construction operations. With these and other mitigations contained in **Exhibit D** (Mitigation Measures 2.3.2.A – 2.3.2.N), impacts to wetland areas can be avoided. Avoidance of impacts is consistent with the Big Sur LUP and the Coastal Act.

Marine

At the toe of the Coastal Bluff, below Highway 1 and the proposed project area, is a section of the Pacific Ocean that is part of the Monterey Bay National Marine Sanctuary. Potential impacts on this sensitive marine environment were vaguely identified in the EIR to include drainage, erosion control and accidental chemical spills. Drainage from "other waters of the U.S." were identified within the construction area in the form of ephemeral seeps. Updated information from Caltrans has been received during review of the Coastal Permit indicating that although the EIR identifies potential impacts to "other waters of the U.S.", the drainage seeps do not meet the Army Crops of Engineers criteria for this title. Any waters encountered would be temporarily directed into culverts during construction and then allowed to flow naturally following construction. Mitigations are proposed to prevent spills by training of road workers and to clean accidental spills if necessary (Mitigation Measures 2.3.2.K. 2.3.4.F, **Exhibit D**). All construction will be completed in accordance with Caltrans National Pollution Discharge Elimination System Permit, and Caltrans Statewide Storm Water Management Plan. No overcastting of materials is proposed, allowed, or required as part of any of the alternatives of this project. The project site is located hundreds of feet above the Pacific Ocean and shoreline armoring would not be required within the expected economic lifespan of the project (50 years according to the EIR). For bluff top projects, the Big Sur LUP requires thorough environmental review with an assumed preference of the "no project alternative." The "no project alternative" was dismissed because it would not accomplish the goal of Caltrans and is not the environmentally superior project. The outcome or decision about the environmentally superior project is not expressly dictated by the Big Sur LUP or the Coastal Act.

Animal Species

The Natural Environment Study (NES) referenced in the EIR indicates that there is a potential for 23 rare or endangered species to occur within the study area. After preparation of biological surveys and consideration, the list was whittled down to three species of concern. These species include the California Condor, Smith's Blue butterfly, and the Southern Sea Otter. Potential impacts to the Condor would occur only during the construction phase of the project due to human activity, as there is no suitable nesting habitat for the bird in the survey area. Condors could be attracted to the site for foraging if trash and food is left uncontained. To address this, Caltrans proposes to contain and regularly remove trash from the site (Mitigation Measure 2.3.4.D, **Exhibit D**). Potential impacts to the Smith's Blue butterfly stem from the discovery of one individual buckwheat plant within the survey area. The buckwheat plant is habitat for the endangered butterfly. As a result of technical assistance from US Fish & Wildlife under Section 7 of the Endangered Species Act, the single buckwheat plant will be removed with the surrounding soil and duff and relocated out of the project area to an area containing a stand of established buckwheat plants. Sea Otter habitat exists in the marine environment in kelp beds off the shore in the Pacific Ocean. Caltrans has identified a remote chance that construction related noise could impact the Sea Otter and has proposed to have Otter activity monitored during noise generating activities. If abnormal behavior is identified US Fish & Wildlife will be contacted immediately.

In conclusion, impacts to biological resources have been identified and mitigated. Some mitigation measures overlap the four categories discussed above including preconstruction surveys and biological monitors. To insure implementation of mitigation measures, the Caltrans

biological monitor will conduct training of highway workers and describe the general measures being implemented.

III. ENVIRONMENTAL REVIEW

National Environmental Policy Act (NEPA)
Since the proposed project is partially funded by the Federal Highway Administration (FHA) the development is subject to NEPA review. FHA has determined that the Pitkins Curve/Rain Rocks project qualifies for a categorical exclusion under NEPA. A categorical exclusion was issued in accordance with NEPA.

California Environmental Quality Act (CEQA)
An Initial Study prepared by Caltrans for the proposed project found that there were potentially significant impacts associated with aesthetic resources as a result of the project. A Notice of Preparation was prepared on October 22, 2003 and a public meeting was held on November 19, 2003 at the Big Sur Lodge. Following the public meeting, a Draft Environmental Impact Report (DEIR) was prepared to assess the potential adverse environmental impacts from the project. The DEIR was circulated from February 16, 2006 to April 3, 2006.

Alternatives
Caltrans put together a team to develop and evaluate methods of protection that would meet the purpose of the project using the *Coast Highway Management Plan* as a guide. The basic strategies identified to address highway repair in landslide prone areas were; 1) Relocate or Separate, 2) Stabilize, and 3) Manage and Protect. To accomplish these objectives, Caltrans considered several project designs. Several designs were withdrawn from consideration due to limitations of the site and the unique character of the site. Alternatives withdrawn include:

- Realigning the highway inland (*withdrawn due to substantial environmental impacts and cost*),
- Retaining wall and reinforced Embankments (*retaining walls were estimated to be approximately 55 feet high by 300 feet long, would require rebuilding the entire slope, and would not be a long term permanent solution*),
- Rock Net Above Pitkins Curve (*withdrawn because the slope is too unstable to allow anchoring of these devices*), and
- A continuous Rock Shed (*withdrawn due to safety concerns regarding tight curves, 25 mph zone, limited visibility, environmental impacts, and cost*)

Ultimately, Caltrans settled on three alternatives. These Alternatives include the Bridge and Rock shed project which would separate the highway from the unstable geological conditions (Alternative 1), the Bridge at Pitkins Curve with continued maintenance at Rain Rocks which would separate the highway from the landslide but not the rock fall (Alternative 2), and the "No Project" alternative which would require ongoing maintenance within the project area (Alternative 3). Alternatives 1 and 2 have many common features and only a few unique features including cost, aesthetic impacts, construction duration, and reliability and safety of the road. Eventually, Caltrans found that Alternative 1 best meets the goal and objective of the project.

Comment Letters
Issues that were analyzed in the Draft EIR include aesthetic resources, air quality, biological resources, geology and soils, hydrology and water quality, land use and planning, public services, traffic and transportation and utilities and service systems. Twenty eight (28) comment

letters were received during the circulation period. The comment letters ranged from regulatory suggestions and requirements from the California Coastal Commission, the California Department of Fish & Game, Monterey Bay Unified Air Pollution Control District, Monterey County Planning Department, National Oceanic and Atmospheric Administration, US Environmental Protection Agency, and the California Regional Water Resources Control Board, to Organizational and Personal comments from the Big Sur Chamber of Commerce, the Big Sur Historical Society, Big Sur Volunteer Fire Brigade, resort and store owners in the Big Sur area, members of the Big Sur and South Coast Land Use Advisory Committees, Congressman Sam Farr, and local residents.

Comments varied but the main focus areas included the need for the rock shed, lighting in the rock shed, and road closures. Caltrans responded to each of the comment letters separately justifying the project to include the rock shed, indicating that no lighting will be necessary, and referring to the development of a Traffic Management Plan. Responses to comments were incorporated in the Final Environmental Impact Report (FEIR) and are included in **Exhibit E**.

Mitigation Measures

Mitigation Measures were identified in the EIR to avoid or mitigate potential impacts to Visual Resources, Traffic, Hydrology and Water Quality, and Biological Resources. Traffic mitigations are proposed as part of the project design including a Traffic Management Plan. Other design mitigations include development of Storm Water Pollution Prevention Plan, and operational procedures followed by Caltrans for every project. Generally Caltrans, as the lead agency, will be responsible for implementation of these mitigation measures. Staff has reviewed the mitigation measures and concurs that the mitigation measures are feasible and appropriate. Monterey County as a responsible agency will require monitoring reports from Caltrans on a biannual basis demonstrating adherence and compliance with the proposed mitigation measures.

Final EIR

The FEIR was completed and distributed on October 16, 2006. Mitigation measures are proposed to mitigate project impacts. However, the placement of a large structure within the critical viewshed was determined to degrade the visual character of the site and therefore will have a significant unavoidable impact. As such, Caltrans adopted a statement of overriding considerations. As a responsible agency, Monterey County must also adopt, a mitigation monitoring and reporting plan and a statement of overriding considerations for each significant effect pursuant to CEQA guidelines sections 15096(h), 15091 and 15093. The statement of overriding considerations is attached as **Exhibit I** of this report and is incorporated in the Findings and Evidence **Exhibit B**, Finding 8.

EXHIBIT B
RECOMMENDED FINDINGS AND EVIDENCE
PLN080218 (Caltrans – Pitkins Curve/Rain Rocks)

1. **FINDING:** **CONSISTENCY** – The project, as described in Condition No. 1 and as conditioned, conforms to the policies, requirements, and standards of the Monterey County General Plan, Big Sur Land Use Plan, Coastal Implementation Plan Part 3, and the Monterey County Zoning Ordinance (Part 1, Title 20), which designates this area as appropriate for development.

EVIDENCE: (a) Proposed Project The California Department of Transportation (Caltrans) and the Federal Highway Administration (FHA) plan to construct a new bridge and rock shed on Highway 1 at a location frequently referred to as Pitkins Curve and Rain Rocks. The purpose of the project is to provide decreased maintenance expenditures and improved reliability and safety on the highway at Pitkins Curve and Rain Rocks.

(b) Location and Zoning Consistency The project is located within the public right-of-way on Highway 1. Some of the area required for recontouring and replanting of the hillside extended into property that was owned by the California Department of Parks and Recreation (Assessor's Parcel Number 422-021-002-000). This 4.25-acre area of Limekiln State Park was previously identified for purchase by the California Department of Transportation (Caltrans) as part of the ongoing maintenance efforts at Pitkins Curve and Rain Rocks. Zoning in the project area is Watershed and Scenic Conservation in the Coastal Zone ("WSC/40 (CZ) which allows public and quasi-public uses including public safety facilities subject to a Coastal Development Permit in each case. The project requires location of the proposed structures on a public right-of-way to improve safety and reliability at the site. Therefore, the property is suitable for the proposed development.

(c) Site Visit The project planner conducted a site inspection on August 20, 2008 to verify that the project on the subject parcel conforms to the plans listed above.

(d) Big Sur Land Use Plan Applicable Sections of the Big Sur Land Use Plan include:

1) **Scenic Resources** Policy 3.2.5.C.1 exempts safety improvements of public highway facilities from the Key Policy of the LUP (which prohibits development in the critical viewshed) provided they are consistent with Section 4.1.1, 4.1.2, and 4.1.3 of the Big Sur Land Use Plan (LUP). This section also requires design of structures to utilize boulders or walls of rock construction, unpainted redwood sings, and a general preference for natural materials on all new construction. The project was carefully designed using public input including the formation of an Aesthetic Design Advisory Committee (ADAC) to include a natural appearing stone veneer on the proposed rock shed, natural appearing colors and materials on the guardrails, and a bridge design that complements the other bridges on Highway 1. Additional Mitigation Measures are proposed to reduce visual impacts of the project (**see also Finding 8 and Exhibit I of the March 25, 2009 staff report**). Consistency with Section 4.1 of the

LUP is described in Evidence (d) 5) below. *The project is consistent with the Scenic Resources Section of the LUP as a highway safety improvement.*

2) **Environmentally Sensitive Habitat** General Policies of the Big Sur LUP require appropriate siting and design, restricts removal of vegetation and land disturbance to only the amount needed for structural improvements, requires compatible uses for long-term maintenance of sensitive habitats, and requires restoration of native habitat where appropriate. The Natural Environment Study prepared by Caltrans identified a limited amount of potential impacts to Environmentally Sensitive vegetation, wildlife habitat, and marine resources. The affected environment is mostly within an area that has been disturbed as a result of frequent geological activity; however, potential impacts were identified to wetlands, coastal scrub habitat potentially supporting Hutchkinson's Larkspur, the California Condor, Smith's Blue butterfly, and the Southern Sea Otter. The potential impacts were evaluated and mitigation measures are proposed that avoid impacts to sensitive species including fencing wetland areas, preconstruction surveys, biological monitoring and training of employees, and in the case of the Smith's Blue Butterfly Caltrans has consulted with the U.S. Department of Fish and Wildlife to relocate on individual buckwheat plant (host plant for the butterfly) to a nearby stand of native buckwheat. The project will impact only the areas needed to construct the project, every effort is being made to avoid impacts to sensitive species, and consultation with appropriate authorities has been conducted and will continue as needed. The site will be restored with native vegetation upon completion of the project (**See Finding 5 and Exhibit D of the March 25, 2009 staff report** for a list of proposed mitigation measures). *With the proposed mitigation measures the project will not have a significant effect on sensitive habitat. Therefore, the project is consistent with environmentally sensitive habitat policies of the Big Sur LUP.*

3) **Hazardous Areas** Key Policy 3.7.1 requires regulation through planning practices to minimize risk to life and property and damage to the environment. Additionally the Monterey County Zoning Ordinance (Title 20) restricts development on slopes greater than 30%. The purpose of development in this case is, in itself, to minimize risk to motorists and the structural integrity of Highway 1. Caltrans geologists and engineers have evaluated the site and predict that the area will continue to be highly unstable from landslide and rock fall activity. To address this issue Caltrans proposes to separate the highway from the hazard to allow the natural movement and geological process to continue without impacting access on Highway 1 and maximizing motorist and pedestrian safety (**see Finding 11 for 30% slope findings**). *By its nature the project is consistent with the Big Sur LUP Hazardous Area policies.*

4) **Dredging, Filling, and Shoreline Structures** Since the project area is located on a Coastal Bluff, Section 3.9 of the LUP applies.

The applicable section addresses adequate bluff top setbacks to avoid seawalls in the future. The bridge and rock shed are approximately 200 feet above the Pacific Ocean and sea walls are not expected to be necessary within the economic lifetime of the structures. Thorough Environmental Review in the form of an EIR was conducted for the project. *Therefore, the project is consistent with this Section of the LUP.*

5) **Highway 1** Compliance with polices contained in Section 4 of the LUP is one of the requirements for the exemption granted in the Scenic Resources Section (Evidence (1) (a) above). Key Policy 4.1.1 directs the County to maintain and enhance the highway's aesthetic beauty and to protect its primary function as a recreation route while maintaining capacity to a two-lane road and providing walking and bicycle trails wherever feasible. The project proposes safety improvements on Highway 1 to improve safety and reliability of the highway. The road will remain a two-lane road (4.1.2.1 LUP) with required 12-foot wide lanes and 4-foot wide shoulders (4.1.3.A.1 LUP). The project will not affect the use as a public highway and recreation area or have any potential for growth inducement. Four-foot shoulders will provide adequate bicycle access along the road and pedestrian access is described further in the Public Access Finding (**see Evidence (d) 6) below and Finding 12**). Specific Policy 4.1.3.B.4 outlines design criteria with the objective to ensure that all improvements are inconspicuous and in harmony with the natural setting of the Big Sur Coast. In this case the rock shed will not be inconspicuous but has been designed using arches to the west to frame views and a stone veneer to give the appearance of natural materials. The rock shed will be a rugged structure within a rugged area of the coastline. *Therefore, the project is consistent with policies 4.1.1, 4.1.2, and 4.1.3 of the Big Sur LUP.*

6) **Public Access** Highway 1 along the Big Sur Coast is the principal means by which the public accesses the numerous recreation areas including State Parks, trail heads, beaches, creeks, and visitor service commercial uses in Big Sur. Not only is Highway 1 a main access point, it is a destination all its own with its scenic vistas and rustic character which is recognized as a priority resource of Big Sur. Improving safety, reliability, and stability promotes enjoyment and predictability of vehicular access on the highway which is an important existing public access route. Non-motorized traffic will have access along the continuous 4-foot wide shoulders through the project site. It is recognized that pedestrian hiking trails on the shoulder of the highway is not an ideal hiking experience. In compliance with LUP and Coastal Act Policies, Caltrans is negotiating with the California State Parks, who will, with monetary contributions from Caltrans develop and maintain the California Coastal Trails. Caltrans and State Parks will determine a fair share contribution that would help provide hiking trails that bypass the Pitkin's Curve and Rain Rocks site (**see Finding 12**). *As*

designed, conditioned, and mitigated the current project is consistent with the Public Access Policies of the LUP.

(e) Traffic Procedural mitigations are proposed in the form of a Transportation Management Plan (TMP). The TMP addresses project related traffic delays and summarizes the process for distribution of timely information to the public and standards for contractors to follow that will provide safety and minimize impacts to motorist. In general Caltrans will maintain one-lane traffic with traffic signals and/or flaggers through the project site. Contractors will have two options for road closures or extended delays needed to perform specific construction activities. The first, listed as a Type III traffic control, allows nighttime closures for up to a 9 hour period from 9 P.M to 6 A.M the following morning to be used only on Sunday evenings to Friday mornings (to exclude weekends). The second, listed as a Type IV traffic control, would allow extended delays Monday through Thursday for a period of 15 to 120 minutes. A limit of 12 extended delays per year would be allowed. With both closure options, one week notification is required in the form of faxes or emails to a list of interested parties, Caltrans website and hotlines, and through the use of 4 proposed temporary changeable message signs and 2 permanent signs. The 2 permanent signs are located at the Carmel River Bridge and intersection of Highway 1 and Highway 46. The four temporary signs would be strategically located at Coast Galleries north of the project site, two within the project site limits, and one sign south of the project site in San Luis Obispo County at San Simeon. Emergency vehicles will have access through the construction area even during planned closures. Temporary and notified road closures during the course of construction (estimated approximately 5 years) will be less disruptive than unexpected and lengthy closures brought about by slide and rock fall events with associated clean-up efforts.

(f) LUAC Two committees were involved in the review and recommendation for this project. First, the Big Sur LUAC and the South Coast LUAC jointly reviewed the project because of the nature of the Big Sur community and of the project, which could have indirect impacts on tourism and business. Because the project site is within the South Coast LUAC boundary, those LUAC members made a recommendation on the project. Areas of concern are described generally in the LUAC minutes to include a concern about traffic control. Ultimately the LUAC recommended approval of the project by a vote of 3-0. Also involved in the review and recommendation process was the Aesthetic Design Advisory Committee (ADAC) which was established as mitigation for this project. The ADAC consisted of representative's from Caltrans, Monterey County Planning Department, the Coastal Commission, both LUACs, the Big Sur Chamber of Commerce, State Parks, and any other interested parties wishing to attend. The role of the ADAC was to help define the visual issues and aid in the development of a final design. **Exhibit M** is attached outlining ADAC meeting dates and a summary of those meetings.

(g) Application The application, project plans, and related support materials submitted by the project applicant to the Monterey County RMA - Planning Department for the proposed development found in Project File PLN080218.

2. **FINDING:** **SITE SUITABILITY** – The site is physically suitable for the use proposed.
EVIDENCE: (a) Agency Review The project has been reviewed for site suitability by the following departments and agencies: RMA - Planning Department, California Department of Forestry (CDF), Parks, Public Works, Environmental Health Division, Sheriff's Office, and Water Resources Agency. There has been no indication from these departments/agencies that the site is not suitable for the proposed development. Conditions recommended have been incorporated.

(b) Technical reports As part of the environmental review done by Caltrans technical reports were prepared including biological, archaeological, historic, geotechnical, geological, and traffic indicating that there are no physical or environmental constraints that would indicate that the site is not suitable for the use proposed. The Planning Commission concurs. The following reports have been prepared:

i. "Environmental Impact Report" (LIB080562) prepared by the State Department of Transportation, District 5, San Luis Obispo, September 2006.
ii. "Natural Environment Study" (LIB080562) prepared by Caltrans Biologists, April 2005.
iii. "Air Quality Report" on file with Caltrans, District 5, San Luis Obispo, CA.
iv. "Noise Study Report" on file with Caltrans, District 5, San Luis Obispo, CA.
v. "Water Quality Report" on file with Caltrans, District 5, San Luis Obispo, CA.
vi. "Shoreline Biological Characterization" on file with Caltrans, District 5, San Luis Obispo, CA.
vii. "Historical Property and Archaeological Survey Report" on file with Caltrans, District 5, San Luis Obispo, CA.
viii. "Hazardous Waste Report" on file with Caltrans, District 5, San Luis Obispo, CA.
ix. "Scenic Resource Evaluation" on file with Caltrans, District 5, San Luis Obispo, CA.
x. "Initial Paleontology Study" on file with Caltrans, District 5, San Luis Obispo, CA.
xi. "Preliminary Geotechnical Report" on file with Caltrans, District 5, San Luis Obispo, CA.
xii. "Project Study Report" on file with Caltrans, District 5, San Luis Obispo, CA.
xiii. "Transportation Management Plan" (LIB080564) prepared by Christine Kahn, Caltrans District 5 Registered Civil Engineer, July 2008.

(c) Location Pitkin's Curve and Rain Rocks has been identified and documented for years as having a dangerous and unstable geological make-up requiring extraordinary amounts of maintenance each year. The *Coast Highway Management Plan* of 2003 recognizes this site as problematic. The project has been designed to mitigate the geological hazards in this area along the public right-of-way, improving safety and reliability of the road. As public infrastructure associated with Highway 1

the location of the proposed improvements is mandatory. The structures have been designed to separate and withstand the geological hazards in the area.

(d) Constraints The EIR identified potentially significant impacts to Aesthetics due to the construction of a rock shed within the Big Sur Critical Viewshed area. The EIR includes mitigation measures to reduce impacts where possible and a statement of overriding considerations (**see Finding 8**).

(e) Site Visit Staff conducted a site inspection on August 20, 2008 to verify that the site is suitable for this use.

(f) Application The application, plans, photographs and support materials submitted by the project applicant to the Monterey county Planning and Building Inspection Department for the proposed development, found in the project file (PLN080218).

3. **FINDING:** **CEQA (EIR): -** The California Department of Transportation (Caltrans) has prepared and certified an EIR in accordance with the requirements of CEQA. Public Resources Code Section 21080(d) and the California Environmental Quality Act (CEQA) Guidelines Section 15064(a)(1) require environmental review if there is substantial evidence that the project may have a significant effect on the environment.

EVIDENCE: (a) Notice of Preparation Caltrans filed a Notice of Preparation (NOP) with the State Clearinghouse (SCH# 2003111016) and distributed the NOP to all Responsible Agencies on October 22, 2003. Responses to the Notice of Preparation were considered in the preparation of the DEIR.

(b) DEIR A draft environmental impact report (DEIR) was prepared to assess the potential adverse environmental impacts from the project and was circulated from February 16, 2006 to April 3, 2006. Issues that were analyzed in the Draft EIR include aesthetic resources, biological resources, geology and soils and transportation and traffic movement during construction.

(c) Notice of Completion The EIR was duly noticed and circulated for public review, and public comments were received and considered. Caltrans distributed a Notice of Completion with copies of the Draft EIR (DEIR) to the Office of Planning and Research on February 14, 2006. Caltrans published Notices of Availability of the DEIR in the San Luis Obispo County Tribune, the Monterey County Herald, and the Carmel Pine Cone.

(d) Final EIR On October 16, 2006 the Final EIR (FEIR) was released to the public. The final EIR responded to comments received on the DEIR from agencies and interested parties.

(e) Certification The FEIR was certified by the California Department of Transportation on October 16, 2006. Certification of the EIR included adoption of a Mitigation and Monitoring Program and a Statement of Overriding Considerations. As a state agency, Caltrans was not required to certify the EIR, by resolution, before a decision making body.

(f) Application The application, plans, photographs and support materials submitted by the project applicant to the Monterey county Planning and Building Inspection Department for the proposed development, found in the project file PLN080218.

4. **FINDING:** **CEQA. CONSIDER THE EIR.** In accordance with the California Environmental Quality Act (CEQA) Section 15096, the County of Monterey as a Responsible Agency hereby certifies that it reviewed and considered the information contained in the Lead Agency's (Caltrans) Final Environmental Impact Report (FEIR) with a Mitigation Monitoring Program, and Statement of Overriding Considerations prior to acting upon or approving the project

EVIDENCE: (a) The Planning Commission considered the FEIR at a duly noticed public hearing held on March 25, 2009. The County is serving as a Responsible Agency for this project. The County has made findings with regard to identified significant environmental effects and has adopted a Statement of Overriding Considerations as contained herein. The materials upon which the County's decision is based are located in the Planning Department, 168 W. Alisal Street, 2nd Floor, Salinas, CA.

(b) The permitting authority of Monterey County is limited to the Coastal Development Permit to construct a new bridge and rock shed at Highway 1 north of Limekiln State Park. There have been no changes in the project which would necessitate additional environmental review by the County of Monterey.

(c) See also Findings 3, 5, 5a, 5b, 5c, 5d, 6, 7, & 8 below.

5. **FINDING:** **ENVIRONMENTAL IMPACTS MITIGATED TO LESS THAN SIGNIFICANT**

Mitigation measures reduce most impacts to a level of insignificance. However, the potential aesthetic impacts from construction of a rock shed on Highway 1 in Big Sur cannot be fully mitigated and therefore remains a significant unavoidable impact. As such overriding considerations must be made by the Planning Commission for this project. See Finding 8.

EVIDENCE: (a) CEQA Guidelines section 15041 (b) provides the authority for a responsible agency to require changes in a project to lessen or avoid only the effects, either direct or indirect, of that part of the project which the agency will be called on to carry out or approve.

(b) Some proposed applications that are not exempt from CEQA review may have little or no potential for adverse environmental impact related to most of the topics in the Environmental Checklist. No impact or less than significant impacts were identified for agricultural resources, air quality, cultural resources, hazards and hazardous materials, mineral resources, noise, population and housing, and utilities and service systems.

(c) Findings 6, 7, & 8.

(d) The application, plans, photographs and support materials submitted by the project applicant to the Monterey county Planning and Building Inspection Department for the proposed development, found in the project file PLN080218.

5a **FINDING:** **IMPACT TO NATURAL COMMUNITIES WILL BE MITIGATED TO LESS THAN SIGNIFICANT** – Mitigation Measures 2.3.1.A through 2.3.1.E will reduce potentially significant impacts on natural vegetation communities to a less than significant level. These Mitigation Measures are incorporated into the project as conditions of approval. The stated impacts are: *Effects on Natural Communities (FEIR Chapter 2.3.1). Approximately 0.96 acres, sparsely vegetated with native plants of the central coastal sage scrub*

community and non-native plants, would be removed during construction of either Alternative 1 or 2.

EVIDENCE: (a) Mitigation Measure 2.3.1.A To minimize construction related impacts, environmentally sensitive areas will be delineated on the project plans around all pullouts that may be used for equipment storage, as indicated on Figure 2-21 A, B, and C (of the EIR). The resident engineer, in consultation with the project biologist, would determine where environmentally sensitive fencing would be installed to limit construction activities. *County's Analysis: This mitigation reduces and avoids impacts to vegetation and other sensitive communities beyond that required for the construction project. Plans submitted to the RMA –Planning Department have incorporated this mitigation measure showing where fencing will be located.*

(b) Mitigation Measure 2.3.1.B After construction is complete, the project area will be evaluated to determine where revegetation would be appropriate and successful. Those areas identified for revegetation will be planted with native vegetation, suitable for the area, as recommended by Caltrans Office of Landscape Architecture and in consultation with the project biologist. Vegetation will be replaced at a ratio of 1:1. *County's Analysis: This mitigation would restore the area following construction and insure no net loss of habitat in the area. This helps promote the long term maintenance of the habitat in this area (Big Sur LUP Policy 3.3.2.7). Implementation of this mitigation will be required as part of the restoration condition of approval for this project (Condition #4).*

(c) Mitigation Measure 2.3.1.C An installation and maintenance contract for mitigation planting would will be developed. The maintenance agreement shall be at least three years in length. During that time, all invasive weeds within the construction impact area will be regularly removed. A minimum of 70% survival rate for all plantings, three years post-construction, is required. *County's Analysis: This mitigation stems from 2.3.1.B and provides success and monitoring criteria that identifies a minimal threshold for replanting survivability again to promote the long-term maintenance of the habitat. Implementation of this mitigation will fall under the restoration condition of approval for this project (Condition #4).*

(d) Mitigation Measure 2.3.1.D A Caltrans biologist or designee will prepare monitoring reports for various agencies if they are needed as part of conditions set forth in permits. Annual reports summarizing results would be sent to any requesting and appropriate state and federal agencies. *County's Analysis: Monterey County would request that annual monitoring reports prepared by Caltrans be submitted to the RMA – Planning Department as a responsible agency to insure compliance with the Big Sur Land Use Plan and to track mitigation implementation and success (Condition #5).*

(e) Mitigation Measure 2.3.1.E A Mitigation, Monitoring, Restoration, and Success Criteria Plan shall be prepared for this project. The plan will include success criteria for revegetation. A three-year monitoring schedule, with annual reports to various agencies is typically recommended. For three years, biannual environmental monitoring for all mitigation plantings will be conducted to determine if the project meets

success criteria, to request any needed replacement planting, and to identify remedial actions if the success criteria were not achieved. *County's Analysis: This mitigation can be combined with MM 2.3.1.B and 2.3.1.C into a comprehensive mitigation for replanting, success criteria, and monitoring. This mitigation will help address the monitoring action required by the restoration condition of approval for this project (Condition #4).*

(f) Monitoring It will be the responsibility of Caltrans to implement and monitor Mitigation Measures listed above with requested annual reporting to the RMA –Planning Department.

(g) Conclusion With proper implementation of proposed mitigation measures, Monterey County Planning Commission concurs that the project will have a less than significant effect on Natural Communities.

5b. **FINDING:** **IMPACTS TO WETLANDS AND OTHER WATERS WILL BE MITIGATED TO LESS THAN SIGNIFICANT LEVEL** - Mitigation Measures 2.3.2.A through 2.3.2.N will reduce potentially significant impacts on wetlands, minor drainages, and seepage areas within the project boundaries to a less than significant level. These Mitigation Measures are incorporated into the project as conditions of approval. The stated impacts are: *Impacts to Wetlands and Other Waters (FEIR Chapter 2.3.2). Approximately 0.012 acres of "Other Waters of the U.S." in the form of unvegetated seeps and springs, would be affected by Alternative 1 or 2 during construction activities undertaken to redirect them into new culverts. Additionally Coastal wetlands were identified at two turnouts that would be used for construction storage and staging.*

EVIDENCE: (a) Mitigation Measure 2.3.2.A To ensure that all potential impacts to wetland resources are avoided, environmentally sensitive area fencing would be installed to protect coastal wetlands, as delineated in Figure 2-21 A, B, and C (of the FEIR). The mapped locations of the environmentally sensitive areas will be included on the project plans and layout sheets and included in the special provisions of the construction contract. All fencing will be placed at the direction of the resident engineer, in consultation with a representative from the environmental branch. *County's Analysis: This mitigation avoids impacts to wetland communities during the construction project. Plans submitted to the RMA –Planning Department have incorporated this mitigation measure showing where fencing will be located.*

(b) Mitigation Measure 2.3.2.B All refueling and maintenance of equipment shall be conducted at least 60 feet from wetlands and waters of the U.S. *County's Analysis: This mitigation lacks a monitoring action but will reduce the risk of contamination from accidental oil spills or leak and other introduced contaminants. It will be the responsibility of Caltrans to assure compliance with this mitigation measure.*

(c) Mitigation Measure 2.3.2.C Prior to the onset of work, the Caltrans Resident Engineer will insure that the contractor has prepared a plan for prompt and effective response to any accidental spills, to ensure protection of aquatic resources. All personnel will be informed of the plan and the importance of preventing spills. *County's Analysis: Education regarding preventing spills will help avoid contamination and preparation of a*

clean-up plan will reduce potential impacts through preparedness in the event that an accident occurs. This mitigation does not fall within the purview or jurisdiction of Monterey County and the Big Sur Land Use Plan and is the responsibility of Caltrans and the U.S. Army Corp of Engineers. A condition of approval requiring compliance with other agency permits and adherence to Best Management Practices have been included in the conditions of approval for this project (Conditions #7 & 10).

(d) Mitigation Measure 2.3.2.D All construction activities will be completed in accordance with the Caltrans National Pollution Discharge Elimination System Permit (NPDESP), the General Construction Permit, and Caltrans Statewide Storm Water Management Plan. *County's Analysis: This is a general statement referring to Caltrans operating requirements including a NPDESP issued to Caltrans by the State Water Quality Control Board. The NPDESP requires preparation of a Storm Water Pollution Prevention Plan (SWPPP). These plans address erosion control and drainage during construction. There has been no indication from the State Water Pollution Control Board that any conflicts exist. The Planning Commission concurs that preparation and implementation of s SWPPP will aid in reducing potential contaminants. A condition of approval requiring compliance with other agency permits has been included in the conditions of approval for this project (Condition #7)*

(e) Mitigation Measure 2.3.2.E To protect all adjacent springs, seeps, willow riparian wetlands, and the Pacific Ocean/Monterey Bay National Marine Sanctuary, Caltrans will implement best management practices, as identified by the appropriate Regional Water Quality Control Board. Theses best management practices will be implemented to minimize or eliminate the potential for a non-storm water discharge to occur. Construction site best management practices are addressed in detail in the Storm Water Pollution Prevention Plan that will be developed for the project site. *County's Analysis: This mitigation is refers to preparation and implementation of erosion control measures required as part of the SWPPP in consultation with the Regional Water Quality Control Board which is under the purview of the State Water Board mentioned in MM 2.3.2.D above. A condition of approval requiring compliance with other agency permits and Best Management Practices have been included in the conditions of approval for this project (Conditions #7 & 10)*

(f) Mitigation Measure 2.3.2.F If a work site is to be temporarily de-watered by diversion of pumping, intakes would be completely screened with wire mesh not larger than five millimeters to prevent all aquatic wildlife from entering the pump system. Water will be treated, released, or pumped to an appropriate location at a rate to maintain downstream flows during construction. Upon completion of construction activities, any barriers to flow shall be removed in a manner that would allow flow to resume with the least disturbance to the substrate. *County's Analysis: Although no sensitive amphibian species were discovered in the project area the wire mesh will help prevent any impacts to previously unidentified species. The maintenance of quality and flow of water will maintain surface flows and help prevent erosion and water pollution (Big Sur LUP Policy 3.3.3.3).*

This mitigation is incorporated in the Conditions of approval for this project (Condition #10).

(g) Mitigation Measure 2.3.2.G Due to the time that will elapse before project construction and because the biological environment in the project area is subject to change, pre-construction surveys would be undertaken approximately one year prior to construction to identify up-to-date distribution of wetlands. If wetland presence or distribution has changed from that documented in the April 2005 Natural Environment Study, the appropriate agencies would be consulted. All avoidance, minimization, and mitigation measures would be applied, as directed above, to newly identified wetlands. *County's Analysis: The project is proposed to start construction within the 2009 or 2010 calendar year 4 to 5 years after the initial biological evaluations. Pre-construction surveys are important to identify current information and to allow for proper consultation if necessary. As part of the consultation, a review of mitigations and or changes that may require additional environmental review can take place to insure compliance with CEQA and other state and federal laws. A condition requiring a pre-construction survey has incorporated in the Conditions of approval for this project (Condition #8).*

(h) Mitigation Measure 2.3.2.H A biological/environmental monitor would be present onsite during construction activities that may impact the ocean and marine environment, special-status species, and/or migratory birds. This includes drilling and blasting for the construction of piers and abutments for the new bridge and rock shed and any associated de-water activities. *County's Analysis: Biological monitors duties and authorities are explained further in MM 2.3.2.I below.*

(i) Mitigation Measure 2.3.2.I The Caltrans Resident Engineer, in consultation with the biological and or environmental monitor would have the authority to halt any action that might result in impacts that exceed the anticipated levels of impact that were determined during agency review (by Caltrans, Army Corps of Engineers, Department of Fish and Game, Coastal Commission, and/or U.S. Fish and Wildlife Services) of the proposed actions. If work is stopped, the Biologist or Environmental Monitor would immediately notify these same regulatory agencies. *County's Analysis: This mitigation provides the opportunity for ongoing assessment of biological impacts and provides proper control and consultation measures to insure success and compliance with law. Conditions requiring compliance with other agency requirements (Condition #7) and biological monitoring during construction, (Condition #9) have been incorporated in the conditions of approval for this project.*

(j) Mitigation Measure 2.3.2.J All refueling and maintenance of equipment and vehicles will be at least 60 feet from any aquatic habitat, wetland area, or any water body. The contractor will ensure contamination of habitat does not occur during such operations. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur. *County's Analysis: This mitigation measure can be combined with MM 2.3.2.B and 2.3.2.C.*

(k) Mitigation Measure 2.3.2.K Prior to the onset of work, the Army Corps of Engineers will ensure that the permittee has prepared a plan to allow a prompt and effective response to any accidental spills around aquatic

habitats. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur. *County's Analysis: This mitigation measure can be combined with MM 2.3.2.B, 2.3.2.C and 2.3.2.J to insure a comprehensive approach to contaminant prevention and response.*

(l) Mitigation Measure 2.3.2.L Erosion Control and Storm Water Management. All construction activities would be completed in accordance with Caltrans Nation Pollution Discharge Elimination System Permit, the General Construction Permit, and Caltrans Statewide Storm Water Management Plan. *County's Analysis: This mitigation is a duplicate of Mitigation Measure 2.3.2.D. Similarly Mitigation Measures 2.3.2.M is a duplicate of 2.3.2.E, and 2.3.2.N is a duplicate of 2.3.2.F. There are no added benefits from these mitigations.*

(m) Monitoring It will be the responsibility of Caltrans to implement and monitor Mitigation Measures listed above with required consultation where necessary. The RMA –Planning Department will require Caltrans to provide information regarding the Storm Water Pollution Prevention Plan, pre-construction surveys, accidental spill response plan, and annual monitoring reports identifying implementation of proposed measures and success. Also Monterey County Planning Department should be consulted wherever new impacts are identified consistent with Mitigation Measures 2.3.2.G, 2.3.2.H, and 2.3.2.I (Condition # 5).

(n) Conclusion Fencing, Monitoring, Spill prevention, and erosion control are appropriate and feasible measures that would reduce potential impacts on wetlands and other waters to a less than significant level.

5c **FINDING:** **IMPACTS TO NESTING AND MIGRATORY BIRDS WILL BE MITIGATED TO LESS THAN SIGNIFICANT LEVEL** - Mitigation Measure 2.3.3.A will reduce potentially significant impacts on nesting or migratory birds to a less than significant level. These Mitigation Measures are incorporated into the project as conditions of approval. The stated impacts are: *Impacts to Migratory Birds (FEIR Chapter 2.3.3). Loss of nesting habitat for one to two seasons is anticipated with construction of either Alternative 1 or 2. Approximately 50 percent of the existing cable net would be removed at Rain Rocks under Alternative 1.*

EVIDENCE: (a) Mitigation Measure 2.3.3.A One year prior to construction, pre-construction surveys will be conducted during the nesting season to identify the presence or absence of active nests for birds protected under the Migratory Bird Treaty Act if birds are nesting, after their dispersal, bird netting would be installed to deter nesting during construction. *County's Analysis: The Department of Fish and Game regularly requires compliance with the Migratory Bird Act through mitigation in environmental review. This reduces the impact or take of bird species that may be nesting within the project limits. Conditions of approval requiring compliance with other agency permits and pre-construction surveys have been included in the conditions of approval for this project (Conditions #7 & 8).*

(b) Monitoring It will be the responsibility of Caltrans to implement and monitor Mitigation Measures listed above and to consult with the Department of Fish and Game where necessary.

(c) Conclusion Surveys, Bird netting, and appropriate timing of construction activities will insure compliance with the Migratory Bird Act and therefore result in a less than significant impact to migratory or nesting bird species.

5d **FINDING:** **IMPACTS TO THREATENED AND ENDANGERED SPECIES WILL BE MITIGATED TO LESS THAN SIGNIFICANT LEVEL** - Mitigation Measure 2.3.4.A through 2.3.4.I will reduce potentially significant impacts on threatened and endangered species to a less than significant level. These Mitigation Measures are incorporated into the project as conditions of approval. The stated impacts are:
Impacts to Threatened and Endangered Species (FEIR Chapter 2.3.4).
Evidence of potential presence of Smith's Blue butterfly, California Condors, and the Southern Sea Otter was identified within the project area. A single buckwheat plant (host plan for the butterfly) will need to be relocated as a result of construction of either alternative. Condors may be attracted to human activity in search of food or trash and there is a slight potential for indirect impacts to the Otter from construction related noise.

EVIDENCE: (a) Mitigation Measure 2.3.4.A The number of access routes, size of staging areas, and the total area of activity would be limited to the minimum necessary to safely construct this project. *County's Analysis: Big Sur Land Use Plan Policy 3.3.2.4 requires development within sensitive habitat to limit removal of vegetation and land disturbance associated with the development to only that needed for structural improvements. This mitigation is incorporated in the Conditions of approval for this project (Condition #10).*

(b) Mitigation Measure 2.3.4.B As a result of technical assistance from U.S. Fish and Wildlife Service under Section 7 of the Endangered Species Act, the single Smith's blue butterfly host plant (buckwheat) will be removed, with the surrounding soils and duff, and relocated outside the area of direct impact to an area nearby that has established buckwheat plants. *County's Analysis: This mitigation identifies that the proper agency consultation was conducted. As the regulatory body for consultation regarding federally endangered species, U.S. Fish and Wildlife Services (USFWS) is responsible for issuing appropriate permits and implementing conditions or mitigations where necessary to avoid or mitigate impacts. A condition of approval requiring compliance with other agency permits has been included in the conditions of approval for this project (Condition #7).*

(c) Mitigation Measure 2.3.4.C Due to their curious nature, condors may frequent the construction site and perch on large equipment, looking for food scraps. During construction, all food-related trash shall be properly contained and regularly removed from the work site. *County's Analysis: No suitable habitat for the Condor was identified at the site; however there is the potential for Condors to visit the work site in search of food. To prevent indirect impacts to Condors through human generated trash as a dietary source for the bird, Caltrans would keep any such material from access by Condors. Again USFWS is responsible for issuing appropriate permits and implementing conditions or mitigations where necessary to avoid or mitigate impacts. A condition of approval requiring compliance*

with other agency permits has been included in the conditions of approval for this project (Condition #7).

(d) Mitigation Measure 2.3.4.D A Caltrans biologist or designee will monitor sea otter activity during events that cause loud noises, such as blasting, for observation of abnormal activity or behavior and contact U.S. Fish and Wildlife Services if such behavior occurs. *County's Analysis: Loud noises are not expected to have a significant adverse impact on otters that may be present off shore approximately 200 feet below the project site. If impacts are identified USFWS will be consulted for appropriate actions to avoid impacts to the otter. A condition of approval requiring biological monitor (Condition #9) and compliance with other agency permits (Condition #7) have been included in the conditions of approval for this project.*

(e) Mitigation Measure 2.3.4.E Due to the time that would elapse before project construction and because the biological environment in the project area is subject to change, pre-construction surveys will be undertaken during the appropriate survey season, approximately one year prior to construction to identify up-to-date distribution of special status species. If any federally listed species are found during the pre-construction surveys, no construction would be undertaken until consultation was completed between the Federal Highway Administration and the U.S. Fish and Wildlife Service. If any state special-status species were found during the pre-construction surveys, no construction would be undertaken until consultation was completed between Caltrans and the California Department of Fish and Game. All requirements, resulting from consultation with the resource agencies will be followed. *County's Analysis: Pre-construction surveys are required as mitigation for several identified potential impacts. These surveys act as a check to insure all resources are dealt with fully and properly and this mitigation outlines steps for required consultation if necessary with appropriate agencies. In issuing permits the responsible agencies must comply with appropriate environmental review standards including CEQA. A condition requiring pre-construction surveys has been included in the Conditions of approval for this project (Condition #8).*

(f) Mitigation Measure 2.3.4.F A Caltrans biologist (or designee) will conduct a training session for all construction personnel before any construction activities begin. The training session will include a description of all special-status species known to occur in the project vicinity (Smith's Blue butterfly and buckwheat host plants, California Condor, and southern sea otter). The biologist will discuss their habitats, their importance, and general measures being implemented to conserve these species as they relate to the project boundaries. Brochures, photographs, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions. *County's Analysis: Training of personnel will increase awareness of activities and impacts of those activities on protected species. It will also help in ongoing compliance throughout project construction with mitigations. Conditions of approval requiring compliance with other agency permits (Condition #7) adherence to Best Management Practices (Condition #10), and biological monitoring (Condition # 9) have been included in this project.*

(g) Mitigation Measure 2.3.4.G A biological/environmental monitor would be present onsite during construction activities that may impact special-status species. This includes blasting for the construction of structure piers and abutments and any associated de-water activities. *County's Analysis: This mitigation is a broader description of the general biological monitoring requirement at the project site (See MM 2.3.4.D and MM 2.3.2.H).*

(h) Mitigation Measure 2.3.4.H If any special-status species are found during construction, the Environmental Branch shall be contacted immediately. After any and all required consultations with agencies have occurred, the Caltrans Biologist or designee shall be present at the construction site until such time as special-status species have been removed and any special instructions have been given to construction personnel. *County's Analysis: This mitigation is the same as MM 2.3.4.E except for the timing which in this case is ongoing during construction as apposed to pre-construction under 2.3.4.E. Conditions of approval requiring a biological monitor (Condition #9) and compliance with other agency permits have been included in the conditions for this project (Condition #7).*

(i) Mitigation Measure 2.3.4.I The Caltrans resident engineer, in consultation with the biologist and/or environmental monitor will have the authority to halt any action that might result in impacts that exceed the anticipated levels of impact that were determined during agency review (between Caltrans, U.S. Army Corps of Engineers, California Department of Fish and Game, and/or U.S. Fish and Wildlife Service). Once work has stopped, the biologist or environmental monitor will notify these same regulatory agencies. *County's Analysis: The authority of the monitor to halt work and requirement to consult with responsible agencies is similar to MM 2.3.2.I except that it applies to special-status species in this case. Conditions requiring compliance with other agency permits and requirements (Condition #7) and biological monitoring during construction (Condition #10), have been incorporated in the conditions of approval for this project.*

(j) Monitoring It will be the responsibility of Caltrans to implement and monitor Mitigation Measures listed above with required consultation where necessary. The RMA-Planning Department will require Caltrans to provide information regarding, pre-construction surveys and annual monitoring reports identifying implementation of proposed measures and success. Also Monterey County Planning Department should be consulted wherever new impacts are identified consistent with Mitigation Measures 2.3.4.E, 2.3.4.G, and 2.3.4.H (Condition #5).

(k) Conclusion Monitoring, education, and consultation are appropriate and feasible measures that would reduce potential impacts on special-status species to a less than significant level. Consultation with new information may require new environmental review pursuant to CEQA.

6. **FINDING: CEQA. NO SUPPLEMENTAL OR SUBSEQUENT EIR IS NEEDED.** No Supplemental or Subsequent EIR is needed pursuant to Public Resources Code Section 21166, or California Code of Regulations, Title 14, Sections 15162 or 15163 since certification of the Final EIR.

EVIDENCE: (a) There have not been any substantial changes to the project which require major revisions to the previous EIR due to the involvement of new

significant environmental effects or a substantial increase in the severity of previously identified effects. The EIR analyzed the project for which Caltrans is seeking a permit.

(b) No new information of substantial importance has been presented, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete. The primary purpose of this Combined Development Permit is to allow construction of a new bridge and rock shed on Highway 1 to improve safety and reliability while decreasing costs and environmental effects associated with maintenance at Pitkin's Curve and Rain Rocks. A Final Environmental Impact Report was certified on October 16, 2006. No new information has been presented since that time.

7. **FINDING:** **CEQA ALTERNATIVES TO THE PROPOSED PROJECT** – The EIR considered several alternatives to the proposed project in compliance with CEQA Guidelines Section 15126.6. The EIR considered the following alternatives as more fully described in Chapter 1.4 of the FEIR.

EVIDENCE: (a) Alternative Considered and Dismissed Caltrans, using the *Coast Highway Management Plan* as a guide, considered several alternatives that would accomplish the goal of the project. These alternatives were ultimately dismissed due to circumstances applicable to the site. The alternatives considered included: 1) Realigning the highway inland (*withdrawn due to substantial environmental impacts and cost*); 2) Retaining wall and reinforced embankments (*retaining walls were estimated to be approximately 55 feet high by 300 feet long, would require rebuilding the entire slope, and would not be a long term permanent solution*); 3) Rock net above Pitkins Curve (*withdrawn because the slope is too unstable to allow anchoring of these devices*); and 4) A continuous Rock Shed (*withdrawn due to safety concerns regarding tight curves, 25 mph zone, limited visibility, environmental impacts, and cost*).

(b) No Project Alternative (Alternative 3) The "No Project Alternative" would not accomplish the purpose of the project which is to provide improvements that would substantially decrease maintenance expenditures and appreciably increase highway worker safety and roadway reliability, dependability, and motorist safety while minimizing environmental impacts at the Pitkins Curve/Rain Rocks location. Negative consequences of the "No Project Alternative" include routine and expensive maintenance to clean landslide material from behind existing berms and transport that material to diminishing stockpile locations, continued unexpected road closures, replacement of cable mesh every 13 years, ongoing safety concerns for motorists and highway crews potentially resulting in injury or death, and potential loss of the road in the event of a catastrophic failure which would require a complete rebuild of the highway.

(c) Bridge (Alternative 2) Alternative 2 would consist of the construction of a new bridge at Pitkins Curve and no change at Rain Rocks. This project would eliminate the risk associated with the Pitkins Curve landslide area but does not address risks from rock fall at Rain Rocks. All of the cable mesh at Rain Rocks would remain in place and be replaced approximately every 13 years. Although this project would not place a large structure that

is unique to the Coast Highway in Big Sur within the critical viewshed (therefore having fewer impacts on aesthetics and a reduced construction period) there would still be risks to life and safety as a result of falling rocks and boulders.

(d) Bridge and Rock Shed (Alternative 1) After consideration of comments received during the public review, Caltrans selected Alternative 1 as the preferred alternative because it provides the safest and most reliable highway facility and provides efficiencies of expenditures and construction. This alternative would construct a new 525 foot long bridge at Pitkins Curve and a new 240 foot long rock shed at Rain Rocks. Construction of the bridge and rock shed would substantially reduce the need for regular roadway maintenance and associated traffic disruption. It would eliminate the risk of catastrophic failure, extensive road closures, and environmental and economic costs. Minor periodic maintenance would still be required. Alternative 1 was chosen as the environmentally superior alternative for these reasons.

8. **FINDING:** **CEQA (STATEMENT OF OVERRIDING CONSIDERATIONS)** - The project would result in significant and unavoidable aesthetic impacts that cannot be mitigated to a less than significant level as described in this finding (see FEIR Chapter 3). Mitigation Measure 2.1.4.A through 2.1.4.V will reduce potentially significant impacts on aesthetics to avoid or substantially lessen the significant environmental effect as identified in the final EIR. These Mitigation Measures are incorporated into the project as conditions of approval. The following information is presented to comply with Sections 15091 and 15093 of the State CEQA Guidelines

EVIDENCE: (a) Mitigation Measure 2.1.4.A Design the structures with the highest quality architectural and engineering practices and considerations, acknowledging the existing historic bridges of the Big Sur Coast and using current state-of-the-art technology. *County's Analysis: The proposed project includes plans and photo simulations representing a design developed with public input in keeping with this mitigation and policy 4.1.3.B.4 of the Big Sur LUP.*

(b) Mitigation Measure 2.1.4.B Involve the community in the design of all structures, walls, barriers, and other project aesthetics through the creation of an Aesthetic Design Advisory Committee. *County's Analysis: Materials contained in the project file outline the formation of an Aesthetic Design Advisory Committee (ADAC), the groups and agencies that participated in the ADAC meetings, dates on which meetings were held, and a brief summary of the discussions at those meetings. The resulting project design was developed in this forum in keeping with this mitigation and policy 4.1.3.B.4 of the Big Sur LUP.*

(c) Mitigation Measure 2.1.4.C Consider including a high level of architectural detailing in the design of the structures. *County's Analysis: This mitigation can be included in MM 2.1.4.A and 2.1.4.B.*

(d) Mitigation Measure 2.1.4.D Use an open-style safety rail that minimizes view blockage. *County's Analysis: Design of the railings is included in the plans submitted for the application contained in project file PLN080218 located at 168 W. Alisal in Salinas California. The railing design is in keeping with this mitigation and policy 4.1.3.B.4 of the Big Sur LUP.*

(e) Mitigation Measure 2.1.4.E Use finish colors and textures that minimize reflectivity and glare. *County's Analysis: Finish colors and textures were developed with input for the ADAC. The project plans reflect the final design that includes natural appearing stone on the rock shed.*

(f) Mitigation Measure 2.1.4.F To the greatest extent possible use an "honest use of materials" philosophy that avoids the use of obviously "fake" materials, such as materials that are concrete formed and colored to look like wood, etc. *County's Analysis: Finish colors and textures were developed with input for the ADAC. The project plans reflect the final design that includes natural appearing stone on the rock shed.*

(g) Mitigation Measure 2.1.4.G Re-contour all disturbed areas and construction access roads to a natural appearance. *County's Analysis: Some re-contouring is included in the plans submitted for the application contained in project file PLN080218 located at 168 W. Alisal in Salinas California. This will compliment the mitigations identified that require replanting of vegetation to restore the site following completion of construction. A condition requiring restoration of the site has been incorporated in the conditions of approval for this project (Condition # 4).*

(h) Mitigation Measure 2.1.4.H Vegetate all stabilized soil areas with native shrubs and grasses. Include planting where possible around all exposed drainage pipes, permanent access roads, and retaining walls (except the interior of the rock shed). *County's Analysis: Again revegetation will help restore the natural appearance of the site following construction. See MM 2.3.1.B, 2.3.1.C and 2.3.1.E described in Finding 5a above and Condition #4.*

(i) Mitigation Measure 2.1.4.I Integrate existing rock outcroppings and stone landforms into the design to the greatest extent possible. *County's Analysis: Based on the plans submitted by Caltrans it appears that engineering requirements of the rock shed require the construction of an interior retaining wall which will prohibit implementation of this measure within the interior of the rock shed.*

(j) Mitigation Measure 2.1.4.J Minimize the use of signage and reflectors to the minimum required in the Manual of Uniform Traffic Control Devices with concurrence by Caltrans Traffic Design. *County's Analysis: Signage is required to be in conformance with Big Sur Land Use Plan policy 3.2.5.C.1 which expressly requires the use of unpainted redwood signs. This mitigation is incorporated in the Conditions of approval for this project (Condition #11).*

(k) Mitigation Measure 2.1.4.K Minimize use of asphalt or concrete paving beyond the proposed 4-foot shoulders. If additional paving were required, alternative natural-appearing surfaces such as soil cement will be used. *County's Analysis: This mitigation will provide a nice transition from the road back to the natural and rustic setting of the site and is in compliance with the Coast Highway Management Plan guiding policies and therefore Policy 4.1.3.B.4 of the Big Sur LUP. This mitigation is incorporated in the design of the project and Condition #12.*

(l) Mitigation Measure 2.1.4.L Color additional rock netting or mesh, if required, completely black, including all integral connectors. *This should be implemented with or without the project to reduce the visual impact of the current and future rock netting within the project area. County's*

Analysis: This mitigation is incorporated in the Conditions of approval for this project (Condition #12).

(m) Mitigation Measure 2.1.4.M Bury all overside drains and inlet structures or hide them from view to the greatest extent possible. Where unavoidably exposed to view, color the pipes to reduce visibility, and dull the gloss of the finish. *County's Analysis: Storm drainage pipes daylighting out the western bluff may be seen from turn outs near the project site. Hiding or coloring the pipes will help blend the infrastructure into the hillside and substantially reduce visibility. This mitigation is incorporated in the Conditions of approval for this project (Condition #12).*

(n) Mitigation Measure 2.1.4.N Color all paved ditches to reduce noticeably. *County's Analysis: Self explanatory and incorporated by Condition #12.*

(o) Mitigation Measure 2.1.4.O Where metal beam guardrail is required, use measures to reduce reflectivity of the metal components. *County's Analysis: The proposed project would straighten the highway eliminating the curve at Pitkins Curve. The plans show a concrete barrier (Type 80) along the bridge and rock shed. See guardrail design in project file.*

(p) Mitigation Measure 2.1.4.P If paving is required beyond the paved portion of the roadway, use alternative natural-appearing surfaces such as soil cement. If a safety barrier is required at the perimeter of the pullout or parking area, design it to complement the other project structures. If boulders are used, half-bury them into the soil to appear natural. *County's Analysis: Pavement beyond the 12-foot lanes and 4-foot shoulders has already been addressed in MM 2.1.4.K. No new turnouts are proposed.*

(q) Mitigation Measure 2.1.4.Q If pedestrian or bicycle railing is required, design it with materials, form, and colors to minimize noticeability and ocean view blockage, and to complement the bridge and rock shed architecture. *Every aspect of the proposed structures can be listed to include appropriate design for the area. The proposed design is consistent with the Coast Highway Management Plan and the Big Sur Land Use Plan.*

(r) Mitigation Measure 2.1.4.R Minimize the tight, enclosed spatial characteristics of the rock shed to the greatest extent possible through measures such as reducing the number of columns, reducing the thickness of the columns, raising the ceiling height of the structure, aligning the inside retaining wall (closest to the uphill slope) as far from the highway lanes as possible, and allowing the entry portals openings to be as large as feasible and still architecturally appropriate. *County's Analysis: The proposed rock shed will have an arched ceiling height of approximately 22 feet. There will be six columns on the western side of the rock shed that taper toward the top and will be connected by arches which will help frame views of the ocean from within the structure. The design of the rock shed inside and out has been well thought out. This design seems like a reasonable compromise between highway safety and reliability and protection of the visual resources at the site.*

(s) Mitigation Measure 2.1.4.S Design the length of the rock shed and the form of the parapet walls at the portals so that no personnel fencing or railings are visible from the highway. *County's Analysis: This mitigation is self-explanatory. Plans submitted reflect proposed design.*

(t) Mitigation Measure 2.1.4.T Consider using a ledger beam to support the rock shed roof connection to the hill rather than a full-height retaining wall, so that the native rock face of the hill would be exposed to highway viewers. *County's Analysis: Plans submitted for the rock shed include an interior retaining wall rather than a ledger beam. It is assumed that this is based on engineering requirements. Efforts have been made to treat the interior of the rock shed with stone so that it maintains a somewhat natural appearance.*

(u) Mitigation Measure 2.1.4.U Disguise to the greatest extent possible any permanent road required to the roof of the rock shed for maintenance access. Also disguise any necessary gate by making it appear as a natural landform or screening it with berms and/or natural appearing boulders and native vegetation if possible. *County's Analysis: Caltrans has indicated that no access road will be developed. Access to the roof of the rock shed will be via use of maintenance equipment if required. Therefore, there is no visual impact from the creation of access roads that needs mitigating.*

(v) Mitigation Measure 2.1.4.V Retrofit or replace the existing bridge rail on the Rain Rocks viaduct to complement the new bridge and rock shed structures. *County's Analysis: Caltrans intends on replacing the rail at Rain Rocks viaduct so that there is not a scattering of different architectural and railing types in the vicinity. This will bring some degree of uniformity in style. This mitigation is not expressly required as part of the Big Sur Land Use Plan or the Coast Highway Management Plan and therefore is at the discretion of Caltrans.*

(w) Unavoidable Effects The FEIR concludes that the rock shed feature of Alternative 1 would be a substantial structure that is highly visible, distinctive, and unexpected in the magnificent natural setting of the Big Sur coast and on the state scenic highway. Measures are proposed to mitigate the aesthetic character of the rock shed; however, it is not possible to neither hide this structure from view nor blend its features to fully harmonize with the scenic qualities of the Big Sur Coast.

(x) Statement of Overriding Considerations The California Department of Transportation (Caltrans) proposes to construct a bridge and rock shed on Highway 1 to restore highway reliability, decrease maintenance expenditures, and protect highway workers at Pitkins Curve and the northern chute of Rain Rocks along the Big Sur Coast in Monterey County, California. Unstable geology and winter storms cause unpredictable and extensive landslides and rockfall at Pitkins Curve/Rain Rocks. These events regularly reduce and sever travel for months at a time on Highway 1, a state scenic highway and national scenic byway "All-American Road," and the only direct coastal link to communities between San Simeon and Carmel. Highway restoration is generally conducted under emergency conditions, which increases risk to highway workers, elevates costs, restricts the range of methods available to restore the highway, and limits ways to avoid or minimize impacts to traffic movement, the economy, and the environment. At this location, even the routine maintenance of managing the landslides is riskier and has higher maintenance costs than for other locations on the Big Sur Coast Highway. Caltrans geologists and geotechnical engineers have studied the slopes at Pitkins Curve/Rain Rocks and concluded that the hillside will continue to

slide, the highway will be damaged repeatedly, and it will likely be severed again. The project (construction of a bridge and rock shed) would substantially reduce the need for regular roadway maintenance and associated traffic disruption. It would eliminate the risk to highway workers of working in the active rockfall area and eliminate the risk of catastrophic highway failure, extensive road closures, and environmental and economic costs. The project provides the most reliable and dependable transportation facility and, over the life of the project, would have the least impact to the area's economy.

9. **FINDING:** **NO VIOLATIONS** - The subject property is in compliance with all rules and regulations pertaining to zoning uses, subdivision, and any other applicable provisions of the County's zoning ordinance. No violations exist on the property. Zoning violation abatement costs, if any, have been paid.

EVIDENCE: Staff reviewed Monterey County RMA - Planning Department and Building Services Department records and is not aware of any violations existing on subject property.

10. **FINDING:** **HEALTH AND SAFETY** - The establishment, maintenance, or operation of the project applied for will not under the circumstances of this particular case be detrimental to the health, safety, peace, morals, comfort, and general welfare of persons residing or working in the neighborhood of such proposed use, or be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the County.

EVIDENCE: (a) Improvements to Highway 1 shall be undertaken in order to increase its service capacity and safety, consistent with its retention as a scenic two-lane road (Big Sur LUP Policy 4.1.2.1). To date, three vehicles been struck and damaged by falling rocks while traveling Pitkins Curve and Rain Rocks in addition to numerous rock fall related accidents reported by Caltrans highway workers. Extensive and unexpected closures have occurred due to blockages caused by landsliding and rock fall. The proposed project will increase safety and reliability of Highway 1 while remaining a two-lane road.

(b) The County requests that, in order to maximize vehicular access to the Big Sur Coast the width of Highway 1 be upgraded to a standard 12-foot lanes and two 4-foot shoulders where physically practical and consistent with the preservation of other coastal resources values (LUP Policy 4.1.3.A.1). The proposed project includes uniform 12-foot wide lanes and a 4-foot wide shoulder throughout the project site.

(c) Findings 1 and 2 with supporting evidence.

(d) The application, project plans, and related support materials submitted by the project applicant to the Monterey County RMA - Planning Department for the proposed development found in Project File PLN080218.

11. **FINDING:** **30% SLOPE**: Development on slopes in excess of 30% is prohibited unless there is no feasible alternative that would allow development to occur on slopes of less than 30%, or the proposed development better achieves the goals, policies and objectives of the Monterey County General Plan and applicable Land Use Plan than other development alternatives.

EVIDENCE: (a) The project is essential to improve the health and safety of the traveling public. The project area lies in an area already impacted by steep slopes and associated slope failure. The project is designed to remove the highway from these hazards. There is no feasible alternative that would allow the proposed development to occur on slopes of less than 30%;
(b) As a safety improvement, including separation of structures from the hazard, the proposed project would better meet the goals, policies, and objectives of the General Plan and Land Use Plan.
(c) Findings 1, 2, and 10 with supporting evidence
(d) The *Coast Highway Management Plan*, July 2003
(e) The application, project plans, and related support materials submitted by the project applicant to the Monterey County RMA - Planning Department for the proposed development found in Project File PLN080218.

12. **FINDING:** **PUBLIC ACCESS:** The project is in conformance with the public access and public recreation policies of the California Coastal Act and the Monterey County Local Coastal Program, and does not interfere with any form of historic public use or trust rights (see 20.70.050.B.4).

- **First public road and applicable Coastal Act policies**. Since Highway 1 is the first public road paralleling the sea, the requirements of Coastal Act Sections 30212 regarding the provision of public access in new development projects seaward of the first public road, as well as Section 30210 providing for public access opportunities to be maximized apply.
- **Highway 1 as public access corridor**. At this location, Highway 1 is a critical public access corridor for all motorized and bicycle recreational users and is the only coastal link between San Luis Obispo County and the City of Carmel-By-The-Sea. The project site is on Highway 1 in Big Sur which has been designated as State Scenic Highway and National Scenic Byway/All-American Road. It is the main access to the numerous recreation sites including state parks, federal recreation lands, and visitor-serving recreation destinations from Hearst Castle to Point Lobos. The highway, in this area, is not just a means of accessing these recreation areas it is a destination all its own for its spectacular beauty. Thus, the safety and reliability of the road is a significant public access and recreation issue.
- **Pedestrian access**. For hikers, coastal beach access is already possible south of the project site at Rockland Landing Beach, at the mouth of Limekiln Creek within Limekiln State Park. Coastal access to the shoreline within the project limits is infeasible in this case due to the extremely steep, unstable terrain. The need for lateral access through or around the project site has been identified. In particular, there is no safe hiker access between the State Park's main trailhead-campground area and the northern part of the park—accessed from Highway 1 by the Twitchell Flat Trail (a former fire access road). Hikers attempting to use the highway for lateral access around the Rain Rocks Promontory are forced to share the roadway with motor traffic-a significant safety impairment. An alternative lateral access connection is believed to be feasible inland from the proposed highway structures by connecting the existing Twitchell Flat Trail to the main Limekiln State Park trailhead, thus bypassing the Pitkins Curve/Rain Rocks obstacle. Rehabilitation

and development of coastal trails in the area would satisfy Big Sur Coast Land Use Plan and California Coastal Act requirements regarding maximizing public access opportunities to and along the coast. It would also be consistent with Senate Bill 908 regarding completing the California Coastal Trail (CCT), and would provide appropriate pedestrian connections consistent with current Caltrans directives for non-motorized mobility modes.

- **Bicycle access along the coast**. The designated Pacific Coast Bike Route runs from Vancouver British Columbia to Imperial Beach California along Highway 1. The project location is currently lacking in a uniform shoulder for bicycling which increases dangers from sharing the road with motorists. The project has been designed to include paved 4-foot wide shoulders throughout the project site, consistent with Big Sur Coast Land Use Plan policy 4.1.3.A.1. Bicycle safety railings will also be provided along the bridge and through the rock shed. This will result in a superior situation for bicycle access in this area.
- **Summary for applicable Coastal Act public access and recreation policies**. This project will significantly help to relieve safety risks and unplanned road closures to motorized public access along the coast. The project improves pedestrian public access through the incorporation of monetary contributions toward development of a Coastal Trail in the vicinity and improves mobility via bicycle through the inclusion of 4-foot wide shoulders (which will also improve safety for the occasional on-highway pedestrian). Accordingly, as designed, the project provides the types of public access improvements appropriate to the context, and is consistent with the above-cited Coastal Act public access policies for new development seaward of the first public road.
- **Summary for Monterey County Local Coastal Program**. The project consists entirely of improvements that will help maintain and enhance public access along the coast. The proposed improvements are consistent with, and will serve to carry out the applicable public access policies of the Monterey County Local Coastal Program. Monetary contributions for development of a pedestrian coastal trail bypassing Pitkins Curve and Rain Rocks are required as part of the project. Per an agreement to be developed between Caltrans and State Parks, Caltrans shall be responsible for contributing to the cost of rehabilitating these trail segments and State Parks shall be responsible for design, construction, and ultimate operation and maintenance upon completion of the needed rehabilitation work.

EVIDENCE: (a) Caltrans contribution The rights of access to the shoreline, public lands, and along the coast, and opportunities for recreational hiking access, shall be protected, encouraged and enhanced (Land Use Plan Key Policy 6.1.3). Caltrans proposes, and the project is conditioned to require, a fair share contribution to California State Parks, for improvement of trails bypassing Pitkins Curve and Rain Rocks. Connecting a trail north of the project site (Twitchell Flats) with the Limekiln State Parks main trailhead to the south will complete an essential 1.1 mile segment of the California Coastal Trail. It will also provide a linkage between existing disconnected recreational trail segments within the State Park, thereby creating an enhanced and enjoyable 4.7 mile trail system bypassing Pitkins Curve and

Rain Rocks. This measure will therefore satisfy Coastal Act requirements for maximizing public access opportunities (Condition #6). A deposit in an amount sufficient to support implementation of the proposed pedestrian hiking trail, bypassing the new bridge and rock shed on Highway 1, is required. The total required deposit will be based on trail improvements that would allow pedestrian bypass access around Pitkins Curve and Rain Rocks, beginning at the day use parking area and continuing via the "Alvin Trail", terminating at the junction of State Route 1 and Twitchell Flats Road. Specifically, the envisioned rehabilitation work would include connecting portions of the lower Limekiln Creek Trail and Twitchell Flat fire road/trail, repair of the day use trailhead parking area for the Limekilns Trail, development of signage needed for the segment of the Limekilns Trail between the trailhead and the beginning of the Alvin trail, as well as for the segment of the Twitchell Flat fire road/trail, between the north end of the Alvin Trail to its junction at Highway 1 north of the new highway bridge, and production of an updated trail map. The interagency agreement (IA) between State Parks, Caltrans and the Conservation Corps will set forth project start and completion dates, trail routes, trail specifications, responsibility for operation and maintenance, and funding allocations. Once Caltrans has funded the Coastal Trail Rehabilitation portion of this project, their obligation toward providing pedestrian access around the said highway project is finalized. The IA will further specify staging areas for access to the Coastal Trail, which will consist of the day use parking area at Limekiln Creek (on the south end) and Twitchell Road at Highway 1 (on the north end). Deposit amounts are subject to reallocation between project elements at the sole discretion of the Department of Parks and Recreation ("State Parks").

(b) Responsibilities for additional environmental review and for Coastal Development Permit, if needed. The proposed trail rehabilitation work identified above is understood to fall within the definition of repair and maintenance activities that are excluded from the requirement to obtain a coastal development permit. In event that the necessary trail work entails substantive realignment, new structures or grading, the Planning Director will determine if a separate coastal development permit is required. Any additional environmental review and any required separate coastal development permit will be the responsibility of the California Department of Parks & Recreation.

(c) Responsibilities after trail rehabilitation. Once opened, State Parks or subsequent owners in interest, shall operate and maintain the new Coastal Trail segment in perpetuity. Caltrans will have no further obligation for upkeep of this trail segment.

(d) Bicycle access The project proposes a uniform 4-foot wide shoulder throughout the project site which will be adequate for bicycle use.

(e) Highway 1 access The project itself will improve access along Highway 1, which is an important public access route that provides access to other recreational opportunities along the Big Sur and San Luis Obispo coastlines, by improving safety and reliability.

(f) Existing trails No existing trails or shoreline access areas will be adversely impacted as a result of the proposed project.

(g) Public Transportation There will be no impact on public transportation in this remote area of the Coast other than improved safety and reliability for existing services.

(h) Traffic management during construction Temporary road closures during construction will have the potential to impact access and local economies. To address this issue and concerns raised, Caltrans has developed a Transportation Management Plan with input from the community and stakeholders. The plan indicates that throughout the estimated 5-year construction period one-lane access will be maintained by using traffic signals or flaggers. Several construction-related activities will require road closures. Two types of closures or extended delays have been made available to the contractors including nighttime closures from 9 PM to 6 AM Sunday night through Friday mornings only (9 hour durations) and a maximum of 12- 15 to 120 minute daytime extended delays per year between 9 AM and 4 PM Mondays through Thursdays. At least one week's notification is required for both closure options. Two permanent and four temporary changeable message signs, strategically located at the Carmel River Bridge, Coast Gallery, two at the project site, San Simeon, and the intersection of Highway 1 and Highway 46, will be used to alert motorists of construction delays. Emergency personnel will be allowed access at all times. Implementation of this plan significantly reduces impacts on recreation and access through the use of appropriate timing and an absence of extensive delays; current conditions sometimes require closure of the road for maintenance for days at a time.

(i) Application The application, project plans, and related support materials submitted by the project applicant to the Monterey County RMA - Planning Department for the proposed development found in Project File PLN080218.

13. **FINDING:** **APPEALABILITY** - The decision on this project is appealable to the Board of Supervisors and the California Coastal Commission.

EVIDENCE: (a) Section 20.86.030 of the Monterey County Coastal Implementation Plan - Part 1 (Board of Supervisors).

(b) The project may be appealed to the California Coastal Commission pursuant to Section 20.86.080 of the Monterey County Coastal Implementation Plan - Part 1 because the proposed project is subject to a Coastal Development Permit and is located between the sea (Pacific Ocean) and the first public road paralleling the sea (Highway 1).

EXHIBIT C Monterey County Resource Management Agency Planning Department Condition Compliance and/or Mitigation Monitoring Reporting Plan	**Project Name:** California Department of Transportation (Pitkins Curve/Rain Rocks) **File No:** PLN080218 **APNs:** Highway 1 Public Road Right-of-way **Approved by: Planning Commission** **Date: April 8, 2009**

Monitoring or Reporting refers to projects with an EIR or adopted Mitigated Negative Declaration per Section 21081.6 of the Public Resources Code. Caltrans has already certified and adopted a mitigation monitoring and reporting plan (10/16/2006)

Permit Cond. Number	*Mitig. Number*	*Conditions of Approval and/or Mitigation Measures and Responsible Land Use Department*	*Compliance or Monitoring Actions to be performed. Where applicable, a certified professional is required for action to be accepted.*	*Responsible Party for Compliance*	*Timing*	*Verification of Compliance (name/date)*
1.		**PD001 - SPECIFIC USES ONLY** This Combined Development Permit (PLN080218) allows 1)A Coastal Development Permit to allow the construction of a 525 foot long bridge at Pitkins Curve and a 240 foot long rock shed at Rain Rocks over Highway 1 for the purpose of rock fall and landslide mitigation including approximately 25,000 cubic yards of grading; 2) A Coastal Development Permit for development on slopes greater than 30%; 3) A Coastal Development Permit to allow development within the critical viewshed; 4) A Coastal Development Permit to allow development with the potential to cause a significant environmental impact; and 5) A Design Approval. The site is located at State Route 1, Big Sur between Post Mile 21.3 and 21.6 just north of Limekiln State Park Big Sur Land Use Plan. This permit	Adhere to conditions and uses specified in the permit.	Owner/ Applicant	Ongoing unless otherwise stated	

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		was approved in accordance with County ordinances and land use regulations subject to the following terms and conditions. Neither the uses nor the construction allowed by this permit shall commence unless and until all of the conditions of this permit are met to the satisfaction of the Director of the RMA - Planning Department. Any use or construction not in substantial conformance with the terms and conditions of this permit is a violation of County regulations and may result in modification or revocation of this permit and subsequent legal action. No use or construction other than that specified by this permit is allowed unless additional permits are approved by the appropriate authorities. To the extent that the County has delegated any condition compliance or mitigation monitoring to the Monterey County Water Resources Agency, the Water Resources Agency shall provide all information requested by the County and the County shall bear ultimate responsibility to ensure that conditions and mitigation measures are properly fulfilled. **(RMA - Planning Department)**				

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2.		**PD002 - NOTICE-PERMIT APPROVAL** The applicant shall record a notice which states: "A permit (Resolution _____) was approved by the Planning Commission for State Route 1 between Post Mile 21.3 and 21.6 on April 8, 2009. The permit was granted subject to 12 conditions of approval which run with the land. A copy of the permit is on file with the Monterey County RMA - Planning Department." Proof of recordation of this notice shall be furnished to the Director of the RMA - Planning Department prior to issuance of building permits or commencement of the use. **(RMA - Planning Department)**	Proof of recordation of this notice shall be furnished to the RMA - Planning Department.	Owner/ Applicant	Prior to construction	
3.		**PD004 - INDEMNIFICATION AGREEMENT** The property owner agrees as a condition and in consideration of the approval of this discretionary development permit that it will, pursuant to agreement and/or statutory provisions as applicable, including but not limited to Government Code Section 66474.9, defend, indemnify and hold harmless the County of Monterey or its agents, officers and employees from any claim, action or proceeding against the County or its agents, officers or employees to attack, set aside, void or annul this approval, which action is brought within the time period provided for under law, including but not limited to, Government Code Section 66499.37, as applicable. The property owner will reimburse the county for any court costs and attorney's fees which the County may be required by a court to pay as a result of such action. County may, at its sole discretion, participate in the defense of such action; but such participation shall not relieve applicant of his obligations under this	Submit signed and notarized Indemnification Agreement to the Director of RMA – Planning Department for review and signature by the County. Proof of recordation of the Indemnification Agreement, as outlined, shall be submitted to the RMA – Planning Department.	Owner/ Applicant	Upon demand of County Counsel or concurrent with use of the property, whichever occurs first and as applicable	

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		condition. An agreement to this effect shall be recorded upon demand of County Counsel or concurrent with the issuance of building permits, use of the property, filing of the final map, whichever occurs first and as applicable. The County shall promptly notify the property owner of any such claim, action or proceeding and the County shall cooperate fully in the defense thereof. If the County fails to promptly notify the property owner of any such claim, action or proceeding or fails to cooperate fully in the defense thereof, the property owner shall not thereafter be responsible to defend, indemnify or hold the county harmless. **(RMA - Planning Department)**				
4.	2.3.1.B, 2.3.1.C, 2.3.1.E, 2.1.4.G, and 2.1.4.H	**PD033 - RESTORATION OF NATURAL MATERIALS** Upon completion of the development, the area disturbed shall be restored to a condition to correspond with the adjoining area, subject to the approval of the Director of the RMA - Planning Department. Plans for such restoration shall be submitted to and approved by the Director of the RMA - Planning Department prior to commencement of use. **(RMA – Planning Department)**	Submit restoration plans to the RMA - Planning Department for review and approval.	Owner/ Applicant	Prior to commence-ment of use.	

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5.	2.3.1.D	**PDSP001 – MITIGATION MONITORING AND REPORTING (NON-STANDARD)** The California Department of Transportation shall submit biannual mitigation monitoring and reporting information including any pre-construction surveys or plans required to the Monterey County RMA – Planning Department and the California Coastal Commission describing compliance with mitigation implementation and success. Reporting shall continue for three years following completion of the project or until the vegetation replanting success criteria is reached as described in Mitigation Measure 2.3.1.E of the EIR. **(RMA – Planning Department and the California Coastal Commission)**	Prior to construction the applicant (Caltrans) shall submit a reporting plan describing compliance with all mitigations required prior to construction activities to the RMA-Planning Department and the California Coastal Commission for review.	Caltrans	Prior to construction	
			Every six months, starting at commencement of construction and ending with successful restoration of vegetation at the site, Caltrans shall submit reporting plans demonstrating compliance with applicable mitigation measures to the RMA-Planning Department and the California Coastal Commission for review.	Caltrans	Every six months until project completion	

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6.		**PDSP002 – CALIFORNIA COASTAL TRAIL CONTRIBUTION (NON-STANDARD)** In lieu of constructing a barrier-separated pedestrian walkway on the new bridge and within the new rock shed, Caltrans shall deposit funds sufficient to reconstruct and rehabilitate a hiking trail that bypasses the segment of State Highway where the new construction is permitted. Specifically, such hiking trail shall function as a segment of the California Coastal Trail, from the existing Limekiln Trail trailhead, inland around the Rain Rocks promontory and Pitkins Curve landslide, rejoining Highway 1 north of the new bridge. Prior to commencement of construction, the California Department of Transportation shall submit documentation demonstrating a fair share contribution, in compliance with the California Coastal Act public access policies and an implementation agreement with State Parks, for improvements and development of pedestrian trails bypassing the Pitkins Curve and Rain Rocks site to the RMA – Planning Department and the California Coastal Commission for review and approval. **(RMA – Planning Department and the California Coastal Commission)**	Prior to commencement of construction of the permitted highway structures, the required deposit shall be placed in trust with the Department of Parks and Recreation or its designee (e.g., the State Coastal Conservancy, or the Transportation Agency for Monterey County). Such funds shall be held in a segregated account earmarked for Coastal Trail reconstruction and rehabilitation within and adjoining Limekiln State Park. Caltrans shall submit proof of said deposit to the RMA-Planning department prior to construction activities. Such deposit shall be sufficient to cover trail improvements that would allow pedestrian bypass access around Pitkins Curve and Rain Rocks, beginning at the day use parking area and continuing via the "Alvin Trail", terminating at the junction of State Route 1 and Twitchell Flats Road. Specifically, an interagency agreement is needed to assure the envisioned goal of; connecting portions of the lower Limekiln Creek Trail and Twitchell Flat fire road/trail, repair of the day use trailhead parking area for the Limekilns Trail, development of signage needed for the segment of the Limekilns Trail between the trailhead and the beginning of the Alvin trail, as well as for the segment of the Twitchell Flat fire road/trail, between the north end of the Alvin Trail to its junction at Highway 1 north of the new highway bridge, and production of an updated trail map.	Caltrans/ California Department of Parks and Recreation/	Prior to construction	

Permit Cond. Number	*Mitig. Number*	*Conditions of Approval and/or Mitigation Measures and Responsible Land Use Department*	*Compliance or Monitoring Actions to be performed. Where applicable, a certified professional is required for action to be accepted.*	*Responsible Party for Compliance*	*Timing*	*Verification of Compliance (name/date)*
			Prior to construction, Caltrans shall submit to the Director of the RMA-Planning Department, for review and approval, an executed agreement with the California Department of Parks and Recreation ("State Parks") ensuring that State Parks will obligate these funds and provide for commencement of trail reconstruction /rehabilitation work within one year of deposit. The interagency agreement (IA) between State Parks and Caltrans will set forth project start and completion dates, trail routes, trail specifications, responsibility for operation and maintenance, and funding allocations. Once Caltrans has funded the Coastal Trail Rehabilitation portion of this project, their obligation toward providing pedestrian access around the said highway project is finalized. The IA will further specify staging areas for access to the Coastal Trail, which will consist of the day use parking area at Limekiln Creek (on the south end) and Twitchell Road at Highway 1 (on the north end).	Caltrans/ California Department of Parks and Recreation/	Prior to construction	

Permit Cond. Number	*Mitig. Number*	*Conditions of Approval and/or Mitigation Measures and Responsible Land Use Department*	*Compliance or Monitoring Actions to be performed. Where applicable, a certified professional is required for action to be accepted.*	*Responsible Party for Compliance*	*Timing*	*Verification of Compliance (name/date)*
			The agreement shall include provisions for the Coastal Trail segment reconstruction and rehabilitation to be completed and available for visitor use on or prior to the opening of the new highway structures. The agreement may include provisions for extension of either the commencement of construction and/or the completion of the new Coastal Trail segment for up to one year, subject to demonstration of good cause.	Caltrans/ California Department of Parks and Recreation/	Prior to construction	

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7.	2.3.2.B-E, 2.3.2.H-K, 2.3.3.A-D, and 2.3.4.F-I	**PDSP003 – OTHER AGENCY PERMITS AND REQUIRMENTS (NON-STANDARD)** If applicable, prior to beginning work and during construction at the direction of the biological monitor, Caltrans shall consult with and obtain clearance and/or permits from proper and relevant local, state, and federal agencies including: a. California Coastal Commission b. State Water Quality Control Board c. U.S. Army Corps of Engineers/ACOE (401/404) d. California Department of Fish & Game (1601) e. U.S. Fish and Wildlife Services f. Monterey Bay National Marine Sanctuary (MBNMS) g. Monterey County Planning Department **(RMA-Planning Department)**	Contact and obtain required clearances and/or permits from the appropriate agencies if at anytime previously unidentified impacts are discovered. Submit evidence to the RMA-Planning Department that clearance and/or permits have been obtained.	Caltrans/ biological monitor	Ongoing- prior to and during construction	

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8.	2.3.2.G, 2.3.3.A, 2.3.4.D, and 2.3.4.E	**PDSP005 – PRE-CONSTRUCTION SURVEYS (NON-STANDARD)** Due to the time that will elapse before project construction and because the biological environment in the project area is subject to change, pre-construction surveys would be undertaken approximately one year prior to construction to identify up-to-date environmental settings. If sensitive habitat presence or distribution has changed from that documented in the April 2005 Natural Environment Study, the appropriate agencies would be consulted. All avoidance, minimization, and mitigation measures would be applied, as directed above, to newly identified wetlands. **(RMA-Planning Department)**	No more than one year prior to initiation of construction activities, a qualified biologist shall be retained to conduct a biological survey to determine if the biological environment in the project area has changed since the Natural Environment Study was prepared. Proof and results of the survey shall be submitted to the RMA – Planning Department for review and approval.	Caltrans/ Qualified Biologist	No more than one year prior to construction activities.	
			If new or previously unidentified impacts on sensitive habitats are identified during the pre-construction surveys, work shall not begin until clearance and/or permits are obtained from all appropriate agencies pursuant to Condition number 6.	Caltrans/ Qualified Biologist	Prior to construction	

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9.	2.3.2.I, 2.3.4.F, and 2.3.4.H	**PDSP006 – BIOLOGICAL MONITOR (NON-STANDARD)** A biological/environmental monitor would be present onsite during construction activities that may impact the ocean and marine environment, special-status species, and/or migratory birds. This includes drilling and blasting for the construction of piers and abutments for the new bridge and rock shed and any associated de-water activities. **(RMA-Planning Department)**	The Caltrans Resident Engineer, in consultation with the biological and or environmental monitor would have the authority to halt any action that might result in impacts that exceed the anticipated levels of impact that were determined during agency review (by Caltrans, Army Corps of Engineers, Department of Fish and Game, Coastal Commission, U.S. Fish and Wildlife Services, and/or Monterey County Planning) of the proposed actions. If work is stopped, the Biologist or Environmental Monitor would immediately notify these same regulatory agencies pursuant Condition number 6.	Caltrans/ Resident Engineer/ Biological Monitor	Ongoing during construction	

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10.	2.3.2.C, 2.3.2.E, 2.3.4.A, 2.3.4.F, and 2.3.4.I	**PDSP007 –BEST MANAGEMENT PRACTICES (NON-STANDARD)** The number of access routes, size of staging areas, and the total area of activity would be limited to the minimum necessary to safely construct this project. **(RMA-Planning Department)**	During construction Caltrans shall follow all best management practices as outlined in the Environmental Impact Report, the Transportation Management Plan, the plans submitted for approval to Monterey County Planning Department, and all recommended conditions of approval of this project. Reporting on compliance with this condition shall be done pursuant to Condition number 4 of this permit	Caltrans	Ongoing	
11.	2.1.4.J	**PDSP008 –SIGNAGE (NON-STANDARD)** Minimize the use of signage and reflectors to the minimum required in the Manual of Uniform Traffic Control Devices with concurrence by Caltrans Traffic Design. **(RMA-Planning Department)**	All proposed signage shall be developed in accordance with the Big Sur Land Use Plan Policies including the use of unfinished redwood. If signage is to be installed plans and specifications must be submitted to Monterey County Planning Department for review and approval prior to installation.	Caltrans	Prior to installation of signs	

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12.	2.1.4.K-V	**PDSP009 –AESTHETIC TREATMENTS (NON-STANDARD)** Caltrans shall construct the project in accordance with the approved design and recommended conditions regarding aesthetic treatments. All aesthetic treatments and construction techniques shall be implemented to blend, to the extent feasible, the proposed structures with the surrounding environment. Proposed Aesthetic treatment conditions include: • No lighting shall be allowed. If lighting is required to meet safety requirements, an amended permit must first be obtained. • Use finish colors and textures that minimize reflectivity and glare; • To the greatest extent possible use an "honest use of materials" philosophy that avoids the use of obviously "fake" materials, such as materials that are concrete formed and colored to look like wood, etc.; • Re-contouring and Re-vegetation of the site (see Conditon #3); • Integrate existing rock outcroppings and stone landforms into the design to the greatest extent possible;	Caltrans shall construct the new bridge, rock shed, and all associated improvements in compliance with the approved design and incorporate all proposed aesthetic treatments to blend the structures with the environment to the maximum extent feasible. Photos demonstrating compliance with this condition shall be submitted to the RMA-Planning Department within 6 months following completion of the project.	Caltrans	Within 6 months of project completion	

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		• Minimize the use of signage and reflectors to the minimum required in the Manual of Uniform Traffic Control Devices with concurrence by Caltrans Traffic Design; • Minimize use of asphalt or concrete paving beyond the proposed 4-foot shoulders. If additional paving were required, alternative natural-appearing surfaces such as soil cement will be used; • Color additional rock netting or mesh completely black, including all integral connectors; • Bury all overside drains and inlet structures or hide them from view to the greatest extent possible. Where unavoidably exposed to view, color the pipes to reduce visibility, and dull the gloss of the finish; and • Color all paved ditches to reduce noticeabilty; and • If paving is required beyond the paved portion of the roadway, use alternative natural-appearing surfaces such as soil cement. **(RMA-Planning Department)**				

END OF CONDITIONS

EXHIBIT D
MITIGATIONS

PLN0080218- California Department of Transporation
Bridge at Pitkins Curve and Rock Shed at Rain Rocks

Planning Commission
March 25, 2009

FINDINGS

CALIFORNIA DEPARTMENT OF TRANSPORTATION FINDINGS FOR THE *HIGHWAY 1 IMPROVEMENT PROJECT AT PITKINS CURVE & RAIN ROCKS, MONTEREY COUNTY, CALIFORNIA*

The following information is presented to comply with Section 15091 of the State CEQA Guidelines and Section 1509.6 of the Department of Transportation and California Transportation Commission Environmental Regulations. Reference is made to the Final Environmental Impact Report (FEIR) for the project, which is the basic source for the information.

The following effects have been identified in the EIR as resulting from the project. Effects found not to be significant have not been included.

Visual/Scenic Resources

Adverse Environmental Effects:

Impacts to the visual quality of the state scenic highway/national scenic byway along the Big Sur coast have been determined to be potentially significant under the California Environmental Quality Act.

Findings:

Changes or alterations have been required in, or incorporated into, the project, which avoid or substantially lessen the significant environmental effect as identified in the final EIR.

Statement of Facts:

The following is a list of minimization measures that have been incorporated into the project to avoid or substantially lessen the significant environmental effect as identified in the final EIR (the numbering system is consistent with that found in the final EIR):

Based on analysis of the Visual Quality Evaluation and review of coastal planning policies, it is found that the existing high visual quality of the area is mostly due to the following:

- Exaggerated topographic relief.
- The dramatic vistas of the Pacific Ocean.
- The minimal visual encroachment of constructed elements
- The harmonious visual pattern of the diverse native vegetation on the hills and ground plane.

- The combination of alternating distant vistas and narrowing view caused by undulating landform.

To maintain these visual quality elements and decrease potential negative visual impacts caused by the project, the following actions are recommended:

A. Design the structures with the highest quality architectural and engineering practices and considerations, acknowledging the existing historic bridges of the Big Sur Coast and using current state-of-the-art technology.

B. Involve the community in the design of all structures, walls, barriers, and other project aesthetics through the creation of an Aesthetic Design Advisory Committee.

C. Consider including a high level of architectural detailing in the design of the structures.

D. Use an open-style safety rail that minimizes view blockage.

E. Use finish colors and textures that minimize reflectivity and glare.

F. To the greatest extent possible use an "honest use of materials" philosophy that avoids the use of obviously "fake" materials, such as materials that are concrete formed and colored to look like wood, etc.

G. Re-contour all disturbed areas and construction access roads to a natural appearance.

H. Vegetate all stabilized soil areas with native shrubs and grasses. Include planting where possible around all exposed drainage pipes, permanent access roads, and retaining walls (except the interior of the rock shed).

I. Integrate existing rock outcroppings and stone landforms into the design to the greatest extent possible.

J. Minimize the use of signage and reflectors to the minimum required in the Manual of Uniform Traffic Control Devices with concurrence by Caltrans Traffic Design.

K. Minimize use of asphalt or concrete paving beyond the proposed 4-foot shoulders. If additional paving were required, alternative natural-appearing surfaces such as soil cement would be used.

L. Color additional rock netting or mesh, if required, completely black, including all integral connectors.

M. Bury all overside drains and inlet structures or hide them from view to the greatest extent possible. Where unavoidably exposed to view, color the pipes to reduce noticeability, and dull the gloss of the finish.

N. Color all paved ditches to reduce noticeability.

O. Where metal beam guardrail is required, use measures to reduce reflectivity of the metal components.

P. If paving is required beyond the paved portion of the roadway, use alternative natural-appearing surfaces such as soil cement. If a safety barrier is required at the perimeter of the pullout or parking area, design it to complement the other project structures. If boulders are used, half-bury them into the soil to appear natural.

Q. If pedestrian or bicycle railing is required, design it with materials, form, and colors to minimize noticeability and ocean view blockage, and to complement the bridge and rock shed architecture.

R. Minimize the tight, enclosed spatial characteristics of the rock shed to the greatest extent possible through measures such as:

1. Reducing the number of columns,
2. Reducing the thickness of the columns,
3. Raising the ceiling height of the structure,
4. Aligning the inside retaining wall (closest to the uphill slope) as far from the highway lanes as possible.
5. Allowing the entry portals openings to be as large as feasible and still architecturally appropriate.

S. Design the length of the rock shed and the form of the parapet walls at the portals so that no personnel fencing or railings are visible from the highway.

T. Consider using a ledger beam to support the rock shed roof connection to the hill rather than a full-height retaining wall, so that the native rock face of the hill would be exposed to highway viewers.

U. Disguise to the greatest extent possible any permanent road required to the roof of the rock shed for maintenance access. Also disguise any necessary gate by making it appear as a natural landform or screening it with berms and/or natural appearing boulders and native vegetation if possible.

Appendix C Minimization and/or Mitigation Summary

Section Number Reference	Mitigation Reference	Mitigation Commitments
2.1.4 Visual/ Aesthetics	A	Design the structures with the highest quality architectural and engineering practices and considerations, acknowledging the existing historic bridges of the Big Sur Coast and using current state-of-the-art technology.
	B	Involve the community in the design of all structures, walls, barriers, and other project aesthetics through the creation of an Aesthetic Design Advisory Committee.
	C	Consider using a high level of architectural detailing when designing structures.
	D	Use an open-style safety rail that minimizes view blockage.
	E	Use finish colors and textures that minimize reflectivity and glare.
	F	To the greatest extent possible, use an "honest use of materials" philosophy that avoids the use of obviously "fake" materials, such as materials that are concrete formed and colored to look like wood, etc.
	G	Re-contour all disturbed areas and construction access roads to a natural appearance.
	H	Vegetate all stabilized soil areas with native shrubs and grasses. Include planting where possible around all exposed drainage pipes, permanent access roads, and retaining walls (except the interior of the rock shed).
	I	Integrate existing rock outcroppings and stone landforms into the design to the greatest extent possible.
	J	Minimize the use of signage and reflectors to the minimum required by the Manual of Uniform Traffic Control Devices with concurrence from Caltrans Traffic Design.
	K	Do not use asphalt or concrete paving beyond the proposed 4-foot shoulders. If additional paving is required, alternative natural appearing surfaces such as soil cement would be used.
	L	Color additional rock netting or mesh, if required, completely black, including all integral connectors.
	M	Bury all overside drains and inlet structures or hide them from view to the greatest extent possible. Where unavoidably exposed to view, color the pipes to reduce noticeability, and dull the gloss of the finish.
	N	Color all paved ditches to reduce noticeability
	O	Where metal beam guardrail is required, use measures to reduce reflectivity of the metal components.
	P	If paving is required beyond the paved portion of the roadway, use alternative natural appearing surfaces, such as soil cement. If a safety barrier is required at the perimeter of the pullout or parking area, design it to complement the other project structures. If boulders are used, half-bury them into the soil to appear natural
	Q	If pedestrian or bicycle railing is required, design it with materials, form, and colors to minimize noticeability and ocean view blockage, and to complement the bridge and rock shed architecture.
	R	Minimize the tight, enclosed spatial characteristics of the rock shed to the greatest extent possible through measures such as: a. Reducing the number of columns, b. Reducing the thickness of the columns, c. Raising the "ceiling" height of the structure, d. Aligning the inside retaining wall (closest to the uphill slope) as far from the highway lanes as possible. e. Allowing the entry portals openings to be as large as feasible and still architecturally appropriate.
	S	Design the length of the rock shed and the form of the parapet walls at the portals so that no personnel fencing or railings are visible from the highway.
	T	Consider using a ledger beam to support the rock shed roof connection to the hill rather than a full-height retaining wall, so that the native rock face of the hill would be exposed to highway viewers.

Section Number Reference	Mitigation Reference	Mitigation Commitments
	U	Disguise to the greatest extent possible any permanent road required to the roof of the rock shed for maintenance access. Also disguise any necessary gate by making it appear as a natural landform or screening it with berms and/or naturally appearing boulders and native vegetation if possible.
	V	Retrofit or replace the existing bridge rail on the Rain Rocks viaduct to complement the new bridge and rock shed structures
2.3.1 Natural Communities	A	To minimize construction-related impacts, Environmentally Sensitive Areas would be delineated on the project plans around all pullouts that may be used for equipment storage, as indicated on Figure 2-21A-C. The Resident Engineer, in consultation with the project biologist, would determine where Environmentally Sensitive fencing would be installed to limit construction activities.
	B	After construction is complete, the project area would be evaluated to determine where revegetation would be appropriate and successful. Those areas identified for revegetation would be planted with native vegetation, suitable for the area, as recommended by Caltrans Office of Landscape Architecture and in consultation with the project biologist. Vegetation would be replaced at a ratio of 1:1. Plant salvage, local seed collection, and contract growing are techniques that can be used to mitigate for the loss of native shrubs that are removed.
	C	An installation and maintenance contract for mitigation plantings would be developed. The maintenance agreement shall be at least three years in length. During that time, all invasive weeds should be regularly removed. A 70% survival rate for of all plantings, three years post-construction, would be the target goal.
	D	A Caltrans biologist or designee would prepare monitoring reports for various agencies if they are needed as part of conditions set forth in permits. Annual reports summarizing results would be sent to any requesting and appropriate state and federal agencies.
	E	A Mitigation, Monitoring, Restoration, and Success Criteria Plan shall be prepared for this project. The plan would include success criteria for revegetation. A three-year monitoring schedule, with annual reports to various agencies is typically recommended. For three years, biannual environmental monitoring for all mitigation plantings would be conducted to determine if the project meets success criteria, to request any needed replacement plantings, and to identify remedial actions if the success criteria were not achieved.
2.3.2 Wetlands and Other Waters	A	To ensure that all potential impacts to wetland resources are avoided and minimized, Environmentally Sensitive Area fencing would be installed to protect coastal wetlands, as delineated in Figure 2-21 A-C. The mapped locations of the Environmentally Sensitive Areas would be included on the project plans and layout sheets and included in the Special Provisions of the construction contract. All fencing would be placed at the direction of the Resident Engineer, in consultation with a representative from the Environmental Branch.
	B	All refueling and maintenance of equipment shall be conducted at least 20 meters (60 feet) from wetlands and waters of the U.S.
	C	Prior to the onset of work, the Resident Engineer would insure that the contractor has prepared a plan for prompt and effective response to any accidental spills, to ensure protection of aquatic resources. All personnel would be informed of the plan and the importance of preventing spills.
	D	All construction activities would be completed in accordance with the Caltrans National Pollution Discharge Elimination System Permit, the General Construction Permit, and Caltrans Statewide Storm Water Management Plan.
	E	To protect all adjacent springs, seeps, willow riparian wetlands, and the Pacific Ocean/Monterey Bay National Marine Sanctuary, Caltrans would implement best management practices, as identified by the appropriate Regional Water Quality Control Board. These best management practices would be implemented to minimize or eliminate the potential for a non-storm water discharge to occur. Construction site best management practices are addressed in detail in the Storm Water Pollution Control Plan that will be developed for the project site.
	F	If a work site is to be temporarily de-watered by diversion or pumping, intakes would be completely screened with wire mesh not larger than five millimeters to prevent all aquatic wildlife from entering the pump system. Water would be treated, released, or pumped to an appropriate location at a rate to maintain downstream flows during construction. Upon completion of construction activities, any barriers to flow shall be removed in a manner that would allow flow to resume with the least disturbance to the substrate.

Section Number Reference	Mitigation Reference	Mitigation Commitments
	G	Due to the time that will elapse before project construction and because the biological environment in the project area is subject to change, pre-construction surveys would be undertaken approximately one year prior to construction to identify up-to-date distribution of wetlands. If wetland presence or distribution has changed from that documented in the April 2005 Natural Environment Study, the appropriate agencies would be consulted. All avoidance, minimization, and mitigation measures would be applied, as directed above, to newly identified wetlands.
	H	A biological/environmental monitor would be present onsite during construction activities that may impact the ocean and marine environment, special-status species, and/or migratory birds. This includes drilling and blasting for the construction of piers and abutments for the new bridge and rock shed and any associated de-watering activities.
	I	The Caltrans Resident Engineer, in consultation with the biologist and/or environmental monitor would have the authority to halt any action that might result in impacts that exceed the anticipated levels of impact that were determined during agency review (by Caltrans, Army Corps of Engineers, Department of Fish and Game, Coastal Commission, and/or U.S. Fish and Wildlife Service) of the proposed actions. If work is stopped, the Biologist or Environmental Monitor would immediately notify these same regulatory agencies.
	J	All refueling and maintenance of equipment and vehicles would be at least 20 meters (60 feet) from any aquatic habitat, wetland area, or any water body. The contractor would ensure contamination of habitat does not occur during such operations. All workers would be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur
	K	Prior to the onset of work, the Army Corps of Engineers would ensure that the permittee has prepared a plan to allow a prompt and effective response to any accidental spills around aquatic habitats. All workers would be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.
	L	Erosion Control and Storm Water Management. All construction activities would be completed in accordance with Caltrans National Pollution Discharge Elimination System Permit, the General Construction Permit, and Caltrans Statewide Storm Water Management Plan.
	M	To protect the Pacific Ocean/Monterey Bay National Marine Sanctuary, Caltrans would implement best management practices as identified by the appropriate Regional Water Quality Control Board. These best management practices would be implemented to minimize or eliminate the potential for a non-storm water discharge to occur. Construction site best management practices are addressed in detail in the Storm Water Pollution Control Plan that would be developed for the project site.
	N	If a work site is to be temporarily dewatered by diversion, pumping, and treating, intakes would be completely screened with wire mesh not larger than five millimeters to prevent all aquatic wildlife from entering the pump system. Water shall be released or pumped to an appropriate location at a rate to maintain downstream flows during construction. Upon completion of construction activities, any barriers to flow would be removed in a manner that would allow flow to resume with the least disturbance to the substrate.
2.3.3 Animal Species	A	One year prior to construction, pre-construction surveys would be conducted during the nesting season to identify the presence or absence of active nests for birds protected under the Migratory Bird Treaty Act If birds are nesting, after their dispersal, bird netting would be installed to deter nesting during construction

Section Number Reference	Mitigation Reference	Mitigation Commitments
2.3.4 Threatened and Endangered Species	A	The number of access routes, size of staging areas, and the total area of activity would be limited to the minimum necessary to safely construct this project
	B	As a result of technical assistance from U.S. Fish and Wildlife Service under Section 7 of the Endangered Species Act, the single Smith's blue butterfly host plant (buckwheat) would be removed, with the surrounding soils and duff, and relocated outside the area of direct impact to an area nearby that has established buckwheat plants
	C	Due to their curious nature, condors may frequent the construction site and perch on large equipment, looking for food scraps. During construction, all food-related trash shall be properly contained and regularly removed from the work site.
	D	A Caltrans biologist or designee would monitor sea otter activity during events that cause loud noises, such as blasting, for observation of abnormal activity or behavior and contact U.S. Fish and Wildlife Service if such behavior occurs
	E	Due to the time that would elapse before project construction and because the biological environment in the project area is subject to change, pre-construction surveys would be undertaken during the appropriate survey season, approximately one year prior to construction to identify up-to-date distribution of special-status species. If any federally listed species are found during the pre-construction surveys, no construction would be undertaken until consultation was completed between the Federal Highway Administration and the U. S. Fish and Wildlife Service. If any state special-status species were found during the pre-construction surveys, no construction would be undertaken until consultation was completed between Caltrans and the California Department of Fish and Game. All requirements, resulting from consultation with the resource agencies would be followed.
	F	A Caltrans biologist (or designee) would conduct a training session for all construction personnel before any construction activities begin. The training session would include a description of all special-status species known to occur in the project vicinity (Smith's blue butterfly and buckwheat host plants, California condor, and southern sea otter). The biologist would discuss their habitats, their importance, and general measures being implemented to conserve these species as they relate to the project boundaries. Brochures, photographs, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.
	G	A biological/environmental monitor would be present onsite during construction activities that may impact special-status species. This includes blasting for the construction of structure piers and abutments and any associated de-watering activities.
	H	If any special-status species are found during construction, the Environmental Branch shall be contacted immediately. After any and all required consultations with agencies have occurred, the Caltrans Biologist or designee shall be present at the construction site until such time as special-status species have been removed and any special instructions have been given to construction personnel.
	I	The Caltrans resident engineer, in consultation with the biologist and/or environmental monitor would have the authority to halt any action that might result in impacts that exceed the anticipated levels of impact that were determined during agency review (between Caltrans, U.S. Army Corps of Engineers, California Department of Fish and Game, and/ or U.S. Fish and Wildlife Service). Once work has stopped, the biologist or environmental monitor would notify these same regulatory agencies.
2.3.5 Invasive Species	A	In compliance with the Executive Order on Invasive Species, E.O. 13112, and subsequent guidance from the Federal Highway Administration, the landscaping and erosion control included in the project would not use species on the California List of Noxious Weeds.
	B	Measures to control invasive exotic plants would be implemented according to the Caltrans Landscape Architect's recommendations. Exotic and invasive weeds such as ice plant, kikuyu grass, fennel, pampas grass, fountain grass, and other assorted invasive plants that are listed as "most invasive" on the list would be removed within the project area and topsoil would not be used in any revegetation areas due to the presence of a high quantity of weed seeds, unless a weed removal program is implemented.

EXHIBIT E
ENVIRONMENTAL IMPACT REPORT

(Enclosed CD)

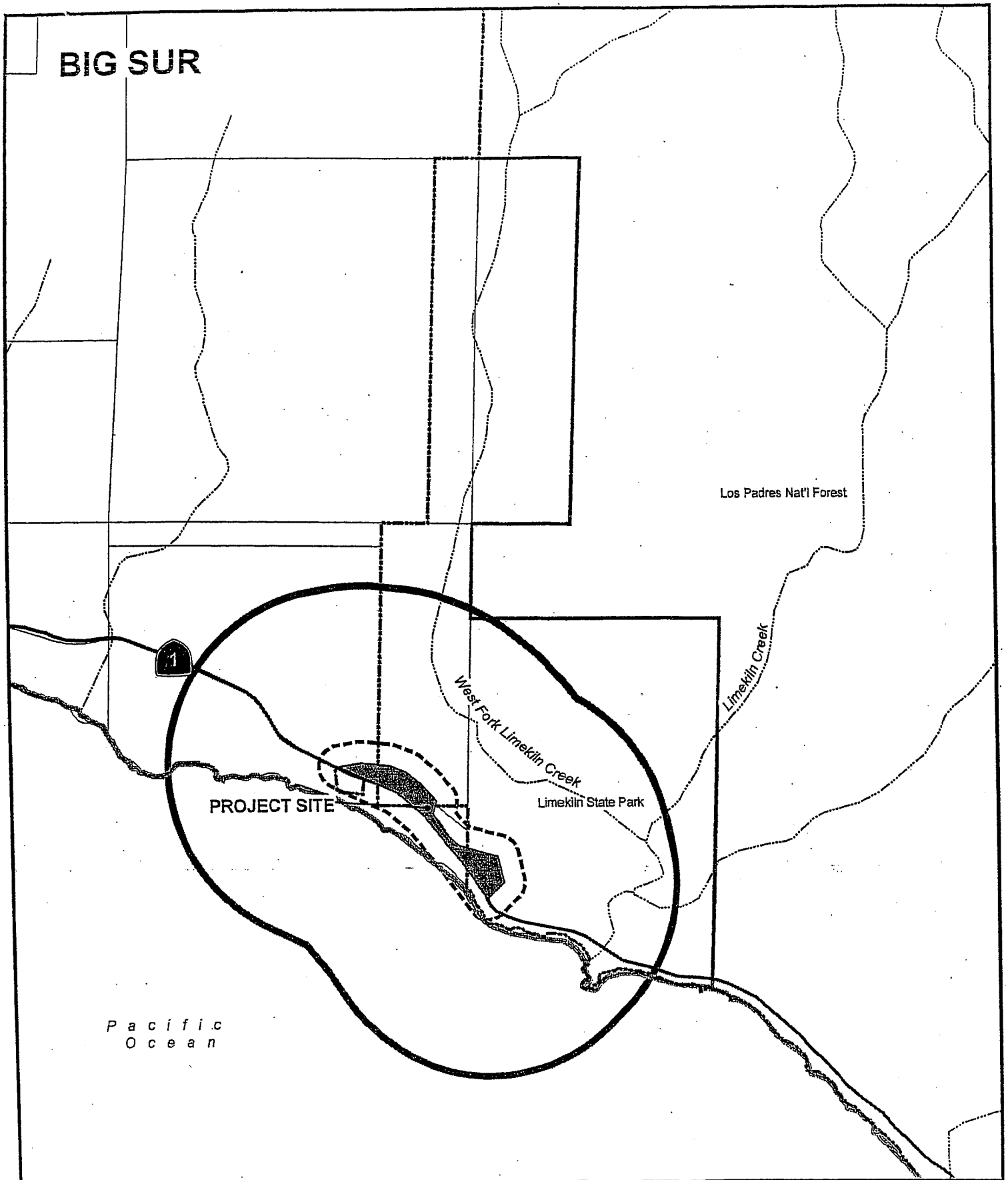
PLN0080218- California Department of Transporation
Bridge at Pitkins Curve and Rock Shed at Rain Rocks

Planning Commission
March 25, 2009

EXHIBIT F
VICINITY MAP

PLN0080218- California Department of Transporation
Bridge at Pitkins Curve and Rock Shed at Rain Rocks

Planning Commission
March 25, 2009



APPLICANT: PITKINS CURVE/RAIN ROCKS

APN: N/A

FILE # PLN080218

300' Limit | 2500' Limit | City Limits

N

0 1,000

Feet

MONTEREY COUNTY CALIFORNIA 1850

EXHIBIT G
PROJECT PLANS

PLN0080218- California Department of Transporation
Bridge at Pitkins Curve and Rock Shed at Rain Rocks

Planning Commission
March 25, 2009

NOTES:

1. FOR COMPLETE RIGHT OF WAY DATA SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
2. AT&T TELEPHONE POLE #2101 TO BE RELOCATED PRIOR TO BRIDGE CONSTRUCTION.
3. TEMPORARY AT&T TELEPHONE POLE TO BE PLACED PRIOR TO CONSTRUCTION.
4. FINAL PLACEMENT OF AT&T LINE WILL BE IN ROCK SHED AND BRIDGE STRUCTURES, SEE STRUCTURES PLANS.
5. FOR TYPE 80 (M00) DETAILS SEE BRIDGE PLANS.

PRELIMINARY PLANS SUBJECT TO REVISION

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	Mon	1	21.3/21.6	3	

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER Amir Saedi No. 55083 Exp. 12/31/08 CIVIL STATE OF CALIFORNIA

REVISED BY | DATE REVISED

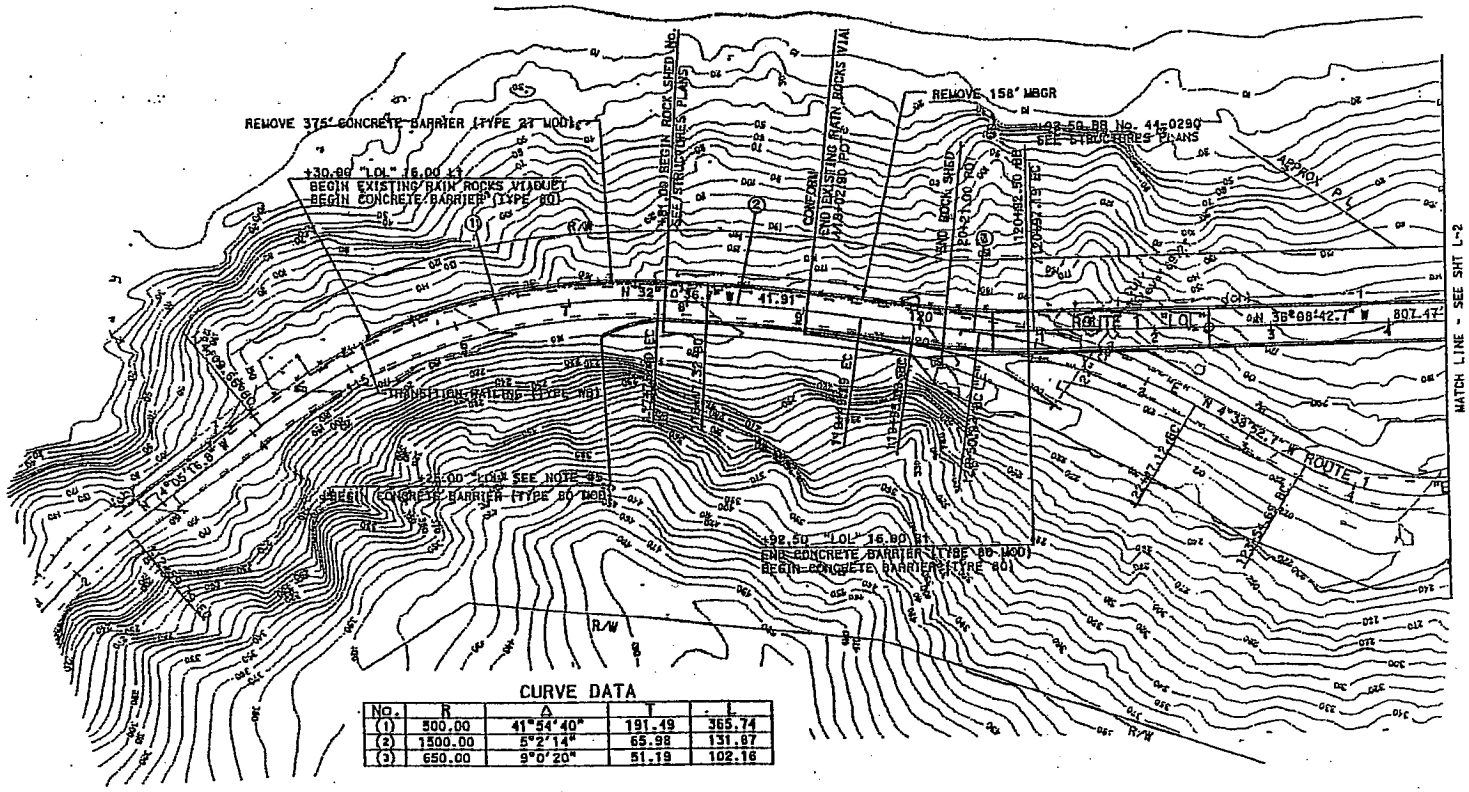
CALCULATED-DESIGNED BY: AMIR SAEDI

CHECKED BY

FUNCTIONAL SUPERVISOR: J.R.PERANO

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans DESIGN



CURVE DATA

No.	R	Δ	T	L
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(2)	1500.00	5°2'14"	65.98	131.87
(3)	650.00	9°0'20"	51.19	102.16

LAYOUT

SCALE: 1"=500' L-1

BORDER LAST REVISED 3/1/2007 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => a1250T3 DGN FILE => $da060aa001.dgn | CU 06232 | EA 0E9601

PLOTTED => 01-JUL-2001

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	Mon	1	21.3/21.6	4	

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Registered Professional Engineer — Amir Saedi — No. 56083 — Exp. 12/31/08 — CIVIL — State of California

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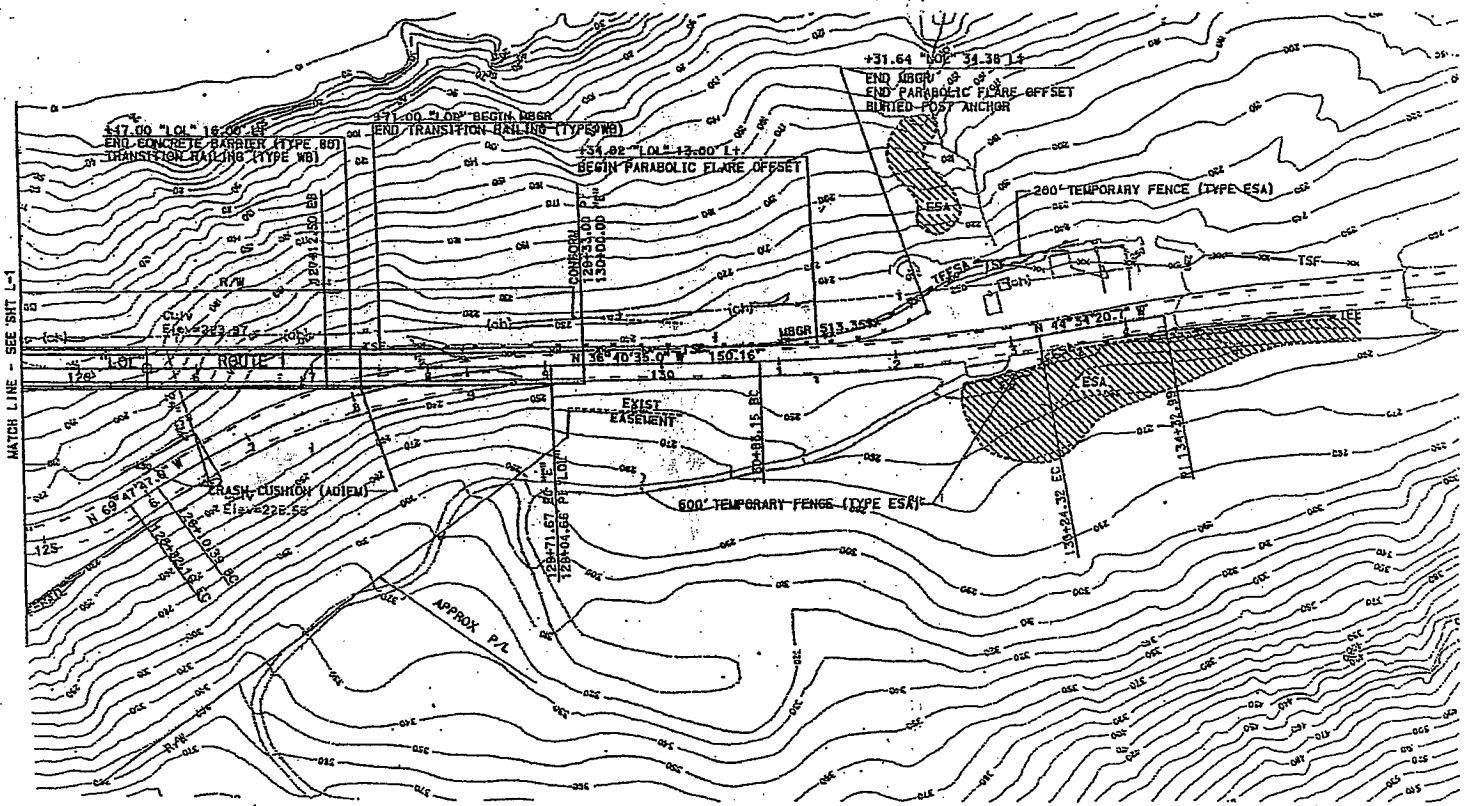

LAYOUT

SCALE: 1"=500' L-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISED BY
DESIGN	J.R.PERAND	CHECKED BY	DATE REVISED

AMIR SAEDI

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TIME PLOTTED => 13:05

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	Mon	1	21.3/21.6	8	

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CONTOUR GRADING

SCALE: 1"=500'

G-1

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DESIGN	J.R.PERAND	CHECKED BY	DATE REVISED

AMIR SAEDI

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RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => s125073

DGN FILE => 0e9601ah0001.dgn

CU 05232

EA 0E9601

DATE PLOTTED => 01-JUL-2008

Dist	County	Route	Post Miles Total Project	Sheet No.	Total Sheets
05	Mon	1	21.3/21.6	10	

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PRELIMINARY PLANS SUBJECT TO REVISION

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — DESIGN

FUNCTIONAL SUPERVISOR: J.R.PERANO

CALCULATED-DESIGNED BY: AMIR SAEDI

CHECKED BY

REVISED BY

DATE REVISED

STAGE 1 CONSTRUCTION:

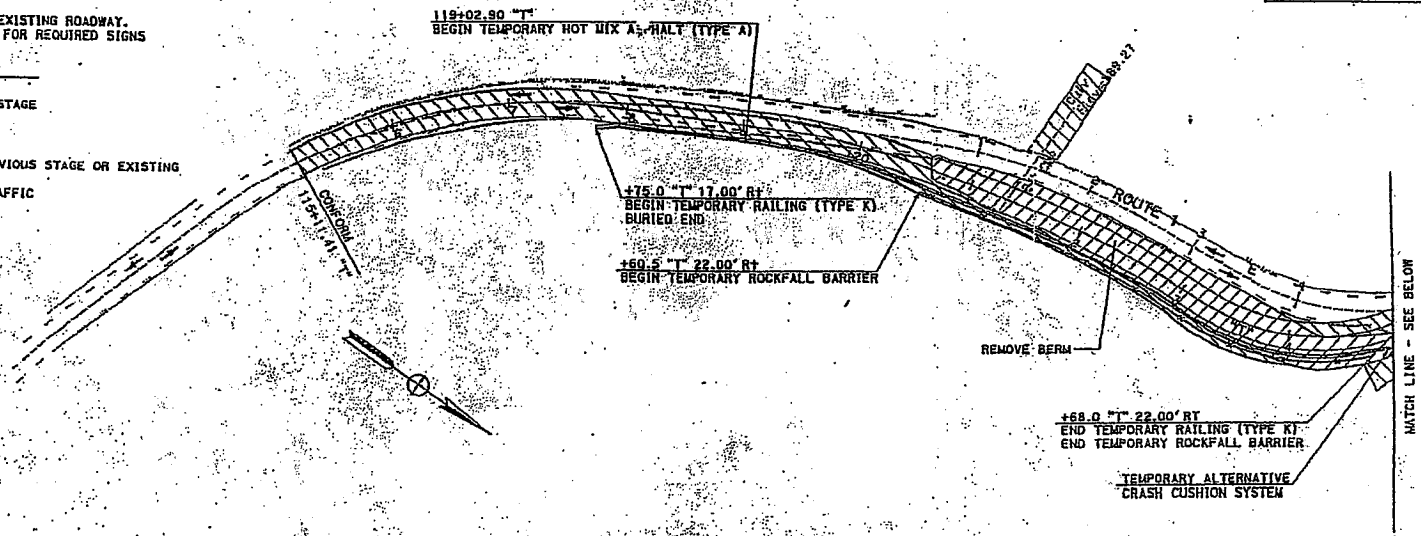
1. CLEAR & GRUB THE HILLSIDE AND REMOVE BERM MATERIAL FROM SITE.
2. CONSTRUCT TEMPORARY DRAINAGE SYSTEMS.
3. PLACE AC FOR THE TEMPORARY ROADBED.
4. REMOVE EXISTING TRAFFIC STRIPE AND STRIPE TEMPORARY ROADWAY.

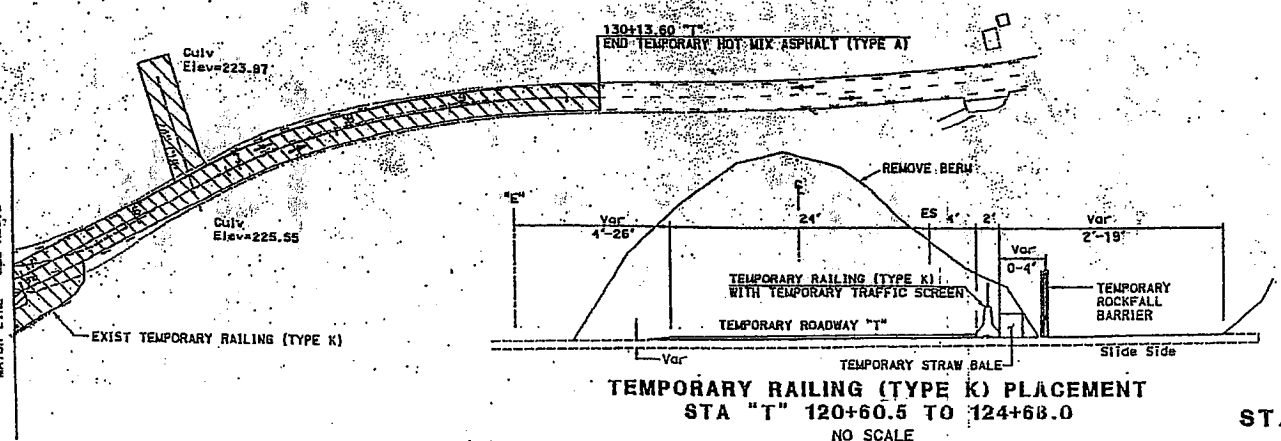
TRAFFIC:

TRAFFIC WILL REMAIN ON EXISTING ROADWAY.
SEE LANE CLOSURE CHART FOR REQUIRED SIGNS

LEGEND

- CONSTRUCT THIS STAGE
- BERM AREA
- CONSTRUCTED PREVIOUS STAGE OR EXISTING
- DIRECTION OF TRAFFIC





TEMPORARY RAILING (TYPE K) PLACEMENT
STA "T" 120+60.5 TO 124+68.0
NO SCALE

STAGE CONSTRUCTION
STAGE 1

SCALE: 1"=500'

SC-1

BORDER LAST REVISED 3/1/2007

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => s125073
DGN FILE => 50c350m0001.dgn

CU 06232

EA 0E9601

LAST REVISED DATE PLOTTED => 12-MAY-2008
TIME PLOTTED => 11:03
05-Mon-01

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	Mon	1	21.3/21.6	11	

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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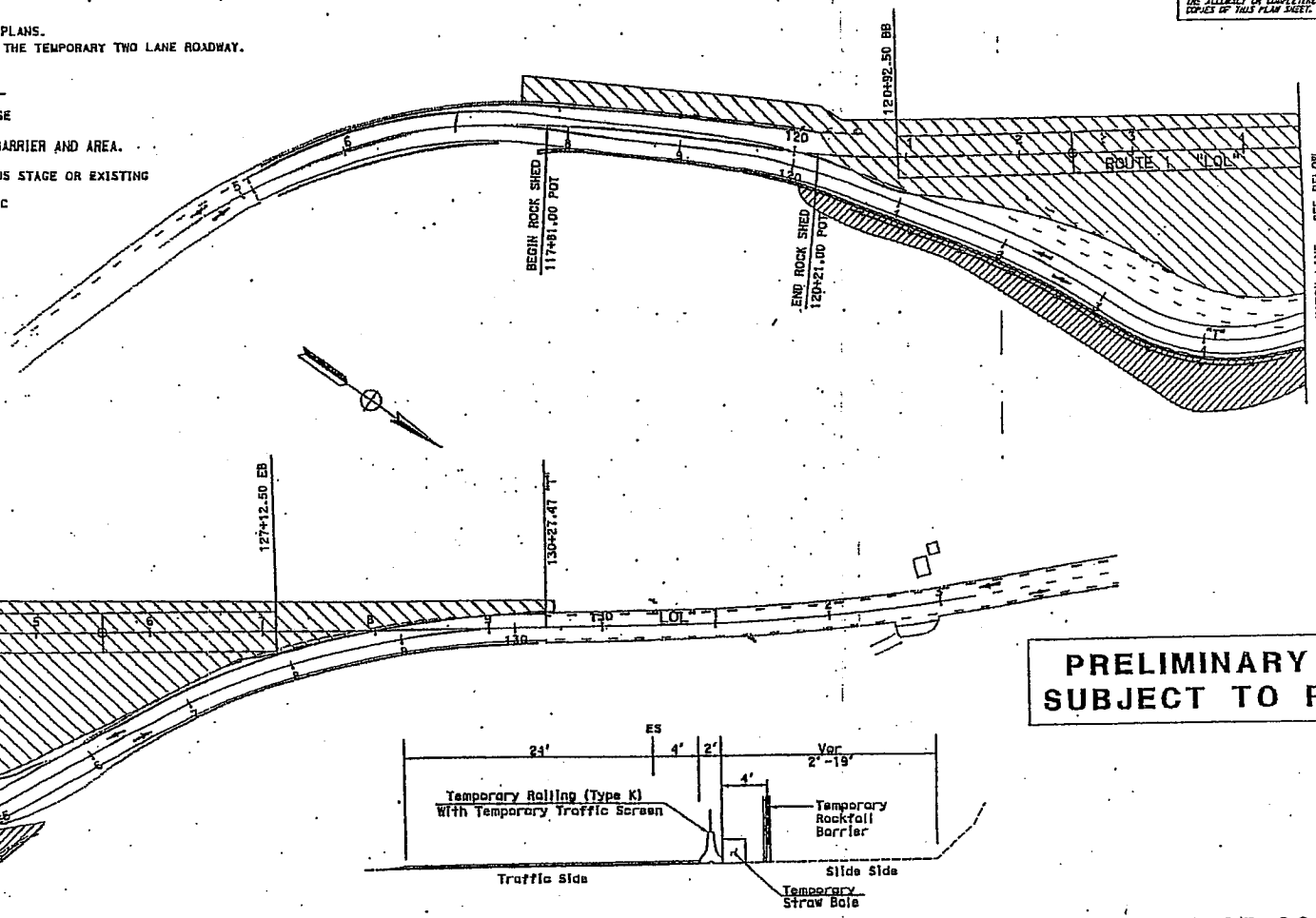
REGISTERED PROFESSIONAL ENGINEER — Amir Saadi — No. 56083 — Exp. 12/31/08 — CIVIL — STATE OF CALIFORNIA

CONSTRUCTION:
1. GRADE TO CONSTRUCT BRIDGE.
2. EXCAVATE FOR, DRILL AND CONSTRUCT ABUTMENT FOUNDATIONS.
3. EXCAVATE FOR, DRILL AND CONSTRUCT BRIDGE MAIN BENT FOUNDATIONS AND COLUMNS.
4. MAINTAIN ROCKFALL BARRIER AND AREA.

TRAFFIC: SEE TRAFFIC HANDLING PLANS.
TRAFFIC WILL BE SHFTED ONTO THE TEMPORARY TWO LANE ROADWAY.

LEGEND
- CONSTRUCT THIS STAGE
- MAINTAIN ROCKFALL BARRIER AND AREA.
- CONSTRUCTED PREVIOUS STAGE OR EXISTING
- DIRECTION OF TRAFFIC



TEMPORARY RAILING (TYPE K) PLACEMENT
NO SCALE

THIS PLAN ACCURATE FOR STAGE CONSTRUCTION ONLY.

PRELIMINARY PLANS SUBJECT TO REVISION

STAGE CONSTRUCTION
STAGE 2

SCALE: 1"=500'

SC-2

REVISED BY	DATE REVISED
AMIR SAEDI	

CALCULATED-DESIGNED BY
CHECKED BY

FUNCTIONAL SUPERVISOR: J.R.PERANO

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
Caltrans

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DGN FILE => 50c960s002.dgn

CU 06232

EA 0E9601

Dist	County	Route	Post Miles Total Project	Sheet No.	Total Sheets
05	Mon	1	21.3/21.6	12	

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER — Amir Saadi — No. 56083 — Exp. 12/31/08 — CIVIL — STATE OF CALIFORNIA

PRELIMINARY PLANS SUBJECT TO REVISION

CONSTRUCTION:

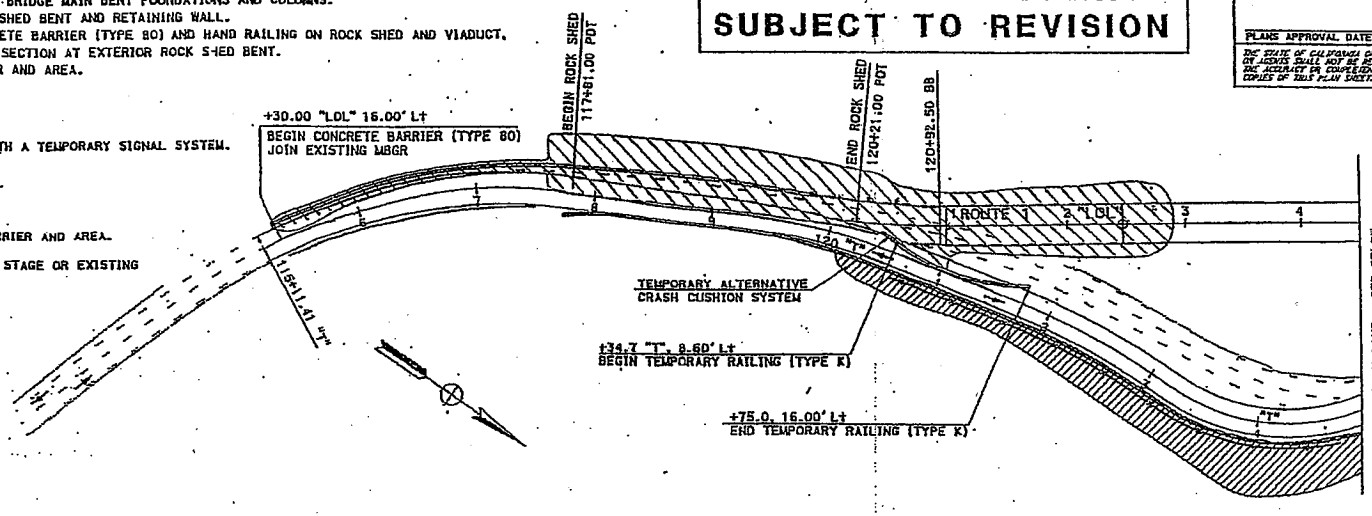
1. CONSTRUCT BRIDGE ABUTMENTS.
2. COMPLETE CONSTRUCTION OF BRIDGE MAIN BENT FOUNDATIONS AND COLUMNS.
3. CONSTRUCT EXTERIOR ROCK SHED BENT AND RETAINING WALL.
4. CONSTRUCT EXTERIOR CONCRETE BARRIER (TYPE 80) AND HAND RAILING ON ROCK SHED AND VIADUCT.
5. GRADE AND PLACE ROADWAY SECTION AT EXTERIOR ROCK SHED BENT.
6. MAINTAIN ROCKFALL BARRIER AND AREA.

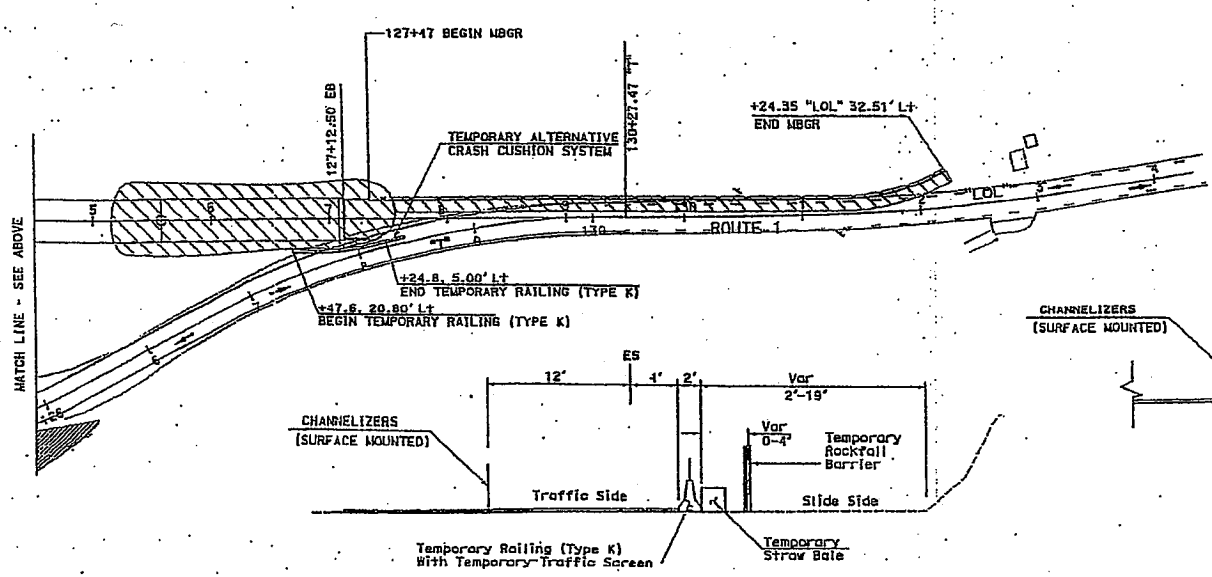
TRAFFIC:

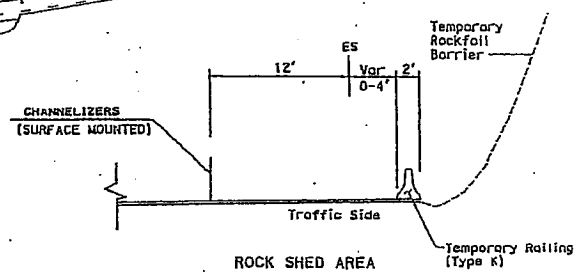
SEE TRAFFIC HANDLING PLANS.
TRAFFIC TO BE CONTROLLED WITH A TEMPORARY SIGNAL SYSTEM.

LEGEND

- CONSTRUCT THIS STAGE
- MAINTAIN ROCKFALL BARRIER AND AREA.
- CONSTRUCTED PREVIOUS STAGE OR EXISTING
- DIRECTION OF TRAFFIC







STAGE CONSTRUCTION
STAGE 3

THIS PLAN ACCURATE FOR STAGE CONSTRUCTION ONLY.

SCALE: 1"=500'

SC-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | FUNCTIONAL SUPERVISOR: J.R. PERANO | CALCULATED-DESIGNED BY: AMIR SAADI | CHECKED BY | REVISED BY | DATE REVISED

DESIGN

Caltrans

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	Mon	1	21.3/21.6	13	

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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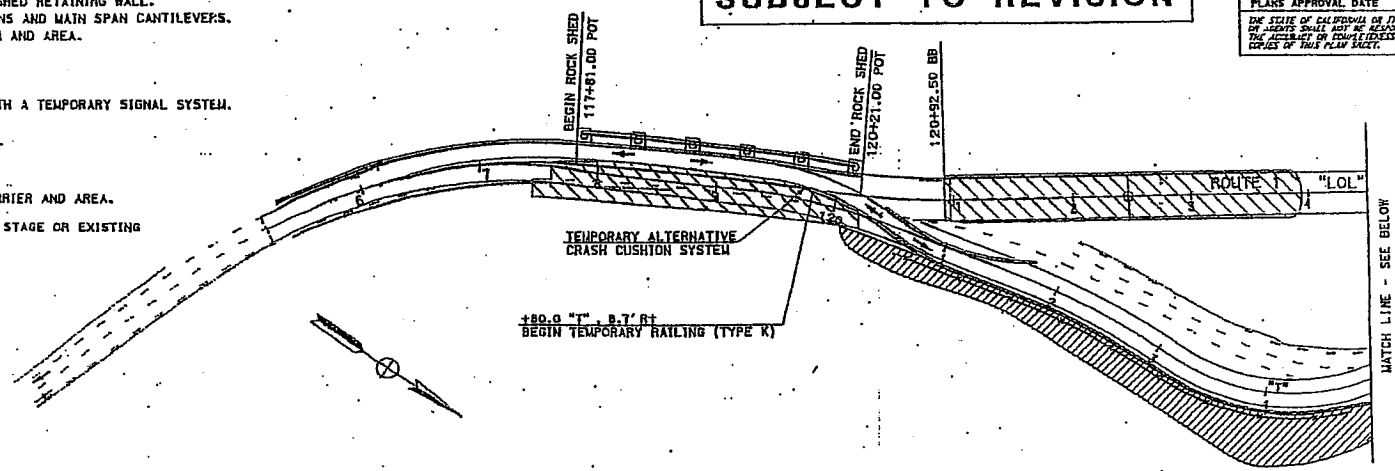
Amir Saudi No. 58083 Exp. 12/31/08 CIVIL STATE OF CALIFORNIA

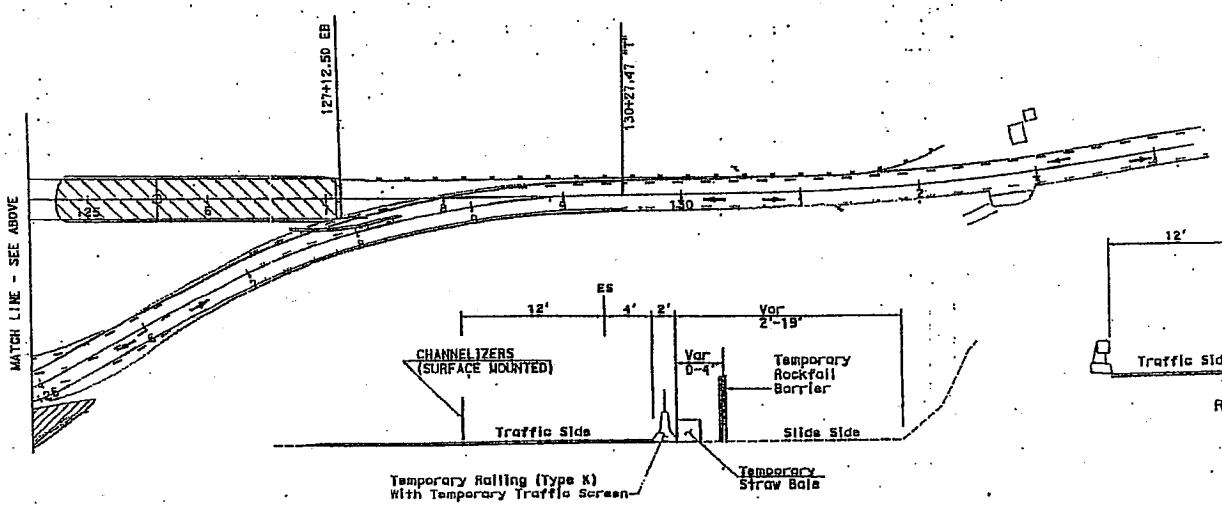
PRELIMINARY PLANS SUBJECT TO REVISION

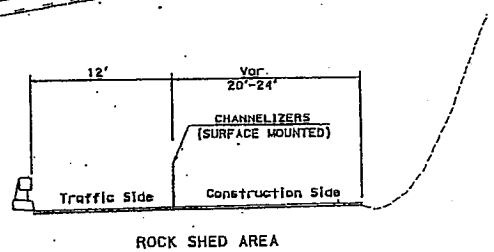
CONSTRUCTION:
1. REMOVE TEMPORARY TRAFFIC STRIPE, PLACE NEW TRAFFIC STRIPE AND CHANNELIZERS.
2. GRADE AND CONSTRUCT INTERIOR ROCK SHED BENT.
3. CONSTRUCT INTERIOR ROCK SHED RETAINING WALL.
4. CONSTRUCT BRIDGE END SPANS AND MAIN SPAN CANTILEVERS.
5. MAINTAIN ROCKFALL BARRIER AND AREA.

TRAFFIC:
SEE TRAFFIC HANDLING PLANS.
TRAFFIC TO BE CONTROLLED WITH A TEMPORARY SIGNAL SYSTEM.

LEGEND
- CONSTRUCT THIS STAGE
- MAINTAIN ROCKFALL BARRIER AND AREA.
- CONSTRUCTED PREVIOUS STAGE OR EXISTING
- DIRECTION OF TRAFFIC







ROCK SHED AREA

STAGE CONSTRUCTION
STAGE 4

SC-4

THIS PLAN ACCURATE FOR STAGE CONSTRUCTION ONLY.

SCALE: 1"=500'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
FUNCTIONAL SUPERVISOR: J.R.PERAND
CALCULATED-DESIGNED BY
CHECKED BY
AMIR SAEDI
REVISED BY
DATE REVISED

BORDER LAST REVISED 3/1/2007 | RELATIVE BORDER SCALE IS IN INCHES 0 2 3 | USERNAME => s125073 DGN FILE => 30a956mp04.dgn | CU 06232 | EA 0E9601

Dist	County	Route	Post Miles Total Project	Sheet No.	Total Sheets
05	Mon	1	21.3/21.5	14	

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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Amir Saedi No. 58033 Exp. 12/31/08 CIVIL — Registered Professional Engineer — State of California

PRELIMINARY PLANS SUBJECT TO REVISION

CONSTRUCTION:

1. CONSTRUCT ROCK SHED ROOF, PC PANELS, OVERLAY, PARAPET.
2. CONSTRUCT ROCK SHED HEADWALL, DRAINAGE SYSTEM, BARRIER AND ARCHITECTURAL FINISH.
3. COMPLETE BRIDGE MAIN SPAN SEGMENTS.
4. BACKFILL BEHIND ROCK SHED INTERIOR WALL AND GRADE.
5. CONSTRUCT BRIDGE APPROACH SLAB, CONCRETE BARRIER AND RAILING.
6. MAINTAIN ROCKFALL BARRIER AND AREA.
7. STRIPE BRIDGE.

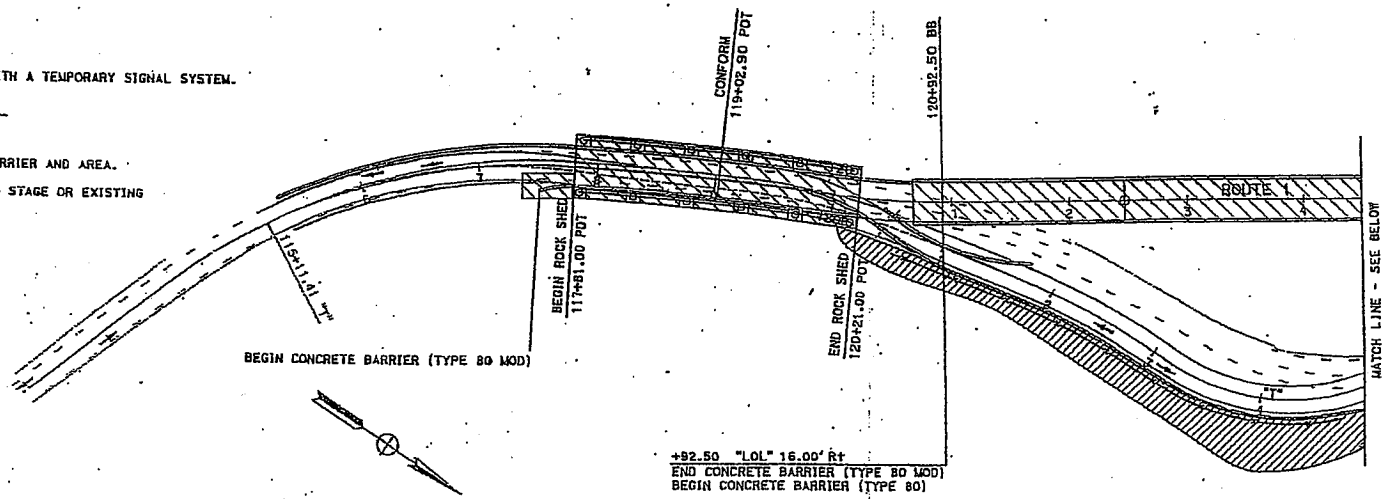
TRAFFIC:

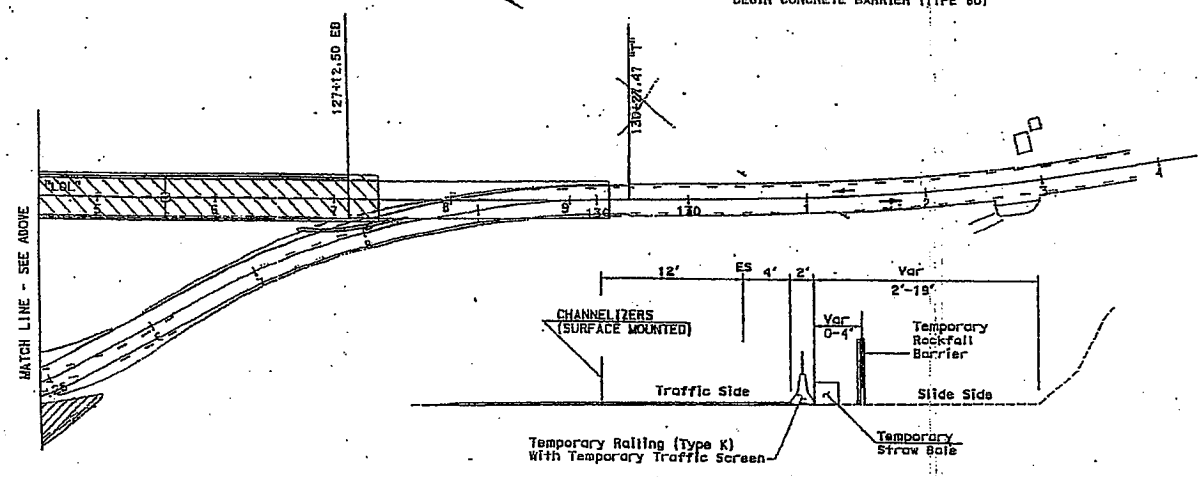
SEE TRAFFIC HANDLING PLANS.

TRAFFIC TO BE CONTROLLED WITH A TEMPORARY SIGNAL SYSTEM.

LEGEND

- CONSTRUCT THIS STAGE
- MAINTAIN ROCKFALL BARRIER AND AREA.
- CONSTRUCTED PREVIOUS STAGE OR EXISTING
- DIRECTION OF TRAFFIC





THIS PLAN ACCURATE FOR STAGE CONSTRUCTION ONLY.

STAGE CONSTRUCTION
STAGE 5

SCALE: 1"=500'

SC-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | DESIGN | FUNCTIONAL SUPERVISOR: J.H.PERANO | CALCULATED-DESIGNED BY: AMIR SAEDI | CHECKED BY | REVISED BY | DATE REVISED

BORDER LAST REVISED 3/1/2007

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => s1250?3

DGN FILE => 50x960ea005.dgn

CU 06232 | EA 0E9601

Dist	County	Route	Post Miles Total Project	Sheet No.	Total Sheets
05	Mon	1	21.3/21.6	15	

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER — Amir Saedi — No. 55003 — Exp. 12/31/08 — CIVIL — STATE OF CALIFORNIA

PRELIMINARY PLANS SUBJECT TO REVISION

CONSTRUCTION:

PHASE I

1. PLACE PERMANENT AC AND STRIPE NEW ROADWAY.
2. COMPLETE CONCRETE BARRIER (TYPE 80) CONNECTION AND END TREATMENT.

PHASE II

1. REMOVE ROCKFALL PROTECTION, TEMPORARY DRAINAGE SYSTEMS AND ALL AC IN THE CURVE.
2. REMOVE TEMPORARY AND OLD AC.
3. CONSTRUCT END TREATMENT.

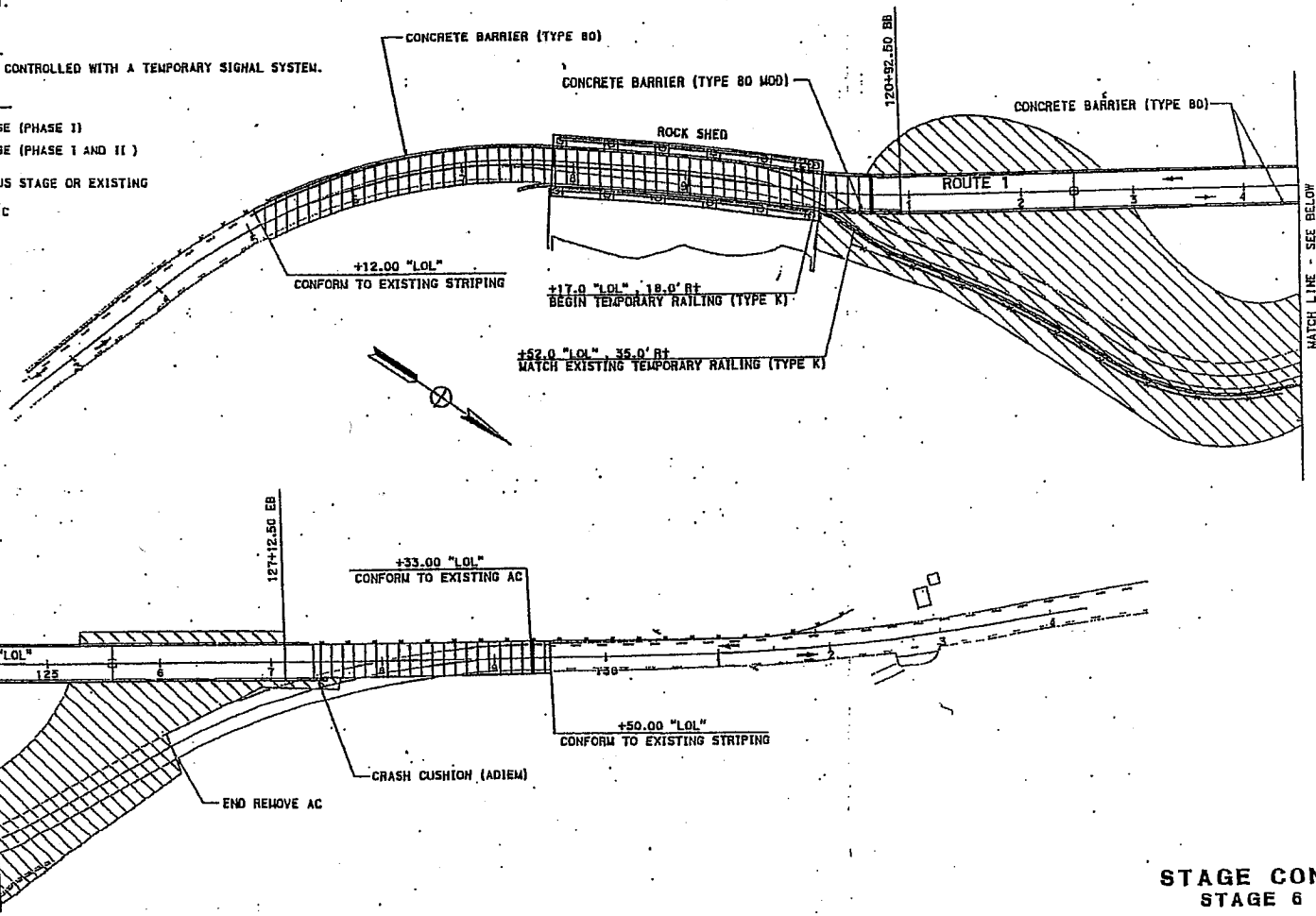
TRAFFIC:

SEE TRAFFIC HANDLING PLANS.

PHASE I & II, TRAFFIC TO BE CONTROLLED WITH A TEMPORARY SIGNAL SYSTEM.

LEGEND

- CONSTRUCT THIS STAGE (PHASE I)
- CONSTRUCT THIS STAGE (PHASE I AND II)
- CONSTRUCTED PREVIOUS STAGE OR EXISTING
- DIRECTION OF TRAFFIC



THIS PLAN ACCURATE FOR STAGE CONSTRUCTION ONLY.

STAGE CONSTRUCTION
STAGE 6 PHASE 1 & 2

SCALE: 1"=500'

SC-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — DESIGN

FUNCTIONAL SUPERVISOR: J.R.PERRAND

CALCULATED-DESIGNED BY: AMIR SAEDI

CHECKED BY

REVISED BY | DATE REVISED

BORDER LAST REVISED 3/1/2007

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => s125073

DGN FILE => sc06500006.dgn

CU 06232

EA 0E9601

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
05	Mon	01			

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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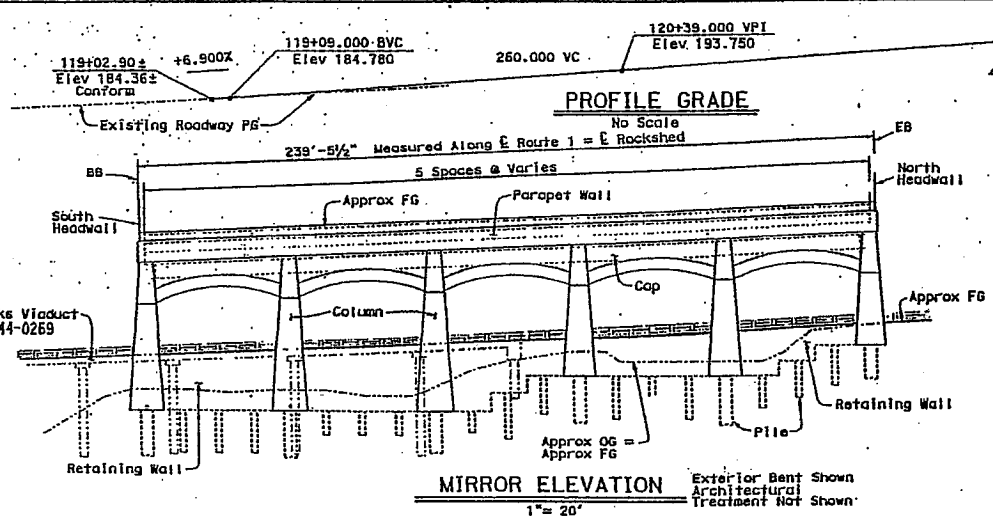
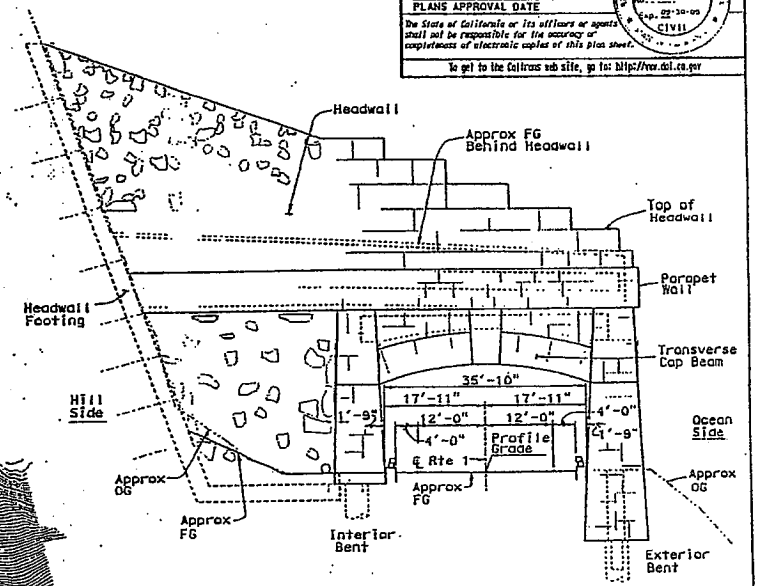
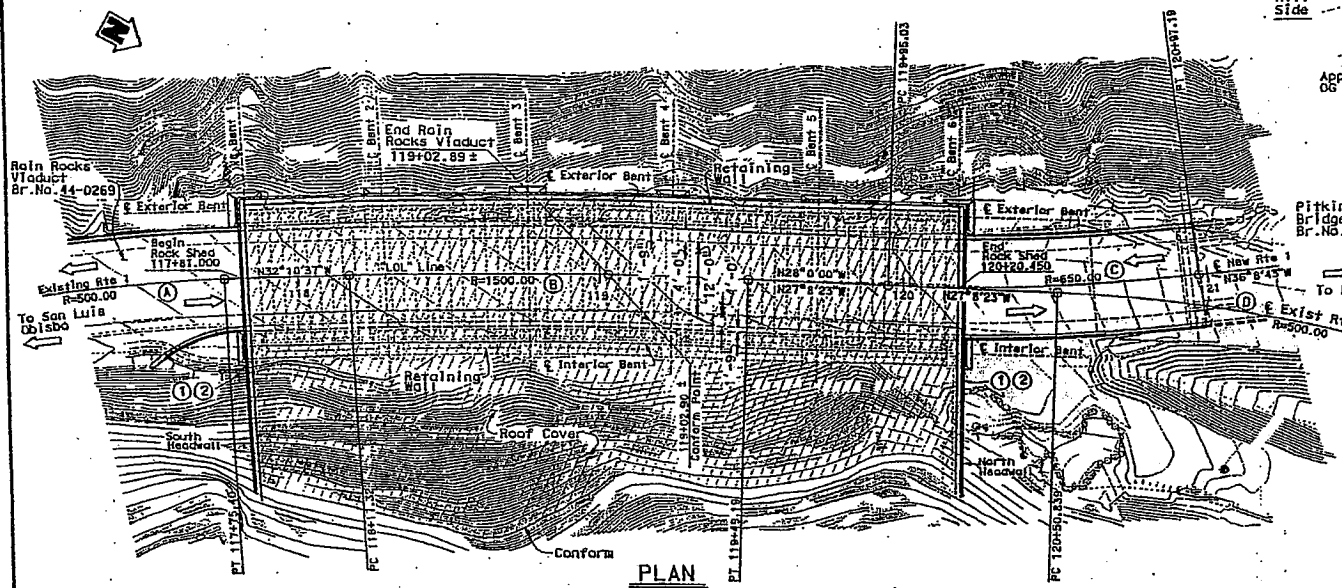




TYPICAL HEADWALL ELEVATION

3/32"=1"

North Headwall Shown
South Headwall Similar
Architectural Treatment
Not Fully Shown
Exterior Railing Not Shown



① Paint Br. No. 44-0289
② Paint "Rain Rocks Rock Shed"
Berm

------ Denotes Existing Structure
——— Denotes New Construction

CURVE DATA

Curve Ⓐ	Curve Ⓑ	Curve Ⓒ	Curve Ⓓ
R = 500.00	R = 1500.00	R = 650.000	R = 500.00
Δ = 41°54'40"	Δ = 5°2'14"	Δ = 9°0'20"	Δ = 22°29'30"
T = 191.49	T = 65.98	T = 51.19	T = 99.42
L = 365.74	L = 131.87	L = 102.16	L = 196.28

DESIGN	BY M. Van De Pol	CHECKED P. Norboe	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: Bulldozer and Rock Impact			
DETAILS	BY M. Van De Pol	CHECKED P. Norboe	LAYOUT	BY M. Van De Pol	CHECKED P. Norboe		
QUANTITIES	BY	CHECKED	SPECIFICATIONS	BY	PLANS AND SHEETS COMPARED		

DESIGN ENGINEER

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN
DESIGN BRANCH 9

CU 05
EA 0E9601

FILE => rs-05-0e9601-1-gp1.dgn

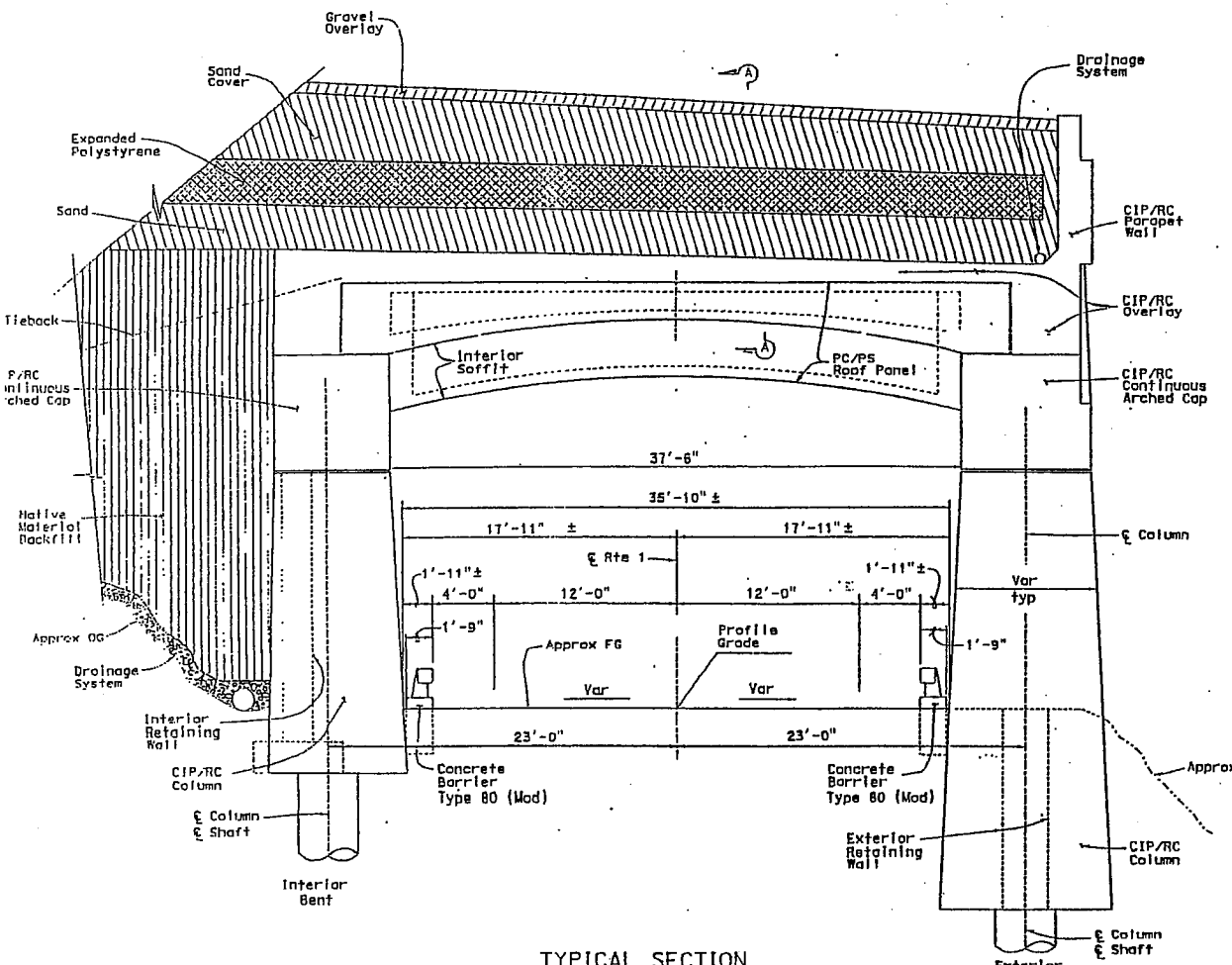
BRIDGE NO.	44-0289
POST MILE	21.30

STANDARD PRINTS BEARING EARLIER REVISION DATES:

RAIN ROCKS ROCKSHED
GENERAL PLAN No. 1

REVISION DATES							SHEET	OF
							1	78

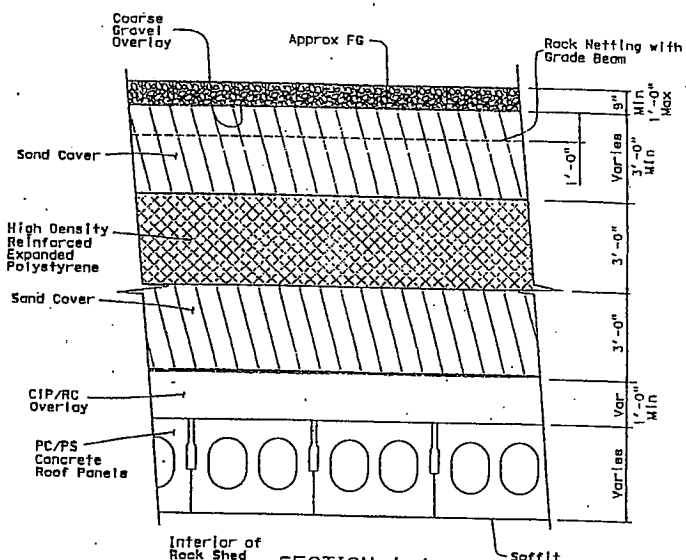
STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV. 07-24-06)



TYPICAL SECTION

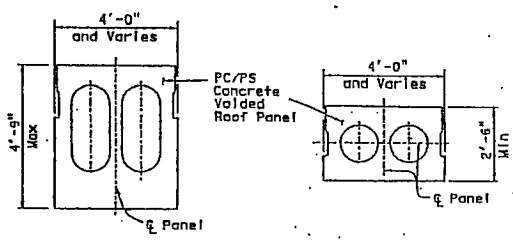
1/4"=1"

Section Looking Down Station
Section Taken Beyond Limits of Rain Rocks Viaduct
Section Taken at Columns



SECTION A-A

1/2"=1"



ROOF PANELS

1/2"=1"

Notes

1. Exterior Railing Not Shown
2. Architectural Treatment Not Shown. See "Architectural Treatment Details" Sheets
3. Pile Casings not Shown

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	Mon	01		46	

REGISTERED CIVIL ENGINEER DATE

M. Van De Pol No. C35618 Exp. 09-30-09 CIVIL State of California

PLANS APPROVAL DATE

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To get to the Caltrans sub site, go to: http://www.dot.ca.gov

DESIGN	M. Van De Pol	CHECKED P. Norboe	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: Bulldozer and Rock Impact			
DETAILS	M. Van De Pol	CHECKED P. Norboe	LAYOUT	M. Van De Pol	CHECKED P. Norboe		
QUANTITIES		CHECKED	SPECIFICATIONS		PLANS AND SPECIAL PROVISIONS		

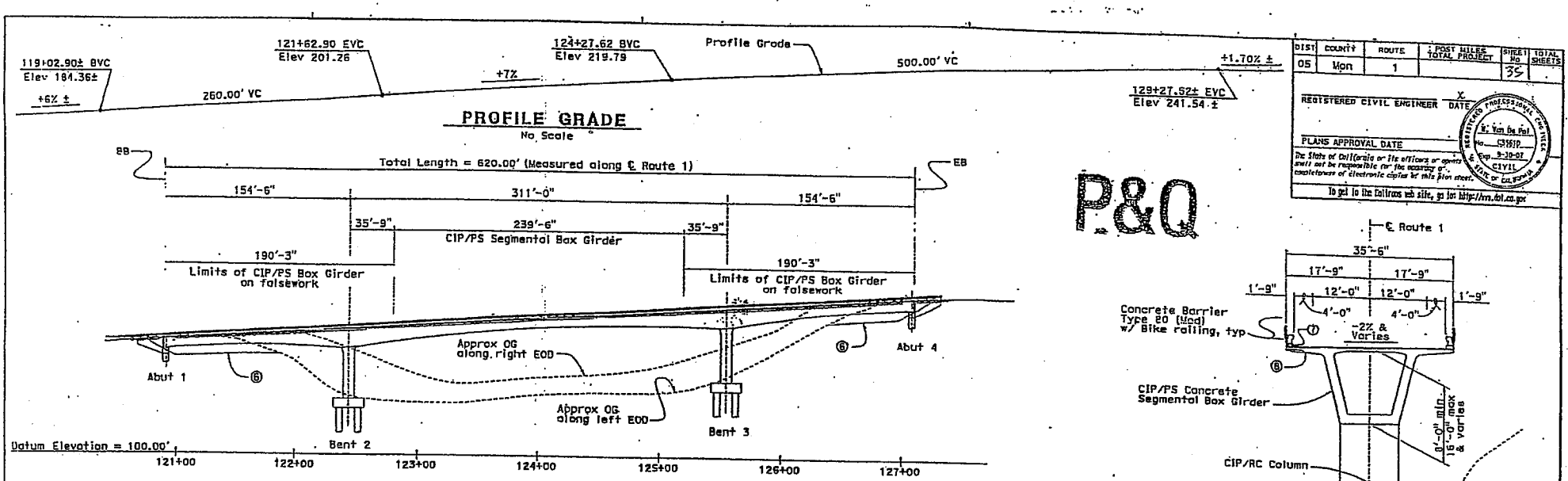
STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 9

BRIDGE NO. 44-0289 POST MILE 21.30

RAIN ROCKS ROCKSHED
GENERAL PLAN No. 2

SIGN ENGINEER

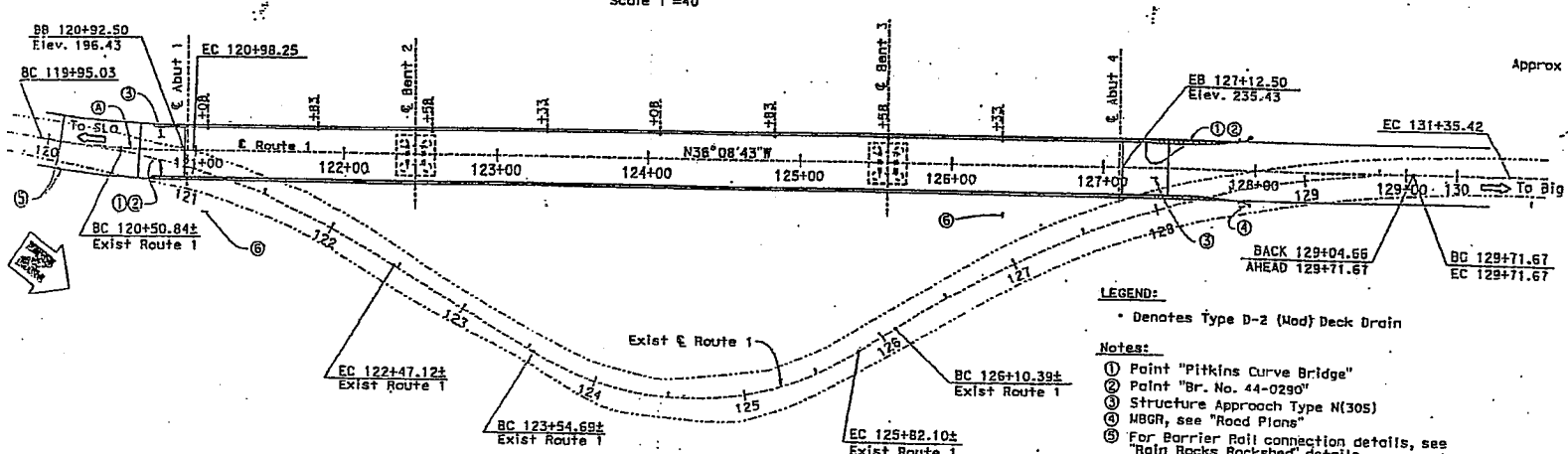


PROFILE GRADE

No Scale

ELEVATION

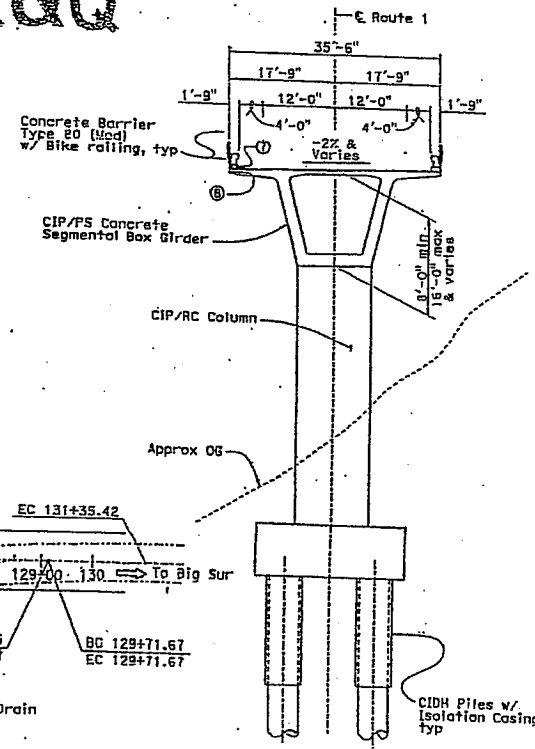
Scale 1"=40'



PLAN

Scale 1"=40'

P&Q



TYPICAL SECTION

Scale 1"=10'

LEGEND:

• Denotes Type D-2 (Mod) Deck Drain

Notes:

1. Paint "Pitkins Curve Bridge"
2. Paint "Br. No. 44-0290"
3. Structure Approach Type N(30S)
4. MBGR, see "Road Plans"
5. For Barrier Rail connection details, see "Rain Rocks Rockshed" details.
6. Approx FG, see "Road Plans". Minimum vertical clearance is 8'-0".
7. 2 - 3" ø Conduits for future use in barrier rail
8. 2 - 4" ø Conduits for telephone line in overhang

CURVE DATA

Location	R	Δ	T	L
Ⓐ	650.000'	9°05'56"	51.720'	103.222'

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
05	Mon	1		35	

REGISTERED CIVIL ENGINEER — DATE

PLANS APPROVAL DATE

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To get to the Caltrans web site, go to: http://www.dot.ca.gov

DESIGN	P. Norboe	CHECKED M. Van De Pol	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 W/"LOW-BOY"; PERMIT DESIGN VEHICLE			
DETAILS	D. Elliott	CHECKED M. Van De Pol	LAYOUT M. Van De Pol		CHECKED P. Norboe		
QUANTITIES	P. Norboe	CHECKED M. Van De Pol	SPECIFICATIONS		PLANS AND SPECS COMPLETED BY		

DESIGN ENGINEER

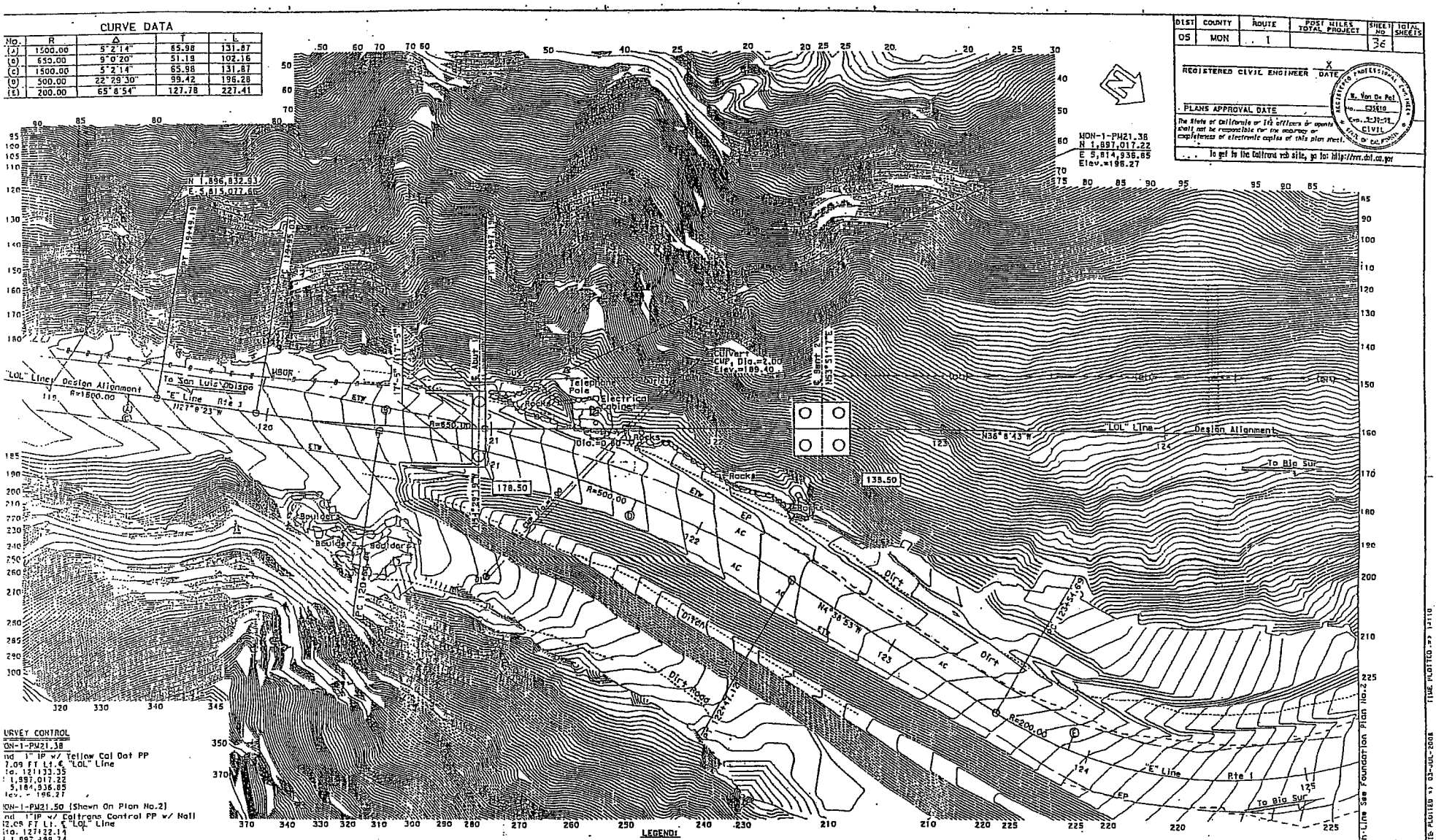
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 9

BRIDGE NO. 44-0290
POST MILE

PITKINS CURVE BRIDGE

DATE PLOTTED = 03-JUL-2001
TIME PLOTTED = 13:03



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO	TOTAL SHEETS
05	MON	1		36	

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER — H. Von De Pol — No. C35610 — Exp. 3-30-09 — CIVIL — STATE OF CALIFORNIA

PRELIMINARY INVESTIGATION SECTION

VERT. DATUM NAVD88	PHOTOGRAMMETRY AS OF: x	DESIGN	H. Harbor	DESIGNED	H. Von De Pol
HORIZ. DATUM NAD83 (1991.35)	SURVEYED BY District	CHECKED	T. Elliott 05/2008	DETAILS	T. Elliott
				CHECKED	H. Von De Pol

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 9

BRIDGE NO. 44-0290
POST MILE

PITKINS CURVE BRIDGE
FOUNDATION PLAN NO. 1

Notes:

1. EXISTING CT OWNED CMS, MESSAGE PROVIDED BY D5 TMC WITH REMOTE PROGRAMING
2. NEW SOLAR POWERED PCMS TO BE FURNISHED TO THE STATE BY THE CONTRACTOR AT THE START OF THE PROJECT FOR D5 TMC TO OWN OPERATE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	Mon	1	21.3/21.6		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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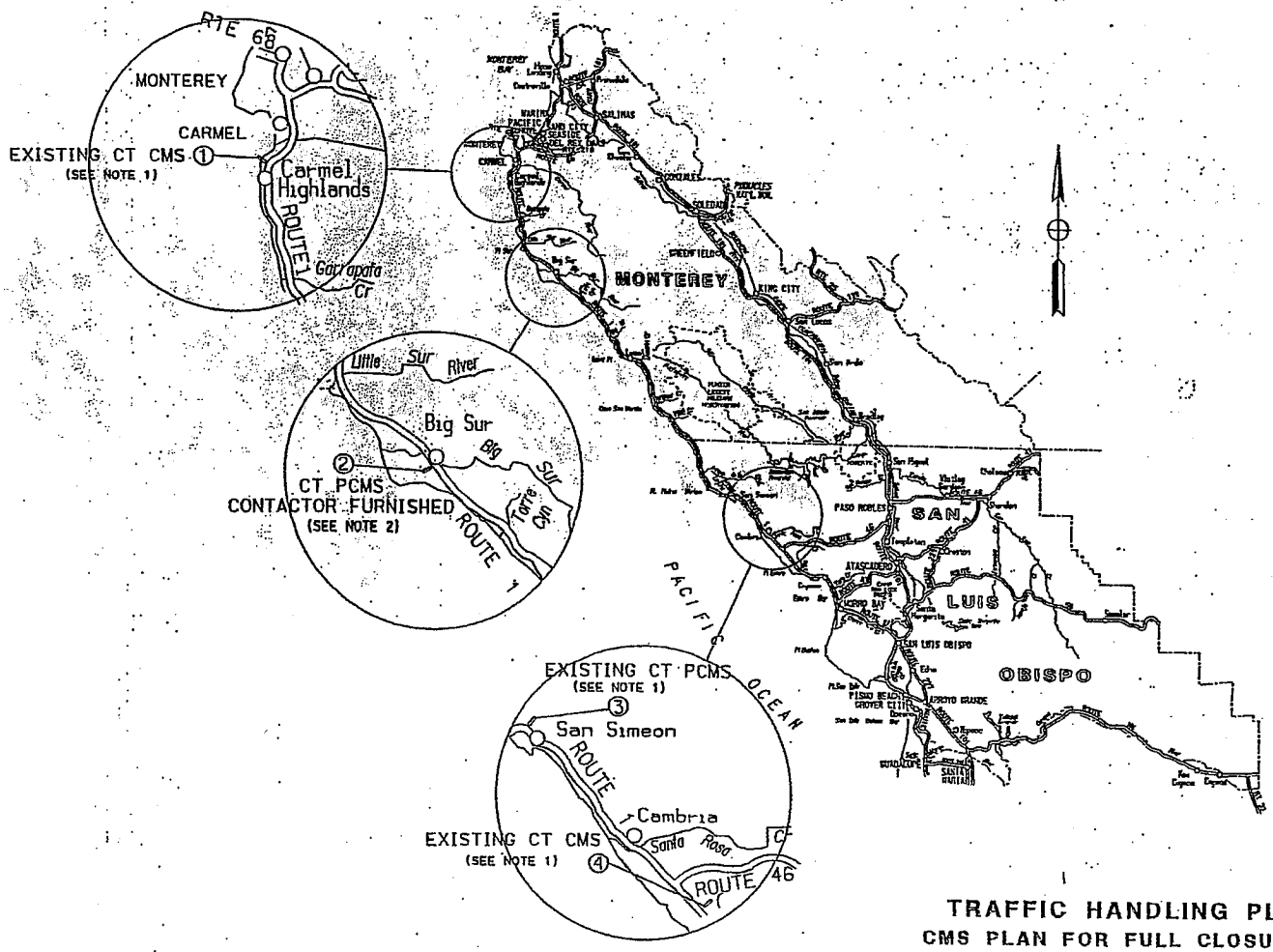
REGISTERED PROFESSIONAL ENGINEER FAWZI YAGHMOUR No. C 54750 Exp. 12-31-09 CIVIL STATE OF CALIFORNIA



TRAFFIC HANDLING PLAN

CMS PLAN FOR FULL CLOSURES

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	PROFESSIONAL ENGINEER	CALCULATED-DESIGNED BY	CHECKED BY	DRAWN BY	REVISED BY	DATE REVISED
Caltrans TRAFFIC DESIGN	HASSAN VAREI			FAWZI YAGHMOUR		

DATE PLOTTED => 09-SEP-2008
TIME PLOTTED => 14:03

EXHIBIT H
LAND USE ADVISORY COMMITTEE MINUTES

PLN0080218- California Department of Transporation
Bridge at Pitkins Curve and Rock Shed at Rain Rocks

Planning Commission
March 25, 2009

MINUTES

Big Sur & South Coast Land Use Advisory Committees

Tuesday, November 18, 2008

only South Coast had a quorum.

A. Meeting called to order at 9:10 am by J. PROVOST

B. Roll Call

Members Present (Big Sur): MARY TROTTER, STEVE BECK, NED CALRAHAN

Members Present (South Coast): KEN HARLAN, JERRY PROVOST, HARRY HARRIS

Members Absent (Big Sur): ~~KO~~ DINDIERANO, BARBARA NOYT, BARBARA LAVAE

Members Absent (South Coast: KATE NAVOA, ROBT. WILLIT

C. Approval of Minutes: 5/12 (~~October 14~~, 2008)

Motion: JERRY PROVOST (LUAC Member's Name)

Second: HARRY HARRIS (LUAC Member's Name)

Ayes: 3 PROVOST, HARRIS, HARLAN

Noes: 0

Absent: KATE NAVOA, ROBT. WILLIT

Abstain:

D. Public Comments:

NONE

E. Scheduled Item(s): See Separate Project Referral Sheets NONE

F. Other Items: A) Preliminary Courtesy Presentations by Applicants Regarding Potential Projects/Applications

NONE

B) Next meeting date – ~~November 17th if needed (or to be determined)~~

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Action by Land Use Advisory Committee
Project Referral Sheet

Monterey County Planning Department
168 W Alisal St 2nd Floor
Salinas, California
(831) 755-5025

Advisory Committee: Big Sur and South Coast

Please submit your recommendations for this application by Tuesday, November 18, 2008.

File Number: PLN080218
Project Location: HWY 1 BETWEEN PM 21.3 AND 21.6 (RAIN ROCKS)
Project Planner: CRAIG SPENCER
Area Plan: BIG SUR COAST LAND USE PLAN
Project Description: COMBINED DEVELOPMENT PERMIT CONSISTING OF 1) A COASTAL DEVELOPMENT PERMIT TO ALLOW THE CONSTRUCTION OF A 525 FOOT LONG BRIDGE AT PITKINS CURVE AND A 240 FOOT LONG ROCK SHED AT RAIN ROCKS OVER HIGHWAY 1 FOR THE PURPOSE OF ROCK FALL PREVENTION; 2) A COASTAL DEVELOPMENT PERMIT FOR DEVELOPMENT ON 30% SLOPE; 3) A COASTAL DEVELOPMENT PERMIT TO ALLOW DEVELOPMENT WITHIN THE CRITICAL VIEWSHED; 4) A COASTAL DEVELOPMENT PERMIT TO ALLOW DEVELOPMENT WITH THE POTENTIAL TO CAUSE A SIGNIFICANT ENVIRONMENTAL IMPACT; AND 5) A DESIGN APPROVAL. THE PROJECT IS LOCATED ON HIGHWAY 1 BETWEEN POST MILE 21.3 AND 21.6, NORTH OF LIMEKILN POINT, BIG SUR AREA, COASTAL ZONE.
Recommendation to: PLANNING COMMISSION

Was the Owner/Applicant/Representative Present at Meeting? Yes ✓ No _____

PUBLIC COMMENT: NONE

AREAS OF CONCERN (e.g. traffic, neighborhood compatibility, visual impact, etc.):

KEN NARLAN VOICED CONCERN ABOUT TRAFFIC CONTROL.

CHRISTINE KAHN PRESENTED AN OVERVIEW OF CALTRANS TRAFFIC CONTROL PLAN.

STEVE BECK BROUGHT UP THE PROBLEM OF MOVING PRECAST PIECES TO THE JOB DURING THE DAYTIME HOURS.

SUSANNA CRUZ OF CAL TRANS SAID ALL POSSIBLE THOUGHT AND CONSIDERATION WILL BE USED TO

WHETHER IT IS POSSIBLE TO DELIVER THE LARGE PIECES AT NIGHT

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DISTRICT 5 – PUBLIC INFORMATION OFFICE

50 Higuera Street
San Luis Obispo, CA 93401

Telephone (805) 549-3318
Calnet 8-629-3318
FAX (805) 549-3326 info_d5@dot.ca.gov

"CALTRANS IMPROVES MOBILITY ACROSS CALIFORNIA"

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[PLN080218 PITKINS CURVE/RAIN ROCKS CONTINUED]

RECOMMENDED CHANGES/CONDITIONS (e.g. reduce scale, relocate on property, reduce lighting, etc.):

NONE

ADDITIONAL LUAC COMMENTS:

NONE

RECOMMENDATION (e.g. recommend approval; recommend denial; recommend continuance):

RECOMMEND APPROVAL

CONCUR WITH RECOMMENDATION:

AYES: 3 KEN HARLAN, JERRY PROVOST, HARRY HARRIS

NOES: ~~0~~

ABSENT: 2 KATE NOVICK, ROBT WILLETT

ABSTAIN: ~~0~~

Meeting Adjourned at: 10:20 am. PREPARED BY: J Provost

EXHIBIT I
STATEMENT OF OVERRIDING CONSIDERATIONS

PLN0080218- California Department of Transporation
Bridge at Pitkins Curve and Rock Shed at Rain Rocks

Planning Commission
March 25, 2009

STATEMENT OF OVERRIDING CONSIDERATIONS

CALIFORNIA DEPARTMENT OF TRANSPORTATION STATEMENT OF OVERRIDING CONSIDERATIONS FOR HIGHWAY 1 IMPROVEMENT PROJECT AT PITKINS CURVE AND RAIN ROCKS

The following information is presented to comply with Section 15093 of the State CEQA Guidelines, and Section 1509.6 of the Department of Transportation and California Transportation Commission Environmental Regulations. Reference is made to the Final Environmental Impact Report (FEIR) for the project, which is the basic source for the information.

The following impacts have been identified as significant and not fully mitigable:

> Impacts to the visual quality of the state scenic highway/national scenic byway along the Big Sur coast have been determined to be significant under the California Environmental Quality Act.

Overriding considerations that support approval of this recommended project are as follows:

The California Department of Transportation (Caltrans) proposes to construct a bridge and rockshed on Highway 1 to restore highway reliability, decrease maintenance expenditures, and protect highway workers at Pitkins Curve and the northern chute of Rain Rocks along the Big Sur Coast in Monterey County, California.

Unstable geology and winter storms cause unpredictable and extensive landslides and rockfall at Pitkins Curve/Rain Rocks. These events regularly reduce and sever travel for months at a time on Highway 1, a state scenic highway and national scenic byway "All-American Road," and the only direct coastal link to communities between San Simeon and Carmel. Highway restoration is generally conducted under emergency conditions, which increases risk to highway workers, elevates costs, restricts the range of methods available to restore the highway, and limits ways to avoid or minimize impacts to traffic movement, the economy, and the environment. At this location, even the routine maintenance of managing the landslides is riskier and has higher maintenance costs than for other locations on the Big Sur Coast Highway. Caltrans geologists and geotechnical engineers have studied the slopes at Pitkins Curve/Rain Rocks and concluded that the hillside will continue to slide, the highway will be damaged repeatedly, and it will likely be severed again.

The project (construction of a bridge and rockshed) would substantially reduce the need for regular roadway maintenance and associated traffic disruption. It would eliminate the risk to highway workers of working in the active rockfall area

and eliminate the risk of catastrophic highway failure, extensive road closures, and environmental and economic costs. The project provides the most reliable and dependable transportation facility and, over the life of the project, would have the least impact to the area's economy.

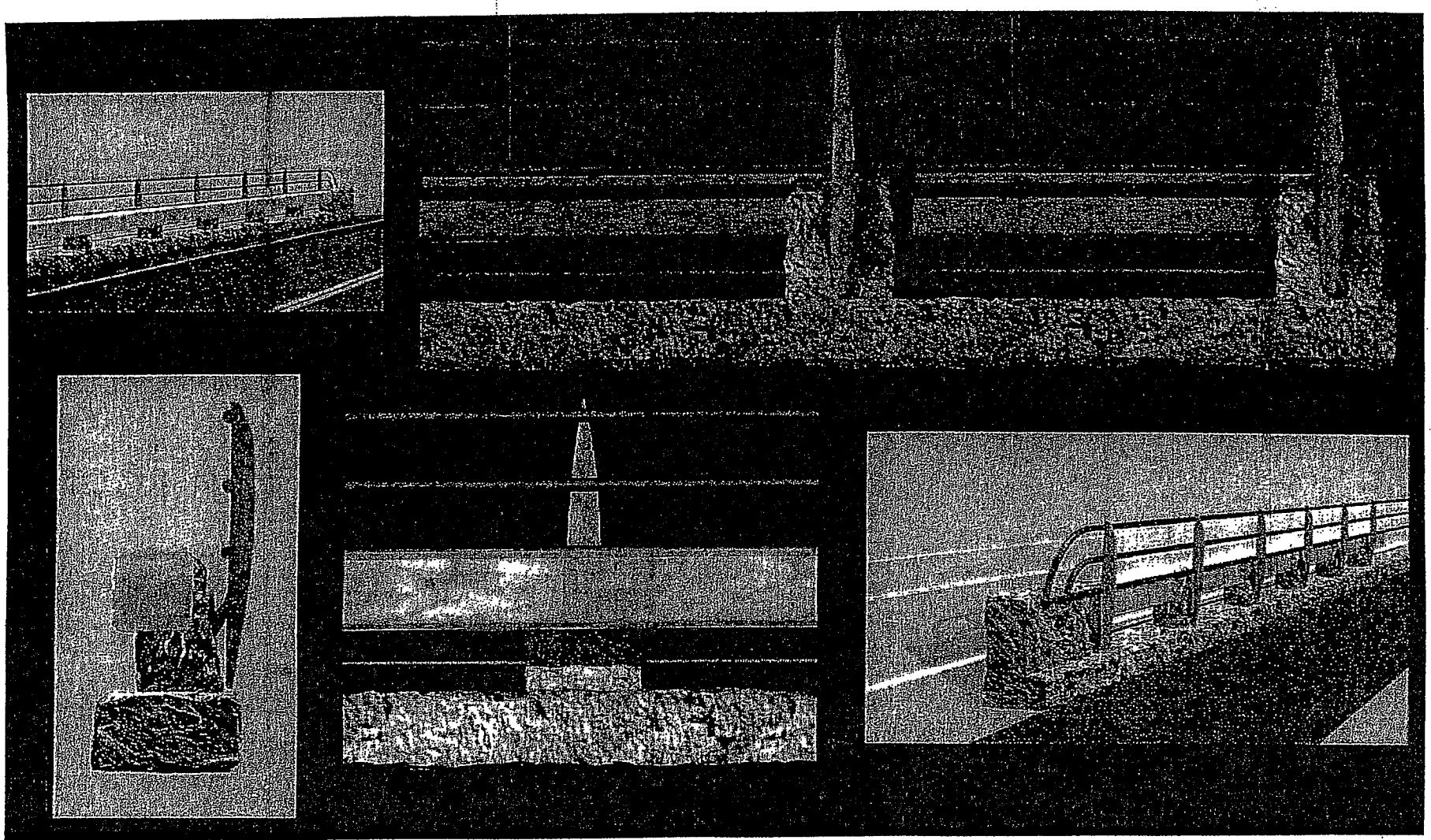
Over the life of the project (50 years) the cost of building and maintaining the bridge and rock shed (approximately $ 26,000,000) is comparable to the cost of building the bridge and continuing with active management of the Rain Rocks location (approximately $24,500,000) and is substantially less than the estimated cost of maintaining the highway without either structure (approximately $112,000,000).

Building the bridge and rock shed concurrently, under a single construction contract, would take less time and cost less than building them sequentially under separate construction contracts.

EXHIBIT J
PHOTO SIMULATIONS

PLN0080218- California Department of Transporation
Bridge at Pitkins Curve and Rock Shed at Rain Rocks

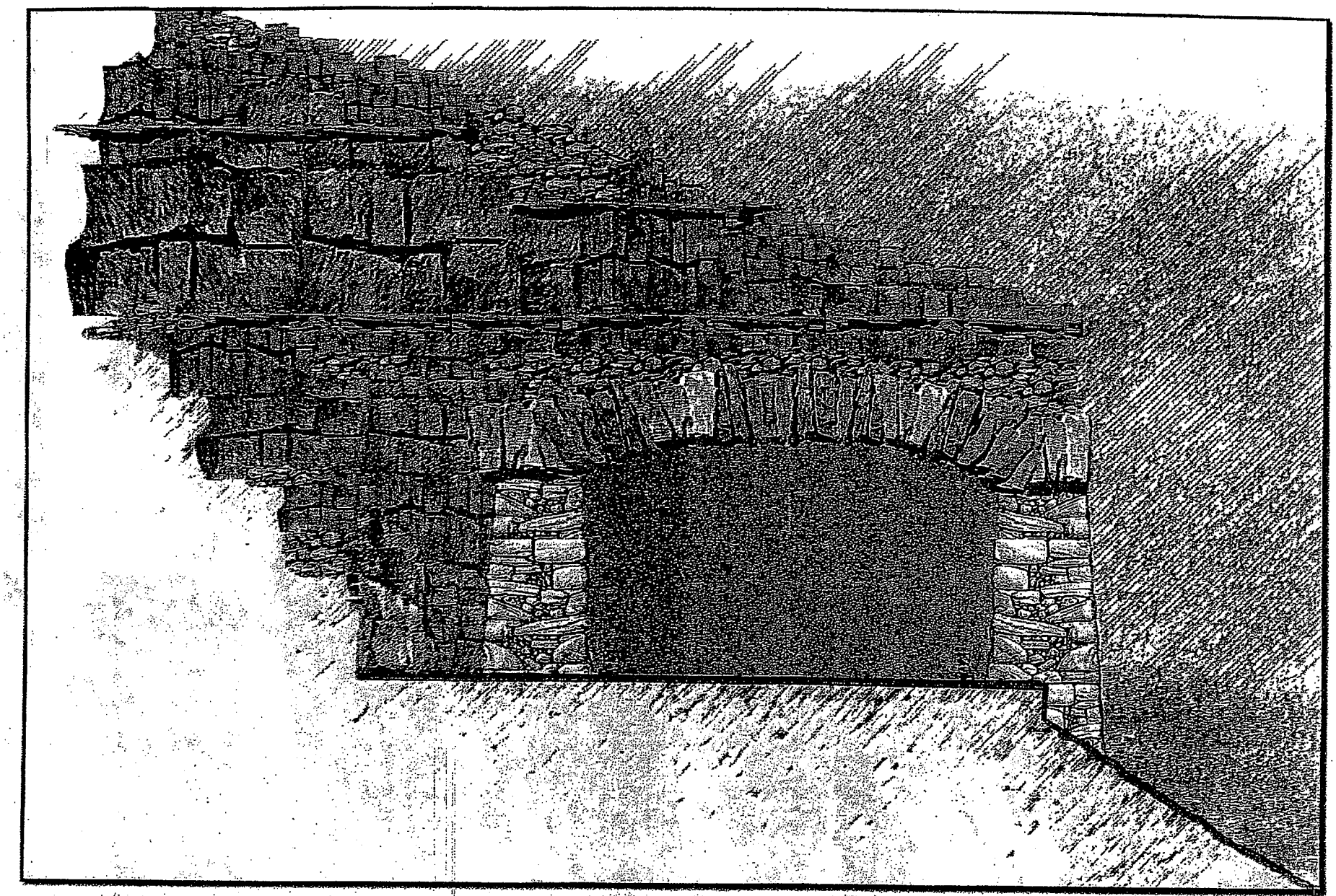
Planning Commission
March 25, 2009



Caltrans

Pitkins Curve
Bridge and Rockshed

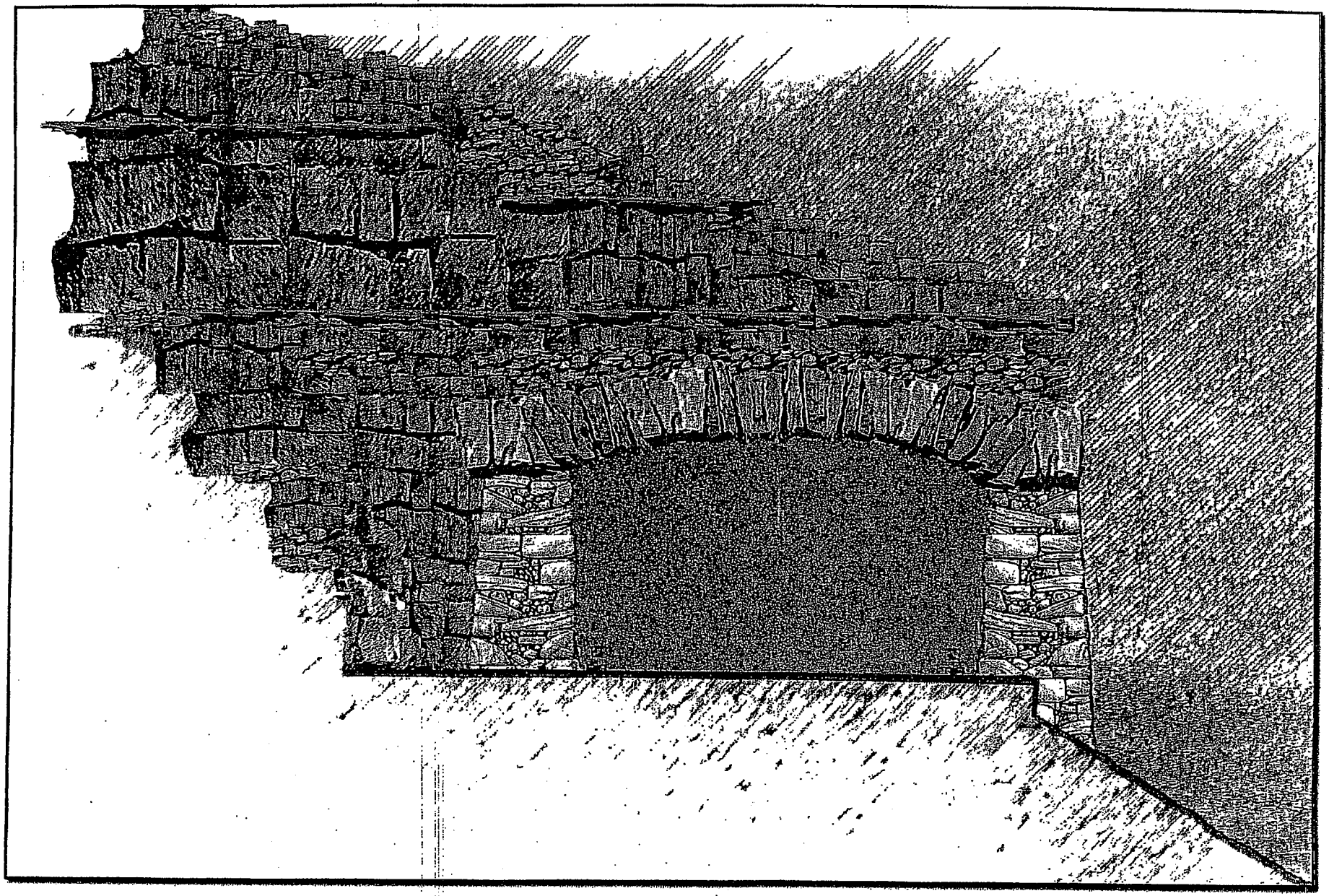
Bridge Rail Study
Developed by the Aesthetic Design Advisory Committee



Caltrans

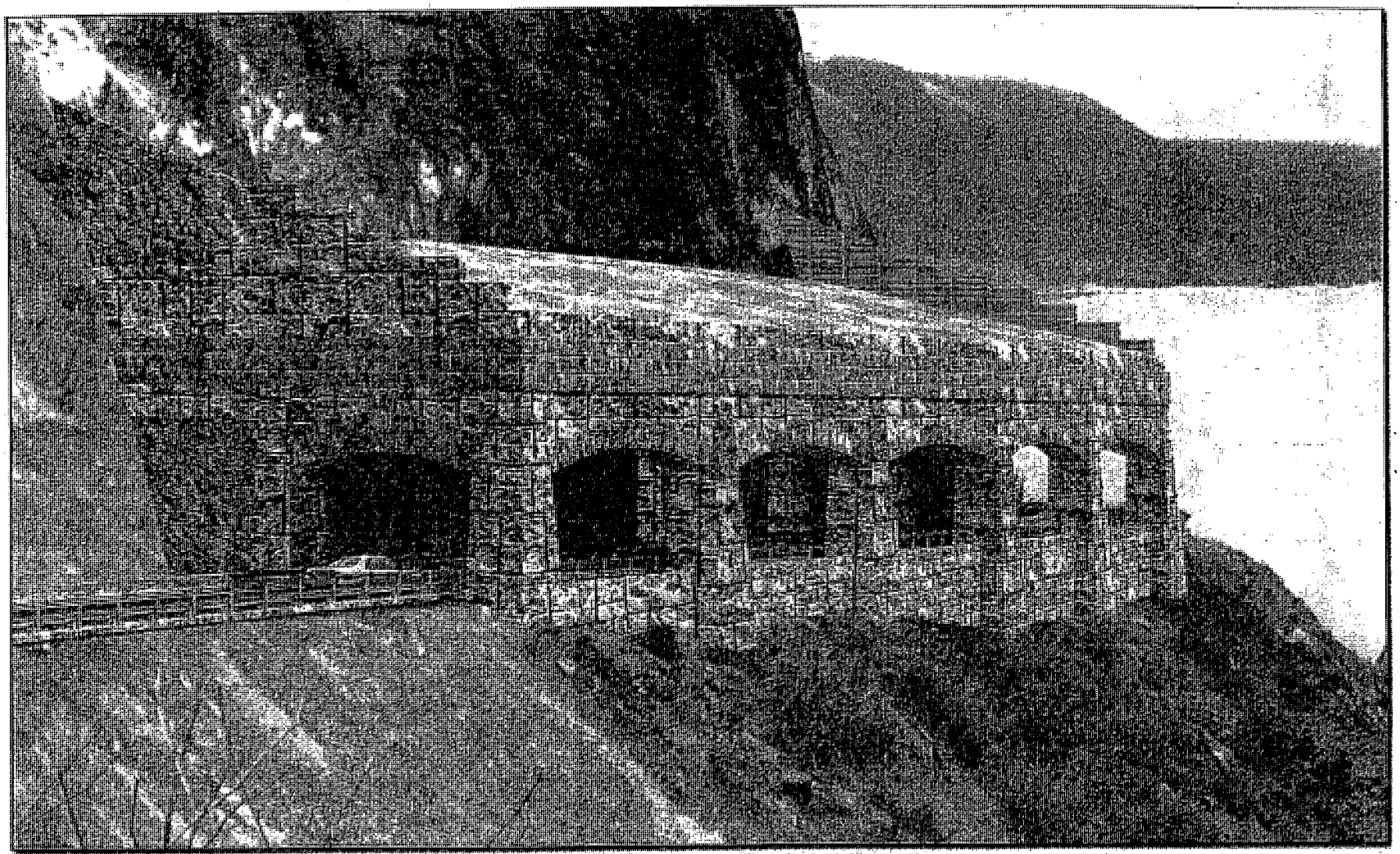
Pitkins Curve
Bridge and Rockshed

Rockshed Concept Sketch
Developed by the Aesthetic Design Advisory Committee



Pitkins Curve
Bridge and Rockshed

Rockshed Concept Sketch
Developed by the Aesthetic Design Advisory Committee



This study illustrates basic form and texture only.
The image does not show variations in rock color, which are still being developed.

Pitkins Curve
Bridge and Rockshed

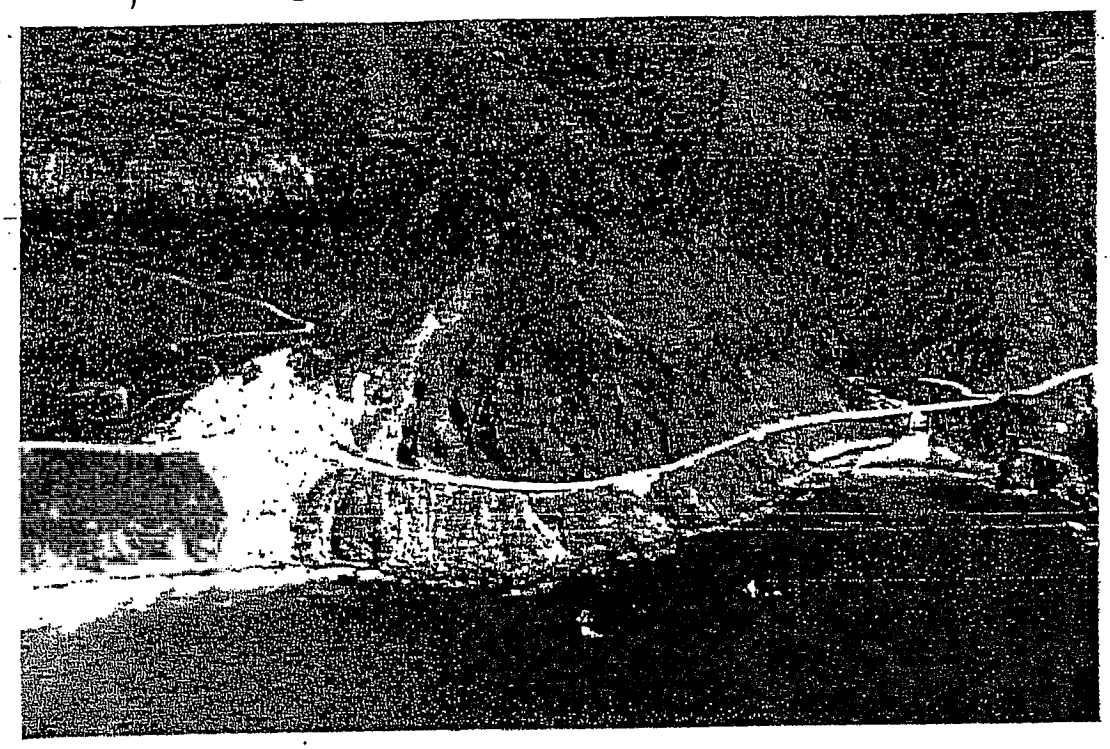
Rockshed Concept
Perspective view
Developed by the Aesthetic Design Advisory Committee

EXHIBIT K
NATURAL ENVIRONMENT STUDY

PLN0080218- California Department of Transporation
Bridge at Pitkins Curve and Rock Shed at Rain Rocks

Planning Commission
March 25, 2009

PLN080218
LIB080562



Natural Environment Study (NES):

Including Discussions of Biological Impacts, Wetland Studies, Mitigation and Monitoring Plans

Located adjacent to Limekiln State Park, on Route 1, within the County of Monterey, California

05 – Mon – 1 – KP 34.2-34.8 PM 21.3-21.6

EA 06-232-0E9600

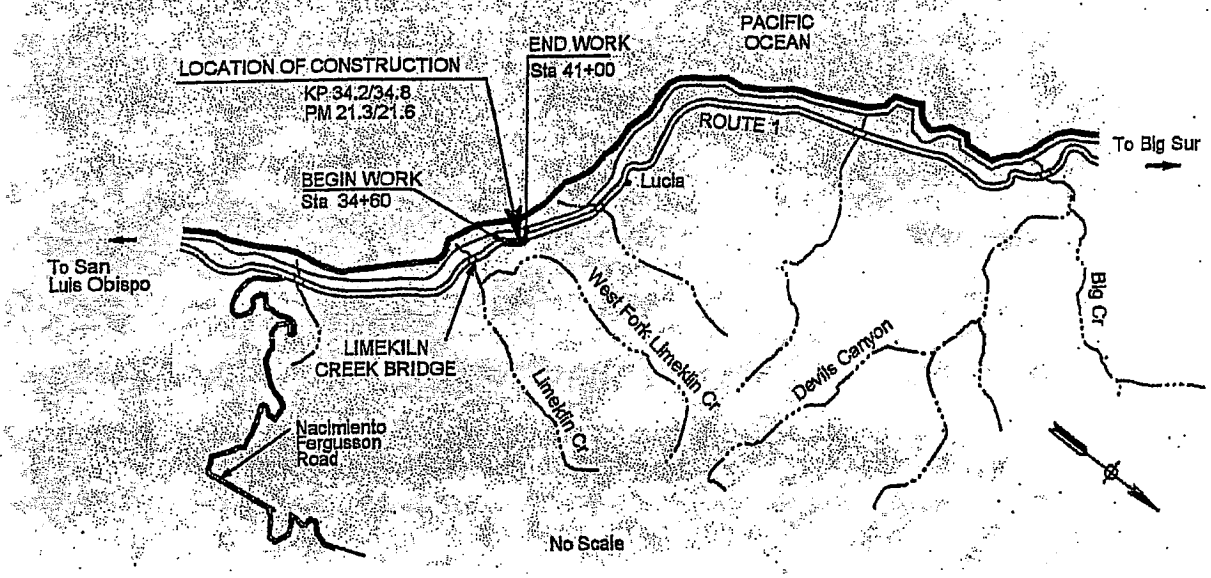
April 2005

For individuals with sensory disabilities, this document is available in Braille, large print, on audiocassette, or computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attention: Valerie Levulett, Technical Studies Branch 50 Higuera Street San Luis Obispo, Ca 93401 805-549-3669 (Voice), or use the California Relay Service TTY number, 805-549-3259

ATTACHMENT N

Summary

Figure 1: Project Location Map



Project Location, Purpose and Need

The project is located on Route 1 along the Big Sur coast, between Kilopost 34.2 and 34.8 (Postmile 21.3 and 21.6) about half a mile north of Limekiln Creek and State Park and a mile and a half south of Lucia in Monterey County. It encompasses two areas of roadway instability, which are commonly known as "Pitkins Curve" and the northern rock chute of "Rainrocks". The terrain is steep and rocky and land use adjacent to the project area is scenic and recreational.

Unstable geology and winter storms cause landslides that regularly reduce or close Highway 1 to travel at this location. In 2000 and 2001 severe landslides at Pitkins Curve forced the reestablishment of the highway on a new alignment, requiring the emergency transport of significant amounts of soil and rock.

The amount of rockfall at the north chute of Rainrocks is acute and has required placement of wire mesh on the hillside to protect drivers and workers from falling rock. Both locations require an excessive amount of time and money to maintain the highway. Caltrans geologists and geotechnical engineers believe the slopes will continue to slide and that the highway will be severed again.

The project's purpose is to provide improvements that substantially decrease maintenance expenditures and appreciably increase roadway reliability, dependability and safety while minimizing environmental impacts at the Pitkins Curve and Rainrocks locations.

Project Description.

The project consists of two main features; building a bridge across a ravine and building a rock shed at the southern end of the new bridge. (See Project Maps, Appendix A) The project will be a permanent solution to the temporary detours that have been built in response to storm damage and road closures during recent years. There are two build alternatives and a "no-build" alternative.

Alternative 1: Build Bridge and Rock Shed

Alternative 2. Build Bridge

For the build alternatives, all construction, equipment storage, access, staging, haul sites, borrow pits, earthwork, excavation, erosion control, and slope restoration work will occur primarily within the existing Caltrans right of way with some use of California State Parks land.

Environmental Setting

The project area is situated along Highway 1 between an area of the steep, rugged Santa Lucia Mountains and the Pacific Ocean. The terrain is rocky, and the area experiences regular rockslides and landslides. Sparse vegetation (native and non-native herbs, grasses and shrubs), that varies seasonally, is present. The new bridge or bridge/rock shed alignment will be approximately 56-73 meters (184-240 feet) above the Pacific Ocean and 75 meters (246 feet) inland, measured from the shoreline.

Eight highway turnout areas have been identified for use during construction for storage and staging; they are located just north of the bridge and rock shed location. These turnout areas are dirt or paved areas, bordered by a mixture of native plants, trees and/or invasive weeds. (Project Maps Appendix A)

The **Biological Study Area (BSA)** is defined as the area (land and water) that may be directly, indirectly, temporarily or permanently impacted by construction and construction related activities. The **Area of Direct Impact (ADI)** is defined as the area that is either temporarily or permanently, but *directly* impacted by construction and construction related activities. (Project Maps, Appendix A). Caltrans right-of way, State Parks, private lands adjacent to the highway and the nearshore marine environment were used as the boundaries for the biological surveys and studies. Biological resources are present within this area, and include habitat for both terrestrial and aquatic special status species. All build alternatives cause similar impacts to the biological resources.

Impacts to Major Habitat Ecotypes, Natural Community Areas and/or Landscaped Vegetation Areas

Vegetation and natural habitat types that are potentially impacted by building a bridge and rock shed include small patches of lupine (*Lupinus sp.*), coyote brush (*Baccharis sp.)* invasive plants, and marine aquatic habitat below the bridge and rock shed build-site. Native chaparral, coastal sage scrub and invasive plants located around the perimeters of the turnouts may also be impacted. There is no landscape vegetation present in the ADI.

Permanent habitat loss occurs from the building of the bridge, the rock shed and any required drainage improvements or repairs. Temporary habitat loss occurs in areas of construction access, excavation and the rebuilding of new cut and fill slopes, and all related construction disturbances.

The defined ADI is approximately 3.7 hectares (9.2 acres) and includes areas of pavement, rocks, bare soils, waters and vegetation that vary annually and with the seasons and the storms. Storms and landslides effect the amount of vegetation and/or waters that may be disturbed in any given year. In 2004, approximately .39 Hectares (0.96 acres) of this area was sparsely vegetated – this mixed coastal scrub and weedy vegetation will be removed during construction. Restoration of all lost vegetation will occur after construction is complete, and all habitat areas will eventually be restored to an original or improved condition.

Impacts to Wetlands and "Other Waters of the U.S."

Currently, there are no project impacts to wetlands as defined by either the California Coastal Commission/Monterey County Local Coastal Program (LCP) or the Army Corps of Engineers (ACOE).

Water is coming from subsurface seeps and springs that originate on the steep rocky slopes both up and downhill of Highway 1 within the project BSA and ADI. These waters, defined as "Other Waters of the U.S." by the Army Corps of Engineers and Regional Water Quality Control Board (ACOE and RWQCB) are collected in two cross culverts within the project ADI that drain under Highway 1, directing water downslope into the Pacific Ocean. Approximately 50 square meters (538 square feet) of these ephemeral drainages will be temporarily impacted during construction.

Impacts occur where two culvert extensions and fill-slopes cover these areas with soils or structures or where cut slopes remove soils and vegetation. Impacts also occur within the construction work zone from vehicles and equipment use.

Avoidance and minimization measures, compensatory mitigation and use of Stormwater BMP's (Best Management Practices) are required for any impacts to "Other Waters of the US" (as defined by ACOE) that are either permanently or temporarily affected by the project. All temporarily disturbed areas will be restored in place after construction is complete. See Appendix C for details.

Impacts to Special Status Species – Plants and Wildlife

Seventeen special status plants and fifteen special status wildlife species were identified as having the potential to occur within the project BSA and/or ADI. Potential impacts to special status species were evaluated as permanent, temporary, direct, indirect and/or cumulative, and are discussed in detail in Chapter 4.

There will be loss of some native plants, but there were no observations of special status plants within the project ADI. Therefore, impacts to special status plants, including endangered, threatened or protected species of plants are not anticipated.

Caltrans sought technical assistance from the United States Fish and Wildlife Service (USFWS) under Section 7 of the Endangered Species Act and the California Department of Fish and Game. The proposed project, with identified avoidance, minimization, and mitigation measures, will have No Effect on any Federal and/or State listed endangered, threatened or special status wildlife species.

Impacts to Migratory Birds and other Wildlife

There are temporary construction impacts to wildlife, caused by the disturbance and removal of portions of some habitat areas (aquatic and upland habitat).

Federal and State laws protect migratory birds, their occupied nests, and their eggs from destruction. The applicable Federal law is the Migratory Bird Treaty Act (15 USC 703-711), 50 CFR Part 21, and 50 CFR Part 10. Protection under California Law is found in the Fish and Game Code Section 3503, 3513 and 3800. Common migratory birds, such as barn swallows, use the "Rainrocks Cliffs" area within the BSA and ADI – temporary impacts and loss of nesting habitat for 1-2 seasons are anticipated for migratory birds, which are not threatened, endangered or special status species.

Presence of Invasive Plants

Many exotic, non-native grasses and other invasive forbs such as ice plant, pampas grass, fennel, fountain grass and other invasive plants can be found throughout the project area. In compliance with the Executive Order on Invasive Species, E.O. 13112, and subsequent guidance from Federal Highway Administration, landscaping and erosion control for the project will not use species on the California List of Noxious Weeds (this list can be found at http://ucce.ucdavis.edu/files/filelibrary/5319/4893.pdf). In order to assist with controlling the spread of invasive plants, avoidance and minimization measures are proposed (see Appendix D).

Positive and Beneficial Biological Impacts

The positive benefits of this project include the removal of invasive plants and the revegetation with native plants wherever possible. Using native plants will help to improve wildlife habitat throughout the project area.

Avoidance, Minimization, Compensatory Mitigation and Monitoring Agreements

This report includes avoidance, minimization, compensatory mitigation and monitoring agreements that have been negotiated with and adopted by the project PDT (Project Development Team) and the responsible regulatory agencies. All agreements (pending final adoption as of February 1, 2005) can be found in Appendix D.

These agreements are pending final comments and concurrence by regulatory agencies that have yet to review this project through CESA, ESA, CEQA/NEPA review and various permit processes. These agencies may place additional conditions on the project as part of their permit authority. As the project develops, these agreements will become refined and possibly revised and Appendix D will be updated as the project moves forward.

Required Coordination, Permits and/or Agreements with Regulatory Agencies

Table 1: Coordination, Permits and/or Agreements with Regulatory Agencies - Required Prior to Construction

Agency	*Coordination/Permit/Agreement*
U.S. Army Corps of Engineers	*Section 404 Nationwide Permit for work affecting "Other Waters of the US"*
Regional Water Quality Control Board	*401 Water Quality Certification in conjunction with ACOE permits*
U.S. Fish and Wildlife Service	*Technical assistance, Informal ESA Section 7 Consultation for Project's "No Effect" determination for Smith's Blue Butterfly, Sea Otter and California Condor. (complete)*
National Marine Fisheries Service	*Technical assistance (complete)*
California Department of Fish and Game	*Technical assistance (complete)*
Monterey County Department of Planning and Building – Environmental Division and California Coastal Commission	*California Environmental Quality Act review, Local Coastal Program Compliance, Coastal Development Permit and Minor Use Permit (local permit is appealable to Coastal Commission)*
California Coastal Commission	*Federal Consistency Determination.*

Table of Contents

Including List of Tables, Figures and Appendices

List of Tables

List of Figures

List of Appendices

Table 2: List of Abbreviated Terms

ACOE	Army Corps of Engineers
ADI	Area of Direct Impact
BSA	Biological Study Area
Caltrans, The Department	California Department of Transportation
CDFG or DFG	California Department of Fish and Game
CDP	Coastal Development Permit
CEQA	California Environmental Quality Act
CHMP	Coast Highway Management Plan
CESA	California Endangered Species Act
Cm	Centimeter
Dbh	Diameter at breast height (~4 ft)
ESA	Endangered Species Act and Environmentally Sensitive Area
ESU	Evolutionary Significant Unit (Steelhead)
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
Ft	Foot/feet
Ha	Hectare
Km	Kilometer(s)
KP	Kilometer post
M	Meter(s)
Mi	Mile(s)
NCA	Natural Community Area
NEPA	National Environmental Policy Act
NMFS, NOAA Fisheries	National Marine Fisheries Service, National Oceanographic/ Atmospheric Administration – Fisheries Division
PDT	Project Development Team
PM	Post mile (used by Caltrans to designate Highway locations)
RWQCB	Regional Water Quality Control Board
USFWS or FWS	United States Fish and Wildlife Service

1. Introduction

1.1. Project Location.

The project is located on Route 1 between Kilopost 34.2 and 34.8 (Postmile 21.3 and 21.6) in Monterey County along the Big Sur coast; about .8 Kilometers (.5 miles) north of Limekiln Creek (and Limekiln State Park) and a 2.4 Kilometers (1.5 miles) south of Lucia. It encompasses two areas of roadway instability, which are commonly known as "Pitkins Curve" and the northern rock chute of "Rainrocks". In addition, eight highway turnout areas have been identified for construction staging use – they are located between Post Mile 21.6-23.0. Land use in the project area is scenic, open space and recreational.

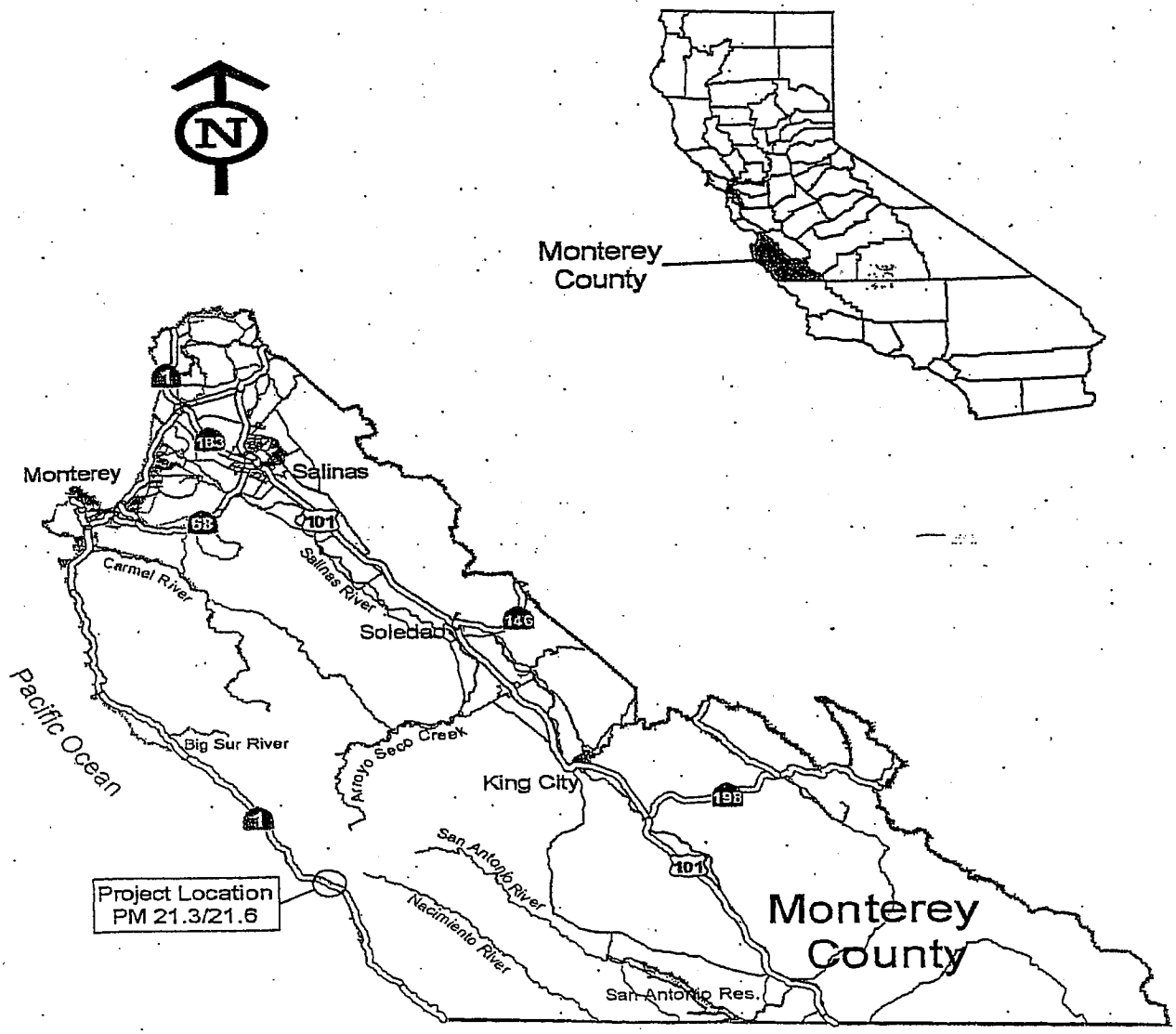


Figure 2: Project Vicinity Map

1.2. Project History

Unstable geology and winter storms cause landslides that regularly reduce or severely restrict travel over Highway 1 at Pitkins Curve and Rainrocks.

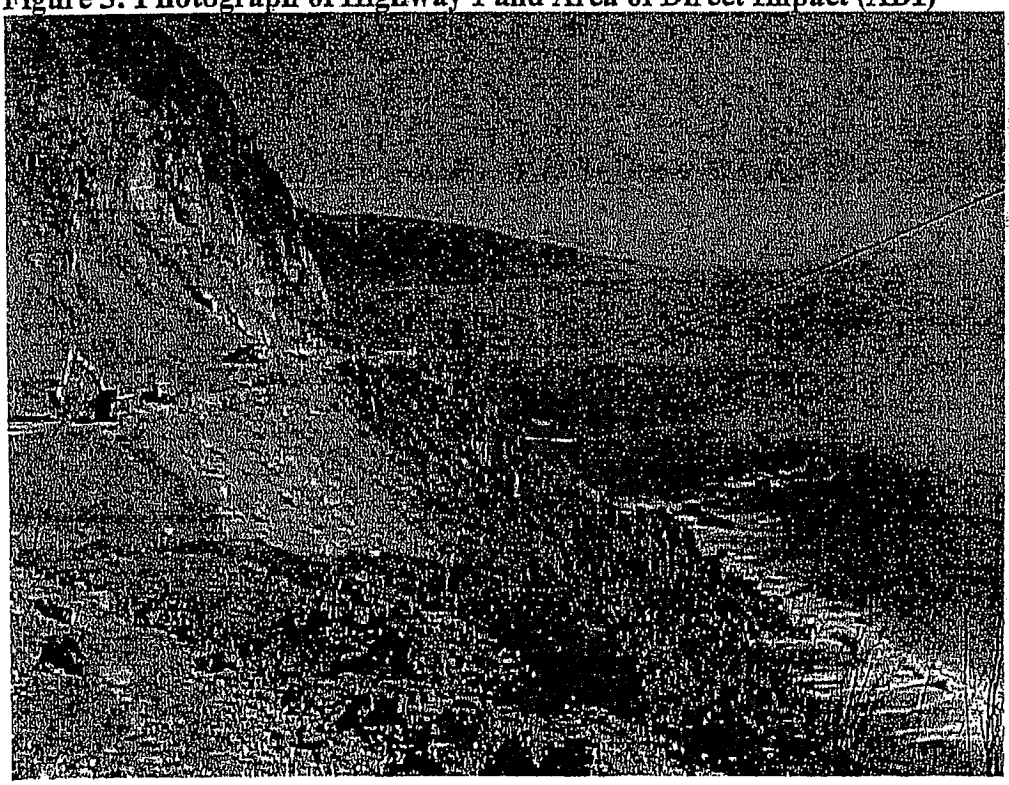
In 2000 and 2001, large landslides at Pitkins Curve forced the reestablishment of the highway on a new alignment and required the emergency transport of significant amounts of soil and rock. The amount of rockfall at the north chute of Rainrocks is acute and the placement of wire mesh (or "rock nets") on the hillside protects drivers and workers from falling rock. Geologic studies and historic data indicate a high probability of another catastrophic landslide and highway failure at Pitkins Curve.

Caltrans prepared a Project Study Report (PSR) in 2002 to identify project feasibility and proposed four preliminary alternatives. A revised Project Report (August 2004) further refined the alternatives down to the current alternative of a bridge and rock shed (with alignment variations).

1.3. Project Purpose

The project's purpose is to provide improvements that substantially decrease highway maintenance expenditures and appreciably increase highway worker safety, roadway reliability, dependability and safety while minimizing environmental impacts at the Pitkins Curve and Rain-Rocks location.

Figure 3: Photograph of Highway 1 and Area of Direct Impact (ADI)



Looking Southbound –Approximate Post Mile 21

1.4. Need for the Project

The project addresses the need to reduce on-going maintenance costs and risk. It also addresses the need to minimize traffic interruptions and the need to respond to material disposal limitations. In the event of a future catastrophic landslide, disposal of soil and rock generated from Pitkins Curve and Rainrocks could have extreme financial and environmental costs. The number and capacity of available disposal sites along the Coast Highway is limited.

Pitkins Curve and Rainrocks currently generates an average of 10,000 cubic yards of soil and rock per year; equal to approximately 500 truckloads that must be hauled away. The catastrophic landslides in 2000/2001 generated 100,000 cubic yards of material were removed in 5000 truckloads.

The project addresses a need to avoid biological impacts that could result from emergency repair of the next catastrophic failure. Caltrans' alternatives for restoring the highway, in the event of a future catastrophic failure, are extremely constrained at Pitkins Curve and Rainrocks. The road could be closed for an extensive period and immense excavation of the adjacent hillside may be required to reestablish the highway. During emergency highway restoration, ensuring public safety is the priority, which often takes precedence over minimizing biological impacts.

1.5. Safety and Level of Service

State Route 1, in this area of Monterey County, is a designated National Scenic Byway, which is a highly traveled route by locals and tourists alike. Currently, Level of Service (LOS) for the project area is B-C with only a few accidents reported since 1997. Safety, LOS and operational efficiency would be improved by the construction of the project which would also reduce the potential for wintertime storm closures and delay by vehicles traveling along the coast.

1.6. Project Description

The project consists of two main features; building a bridge across a ravine and building a rock shed at the southern end of the new bridge. (See Project Maps, Appendix A) The project will be a permanent solution to the temporary detours that have been built in response to storm damage and road closures. There are two build alternatives and a "no-build" alternative. Roadway and bridge widths include widths of 3.6 meter for the lanes and 1.2 meters for the shoulders.

Alternative 1: Build Bridge and Rock Shed

Alternative 2. Build Bridge

For all build alternatives, all construction, equipment storage, access, staging, haul sites, borrow pits, earthwork, excavation, erosion control, and slope restoration work will occur primarily within the existing Caltrans right of way with some use of California State Parks land.

Structure studies were done for different bridge types and the structures range in price from $10.2 to $11.9 million.

Structure studies were also been done on different rock shed types, currently estimated at $6.8 million. This cost represents the most practical structure alternative of a reinforced concrete rock shed with a precast, pre-stressed solid flat roof, cast-in-place sub-components, and no-steel isolation casings for the columns. This precast roof option helps facilitate night construction, which is anticipated, and also facilitates a rapid construction schedule by eliminating falsework construction.

The proposed rock shed will cover the entire width of the roadway. On the upslope side, the structure will be up against the existing rocky slope. On the downslope side, columns located outside of the roadway will support the roof so travelers will still have a view of the ocean from the road. The rock shed would extend back onto the Rainrocks sidehill viaduct, which was constructed in 1997 at the south end of the project limits. Rock shed construction will not adversely impact the adjacent sidehill viaduct or warrant its reconstruction, even though a portion of the new rock shed will be built over it.

Construction Staging. For each build alternative, construction staging (one lane closure for the project's duration, with some temporary full closures), earthwork, excavation, erosion control, and slope restoration work will occur within the existing Caltrans right of way and California State Parks property.

Haul Sites, Borrow Pits, and Construction Equipment Storage. Eight turnout areas located north of the project and adjacent to Highway 1 (between post mile 21.6-22.7) are identified for possible use during construction for staging and storage. (See Project Maps, Appendix A). They are located on both private and public property.

Utility Relocation. Two utility poles will be relocated during construction at the expense of the utility company. Ultimately, the utility lines will run through conduits in the bridge and rock shed.

1.6.1. Alternatives Withdrawn from Consideration

Alternatives and variations were originally discussed in the Project Study Report (PSR, Caltrans 2002). Alternatives included cutting the hillside, tunneling to bypass the slide, a continuous rock shed retaining walls, reinforced embankment, drapery and berms. Due to geologic constraints, only the bridge and the bridge/rock shed combination remain as viable alternatives.

1.6.2. Items of Work

Excavation, Earthwork. Drainage and Vegetation Removal. In order to build the new bridge and rock shed, blasting, drilling, clearing, grubbing, removal of concrete, asphalt debris, rock and excavation of vegetation and soils are all potential items of work. Installation of rock net and net drapery during construction (for safety) may also be required.

New cut and fill slopes will be built or restructured and any culverts or drainage structures that are required will be built, extended, relocated and/or repaired. Protection will be added at the culvert inlets and outlets to help stabilize these areas from excessive stormwater flows and treat the water for any contaminants.

Revegetation and restoration of all temporarily excavated areas will occur after construction of the structures are complete and are also considered items of work. "Other Waters of the US" that are temporarily disturbed during construction activities will be restored after construction is complete.

Table 3: Land and Water Disturbance due to Bridge and Rock Shed Construction

(Includes Excavation, Grading, Earthwork, Vegetation Removal, Rock Net Installation and Drainage Improvements, Relocations or Repairs – See Maps in Appendix A)

Alternatives ⇨ Work to be Done ⇩	Turnouts to be used during Construction for staging and equipment storage	Bridge and Rock Shed Construction	No Build
Vegetation Removal	None - using existing turnout areas	.39 Hectares 0.96 acres	NA
Earthwork and Excavation on Soils and Rocky Areas without Vegetation	None - using existing turnout areas	1.37 Hectares 3.38 acres	NA
Potential Rock Net Installation Areas	None	1.31 Hectares 3.24 acres	NA
Existing Pavement (to be removed)	None – using existing turnout areas	.67 Hectares 3.8 1.65 acres	
Total Land Disturbance	No additional land disturbance for turnouts – using existing areas	**3.7 Hectares** **(9.2 Acres)**	NA
Total Disturbance to Wetlands and Other Waters of the United States (ACOE Definition) and Coastal Commission/LCP Wetlands Definition	No impacts to ACOE Wetlands No impacts to "Other Waters" No impacts to CC/LCP Wetlands	No impacts to ACOE Wetlands 50 square meters of " Other Waters" (538 square feet " Other Waters") No impacts to CC/LCP Wetlands	NA

Use of geo-grid enhanced embankments wherever possible will minimize the amount of cut by utilizing the steepest slopes allowable, however the rocky terrain will limit their use. Embankments and final slope determinations are dependent upon studies currently underway by Caltrans Structural, Geotechnical, Storm Water, Landscape Architecture and Construction Divisions. For the

evaluations found in this report, a recommended maximum slope of 2:1 was used without the use of any geogrids.

Culvert Extensions and/or Repairs: As part of the project, at least two culverts that traverse the project area will be extended, rebuilt, and/or repaired. (See maps, Appendix A).

Subsurface water is currently permeating through the existing slopes and surfaces within the project area. Because of this, Caltrans Materials Division is also conducting a study to determine how to handle this water. During construction, spring water and storm water will likely have to be directed to catch basins, then collected, treated and redirected away from the construction site.

Table 4: Culvert Extensions, Relocations and/or Repairs

Culvert #	Post Mile	Station	Description of Work
#1 northbound upslope inlet and southbound downslope outlet	21.4	*37+06*	Currently located under the new bridge abutment location – will require relocation
#2 northbound upslope inlet and southbound downslope outlet	21.5	*38+27*	Extension 8 meters, RSP required

1.7. ESA (Environmentally Sensitive Area) Fencing

ESA fencing will be installed throughout areas of the project (including the turnout areas) to limit construction activities and protect habitats of concern. ESA fencing will be established around all areas that exhibit good habitat potential to reduce the area of potential impact. See proposed locations for ESA fencing – Maps in Appendix A.)

Special Provisions for the installation of ESA fencing and silt fencing shall be included in the Construction Contract for this project and also identified on the project plans. Although included on the plans, all ESA areas delineated in the field must be approved by the project biologist prior to beginning any construction activities including vehicle storage. Resident Engineer should contact Lisa Schicker, Biologist at 805-549-3628 or John Luchetta, Supervisor (549-3669). Also see Appendix D for details on ESA fencing.

1.8. Types of Equipment

Trucks, cranes, bulldozers, backhoes, compactors, a pile-driving rig, drill rig, clamshells, excavators, hoe rams, jackhammers, compressors, manlifts, scrapers, pavers, a concrete batch plant and any other equipment that becomes necessary in the course of construction will be used.

1.9. Construction Staging

From post mile 21.6-22.7, just north of the proposed bridge and rock shed, there are eight highway turnouts that are flat that can be used for construction staging and equipment storage.

Route 1 will be reduced to one lane of one-way traffic (with a signaling system) through the construction site with some temporary closures of both lanes. Highway traffic closures and delays are discussed in the Traffic Management Plan section of the environmental document.

Construction is estimated at three years, but this schedule will also depend on local conditions and weather conditions (Caltrans Structures Engineering 2004).

1.10. Construction Schedule

Project construction is currently scheduled for Fall 2008, to be complete by fall 2011.

1.11. Project Costs and Programming

The estimated construction cost (2004) for the viable project alternatives range from $20.8 million to $22.5 million (including design, construction, mitigation, support and inflation). There are no right-of-way costs; all necessary right-of-way was acquired during the emergency storm damage repair projects during spring 2000.

Federal, state and local funds are being used to fund this project through the HA23 program of the 2002 SHOPP (State Highway Operation and Protection Program). This project has been assigned the Project Development Processing Category 4B.

1.12. Environmental Documents

In 2003 the Federal Highway Administration (FHWA) and Caltrans allocated funds to study possible engineering solutions, evaluate potential impacts and select, design and construct an alternative that best meets the project purpose and need.

Caltrans began preliminary environmental, engineering and geotechnical studies, and as a result, determined the only feasible alternatives to be a bridge or a bridge and rock shed combination. Caltrans is evaluating potential environmental impacts and preparing a CEQA State Environmental Impact Report and NEPA Federal Categorical Exemption (EIR/CE) to meet the CEQA and NEPA environmental requirements. (as of January 2005)

It is anticipated that the draft environmental document will be released in Winter 2005, with a Final version to be ready sometime in Winter 2006. The findings and results of this Natural Environment Study (NES) will be incorporated into the CEQA/NEPA documents.

Project Contact Persons: For additional information about this project, please contact Dave Rasmussen, Project Manager, at (805) 549-3677, Wendy Waldron, Project Environmental Coordinator, at (805) 549-3118 or Lisa Schicker, Biologist 549-3628.

1.13. Avoidance, Minimization, Compensatory Mitigation and Monitoring Agreements

This NES includes avoidance, minimization, compensatory mitigation and monitoring agreements that have been negotiated with the project PDT (Project Development Team) and all of the regulatory agencies for biological concerns.

These agreements can be found in Appendix D pending final comments and concurrence by regulatory agencies that have yet to review this project through CESA, ESA, CEQA/NEPA review and various permit processes.

As the project develops over time, these agreements will become refined and possibly revised. Appendix D will be regularly updated as the project moves forward.

2. Study Methods

Potential impacts from project activities were evaluated using research and field survey methods.

Before conducting field surveys, a CNDDB (California Natural Diversity Database), a literature review and a written request to United States Fish and Wildlife produced a list and description of special status species that may occur in the project vicinity. Habitat types and a determination of habitat suitability for each of these species was noted and then mapped during the field surveys.

Project maps depict both the Biological Study Area (BSA) and the Area of Direct Impact (ADI). See Maps in Appendix A.

The **Biological Study Area (BSA)** is defined as the area (land and water) that may be directly, indirectly, temporarily or permanently affected by the project. It includes all areas that were surveyed and investigated for the purposes of assessing potential effects to special status species and/or habitat.

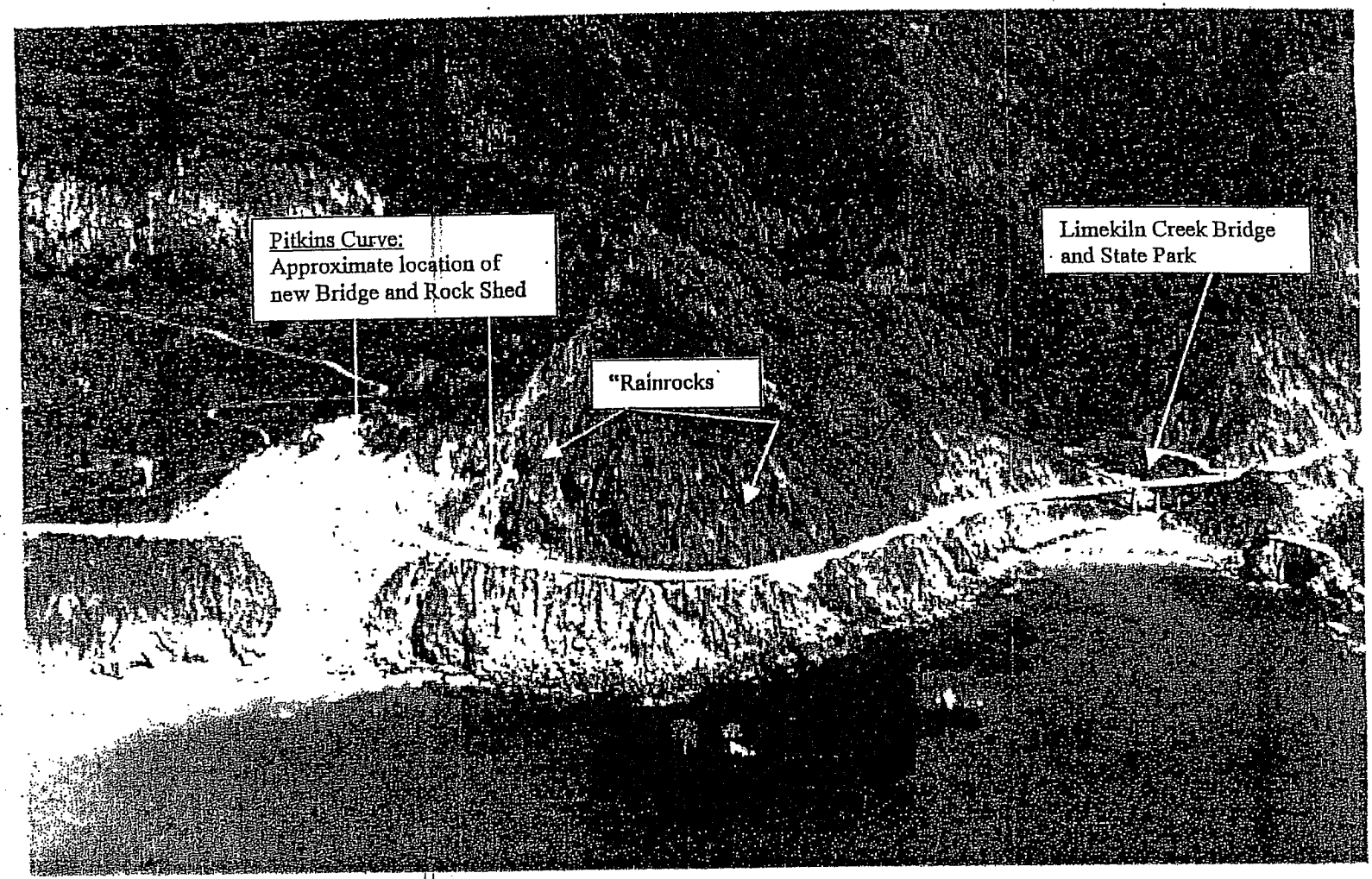
The **Area of Direct Impact (ADI)** is defined as the area that is temporarily or permanently affected by the project, but *directly* impacted by the project including construction and construction related activities.

The **ADI** includes all areas affected by construction activities such as excavation, clearing and grubbing land, earthmoving, grading, building new cut and fill slopes, building temporary construction access roads, building structures, installing restoration and revegetation areas, and all storage and staging areas.

Caltrans right-of way, State Parks, private lands adjacent to the highway and the nearshore marine environment were used as the boundaries of the **BSA** and for conducting biological surveys and studies. (See maps in Appendix A).

Biological surveys focused on the areas thought to have the greatest potential for project impacts. Plant community and aquatic sites were noted on field maps and then compared to the **ADI** as determined by the project engineers. Impacts to various habitat types were quantified and analyzed.

Figure 4: Aerial Photograph - Location of Pitkins Curve Bridge or Bridge/ Rock Shed Project



Pitkins Curve Bridge and Rock Shed Project – Area of Direct Impact (ADI)

Mon 1 - Post Mile 21.3 - 21.6, Kilometer Post 34.2 – 34.8 EA: 05 - 0E9600
In Monterey County near Lucia, about .5 miles (.9 kilometers) north of Limekiln Creek Bridge
Preliminary Environmental Studies and Biological Report – April 2005

2.1. Studies Required

The following biological studies were conducted: literature review and research, field surveys, aquatic resource evaluations and field surveys for special status species.

Literature Review and Preliminary Research

Prior to performing any field studies, documentation relevant to the project area was reviewed.

The California Natural Diversity Data Base (CNDDB) was accessed for information on special status plant or wildlife species known to occur in the project area and its immediate vicinity (CNDDB, 2004).

The California Native Plants Survey (CNPS) Inventory was also searched for potential presence of rare plants (Skinner 1994).

A written request for a list of potential special status species list was sent and the list received from the United States Fish and Wildlife Service (USFWS) Ventura office (Threloff, USFWS 2002 – See Appendix B).

A list of special status wildlife and plant species found during the initial literature review, the CNDDB and CNPS searches and the USFWS list with potential to occur in the project region is presented in Table 3.

Recognized experts on special status species were consulted and they provided a historical record of species known to occur in the project area and its immediate vicinity (See Chapter 6.2 References, Personal Contacts).

Field Surveys

Caltrans biologists considered the habitat requirements for each species while conducting field surveys. Surveys for special status species include all listed federal and state endangered, threatened and candidate species, state species of concern and CNPS 1B plants.

Field surveys were conducted along and adjacent to Route 1 (Maps in Appendix A). The BSA is delineated on the maps, and includes the nearshore marine environment and up and downslope areas of varying widths of Route 1 between post miles 21 and 23. These areas were surveyed for all biological resources, including plant communities, special-status wildlife, wildlife habitat and rare plants. Seeps, springs, drainages, riparian areas and all other aquatic resources were also surveyed and evaluated as biological resources.

In addition, the near offshore marine environment has been surveyed and monitored during the past two years to evaluate any potential marine biological effects caused by rockslide landslide and Caltrans storm damage repair activities taking place at Pitkins Curve. Results from those studies are also incorporated into this report. (Tenera Environmental Consulting, 2002-2004).

Habitat types were observed, documented and evaluated for their potential use by special status species. Location, time, weather conditions, temperature, and miscellaneous field observations were recorded during each field survey.

Habitat Assessment and Vegetative Mapping Methods

Habitat assessment and vegetative field mapping were used to identify existing plant communities, potential wildlife habitat and aquatic habitats found within the project BSA and ADI.

Vegetative communities were determined from observations of dominant plant species and were then characterized using the California Native Plant Society (CNPS) (Sawyer and Keeler-Wolf, 1995) classification system. Vegetative communities are visible on Project Maps in Appendix A.

Biologists conducted habitat assessments on several days in April 2003 and again on April 29, 2004. The biologists walked north together, searching an approximate three-six meter (10-20 foot) corridor on the east side of the highway, narrowing or widening the space between them, depending on terrain. The process was repeated on the west side of the highway, walking south.

Rare Plant Survey Methods

Rare plant surveys were conducted to determine if sensitive plant species occur within the project area. Surveys were conducted in both the Spring and Fall seasons 2003 and again on April 29, 2004, during the bloom period for those special-status plants with potential to occur in the area.

Rare plant surveys were conducted by two biologists searching a winding transect through the project area. Plant species were also noted during the riparian and aquatic site evaluations that were conducted on the same day.

Given the limited diversity of the plant communities noted, and that the surveys took place during the bloom season, a sufficient number of site visits were conducted to prepare a complete inventory of plants within the project area, as described in the CNPS Botanical Survey Guidelines (CNPS 2001).

Aquatic Resource Investigation and Methods

All project areas within the BSA and ADI were evaluated for the presence of aquatic resources. Determination and delineation of the wetland areas were based on an on-site investigation of soils,

hydrology, and vegetation. Field investigations were conducted by Caltrans Biologists on May 1, 2003 and April 29, 2004 (see Table 5).

The wetland and "other waters" delineation process used standard methods for routine determinations as described in the 1987 Corps Wetlands Delineation Manual (Environmental Laboratory, 1987). The California Department of Fish and Game (CDFG) wetland definition and classification system is the delineation methodology generally followed by the California Coastal Commission (CCC, 2002) and therefore by the Local Coastal Program (LCP). The CDFG essentially relies on the U.S. Fish and Wildlife Service's wetland definition, which states:

"Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For the purposes of this classification, wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes; (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year. (Cowardin 1979)."

This definition of wetland was also applied to determine which areas fall under the wetland jurisdiction of the California Coastal Commission and Monterey County's Local Coastal Program (LCP).

Reports Prepared

This NES (Natural Environmental Study) covers all biological investigations and evaluations for this project as of March 2005.

2.2. Personnel and Survey Dates

Caltrans biologists conducted biological, natural habitat and aquatic studies between April 2003 and May 2004. Tenera Biological Consultants, conducted offshore biological studies and monitoring from 2002 – 2004 as part of the mitigation requirements for emergency storm damage repair work taking place at Pitkins Curve. The following table summarizes the field surveys conducted for this project. The table includes types of surveys conducted; areas surveyed and list the biologists who conducted the surveys.

Table 5: Biological Field Surveys

Dates	*Surveys Conducted*	*Area Surveyed*	*Biologists*
Emergency Storm Seasons December-May 2000-2002	*Habitat assessment and biological monitoring during storm repairs*	*Caltrans right-of-way (ROW) along Route 1 within/adjacent to project area*	*L. Schicker, serving as environmental monitor and biologist during emergency storm repair projects in project area.*
Emergency Storm Seasons December-May 2002-2004	*Offshore habitat assessment and biological monitoring of tidal environment*	*Pacific Ocean adjacent to Route 1 within project vicinity*	*Tenera Biological consultants*
April - October 2003 – various trips	*General biological field surveys, rare plant surveys, habitat assessment and vegetative mapping*	*Caltrans right-of-way (ROW) along Route 1 within/adjacent to project area*	*L. Schicker*
April 29, 2004	*General biological field surveys, rare plant surveys, habitat assessment, vegetative and wetland/waters mapping*	*Caltrans right-of-way (ROW) along Route 1 within/adjacent to project area - including all turnouts and proposed staging areas as of April 29, 2004*	*L. Schicker, N. Siepel*
June 10, 04	*Smith's blue butterfly survey*	*Caltrans right-of-way (ROW) along Route 1 within/adjacent to project area*	*L. Schicker*
June 15, 04	*Smith's blue butterfly survey*	*Caltrans right-of-way (ROW) along Route 1 within/adjacent to project area*	*L. Schicker*
July 26, 04	*Review of seasonal variations and potential impacts to native vegetation*	*Caltrans right-of-way (ROW) along Route 1 within/adjacent to project area*	*L. Schicker*
August 13, 2004	*Smith's blue butterfly survey, Review of seasonal variations and potential impacts to native vegetation*	*Caltrans right-of-way (ROW) along Route 1 within/adjacent to project area, BSA*	*L. Schicker*

Technical Assistance. DFG (Christine Pattison with Schicker, Caltrans Summer 2004), USFWS (David Pereksta and Greg Sanders with Lisa Schicker, Caltrans Spring 2004), National Marine Sanctuary (Michelle Roest, and Holly Price, Summer 2004), (Bryan Hatfield, National Biological Survey with Lisa Schicker, Summer 2004) and Tenera Biological Consultants, (with Schicker, Caltrans, Summer 2004), NOAA (Christina Fahy, with Lisa Schicker, Caltrans, Summer 2004) and

Monterey County Planning (Brett Becker, with Lisa Schicker, Caltrans, March 2005) were consulted during the preparation of this report. See details in Chapter 6, References.

Limitations that May Influence Results

The entire project area was assessed for presence of habitat and location of sensitive species, but seasonal variations may influence the results of the surveys. In 2004, central California is experiencing low levels of rainfall and drought, which may affect species distribution. At the time of report completion, in early 2005, California is experiencing very high levels of rainfall which will effect future habitat and conditions on the site.

3. Results: Environmental Setting

3.1. Description of Existing Physical Conditions

Study Area. The project is located along a segment of Route 1 that travels along the Big Sur Coastline in Monterey County, located between the small towns of Gorda and Lucia, located adjacent to Limekiln State Park. Highway 1 has received both Scenic Highway and National Scenic Byway designations. The adjacent nearshore marine habitats are designated as Sea Otter Refuge and Monterey National Marine Sanctuary.

For the purposes of this Biological Study and NES report, areas adjacent to Route 1 between Kilometer Post 33.8-37.0 (Post Mile 21 to 23) were surveyed for potential biological resources and were assessed for possible effects. This area encompasses all of the construction areas and also includes eight turnouts along the highway that may be used during construction for staging and storage. (See Project Maps in Appendix A.)

Construction of the bridge and rock shed is proposed at Post Mile 21.3-21.6, on a narrow band of granitic and rocky soils. Land use in the project area is primarily scenic and recreational.

Topography. Route 1 travels between the Pacific Ocean and the Santa Lucia Mountains. Santa Lucia ridges typically trend northwest/southeast, as does the Big Sur coastline. These mountains are never more that 11 km (7 miles) from the coastline. The range is approximately 161-km (100 miles) long and 32 km (20 miles) at its widest point. Its highest elevation is 1800 meters (6000 feet).

As seen in the cover photograph, the Santa Lucia Mountains coastal ridgeline is within the project BSA at the new bridge and rock shed location, extremely close to the ocean. It is located approximately 122 meters (400 feet) east of the shoreline, at an elevation of 53-78 meters (174-256 feet) above sea level, making this section one of the steepest portions of the Big Sur Highway.

The terrain within the BSA varies from flat and heavily vegetated and with springs and seeps at the northern end to steep, rocky, dry and sparsely vegetated (due to the active and prevalent occurrence of land and rockslides) at the southern end. The approximate elevation of the project area is 53-78 meters (174-256 feet) above sea level.

Steep Slopes. Side slopes average 20-30% in the ADI by the rock shed and bridge; it is this steepness and the geology of the area that contribute to the prevalence of landslides and rockslides. Slopes at turnout areas along the roadway average 3-5% while adjacent side slopes average 10-30%.

Geology and Soils. "The rocks along the Big Sur Coastline are a complex mixture of sheared rocks of the Franciscan Complex and granitic rocks of the Sur complex. The rocks of the Franciscan complex tend to be weaker than those of the Sur complex, but the lithography within the Franciscan

complex varies dramatically, and softer, highly sheared melange is more prone to landsliding than the various sedimentary strata and volcanic rocks" (Hapke, USGS - 2003.)

Due to the underlying geology of Pitkins Curve, the unstable soils and rocks, high seasonal precipitation, and high wave action during the winter, this area has numerous unstable slopes and the area is prone to frequent landslides, rockslides, which are sometimes very large in size.

3.2. Description of Existing Biological Conditions

Vegetation. Vegetation in the area has been influenced by years of active geological and natural processes – heavy winter storms, landslides and rockslides. Most of the project area is rocky and devoid of vegetation due to the constant movement of the slopes. There are some patches of both native plants and common invasive weeds that border the immediate roadside and continue both up and downslope to the Pacific Ocean. The ADI is 3.7 hectares (9.2 acres), with approximately .39 hectares (0.96 acres) of low-density vegetation, a mixture of native coastal sage scrub mixed with invasive plants.

More native coastal scrub vegetation can be found in the BSA, in patches above the highway and above the ADI, but landslide activity has also affected this vegetation. There are also small patches of riparian vegetation (willows) found growing on the slopes, presumably from receiving underground subsurface water from unknown sources. Results of Natural Vegetation surveys and impacts are discussed further in Chapter 4.

Wildlife. Common animal species observed during field surveys include: ground squirrels (*Spermophilus sp.)*, fence lizards (*Scleroporus occidentalis*), crows (*Corvus brachyrhynchus*), song sparrows (*Melospiza melodia*), cliff swallows (*Petrochelidon pyrrhonata*), barn swallows (*Riparia riparia*) and various gulls (Family Laridae), cormorants (*Phalacocorax carbo*) and other sea birds. Southern sea otters (*Enhydra lutris nereis*) have been observed just offshore on numerous occasions, during all seasons. Often, mother otters are observed raising and caring for young. The potential for special status species and associated habitat types in the area are discussed in detail in Chapter 4.

Aquatic Resources. Aquatic resources within the BSA include the Pacific Ocean, Limekiln Creek (located approx. 1.6 kilometers (1 mile) south of the BSA) and several un-named drainages, subsurface seeps and springs. Only portions of subsurface springs and seeps are within the ADI.

> Marine Environment. The section of Pacific Ocean within the project BSA contains both the Sea Otter Refuge and the Monterey Bay Marine Sanctuary protected waters. The area experiences high wave action, but rock pinnacles, numerous kelp beds, fine sediments, lime deposits, and upwelling areas are also present.

The Pacific Ocean is located approx. 53-78 meters (174-256 feet) downslope and (approximately 122 meters (400 feet) west of the existing highway and proposed bridge and rock shed construction.

Freshwater Environment. There are ephemeral drainages, creeks and subsurface seeps/springs that are intermittent and seasonal in nature that also provides seasonal wildlife and aquatic habitat within the project BSA.

These waters have allowed for willow riparian/wetland areas to develop along the edge of the highway and on some of the steep side slopes on both sides of the highway. In addition, there is a perennial stream (un-named) located approximately 2 miles to the north of the project build area and there is an ephemeral drainage located along the northbound side of the highway between approximate post miles 21.8-22.

The yearlong presence of riparian wetlands along the highway located on the steep side slopes is an indication of the presence of sub surface waters, springs or seeps. These same subsurface springs and seeps are also found just offshore in the ocean, and are observed as upwellings and sediment disturbance, indicated by the milky aqua-blue color of the water just offshore.

Both surface and subsurface water levels and the aquatic habitat values of these areas are weather and season dependent; but there may be some potential for these areas to be indirectly impacted during construction, depending on the conditions that occur during the actual construction years.

Existing Levels of Disturbance to the Natural Environment. Natural landslide events and typical activities associated with a highway corridor (maintenance operations, traffic, etc.) continually disturb the biological communities immediately bordering Highway 1 throughout this area.

Regional Species and Habitats of Concern. From the CNDDB research of surrounding USGS quads (Lopez Point, Cone Peak and Cape San Martin), CNPS inventory, USFWS species list and discussion with various wildlife specialists, fifteen species of special status wildlife and seventeen special status plant species were identified as having potential to inhabit the project vicinity.

A species request letter was sent to USFWS on February 19. 2002 and the reply was received on March 5, 2002 (see Appendix B). Verbal confirmation confirmed that using the CNDDB and local expertise is an appropriate method of compiling a list of potential species and that using the 2002 list received from USFWS is still acceptable (Pereksta, USFWS with Schicker, Caltrans May 10, 2004)

Table 6: Regional Species and Habitats of Concern Found During Initial Literature Review and Research [1]

Scientific Name / *Common Name*	*Legal Status*			*Plant Community / Habitat Association*	*Survey / Flowering Window*	*Potential in the BSA (Biological Study Area) or ADI (Area of Direct Impact)*[2]*/info source*
	Federal	*State*	*CNPS*			
Plant Communities						
Valley Oak Woodland				*Quercus lobata* with mixed grass understory	NA	This native plant community does not occur in BSA or ADI. CNDDB list.
Monterey Pine Forest				On Arnold Sandy Loam. Some chaparral present.	NA	This native plant community does not occur in BSA or ADI; planted Monterey Pines found at Turnout #6 southbound. CNDDB list.
Plants						
Arctostaphylos cruzensis Arroyo de la Cruz manzanita			1B	Broadleaf upland forests, coastal bluff scrub, closed cone coniferous forest, chaparral, coastal scrub, valley and foothill grassland/sandy areas. Elevation - 60-310 meters. Evergreen shrub.	December -March	Habitat not present in BSA or ADI. Not observed during surveys. CNDDB list.
Astragulus tener var. titi Coastal Dune Milk Vetch	FE	SE	1B	Coastal bluff scrub (sandy), coastal dunes, coastal prairie (mesic). Elevation 0 - 50 meters. Annual herb.	March – May	Out of elevation range. Habitat not present in BSA or ADI. Not observed during surveys. USFWS list.
Calochortus weedii var. vestus Late-flowered mariposa lily			1B	Chaparral, cistomontane woodland, riparian woodland, /often serpentine; elevation 275-900 meters. Perennial herb.	June-August	Out of elevation range. Habitat not present in BSA or ADI. Not observed during surveys. CNDDB list.

[1] Sources of Information: April 2004 CNDDB Search, USGS Quads - Cape San Martin, Lopez Point and Cone Peak, USFWS Species list received 3-5-02 and CNPS Inventory of Rare, Threatened and Endangered Plants – published 2001

[2] The **Biological Study Area (BSA)** is defined as the area (land and water) that may be directly, indirectly, temporarily or permanently impacted by construction and construction related activities. The **Area of Direct Impact (ADI)** is defined as the area that is either temporarily or permanently, but *directly* impacted by construction and construction related activities.

Scientific Name / Common Name	Legal Status			Plant Community / Habitat Association	Survey / Flowering Window	Potential in the BSA (Biological Study Area) or ADI (Area of Direct Impact)[2]/info source
	Federal	State	CNPS			
Chorizanthe pungens var. pungens Monterey spineflower	FT		1B	Maritime chaparral, Cistomontane woodland, coastal dunes, coastal scrub, valley and foothill grasslands. Sandy soils in coastal dunes or more inland within chaparral or other habitats. Elevation 3-450 meters. Annual herb.	April – June	Habitat not present and does not occur in BSA or ADI. Not observed during surveys. USFWS list.
Cirsium loncholepis La Graciosa thistle	FE	ST	1B	Coastal dunes, coastal scrub, marshes and swamps (brackish), mesic, elevation 4-220 meters. Perennial herb.	May-August	Habitat not present and does not occur in BSA or ADI. Not observed during surveys. CNDDB list.
Delphinium hutchinsoniae Hutchinson's larkspur			1B	Broad-leaved upland forest, chaparral, coastal prairie, coastal scrub, and elevation 0-400 meters. Perennial herb.	March – June	Potential to occur in BSA or ADI. Not observed during surveys in either BSA or ADI. CNDDB list.
Eriogonum butterworthianum Butterworth's buckwheat		Rare	1B	Chaparral (sandstone). Elevation 585-730 meters. Perennial herb.	June-July	Habitat not present and does not occur in BSA or ADI. Not observed during surveys. CNDDB list.
Fritillaria viridea San Benito fritillary			1B	Chaparral (serpentine). Elevation 200-1525 meters. Perennial herb.	March – May	Habitat not present and does not occur in BSA or ADI. Not observed during surveys. CNDDB list.
Gallium californicum ssp. luciense Cone Peak bedstraw			1B	Broad-leaved upland forest, chaparral, cistomontane woodland, and lower montane coniferous forest. Elevation 400 - 1525 meters. Perennial herb.	March-September	Out of elevation range. Habitat not present and does not occur in BSA or ADI. Not observed during surveys. CNDDB list.
Gallium hardhamiae Hardam's bedstraw			1B	Closed cone coniferous forest, chaparral/serpentine. Elevation 395-975 meters. Perennial herb.	April – October	Out of elevation range – Habitat not present and does not occur in BSA or ADI. Not observed during surveys. CNDDB list.

Scientific Name / *Common Name*	*Legal Status*			*Plant Community / Habitat Association*	*Survey / Flowering Window*	*Potential in the BSA (Biological Study Area) or ADI (Area of Direct Impact)[2]/info source*
	Federal	*State*	*CNPS*			
Gilia tenuiflora ssp. arenaria Sand gilia	FE	ST	1B	Chaparral (maritime), cistomontane woodland, coastal dunes, coastal scrub, /sandy, openings. Elevation: 0-45 meters. Annual herb.	May – June	Out of elevation range. Habitat not present and does not occur in BSA or ADI. Not observed during surveys. USFWS list.
Layia carnosa Beach layia	FE	SE	1B	Coastal dunes, coastal scrub, (sandy). Elevation: 0-60 meters. Annual herb.	March - July	Out of elevation range – Suitable habitat not present. Not observed during surveys Does not occur in BSA or ADI. USFWS list.
Lupinus tidestromii Tidestrom's lupine	FE	SE	1B	Coastal dunes. Elevation: 0-100 meters. Rhizomatous perennial herb.	April – June.	Out of elevation range – Suitable habitat not present. Not observed during surveys Does not occur in BSA or ADI. USFWS list.
Piperia yadonii Yadon's Rein Orchid	FE		1B	Coastal Bluff Scrub, closed cone coniferous forest, chaparral (maritime) / sandy. Elevation: 10-415 meters. Perennial herb.	May - August	Suitable habitat not present. Not observed during surveys Does not occur in BSA or ADI. USFWS list.
Pentachaeta exilis ssp. aeolica Slender-leaved pentachaeta			1B	Cistomontane woodland, valley and foothill grassland. Elevation: 640-855 meters. Annual herb.	April-May	Out of elevation range – Suitable habitat not present. Not observed during surveys Does not occur in BSA or ADI. CNDDB list.
Pinus radiata Monterey pine			1B	Closed-cone coniferous forest, cismontane woodland. Dry bluffs and slopes. 25-185 meters.	N/A	Found at Turnout #6 southbound. Introduced, not part of a native stand. Native Monterey Pine Forest not present in BSA or ADI. CNDDB list.
Potentilla hickmanii Hickman's potentilla	FE	SE	1B	Coastal bluff scrub, closed-cone coniferous forest, meadows and seeps (vernally mesic), marshes and swamps) freshwater. Elevation 10-135 meters. Perennial herb.	April – August.	Suitable habitat not present. Not observed during surveys Does not occur in BSA or ADI. USFWS list.
Sanicula maritima Adobe sanicle		Rare	1B	Chaparral, coastal prairie, meadows and seeps, valley and foothill grasslands/clay/serpentine. Elevation: 30-240 meters. Perennial herb.	February – May	Does not occur in BSA or ADI. Not observed during surveys. CNDDB list.

Scientific Name / *Common Name*	*Legal Status*			*Plant Community / Habitat Association*	*Survey / Flowering Window*	*Potential in the BSA (Biological Study Area) or ADI (Area of Direct Impact)[2]/info source*
	Federal	*State*	*CNPS*			
Invertebrates						
Smith's blue butterfly *Euphilotes enoptes smithi*	FE			Buckwheat plants, coastal sage scrub. Larvae are dependent on buckwheat plants and flowers and soil beneath the plants.	June-July Survey window	Potential habitat present in BSA, and possibly in ADI– observed on 1 solitary plant in landslide area during focused surveys June 2004. CNDDB and USFWS lists.
Monarch butterfly *Danaus Plexippus*				Winter roosts located in wind-protected tree groves (eucalyptus, Monterey pine, and cypress) with nectar and water sources nearby.	January - March	Not observed during surveys. Does not occur in project area. CNDDB list.
Fish						
Eucyclogobius newberryi Tidewater goby	FE, CH	SSC		Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	NA	No suitable habitat present, does not occur in BSA or ADI. CNDDB and USFWS lists.
Oncorhynchus mykiss Steelhead – South/Central California Coast	FT, CH			Require cool, deep freshwater pools for holding through the summer, prior to spawning in the winter. Generally found in shallow areas, with cobble or boulder bottoms at the tails of pools, enter Pacific Ocean as juveniles for 3-7 years.	NA	Potential breeding habitat present just south of BSA at Limekiln Creek, located approximately 1 mile south of ADI. Does not occur in BSA or ADI. CNDDB and USFWS lists.
Amphibians						
Rana aurora draytonii California red-legged frog	FT, CH	SSC		Favors cool pools (>2 feet deep) with undercut banks bordered by dense vegetation. Requires emergent or submergent vegetation for egg attachment. Requires 4-5 months of permanent water lacking predators for successful larval development	May 1 – November 1	Potential foraging and dispersal habitat exists within the BSA, but not within ADI. No suitable breeding habitat present in BSA or ADI. No permanent water – ephemeral drainages and subsurface seeps. USFWS and CNDDB lists.

Scientific Name / *Common Name*	*Legal Status*			*Plant Community / Habitat Association*	*Survey / Flowering Window*	*Potential in the BSA (Biological Study Area) or ADI (Area of Direct Impact)[2]/info source*
	Federal	*State*	*CNPS*			
Taricha torosa torosa Coast range newt		SSC		Favors annual grassland habitat; adults spend most of the year in underground burrows. Breeding and egg laying occur after first rains in vernal pools and temporary ponds. Larvae transform late spring early summer, usually by first of July.		Suitable breeding habitat not present but potential foraging and dispersal habitat present in BSA (adjacent to some of the turnout/staging areas) but not in ADI. CNDDB list.
Reptiles						
Clemmys(Emys) marmorata pallida Southwestern pond turtle		SSC		Require basking sites such as partially submerged logs, vegetation mats, or open mud banks. Need suitable nesting sites.	NA	Suitable habitat not present in BSA or ADI. USFWS and CNDDB list.
Birds						
Brachyramphus marmoratus Marbled murrelet	FT	SE		Occurs year-round in marine sub-tidal and pelagic habitats and nearshore environment from the Oregon border to Point Sal, Santa Barbara Co. Partial to coastlines with stands of mature redwood and Douglas-fir; uses these trees for nesting and probably roosting	NA	Suitable nesting habitat not present in BSA or ADI. Foraging and dispersal habitat present in BSA (Pacific Ocean), but species has not been observed. USFWS list.
Cypseloides niger Black swift		SSC		Nests in moist crevice or caves on sea cliffs above surf or on cliffs behind or adjacent to waterfalls in deep canyons. Needs moisture at nest. Migrates south for winter.	May-Sept.	Suitable nesting habitat not present in BSA or ADI. Foraging and dispersal habitat present. Observed in flight over BSA in 2001. CNDDB list.
Charadrius alexandrinus nivosus Western snowy plover	FT CH	SSC		Requires sandy, gravelly or friable soil substrate for nesting.		Suitable habitat not present in BSA or ADI. USFWS list.

Scientific Name / *Common Name*	*Legal Status*			*Plant Community / Habitat Association*	*Survey / Flowering Window*	*Potential in the BSA (Biological Study Area) or ADI (Area of Direct Impact)[2]/info source*
	Federal	*State*	*CNPS*			
Gymnogyps californianus California condor	FE	SE		Permanent resident of semi-arid, rugged mountain ranges. Forages over open rangelands, roosts on cliffs and large tree snags between sea level and 2700 meters. Nesting sites in caves, crevices, behind rock slabs.	NA	Suitable nesting habitat not present in BSA or ADI. Foraging habitat present and species has been observed in BSA and in ADI. USFWS list.
Pelicanus occidentalis Brown pelican	FE	SE		Found in estuarine, marine sub-tidal, and marine pelagic waters along the California coast.	NA	Suitable foraging and dispersal habitat offshore in BSA but not within ADI. Species observed, but not within ADI. USFWS list.
Haliaeetus leucocephalus Bald eagle	FT, Delisting proposed	SE		Ocean shorelines, lake margins, and river courses for both nesting and wintering. Nests in large, old growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	NA	Suitable nesting habitat not present in BSA or ADI. Foraging and dispersal habitat present, species has not been observed. USFWS list.
Mammals						
Enhydra lutris nereis Southern sea otter	FT			Sea otters are found in a narrow band along the coast, kelp beds are favorite habitat for sleeping, raising young and for staying close to shore.	NA	Suitable dispersal, foraging and breeding habitat exists offshore in BSA, but not within ADI. Species observed in all seasons, sometimes caring for young. USFWS list.

California Department of Fish and Game Listing Codes

SSC California Species of Special Concern
SE State Listed as Endangered
ST State Listed as Threatened

Federal Listing Codes

FE Federally Listed as Endangered
FT Federally Listed as Threatened
CH Critical Habitat
C Candidate Species
PCH Proposed Critical habitat

* Critical habitat for Steelhead was vacated in April 2002 to be reconsidered in future
** Critical habitat for CRLF was vacated in November 2002, and has been reintroduced in Spring 2004

4. Results: Biological Resources, Discussion of Impacts and Mitigation

4.1. Special Status Species Potentially within the Biological Study Area (BSA) and/or Area of Direct Impact (ADI)

Special Status Plants

Seventeen potential special-status plant species from the CNDDB and CNPS research and the USFWS species list were identified as potentially occurring within the BSA/AA and the ADI; they were targeted during the initial site assessment and field surveys.

Based on individual species distribution patterns and the habitat quality observed within the study area, only one of these was considered to have potential to occur within the BSA/AA and none were considered to have potential to occur within the ADI.

Table 7: Special-Status Plant Species Potentially within the Biological Study Area (BSA)

Species	*Status*	*Habitat Requirements*	*Identification Period*	*Survey Results*
Delphinium hutchinsoniae Hutchinson's larkspur	1B	Broad-leaved upland forest, chaparral, coastal prairie, coastal scrub, elevation 0-400 meters. Perennial herb.	March – June	Not observed in BSA/AA or ADI during surveys during bloom times.

The information used in this table was obtained from the CNPS (2001) and the NDDB (2004)

California Native Plant Society Listing Code

1B Rare or Endangered in California and elsewhere

Special Status Wildlife

Fifteen potential special-status wildlife species identified from the CNDDB search and the UFWS Species list as potentially occurring within the BSA and ADI were targeted during the initial site assessment and field surveys.

Based on individual species distribution patterns and habitat associations observed within the study area, eight of these were considered to have potential to occur within the BSA and/or ADI. Southern sea otter, marbled murrelet, brown pelican, California condor, Bald eagle, black swift, Smith's blue butterfly, and possibly California red-legged frog were considered to have the potential to occur. None of these species were physically present within the ADI, yet the project has potential to effect

some special status wildlife indirectly. These effects will be discussed in the following sections of this report.

Table 8: Special Status Wildlife Species Potentially within the Biological Study Area (BSA) and/or Area of Direct Impact (ADI)

Scientific Name	*Common Name*	*Status*	*Habitat Association*	*Survey Results*
Cypseloides niger	Black swift	SSC	Nests in moist crevice or caves on sea cliffs above surf or on cliffs behind or adjacent to waterfalls in deep canyons. Needs moisture at nesting site. Migrates south for winter.	Observed in 2001 foraging/flying through BSA/ADI, but not nesting. No suitable nesting habitat present within BSA/AA or ADI. Foraging habitat present.
Enhydra lutris nereis	*Southern sea otter*	*FT*	*Pacific Ocean - kelp beds in near offshore environment*	*Observed in BSA not in ADI.* *Observed numerous times, have also observed females raising young and adults foraging and feeding.*
Euphilotes enoptes smithi	*Smith's Blue butterfly*	*FE*	*Larvae are entirely dependent on sea cliff buckwheat plants, (Eriogonum parvifolium)*	*Not observed in BSA/ADI,* *Host buckwheat plants found approx. .5 miles from ADI, one solo plant buckwheat plant within ADI, observed June - Sept. 2004, no verified sightings of SBB.*
Gymnogyps californianus	*California condor*	*FE, SE*	*Permanent resident of semi-arid, rugged mountain ranges. Forages over open rangelands, roosts on cliffs and large tree snags between sea level and 2700 meters. Nesting sites in caves, crevices, behind rock slabs.*	*Observed in BSA and ADI.* *Observed roosting and resting on rocky cliffs above ADI and flying in and out of ADI on several occasions 2002-2004.*
Haliaeetus leucocephalus	Bald eagle	FT, Delisting proposed ST	Ocean shorelines, lake margins, and river courses for both nesting and wintering. Nests in large, old growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	Not observed. No breeding habitat present in BSA/AA or ADI. Foraging and dispersal habitat present in BSA/AA.

Scientific Name	*Common Name*	*Status*	*Habitat Association*	*Survey Results*
Rana aurora draytonii	California red-legged frog	FT, SSC, CH	Prefers shorelines of aquatic sites with extensive vegetation. Requires 11 to 20 weeks of permanent water for larval development.	Not observed. Only suitable dispersal habitat is adjacent to turnout # 2 dispersal and foraging habitat present in project area.
Pelicanus occidentalis	Brown pelican	FE SE	Found in estuarine, marine sub-tidal, and marine pelagic waters along the California coast.	Not observed. Suitable foraging habitat present in Pacific Ocean, known to be present foraging offshore.
Brachyramphus marmoratus	Marbled Murrelet	FT SE	Occurs year-round in marine sub-tidal and pelagic habitats and nearshore environment from the Oregon border to Point Sal, Santa Barbara Co. Partial to coastlines with stands of mature redwood and Douglas-fir; uses these trees for nesting and probably roosting	Not observed. Suitable foraging habitat present in Pacific Ocean, no sightings.

The information used in this table was obtained from the CNDDB (2004 and through technical assistance listed in Chapter2).

California Department of Fish and Game Listing Codes
SSC California Species of Special Concern
ST State Listed as Threatened

Federal Listing Codes
FE Federally Listed as Endangered
FT Federally Listed as Threatened
CH Critical Habitat

4.2. Natural Plant Communities of Special Concern

Natural communities of special concern have been identified by resource agencies as requiring additional protection and conservation. Those known to occur in the project vicinity are discussed.

4.2.1. Valley Oak Woodland and Native Monterey Pine Forest

Both of these forest types were identified as occurring within the BSA during a preliminary review of the project. Both plant communities have a NDDB global element rank of G1 and a state element rank of S2.1—very rare. These plant communities do not occur within the ADI and no impacts are anticipated. Ornamental Monterey Pines are found adjacent to the turnouts – but they are not part of a native stand of Monterey Pine Forest and there are no impacts to these Monterey Pines.

4.2.2. Wetlands, "Other Waters" and Aquatic Sites.

Wetlands are defined by the presence of one-to-three hydrological factors, the presence of standing water during the growing season, hydrophytic plants and hydric soils. Other aquatic sites within this project area (such as springs, seeps, creeks and drainages) have bed and bank characteristics that indicate ephemeral, seasonal or permanent flow.

4.2.2.1. Survey Results for Wetlands, "Other Waters" and Aquatic Sites

California Coastal Commission and Monterey County LCP Wetlands are present in the BSA only. Willow riparian wetlands (defined as "1 parameter" wetlands" by the California Coastal Commission and Monterey County LCP) are located in the BSA, adjacent to construction turnout areas #1-2 and are also located on some of the slopes above and below the highway; and there are no willow riparian wetlands in the ADI.

Army Corps of Engineers' Wetlands Absent in the BSA/ADI. They are no wetlands present as defined by the Army Corps of Engineers (ACOE) as "three-parameter" wetlands, in the BSA or ADI.

Army Corps of Engineers (ACOE), "Other Waters of the U.S." present in the BSA/ADI. "Other Waters of the U.S." and aquatic sites as defined by the ACOE (such as ephemeral streams, springs and seeps) occur in the BSA/ADI. Monterey County Planning Dept. has concurred with this definition of these other waters as being ephemeral springs and seeps and not Coastal Commission wetlands (Schicker, Caltrans with Brett Becker March 10, 2005). They are found adjacent to the new bridge and rock shed and next to several of the proposed staging areas from Post mile 21.6 –22.

Water comes from subsurface seeps and springs that originate on the steep rocky slopes both up and downhill of Highway 1; these "waters" are collected in two cross culverts within the project ADI. These culverts drain under Highway 1, traveling downslope into the Pacific Ocean. These aquatic habitats are seasonal and weather dependent, but carry water a few months every year.

Appendix A maps label the aquatic sites found within the BSA and ADI.

4.2.2.2. Avoidance and Minimization Efforts for Wetlands, "Other Waters" of the United States and Aquatic Sites

Environmentally Sensitive Area (ESA) fencing, monitoring during construction, plant salvage and weed removal are all possible techniques that can be used to minimize impacts to aquatic sites and all impacted natural plant communities within the project area. "Other Waters" (as defined under Army Corps of Engineers) that are temporarily impacted during culvert replacement work will be restored and natural water flows will be redirected into the new culverts that are built.

4.2.2.3. Project Impacts for Wetlands, "Other Waters" and Aquatic Sites:

Construction of the bridge and rock shed will result in a temporary disturbance of some "Other waters" (such as ephemeral drainage, springs and seeps).

Impacts to "Other Waters" - ACOE. Surface waters of hillside springs and seeps will be temporarily impacted during project construction, in order to re-build a culvert and drainage system as part of the bridge and rock shed construction, due to vehicles and equipment during construction.

There is also potential for the Pacific Ocean to be temporarily disturbed during the construction phase of the project (potential sedimentation), and protective measures to avoid these impacts are required.

Wetlands – ACOE. There are no wetlands or impacts to wetlands within the ADI as defined under the Army Corps of Engineers with the "3 parameter" definition of wetlands.

Wetlands – Coastal Commission, DFG and Monterey County Local Coastal Program (LCP). There are two small willow riparian wetland areas (as defined under the Coastal Act and LCP) present within BSA, but not the ADI, and unless the project limits change, no impacts are anticipated. ESA (environmentally sensitive area) fencing will be used to prevent accidental impacts to these biological resources (see Maps in Appendix A)

If the project ADI changes, Biologists would be required to reassess the area, as there are additional wetlands and riparian areas adjacent to Highway 1 within the BSA, but not the current ADI. – See Project Maps in Appendix A.

4.2.2.4. Compensatory Mitigation for Wetlands, "Other Waters" and Aquatic Sites

None anticipated

4.2.2.5. Cumulative Impacts for Wetlands, "Other Waters" and Aquatic Sites

The project is not likely to have any cumulative effects on any aquatic sites due to the relatively small percentage of available habitat that would be only be affected temporarily. This determination is based on the project description, the degraded quality of most of the habitat along the highway edge, the relatively short length of construction time and the proposed avoidance, minimization and compensatory mitigation measures.

4.3. Special Status Plants

Of the seventeen special-status plant species identified from the literature/CNDDB search, one special status plant was considered to have potential to occur within the ADI based on individual species distribution patterns and habitat associations observed within the study area.

4.3.1. Discussion and Survey Results for Hutchinson's Larkspur (*Delphinium hutchinsoniae*)

Hutchinson's Larkspur is an annual herb that blooms from March to June and it could occur in the coastal scrub and chaparral habitat that is present within the project BSA and ADI (CNPS, 2001). Current information on the distribution and rarity is described by the California Native Plant Society has rated this plant as a "1B" plant.

Survey results indicated that marginal habitat for Hutchinson's Larkspur exists within the coastal bluff vegetation series present in the ADI, but this particular species was not observed during its known bloom period.

4.3.1.1. Avoidance and Minimization Efforts for Hutchinson's Larkspur
Preconstruction surveys are recommended.

4.3.1.2. Project Impacts for Hutchinson's Larkspur
None Anticipated.

4.3.1.3. Compensatory Mitigation for Hutchinson's Larkspur
None Anticipated.

4.3.1.4. Cumulative Impacts for Hutchinson's Larkspur
None Anticipated.

4.4. Special Status Wildlife

Of the fifteen special-status wildlife species that were identified from the research/CNDDB, eight species were selected for further study. California condor, Bald eagle, Smith's blue butterfly, California red-legged frog, black swift, brown pelican, marbled murrelet and southern sea otter are known to occur within the project BSA. Of these eight species, it was determined that only three had the potential to be directly and/or indirectly impacted by the project:

Southern Sea Otter: Indirect impacts may occur to this species during construction due to noise and the behavioral patterns that determine its home range,

California Condor: Indirect impacts may occur to this species during construction due to various activities around the job site and their curious and inquisitive behavior,

Smith's Blue Butterfly: Suitable habitat exists – however only one solitary host plant (Sea cliff buckwheat – *Eriogonum parvifolium*) is present within the ADI,

Bald Eagle: Suitable nesting habitat is not present within ADI. The eagle is a migratory and predatory bird that could move in and out of the BSA,

California Red-Legged Frog: Although potential foraging habitat was present adjacent to Turnout # 2, there is no suitable habitat breeding habitat within the ADI. There is also no standing water areas (needed for breeding) adjacent to or within the known dispersal distance into the ADI. There were no sightings of frogs within any of the willow riparian areas in the BSA, daytime surveys only.

Black Swift: Suitable nesting habitat is not present within ADI. This is a migratory bird that could move in and out of the BSA.

Brown Pelican: Suitable nesting habitat is not present within ADI. This bird is present offshore year – round but can move in and out of the BSA.

Marbled Murrelet: Suitable nesting habitat is not present within ADI. This is a migratory bird that could move in and out of the BSA.

4.4.1. Discussion of Southern Sea Otter (*Enhydra lutris nereis*– FT)

General Distribution

The range of southern sea otter (in California) is from Half Moon Bay, Santa Cruz County south to Gaviota in Santa Barbara County. There are approximately 2300 individuals that make up this population (Parsons, 2004).

Status

Southern Sea Otter is federally listed as threatened (January 14, 1977) and is also protected under the Marine Mammal Protection Act and is designated as a fully protected species by California Department of Fish and Game (CDFG).

Appearance

The southern sea otter is the smallest marine mammal in North America (Parsons 2004 citing Biotin 1982), weighing between 30 kilograms (64 pounds - males) to 20 kilograms (44 pounds -females). They have water-resistant fur and are brownish black with a grayish or yellowish head and neck.

Habitat

The southern sea otter lives along the pacific coast in the nearshore environment in the littoral zone (Parsons 2004).

Reproduction and Breeding

Adult females become sexually mature at five years of age and usually give birth to one pup a year (Parsons citing Zeiner 1990). The pups stay with the mother approximately six months. Life span of sea otters is fifteen years.

Diet and Foraging

They forage for marine invertebrates such as sea urchins, rock crabs, abalone and clams along the coastal kelp beds and along rocky intertidal areas.

Threats to Survival

Many factors have been implicated in the decline of southern sea otters, including oil pollution, diseases, impacts from landslides (side-casting and sediment plumes that effect their ability to forage), and impacts from the fishing industry (loss of prey and drowning in nets).

Habitat Status in Project Area

Breeding, foraging and dispersal habitat is present in the BSA and adjacent to the ADI. There are kelp beds, rocky intertidal areas and suitable prey for sea otters. There is a local population of sea otters that are known to live here and they have been observed year round just offshore of Lopez Point.

4.4.1.1. Survey Results for Southern Sea Otter

Two – six southern sea otters (sometimes with their young) have been observed on several occasions (Schicker, Caltrans various occasions 2000-2004). They breed, raise their young and forage in the kelp beds and rocky intertidal areas located just offshore, within the project BSA and adjacent to the ADI.

4.4.1.2. Avoidance and Minimization Efforts for Southern Sea Otter

Preconstruction surveys shall be conducted at least two weeks prior to construction to determine presence/absence of sea otters and pups within and adjacent to the project area. If otters are observed, an on-site biological monitor will observe the otters during construction for any signs of stress or disturbance to their natural patterns of behavior – if any abnormalities are observed, additional steps to alleviate potential noise impacts will be taken immediately, in consultation with USFWS. Measures to compensate for possible oil spills and long duration of loud noises are included in Appendix D (General Avoidance and Minimization Measures).

4.4.1.3. Project Impacts for Southern Sea Otter

Potential impacts to sea otters were discussed with wildlife experts. (Christine Pattison, DFG, Bryan Hatfield USGS, Greg Sanders and David Pereksta, USFWS and Christine Fahy, NOAA Fisheries, personal communication with Schicker, Caltrans, Summer 2004). Experts agreed that there was an unlikely and a very remote probability of impacting this species due to construction noise.

Due to the a.) distance to the sea otter resident kelp beds, b.) the temporary nature of the noise impacts (expected to last on-and-off for approximately three + years), and c.) The existence of contiguous aquatic habitat, a Federal "No Effect" determination has been made.

4.4.1.4. Compensatory Mitigation for Southern Sea otter California

None anticipated.

4.4.1.5. Cumulative Impacts for Southern Sea Otter
None anticipated.

4.4.2. Discussion of California Condor - *Gymnogyps californianus*

General Distribution

The range of California condor is in the semi-arid rugged mountain ranges surrounding southern San Joaquin Valley, including the Coast Ranges from Santa Clara County south to Los Angeles County, the Transverse ranges, Tehachapi Mts. and the Southern Sierra Nevada.

The total wild population of condors was estimated in the late 1980's to be 20 individuals and declining fast. A captive breeding program is now in place and two US Forest Service Sanctuaries are set aside in Los Padres National Forest (adjacent to the project area), for nesting and roosting protection.

Status

California condor was federally listed as endangered (March 11, 1967) and was state listed as endangered on June 27, 1971.

Appearance

The California condor is one of the largest birds in North America, weighing between 30 kilograms (64 pounds - males) to 20 kilograms (44 pounds -females). Wingspan is approximately nine feet; birds are black with a pink-orange head and a white patch under each wing.

Habitat

Roosting sites are ledges or cavities on cliffs; also uses old growth Douglas fir, ponderosa pine and snags in undisturbed areas.

Reproduction and Breeding

Condors breed annually, nest in shallow caves on cliff faces with large roosting trees nearby.

Adult females become sexually mature at approximately 6 years of age and they may not start breeding until age seven or eight. They lay a single egg between January and April, which is incubated by both parents for 56 days (Parsons citing USFWS 1984). The chick stays with the parents for more than a year and the pairs only breed every two years.

A USFWS sanctioned captive breeding and release program is currently in place since the early 1980's to assist the reproduction of this species. There are currently only 30 wild birds in California

and 19 of those live along the Central California coast. All of these birds were released from the captive-breeding program.

Diet and Foraging

Condors are scavengers and have been known to forage on cattle, sheep, deer, squirrels and dead seal pups, adults and placentas at the rookeries. They are very curious and can become human habituated

Threats to Survival

Many factors have been implicated in the decline of the California condor, including random shooting, lead poisoning, collision, collection of eggs, herbicide and pesticide poisoning (DDT, cyanide, strychnine) (Parsons citing USFWS 1984). Their human habituation habits and general curiosity make them vulnerable to human activities.

Habitat Status in Project Area

Foraging, dispersal and roosting habitat is present in the BSA and roosting habitat is present within the ADI. There are tall rocky cliffs and some trees above the site – they have also been known to perch on large construction equipment and are attracted to human activity and trash and food etc.

4.4.2.1. Survey Results for California Condor

Condors have been sited in the area flying by and roosting on the rocky slopes at "Rainrocks", located within the BSA and adjacent to the ADI (Schicker, Caltrans various occasions 2001-2004). It is likely that they will occasionally be present in the ADI during construction and after.

4.4.2.2. Avoidance and Minimization Efforts for California Condor

Potential measures to avoid impacts from the occurrence of human activity, food, trash and loud noises can be found in Appendix D (General Avoidance and Minimization Measures).

4.4.2.3. Project Impacts for California Condor

Experts at USFWS (Pereksta, 2004) agree that there is only a remote probability of impacting this species due human activities and/or construction noise.

Due to the temporary nature of construction and noise impacts (expected to last two-three years) and the existence of contiguous habitat, a Federal "No Effect" determination has been made.

4.4.2.4. Compensatory Mitigation for California Condor

None anticipated.

4.4.2.5. Cumulative Impacts for California Condor

None anticipated, due to the relatively small percentage of the available habitat that would be affected regionally.

4.4.3. Discussion of Smith's Blue Butterfly - *Euphilotes enoptes smithi*

General Distribution

The distribution for the Smith's blue butterfly extends along the coast and in the Santa Lucia Mountains within Monterey County. The only records of the butterfly within San Luis Obispo County are from just north of San Carpoforo Creek, first observed in 1998, and observed again in 2000 (Tom Edell, Caltrans, pers. comm.).

Status

The Smith's blue butterfly was federally listed as Endangered on June 1, 1976.

Appearance

Smith's blue butterfly is small, slightly less than one inch across with wings fully spread. The undersides are whitish-gray, speckled with black dots and with a band of red-orange marks crossing the hind-wings near the outer edge.

Sexual differences are seen on the upper wing surface. Males are bright lustrous blue, whereas females are brown above with a band of red-orange marks across the hind wings. Above, both sexes have prominently checkered fringes on both fore-wings and hind-wings, while males have wide black borders, and a very hairy appearance of the body and adjacent wings.

The subspecies is separated from others of the species by the light undersurface ground color with prominent overlying black markings and a faint black terminal line.

Habitat

Along the Big Sur Coast, seacliff buckwheat (*Eriogonum parvifolium*) serves as the principal host plant for Smith's blue butterfly; however, coast buckwheat (*Eriogonum latifolium*) has also been documented as a host plant.

In accordance with the Endangered Species Act, any buckwheat species that may be utilized by the Smith's blue butterfly as food plants are considered to be habitat for the species. As such the loss or damage of these buckwheat plants may be interpreted as "take", an illegal activity under the Endangered Species Act (Arnold 1991).

Reproduction and Breeding

The Smith's blue butterfly has a single generation per year (univoltine) (Arnold 1991).

Individual adult males and females have a life span of approximately one week, during which they forage for nectar, bask, search for mates, breed, and lay their eggs (Arnold 1991). Much of this time is spent in close association with *Eriogonum* flower heads (Kellner 1989, Arnold 1991).

Females typically lay the eggs singly on mature buckwheat flowers (Kellner 1989, Arnold 1991). There are five instars (stage between molts), each of which feeds on the flowers or developing seeds of *Eriogonum* (Kellner 1989). Adult butterflies emerge the following spring, having spent the previous 10 months (including winter) in the pupal stage (Kellner 1989, Arnold 1991).

Diet and Foraging

The butterflies forage for one short week of life on the nectar from *Eriogonum* flower heads (Kellner 1989, Arnold 1991).

Threats To Survival

Recognized threats to Smith's blue butterfly populations include residential development, increased automobile and foot traffic, exotic plant invasion, highway maintenance, side-casting, and vegetational succession (Kellner 1989, Arnold 1991). Construction activities related to development may cause both direct and indirect harm to the butterfly, if these activities result in the removal or loss of host plants (Kellner 1989) and/or soils.

Habitat Status in Project Area

Dispersal, foraging, and possible breeding habitat are present in the BSA, but not the ADI.

The CNDDB includes thirty-eight records of Smith's blue butterfly along the Big Sur coast (90 linear miles). During a 1989 survey for Smith's blue butterfly along the Big Sur coast in Monterey County, thirty-nine individual butterflies were observed at twenty-three localities (Kellner 1989).

Stands of buckwheat with a low density of plants may not be capable of supporting viable populations of Smith's blue butterfly, but they may be capable of providing necessary resources for dispersing butterflies (Kellner 1989, Arnold 1991).

4.4.3.1. Survey Results for Smith's Blue Butterfly

Two small blue butterflies were observed on one isolated *Eriogonum* host plant during one of several surveys done in the summer of 2004 (June 10, 2004), but the butterflies could not be verified as SBB. The butterflies appeared to have been Achmon's Blue butterfly, a non-special status species that closely resembles the protected species. The host plant is isolated from other populations of buckwheat, and is located within the rubble of a recent and active landslide area. The plant is growing in very rocky substrate, which is not suitable habitat for SBB larvae.

The sighting was early in the SBB season and butterflies were not observed again on two subsequent field reviews (July and September 2004). Although abundant habitat exists adjacent to the ADI/project site (about .8 kilometers (.5 miles north) of the one observed plant), there is only one isolated host plant located within the ADI.

4.4.3.2. Avoidance and Minimization Efforts Smith's Blue Butterfly

Due to the weather dependent status of vegetation within the ADI, in addition to the long – lead time until project construction, preconstruction surveys for SBB adults and/or larvae are recommended in the summer season (June-September) prior to construction. If the one isolated buckwheat plant is still remaining at the time of construction, relocation of this plant and associated plant duff to an area with other buckwheat plants should take place. Relocation of the plant and soils would occur in the non-breeding season anytime from October-May. If butterflies were found at that time, formal consultation would then be required.

4.4.3.3. Project Impacts for Smith's Blue Butterfly

There is little to no possibility of impacting individual Smith's blue butterflies due to the presence of only one isolated buckwheat host plant in the ADI. The plant is located in the middle of a pile of sharp rock and hard substrate, poor habitat for SBB larvae survival. Due to its distance from other viable stands of host buckwheat plants (.8 km or .5 miles) and the existence of numerous stands of buckwheat plants up and down the coast, and the rocky substrate, a Federal "No Effect" determination has been made.

4.4.3.4. Compensatory Mitigation Smith's Blue Butterfly

None anticipated.

4.4.3.5. Cumulative Impacts for Smith's Blue Butterfly

Highway maintenance activities may result in the loss of buckwheat plants, through removal or burial. Plants growing along the margins of the highway and along pullouts are likely the most susceptible to loss or damage due to maintenance activities (Kellner 1989). Side-casting and exotic/invasive plant control measures may also cause a loss of plants if they are present in areas where these activities are conducted.

Temporary disturbance to all of the natural plant communities along the Big Sur coast during any maintenance, construction and slope rebuilding activities may result in a temporary reduction of breeding, foraging, and dispersal habitat for the butterfly.

Finally, storms landslides and natural vegetational succession all could reduce the number of buckwheat plants in a particular area. Through the process of natural succession, communities move towards a dominance of mesic adapted

species, such as coyote brush and poison oak, which are capable of out-competing buckwheat (Kellner 1989). This natural occurrence

Over the past five or six years, Caltrans has commonly included seacliff buckwheat in seed mixes used during revegetation efforts. A means of assessing habitat quality for Smith's blue butterfly was developed by Arnold (1991), in which habitat quality was based on the number of buckwheat plants per stand.

With the use of avoidance and minimization recommendations found in Appendix D, cumulative impacts are not anticipated.

4.5. Vegetation and Native Plant Communities

This section of the report discusses all types of plant communities that do not have special status but are present within the BSA and ADI.

Several natural plant communities provide wildlife habitat and biological values within the project area. Both permanent (new bridge, rock shed, paving, shoulders and any associated drainage structures) and temporary (staging areas, possible installation of temporary safety rock nets and new cut and fill areas where slopes will be revegetated) impacts will occur to these plant communities.

4.5.1. Discussion and Survey Results of Vegetation and Native Plant Communities

The following plant communities were observed in the BSA and/or ADI and are characterized using the Sawyer and Keeler-Wolf method of classification (1995).

Vegetation at Rock Shed and New Bridge. Common native plants found in the ADI include those present in coastal bluff and coastal sage scrub plant communities.

Dominant plants include bush lupine and deerweed (*Lupinus arboreus and Lotus scoparius*), sage, (*Artemesia californica.*), lizard-tail (*Eripophylum staechadifolium*) and poison oak (*Toxicodendron sp.)*. Common weeds include pampas (*Jubata sp.*), fennel (*Foeniculum vulgare.*), and Kikuyu (*Pennisetum sp.*) grass.

Vegetation at Turnout Areas Used for Construction Staging. Common native plants found in the BSA areas adjacent to the dirt and paved turnouts include species found in the coastal sage, coyote brush and ceanothus scrub plant communities and the mixed chaparral plant communities. At the northernmost turnouts, ornamental plantings adjacent to the turnouts include Monterey pines and horticultural varieties of plants.

Common non-native plants include annual and perennial grasses (*Avena sp., Hordeum sp.*, etc.) and forbs such as curly dock (*Rumex sp.*), black mustard (*Brassica sp.*), wild radish (*Raphanus sp.*), wild hemlock (*Conium sp.)*, fennel (*Foeniculum vulgare.*), lupine (*Lupinus sp.*), clover, common vetch (*Trifolium sp.*), and thistles (*Cirsium sp.*).

Coastal Scrub Series (located within BSA and ADI)

Coastal Scrub, Including Coastal Bluff, Coyote Bush, Coastal Sage and Ceanothus Scrub Communities. Common plants observed include: Coyotebrush (*Baccharis pilularis*), Ceanothus (*Ceanothus thrysiflorus*), Bush and Silver Lupine (*Lupinus arboreus and albifrons)*, Deerweed (*Lotus scoparius*), Sage, (*Artemesia californica),* Lizard-tail (*Eripophylum staechadifolium)*, Poison oak (*Toxicodendron diversilobum),* Sticky monkeyflower (*Mimulus guttatus*), Morning glory vine (*Calystegia macrostegia*), California hedge nettle (*Stachys bullata*), and Mugwort (*Artemesia douglasiana*)

Willows (*Salix lasiolepis or coulteri*) are found within the scrub communities in areas with surface or near-surface water and are also present on the steep side slopes and adjacent to some of the pullout areas. (BSA only)

Chaparral Series (located within BSA only)

Common plants observed in the Mixed Chaparral plant community include: Ceanothus, various (*Ceanothus sp.*), Redberry (*Rhamnus crocea),* Coffeeberry (*Rhamnus californica),* Toyon (*Heteromeles arbutifolia*), Sticky monkey flower and Santa Lucia sticky monkey flower, (*Mimulus guttatus and Mimulus bifidus ssp. fasciculatus),* Scarlet bugler *(Penstemon centranthifolius),* Indian paintbrush (*Castilleja affinis*), Chia and Black sage (*Salvia columbariae and Salvia mellifera).*

California Annual Grassland Series (found in BSA/ADI)

This series is composed of many nonnative and a few native species that sparsely occur along both sides of Route 1 throughout the project area. Areas bordering the road shoulder of Route 1, the majority of which contain California annual grassland, are seasonally lost during landslides and are also mowed and/or sprayed as part of road maintenance.

Composition varies among stands found within the project. Species present within the project area include brome (*Bromus spp.*), wild oats (*Avena barbata*), barley (*Hordeum spp.*), mustard (*Brassica spp.*), bristly ox-tongue (*Picris echioides*), sweet fennel (*Foeniculum vulgare*), and ryegrass (*Lolium spp.*).

Precipitation and fall temperatures are major factors in determining species composition each year in this series (Sawyer and Keeler-Wolf, 1995). Due to continual landslide activity in the area and seasonal spraying and or mowing along the highway edge, this series provides marginal habitat

values for sensitive species at this location. The turnout areas may also collect an increased quantity of sediments containing organic matter, pesticides, heavy metals, and other debris that can move downslope into the Pacific Ocean.

Arroyo Willow Series (found within BSA)

This series is composed of arroyo willow (*Salix lasiolepis*) as the sole or dominant tree or shrub species in the canopy (Sawyer and Keeler-Wolf, 1995). It usually occurs in seasonally flooded, low gradient depositions, along rivers and streams (Sawyer and Keeler-Wolf, 1995), but in this case, its presence seems to be caused by subsurface drainage coming from mountainside seeps that comes to the surface downslope and supports the willow growth.

This plant community sometimes provides potential dispersal habitat for California red-legged frog, but because there is no suitable breeding habitat within the typical dispersal range (1.6 kilometer or 1 mile radius) of this species, it is unlikely that these willows serve as dispersal habitat in the BSA.

Arroyo willow (*Salix lasiolepis*) occurs in the BSA along the east edge of Route 1 across from storage or construction access areas. See Project maps in Appendix A, areas are labeled as wetland riparian areas.

4.5.1.1. Avoidance and Minimization Efforts for Loss of Vegetation and Native Plant Communities

Revegetation with coastal sage scrub and coastal bluff native plants for all impact areas is included as part of this project. See Appendix D for details.

4.5.1.2. Project Impacts to Vegetation and Native Plant Communities

Vegetation that may be affected by this earthwork includes small patches of native coastal scrub, dominated by lupine and coyote brush shrubs (*Baccharis sp.* and *Lupinus sp.*) intermixed with invasive weeds. Project impacts to vegetation is caused by earthwork, excavation and vegetation removal are either considered <u>permanent or temporary</u>.

<u>Permanent</u> impacts to vegetation occur in areas where new pavement, new structures, new rockslope protection, and/or new fill slopes are added.

<u>Temporary</u> impacts to vegetation occurs in areas used for construction access and activities and in areas which can be restored after construction is complete, such as the rebuilding new cut and fill slopes.

It is difficult to quantify impacts to plant communities within the project area because plant populations will vary due to the seasons, storms and landslides that occur.

As of March 25, 2005, it is estimated that approximately 3.7 hectares and 9.2 acres of vegetation (coastal sage scrub, coastal bluff vegetation mixed with weeds), soils, and rocks will be disturbed during construction and only about .96 acres of that is vegetation (See Project Maps Appendix A and Table 3.

4.5.1.3. Compensatory Mitigation for Impacts to Vegetation and Native Plant Communities

None anticipated, because avoidance and minimization measures call for restoration with native plants, replacing all vegetation that exists prior to construction, which is removed during construction. See Appendix D for details.

4.5.1.4. Cumulative Impacts to Vegetation and Native Plant Communities

None Anticipated. This determination is based on the degraded quality of most of the habitat along the edges of the highway (many invasive plants), the relatively short length of construction and due to the relatively small percentage of available habitat that would be permanently affected.

4.6. Invasive Species

Invasive species, under Federal Executive Order 13112 (February 3, 1999), are defined as "any species", including 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 environmental harm or harm the human health. Invasive species can be plants or wildlife.

FHWA issued additional guidance on August 10, 1999 that directs use of the State's noxious weed list to define invasive plants that must be considered as part of the NEPA analysis for a proposed project. This list can be found at http://ucce.ucdavis.edu/files/filelibrary/5319/4893.pdf

4.6.1. Survey Results of Invasive Species

Most of the project area has been altered by past highway and community development and portions of the natural biological communities were removed years ago. Throughout the project area, exotic and invasive weeds such as pampas grass, Kikuyu grass wild mustard, fennel and other assorted invasive plants described as exotic pest plants can be found.

4.6.2. Avoidance and Minimization Efforts for Invasive Species

In order to assist with controlling the spread of invasive plants, weeds will be removed within the ADI and topsoil will remain in the ADI (due to the presence of a high quantity of weed seeds). Measures to control invasive exotic plants long term shall be implemented.

In compliance with the Executive Order on Invasive Species, E.O. 13112 and the subsequent guidance from Federal Highway Administration, landscaping and erosion control for the project will not use any species on the California List of Noxious Weeds listed in Section 4.6.1 above.

Appendix D describes additional avoidance and minimization measures efforts for invasive plant wildlife control.

4.6.3. Project Impacts - Invasive Species

Removal of invasive species is considered a beneficial project impact; and it is the intent of Caltrans to remove and control the spread of invasive plants at every opportunity.

4.6.4. Compensatory Mitigation for Invasive Species

As part of avoidance and minimization measures, all weeds will be removed and weed-seed-filled topsoil will remain within the project area. After construction is complete, all project sites that were vegetated will be revegetated with native plants suitable for the area. Additional compensatory mitigation will not be required.

4.6.5. Cumulative Impacts for Invasive Species

All projects along Route 1, including this one (road improvements, maintenance activities and storm damage repairs and construction projects) can contribute to cumulative impacts. All Caltrans projects comply with invasive plant removal requirements, so in this case, cumulative impacts would provide a benefit to the natural environment.

4.7. Wildlife

The following summarizes general wildlife observations made within the BSA/AA and the ADI.

4.7.1. Survey Results for All Other Wildlife

Wildlife observed within the BSA includes: deer, snakes, some foraging birds such as crows, jays and, various passerine birds. Birds were observed foraging (but not nesting) in the shrubs and willow thickets along the highway right-of-way. Cormorants (*Phalacocorax carbo*) and other sea birds were observed offshore. Common animal species observed during field surveys just within the ADI include: ground squirrels (*Spermophilus sp.)*, fence lizards (*Scleroporus occidentalis*), crows (*Corvus brachyrhynchus*), song sparrows (*Melospiza melodia*), cliff swallows (*Petrochelidon pyrrhonata*), barn swallows (*Riparia riparia*) and various gulls (Family Laridae). Signs of wildlife usage (footprints and scat) by deer and birds were evident.

4.7.2. Avoidance and Minimization Efforts for All Other Wildlife

Please refer to Appendix D for complete list of general Avoidance and Minimization Measures.

4.7.3. Project Impacts for All Other Wildlife

Wildlife living within the project area will be affected by many construction activities. This includes installation of temporary rock nets, excavation, demolition, and vegetation removal activities that remove or effect foraging, nesting, dispersal or breeding habitat areas.

Because general wildlife usage of the project area is low, and because there is surrounding habitat that is still available to them, it is anticipated that only temporary impacts to these individuals will occur.

Any wildlife living within the marine environment located below the project area could be impacted by sediment movement and erosion occurring as a result of construction activities that remove any underwater foraging, breeding or dispersal habitat areas. Protective BMP's (Best Management Practices) will be incorporated into the project design to avoid these impacts.

Once the project is complete, all areas that are adjacent to the new bridge may be replanted with native vegetation, depending on soil/rock conditions and will once again be available for wildlife use. Areas adjacent to the new rock shed will not be planted, as it is anticipated that rockslides will continue to occur on a regular basis.

4.7.4. Compensatory Mitigation for All Other Wildlife

None anticipated.

4.7.5. Cumulative Effects for All Other Wildlife

Any development project that contributes to the removal of wildlife habitat (nesting foraging, dispersal or breeding habitat) through excavation, demolition, and vegetation removal activities can have cumulative effects on wildlife populations. For this reason, it is important to include avoidance, minimization and mitigation measures on all projects to reduce these impacts.

5. Results: Permits and Technical Studies for Special Laws and/or Conditions

5.1. Regulatory Requirements

Caltrans must comply with Federal and State environmental laws and regulations designed to protect biological resources in all phases of project planning and development, construction, permitting, and maintenance. The following is a summary of these laws and how they affect Caltrans when managing biological resources before during and after project construction.

Table 9: Summary of Laws and Regulations

Law/Regulation	Section	Date Enacted	Brief Description – What it covers
National Environmental Policy Act (42 U.S.C. 4321 et seq.), or (NEPA).		1969	Environmental policy addressing impacts of human activities on the natural and human environment. Requires public agencies to be responsive to effects of their actions on the environment, including biological resources. The NEPA process is the overall framework for the environmental evaluation of Federal actions.
California Environmental Quality Act (CEQA)	P.R.C. 21000 et seq.	1970	CEQA establishes State policy to prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures. CEQA applies to actions directly undertaken, financed, or permitted by State lead agencies.
Federal Endangered Species Act (FESA) (16 U.S.C. 1531-1543).		1973	Provides guidance for conservation of endangered and threatened species and the ecosystems upon which they depend. Federal agencies, must insure that actions they authorize/fund/carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat for these species. USFWS and NMFS administer the Act.
	Section 7 50 CFR Part 402.		Biological Opinion issued at the conclusion of consultation includes a statement authorizing take that may occur incidental to an otherwise legal activity.
	Section 9		Lists actions prohibited under the Act. Take of a species listed in accordance with the Act is prohibited. There are two processes whereby take is allowed when it is incidental to an otherwise legal activity.
	Section 10 Incidental Take		Provides a means whereby a non-Federal action with a potential to result in the take of a listed species could be allowed under an incidental take permit. Application

Law/Regulation	Section	Date Enacted	Brief Description – What it covers
	Permit		procedures at 50 CFR Parts 13 and 17 for species under the FWS jurisdiction and 50 CFR Parts 217, 220 and 222 for species under NMFS jurisdiction.
California Endangered Species Act (CESA)	CDFG Code 2050 et seq.	1985	Establishes State policy to conserve, protect, restore, and enhance threatened or endangered species and their habitats. CESA mandates that state agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. No state agency consultation procedures under CESA.
	CDFG Code Section 2081(b) Take of State Listed Species		For projects that affect both a state and federal listed species, compliance with the Federal Endangered Species Act (FESA) will satisfy CESA if the Department of Fish and Game (DFG) determines that the federal incidental take authorization is "consistent" with CESA under F&G Code Section 2080.1. For projects that will result in a take of a state only listed species, Caltrans must apply for a take permit under section 2081(b).
California Native Plant Protection Act (NPPA)	CDFG Code 1900-1913		Requires all state agencies to utilize their authority to carry out programs to conserve endangered and rare native plants. Provisions of NPPA prohibit the taking of listed plants from the wild and require notification of the DFG at least 10 days in advance of any change in land use. This allows DFG to salvage listed plant species that would otherwise be destroyed. Caltrans is required to conduct botanical inventories and consult with DFG during project planning to comply with the provisions of this act and sections of CEQA that apply to rare or endangered plants.
Streambed Alteration Agreement (Not Applicable for this Project)	CDFG Code Sections 1601-1603		Caltrans and other agencies are required to notify DFG prior to any project that would divert, obstruct or change the natural flow, bed, channel, or bank of any river, stream, or lake. Preliminary notification and project review generally occurs during the environmental process. When an existing fish or wildlife resource may be substantially adversely affected, DFG is required to propose reasonable project changes to protect the resource. These modifications are formalized in a Streambed Alteration Agreement that becomes part of the plans, specifications and bid documents for the project.
Fish and Wildlife Coordination Act (16 U.S.C. 661-666).			Applies to federal projects where the waters of any stream or other body of water are impounded, diverted, deepened, or otherwise modified. FWS and CDFG consultations are required. These agencies prepare reports and recommendations to document project effects on wildlife and identify measures that may be adopted to prevent loss or damage to wildlife resources. The term "wildlife" includes both animals and plants. Provisions of the Act are implemented through the

Law/Regulation	Section	Date Enacted	Brief Description – What it covers
			NEPA process and Section 404 ACOE permit process.
Clean Water Act (CWA) 33 U.S.C. 1251-1376			Provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters.
	Section 401		Requires that an applicant for a federal license or permit that allows activities resulting in a discharge to waters of the United States, must obtain a state certification that the discharge complies with other provisions of CWA. The Regional Water Quality Boards administer the certification program in California.
	Section 402		Establishes a permitting system for the discharge of any pollutant (except dredge or fill material) into waters of the United States.
	Section 404 33 CFR Parts 320-330	1977	ACOE Jurisdiction over fill materials in essentially all water bodies, including wetlands. All federal agencies are to avoid impacts to wetlands whenever there is a practicable alternative. Section 404 establishes a permit program administered by ACOE regulating the discharge of dredged or fill material into waters of the United States (including wetlands). ACOE guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.
Rivers and Harbors Act (Not Applicable for this Project)	Section 10 33 U.S.C. 401 et seq.		Requires permits in navigable waters of the U. S. for all structures such as riprap and activities such as dredging. Navigable waters are defined as those subject to the ebb and flow of the tide and susceptible to use in their natural condition or by reasonable improvements as means to transport interstate or foreign commerce. ACOE grants or denies permits based on the effects on navigation. Most activities covered under this act are also covered under Section 404 of CWA.
Migratory Bird Treaty Act	16 U.S.C. 703-711		This treaty with Canada, Mexico and Japan makes it unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, or kill migratory birds. The law applies to the removal of nests (such as swallow nests on bridges) occupied by migratory birds during the breeding season.
CA Fish and Game Code Section 3503, 3513 and 3800	Sections 3503, 3513 and 3800		Protects eggs, nests and adults of all migratory birds
Executive Order 11990 Protection of Wetlands (Not Applicable for this Project unless ADI changes)		May 24, 1977	Establishes a national policy to avoid adverse impacts on wetlands whenever there is a practicable alternative. The U. S. Department of Transportation (DOT) promulgated DOT Order 5660.1A in 1978 to comply with this direction. On federally funded projects,

Law/Regulation	Section	Date Enacted	Brief Description – What it covers
			impacts on wetlands must be identified in the environmental document. Alternatives that avoid wetlands must be considered. If wetland impacts cannot be avoided, then all practicable measures to minimize harm must be included. This must be documented in a specific Wetlands Only Practicable Alternative Finding in the final environmental document. Additional requirement is to provide early public involvement in projects affecting wetlands. FHWA provides technical assistance (Technical Advisory 6640.8A) and reviews environmental documents for compliance.
Executive Order 11988 Floodplain Management (Not Applicable for this Project)		May 24, 1977	This order directs all federal agencies to avoid the long-term and short-term adverse impacts associated with floodplain modification and to avoid direct or indirect support of floodplain development whenever there is a practicable alternative.
Executive Order 13112 – Invasive Species.		February 3, 1999.	Purpose is to prevent introduction of invasive species and provide for their control and to minimize economic, ecological, and human health impacts that invasive species cause. Directs federal agencies to expand and coordinate their efforts to combat the introduction and spread of plants and animals not native to the United States. FHWA has developed guidance's to implement the E.O., which provides a framework for preventing the introduction of and controlling the spread of invasive plant species on highway rights-of way. Under the E.O., federal agencies cannot authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere unless all reasonable measures to minimize risk of harm have been analyzed and considered. This means that Federal–aid and Federal Highway Program funds cannot be used for construction, revegetation or landscaping activities that purposely includes the use of known invasive species.
National Wild and Scenic Rivers Act (Not Applicable for this Project)	16 U.S.C. 1271-1287		Prohibits federal agencies from activities that would adversely affect the values for which a river was designated. Caltrans consults with the managing agencies during NEPA process on projects that affect designated rivers or their immediate environments to reduce potential conflicts with wild and scenic river values that are protected by the Act. Various agencies administer -
California Wild and Scenic Rivers Act	P.R.C. 5093.50 et		This act preserves certain designated rivers in their free-flowing state. These rivers must possess extraordinary

Law/Regulation	Section	Date Enacted	Brief Description – What it covers
(Not Applicable for this Project)	seq.		scenic, recreational, fishery, or wildlife values. The Resources Agency is responsible for coordinating activities of State agencies that may affect these designated rivers.
Federal Coastal Zone Management Act		1972	Preserve, protect, develop, and (where possible), restore and enhance resources of the coastal zone. All projects significantly affecting areas under the control of the State Coastal Zone Management Agency (CZMA). General Procedures: Determination of consistency with the approved Coastal Zone Management Plan (CZMP) is required from the State before federal approval can be granted. For this project, the State Coastal Commission and the local government having an approved local Coastal Plan (County of Monterey) will make the determination.
State Coastal Management Act		1976	Any development within the Coastal Zone requires a Coastal Development Permit. The Act requires each local government within the Coastal Zone (15 counties and 53 cities) to prepare a Local Coastal Plan (LCP).

5.2. Federal Endangered Species Act Consultation Summary

Caltrans requested technical assistance from USFWS (Pereksta 2004 and Sanders 2004) and based its findings and recommendations for this project on this assistance. Federal and State agencies take different approaches and use different terminology when discussing impacts to species of concern; which are reflected in the table below.

Table 10: Summary of Effects to Federally and State Special Status Species

Federal and State Special Status Species	*Anticipated Level of Impact*
California condor (FE, SE)	No Effect
Southern sea otter (FT)	No Effect
Smith's blue butterfly (FE)	No Effect
California red-legged frog (FT,CH, SSC)**	No effect

Brown pelican (FE, SE)	No effect
Marbled murrelet (FT, SE)	No effect
Black swift (SSC)	No effect
Bald eagle (FT, SE)	No effect

California Department of Fish and Game Listing Codes

SSC California Species of Special Concern
ST State Listed as Threatened
CH Critical Habitat

Federal Listing Codes

FE Federally Listed as Endangered
FT Federally Listed as Threatened

**Critical habitat for CRLF was vacated in November 2002, is proposed and being reconsidered in 2004, according to USFWS federal register April 2004.

5.3. California Endangered Species Act Consultation Summary

Caltrans requested technical assistance from CDFG (C. Pattison, July 2004) and partially based its findings and recommendations for this proposed project on this assistance. There are no impacts to State special status species.

5.4. Migratory Birds – Federal and State Coordination Summary

Federal and State laws protect migratory birds, their occupied nests, and their eggs from destruction. The applicable Federal low is the Migratory Bird Treaty Act (15 USC 703-711), 50 CFR Part 21, and 50 CFR Part 10. Protection under California Law is found in the Fish and Game Code Section 3503, 3513 and 3800. Common migratory birds, such as barn swallows, use the "Rainrocks Cliffs" area found within the BSA and ADI – temporary impacts and loss of nesting habitat for 1-2 seasons are anticipated, for migratory birds which are not threatened, endangered or special status species. Nesting habitat is abundant along the Big Sur coast, and permanent impacts to migratory bird species are not anticipated.

Under the Bridge/ Rock Shed project alternative, existing rock net in the Rain Rocks area will be removed which may allow for some additional wildlife usage of these rocky areas after construction is complete.

Wetlands and "Other Waters of the U.S." Coordination Summary

An investigation of the presence of wetlands and "Other Waters of the United States" was prepared for this project and results are summarized here and in Chapter 4 of this NES.

Presence of Wetlands

Wetland sites found within the BSA (see maps Appendix A) and adjacent to the ADI exhibited at least one of the wetland parameters established by the Army Corps of Engineers. "One parameter" wetlands fall under the definition of wetlands as described by the California Coastal Commission and the U.S. Fish and Wildlife Service. These areas are under the jurisdiction of the Monterey County Local Coastal Plan/Coastal Commission jurisdiction. There are no wetlands within the project area of direct impact. (ADI).

Impacts to the willow/riparian wetland areas adjacent to the ADI are not anticipated at this time (March 25, 2005). If the ADI changes, a revaluation of wetlands should occur.

Presence of "Other Waters of the U.S." or DFG Jurisdictional Wetlands

Other water resources (ephemeral drainages, springs, seeps and the Pacific Ocean) occur within the BSA and ADI. Small portions (approximately 50 square meters (538 square feet) of freshwater aquatic sites in the ADI fall under the definition and/or jurisdiction of ACOE as "Other Waters of the U.S." These aquatic sites may be temporarily impacted during construction. (See Maps in appendix A – ephermeral springs drain into the two culverts shown on the Map Sheet A).

Coordination Summary:

Existing culverts directing surface waters within the project area will be rebuilt and/or relocated, and a Section 404 Permit from the Army Corps of Engineers and a 401 Certification from the Regional Water Quality Control Board will be required.

Each culvert repair/extension will most likely qualify for Nationwide Permit 14 for Linear Transportation Crossings. Notification by ACOE to USFWS may occur due to the potential for species listed under the Federal Endangered Species Act within the work area.

If ACOE determines that USFWS notification is required during the permit stage of the project, a compensatory mitigation proposal to offset impacts to any waters of the United States would be required at that time.

5.5. Summary of Avoidance, Minimization Measures and Mitigation and Monitoring Recommendations

Appendix D summarizes all proposed avoidance, minimization, compensatory mitigation and monitoring recommendations made in this report, pending final PDT approval. This appendix is designed to be used by all landscape architecture, design and resident engineering staff to ensure compliance in the field. Due to the long lead-time on projects, and if the project is revised, Appendix D will also be revised to reflect all project changes.

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6.4. List of Preparers

NES Preparation

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Gary Ruggerone, Caltrans Senior Environmental Planner: BS, MA Biology, 30+ years experience in Environmental and Biological Studies.

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Wendy Waldron, Caltrans Environmental Coordinator: BA in Anthropology, 30+ years experience in Environmental Planning/Cultural Studies.

Appendix D: Summary of Avoidance, Minimization, Compensatory Mitigation, Monitoring and Reporting Measures

A. General Avoidance and Minimization Measures

1. Limit the Work Area, Install ESA (Environmentally Sensitive Area) Fencing
2. Preconstruction Surveys
3. Duties of the Biologist and/or Environmental Monitor
4. Authority of the Biologist and/or Environmental Monitor
5. Equipment Maintenance Restriction
6. Trash Control
7. Erosion Control and Stormwater Management
8. Invasive Plant Control
9. Revegetation and Site Restoration
10. Restoration and Monitoring Plan

B. Additional Avoidance and Minimization Measures for Special Status Plants

C. Additional Avoidance and Minimization Measures for Special Status Wildlife
California Condor, Smith's Blue Butterfly and Southern Sea Otter

D. Compliance with Migratory Bird Treaty Act

E. Additional Avoidance and Minimization Measures for Aquatic Habitats

F. Compensatory Mitigation

G. Summary of Success Criteria, Monitoring and Reporting Measures

Appendix D: Summary of Avoidance, Minimization, Compensatory Mitigation, Monitoring and Reporting Measures

This NES report includes avoidance, minimization, compensatory mitigation and monitoring agreements that are negotiated with the project PDT (Project Development Team) and all of the regulatory agencies that have jurisdiction over this project.

This list of recommendations are pending final comments and concurrence by the regulatory agencies who have yet to review this project through the CESA/ESA Section 7 and the CEQA/NEPA review and permit processes. As the project develops, these agreements will become refined and possibly revised.

This list of measures has been prepared for use by Caltrans personnel who are and/or who will be responsible for implementing various recommendations that are made by the PDT and all regulatory agencies during and after construction.

This is the current avoidance/minimization/compensation list as of April 2, 2008, but this list may be updated as needed as the project moves forward through the project development process.

A. General Avoidance and Minimization Measures

To avoid and minimize impacts to all biological resources within the project area, the following avoidance and minimization measures shall be implemented project wide:

1. **Limit the Work Area and Install ESA (Environmentally Sensitive Area) Fencing.** The number of access routes, size of staging areas and the total area of the activity shall be limited to the minimum necessary to safely construct this project. All access will be restricted to the existing roads and designated temporary access areas.

   Environmentally Sensitive Area (ESA) fencing will be installed to limit construction activities and protect biological habitats of concern. Proposed ESA fencing will be established at all areas that exhibit good wildlife habitat potential, in order to avoid, minimize and reduce any potential impacts to biological resources. (See Proposed ESA fencing locations delineated on Maps in Appendix A).

   Special Provisions for installation of ESA fencing shall also be included in the Construction Contract and shown on Project Plans and Layout Sheets. Routes and boundaries shall be clearly delineated in the field with ESA fencing to minimize activities adjacent to biological resources, including drainages, wetlands and/or native plant communities. All ESA fencing delineated in

the field must be approved by the project Biologist prior to beginning any construction activities, including vehicle storage. Resident Engineer to contact Lisa Schicker, Biologist at 805-549-3628, Construction Environmental Liaisons or John Luchetta, Caltrans Supervisor (549-3493).

2. **Preconstruction Surveys.** In order to ensure that all potential impacts to the biological resources discussed in this document are avoided and/or minimized, and due to the long lead time until construction, pre-construction surveys for special status species (both plants and animals) must be conducted by a qualified Caltrans biologist or designee. Surveys will be conducted approximately one year prior to construction, during the appropriate survey season.

   As delineated on project maps in Appendix A, the ADI includes all temporary construction access areas and routes, vehicle and equipment storage areas, and staging areas.

   If any federally listed species are found during the preconstruction surveys, the project shall cease until Formal Section 7 Consultation between FHWA and USFWS is completed.

   If any state special status species are found during the pre-construction surveys, the project shall cease until consultation between Caltrans and Department of Fish and Game is completed.

3. **Duties of the Biologist and/or Environmental Monitor.** If any special status species are found in the ADI during construction and then after any and all required consultations with agencies have occurred, the Caltrans Biologist or designee shall be present at the construction site until such time as removal of all special status species has occurred and all instruction has been given to the workers.

   A Biological/Environmental Monitor will be present on site during construction activities that may impact the ocean and marine environment, special status species and/or migratory birds. This includes drilling and blasting for the construction of piers and abutments for the new bridge and rock shed and any associated dewatering activities.

4. **Authority of the Biologist and/or Environmental Monitor**. The Caltrans Resident Engineer, in consultation with the Biologist and/or Environmental Monitor shall have the authority to halt any action that might result in impacts that exceed the anticipated levels of impact that were determined during agency review (by Caltrans, ACOE, DFG, CC and/or USFWS) of the proposed actions. If work is stopped, these same regulatory agencies shall be notified immediately by the Biologist or Environmental Monitor.

5. **Equipment Maintenance Restrictions.** All refueling and maintenance of equipment and vehicles shall be at least 20 meters (60 feet) from any aquatic habitat, wetland area or any water body. The contractor shall ensure contamination of habitat does not occur during such

operations. All workers shall be informed of the importance of preventing spills of fuels and of the appropriate measures to take should a spill occur.

Prior to the onset of work, the Army Corps of Engineers shall ensure that the permittee has prepared a plan to allow a prompt and effective response to any accidental spills around aquatic habitats. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

6. **Trash Control.** During construction, all trash that may attract predators shall be properly contained, removed from the work site and disposed of regularly. Following construction, all trash and construction debris shall be removed from work areas.

7. **Erosion Control and Stormwater Management.** All construction activities shall be completed in accordance with Caltrans National Pollution Discharge Elimination System (NPDES) Permit, the General Construction Permit and Caltrans Statewide Stormwater Management Plan (SWMP).

   To protect all adjacent biological habitats of concern (including ephemeral springs and seeps, willow riparian wetlands, the Pacific Ocean and native vegetation areas) and for all exposed soils and drainage repair areas during after construction, Caltrans shall implement best management practices (BMPs), as identified by the appropriate Regional Water Quality Control Board. These BMP's will be implemented to minimize or eliminate the potential for a non-storm water discharge to occur. Construction site BMPs are addressed in detail in the Storm Water Pollution Control Plan (SWPPP) that will be developed for the project site.

8. **Invasive Plant Control.** In compliance with the Executive Order on Invasive Species, E.O. 13112, and subsequent guidance from the Federal Highway Administration, the landscaping and erosion control included in the project will not use species on the California List of Noxious Weeds http://ucce.ucdavis.edu/files/filelibrary/5319/4893.pdf. Measures to control invasive exotic plants shall be implemented according to the Caltrans Landscape Architect's recommendations. Exotic and invasive weeds such as ice plant, kikuyu grass, fennel, pampas grass, fountain grass and other assorted invasive plants that are listed as "most invasive" on the list will be removed within the ADI and topsoil will not be used in any revegetation areas due to the presence of a high quantity of weed seeds.

9. **Revegetation and Site Restoration.** After construction is complete, project sites shall be first evaluated for the potential for successful revegetation and restorations. In areas where revegetation appears likely to succeed, an appropriate assemblage of suitable native riparian wetland and/or upland vegetation shall be recommended by Biology and Landscape Architecture.

Loss of approximately one acre of coastal sage scrub habitat mixed with invasive weeds is anticipated and shall be replaced as part of the project and considered as part of the avoidance and minimization measures. Vegetation shall be replaced at a minimum 1:1 ratio using native plants. Plant salvage, local seed collection and contract growing are techniques that may be used to minimize the loss of native shrubs and forbs habitat. Locally collected and salvaged plants and seeds can then be used for project revegetation and restoration purposes.

10. **Restoration and Monitoring Plan.** If required by a local, State and Federal agencies with permitting authority such as Monterey County, or Army Corps of Engineers, a Restoration and Monitoring Plan shall be prepared. Such a plan includes, but is not limited to, the project description, location of the restoration, species to be used, restoration techniques, time of year the work will be done, identifiable success criteria for completion, and remedial actions if the success criteria are not achieved.

B. Additional Avoidance and Minimization Measures for Special-Status Plants

1. **Host plant Sea-cliff Buckwheat for special status Smith's Blue Butterfly**. Preconstruction surveys for buckwheat host plants, (and special status butterfly and larvae) will occur during June-September in the year prior to construction. If found, the project shall cease until Informal and/or Formal Section 7 Consultation between FHWA and USFWS is completed. The current solution is to relocate the one lone host plant, (located within an active landslide area), with the surrounding soils and duff to and area with other host buckwheat plants, if this plant is still present in the construction year.

No additional measures are anticipated – use general measures listed above.

C. Additional Avoidance and Minimization Measures for Special Status Wildlife

1. **Additional pre-construction surveys for special status wildlife** will be re-conducted by the Caltrans Biologist (or designee) - for all species known to occur in the project vicinity approximately two weeks prior to beginning of construction. Because of time lag between document preparation and construction and because these species are known to reside or possibly reside in or adjacent to the project ADI, they could move into the project area by the time construction begins.

   If any federally listed species are found during the preconstruction surveys, the project shall cease until Formal Section 7 Consultation between FHWA and USFWS is completed.

   If any state special status species are found during the pre-construction surveys, the project shall cease until consultation between Caltrans and Department of Fish and Game is completed.

Resident Engineer to contact Lisa Schicker, Biologist at 805-549-3628 to notify construction start date.

2. **On-Site Wildlife Identification Training.** A Caltrans Biologist (or designee) will conduct a training session for all construction personnel before any construction activities begin. The training session shall include a description of all special status species known to occur in the project vicinity (Smith's blue butterfly and buckwheat host plants, California condor, and southern sea otter). The biologist will discuss their habitats, their importance and general measures being implemented to conserve these species as they relate to the project boundaries. Brochures, photographs, books and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.

   a. **California Condor** – Please see General Measure # 11 regarding trash control. Due to their curious nature, condors may frequent the construction site and perch on large equipment and looks for food scraps. The Environmental Monitor/Biologist will be monitoring any possible condor activity during construction and will contact USFWS for additional guidance if any abnormal behaviors are observed during construction.

   b. **Southern Sea Otter** – The Environmental Monitor/biologist will be monitoring sea otter activity during blasting and loud noise events during construction. If the monitor observes abnormal activities or behaviors, she/he will ask the resident engineer to cease all activities causing the noise until USFWS can be consulted and additional avoidance and minimization measures are put in place.

D. Additional Avoidance and Minimization Measures for Migratory Bird Treaty Act Compliance

Cliff Swallows and Other Migratory Bird Species.

Common migratory birds such as barn swallows, (which are not a threatened, endangered or special status species), have been observed using the "Rainrocks Cliffs" area within the BSA and ADI – (see Project Maps in Appendix A). Temporary impacts and loss of nesting habitat for 1-2 seasons are anticipated. Special status migratory birds, such as the cliff swallow, have not been observed nesting within the project area.

Barn swallows are protected under the Migratory Bird Treaty Act, and have been observed nesting under existing cabled rock-net and on the rocky cliffs at Pitkins Curve within the ADI. If necessary, special measures can be taken prior to the breeding season to insure that swallows and other migratory birds do not nest within the ADI during project construction.

1. Preconstruction surveys should be conducted for presence/absence for active nests of birds that are protected under the Migratory Bird Treaty Act one year prior to the period of construction, during the nesting season (March 1- August 31).

2. The use of bird netting on the rocks may be used to limit or restrict use of the rocky cliffs during the nesting season (March 1 – August 31). Bird netting shall be installed prior to nesting season.

3. Approximately 50% of the existing rocknet at Rainrocks area would be permanently removed after construction if the Rock Shed is built. Removal of this rocknet may improve and enhance nesting opportunities for cliff and rock nesting migratory birds.

E. Additional Avoidance and Minimization Measures for Aquatic Habitats

Aquatic Habitats and Waters of the U.S: The Pacific Ocean and the ephemeral springs and seeps are considered "Other Waters of the U.S." under jurisdiction of the U.S. Army Corp of Engineers.

1. To avoid and reduce temporary impacts to jurisdictional waters and aquatic habitats, diversion of waters during construction is may be required.

2. Dewatering. If a work site is to be temporarily dewatered by diversion, pumping and treating, intakes shall be completely screened with wire mesh not larger than five millimeters (mm) to prevent all aquatic wildlife from entering the pump system. Water shall be released or pumped to an appropriate location at a rate to maintain downstream flows during construction. Upon completion of construction activities, any barriers to flow shall be removed in a manner that would allow flow to resume with the least disturbance to the substrate.

Wetlands: Riparian wetland and wetland areas are regulated under the jurisdiction of the both the California Coastal Commission (through Monterey County Local Coastal Program and the Coastal Act) and the U.S. Army Corp of Engineers. There are no wetlands within the ADI but there are willow riparian wetland areas adjacent to the ADI (see Maps Appendix A). To minimize any possible indirect impacts to the wetland areas adjacent to the ADI during construction, the following measures shall be followed:

1. Adjacent wetlands shall be fenced off as an ESA with either ESA fencing or silt fencing, depending on the proximity of the work area to the wetlands and the drainage (see proposed locations on Maps in Appendix A). The project biologist must be contacted prior to beginning any activities in this area to approve the ESA in the field.

F. Compensatory Mitigation Measures

Compensatory mitigation is defined as project items or measures that are proposed by Caltrans and/or required by regulatory agencies to mitigate for impacts that could not be avoided after all avoidance and minimization measures have been implemented as part of the project.

Mitigation agreements are often required by various regulatory agencies later in the Project Development process, during the design and permit stages of project development.

1. Revegetation and Mitigation. After construction is complete, all project sites that have enough soils to accommodate vegetation shall be revegetated with an appropriate assemblage of native vegetation suitable for the area, as recommended by Landscape Architecture. Impacts due to loss of all other vegetation was considered in the avoidance and minimization measures section of this report (Item 12); this vegetation will be replaced with California native plants as part of the project at a 1:1 ratio.

2. Aquatic Habitat Mitigation. There are no permanent impacts to aquatic habitat (wetlands and/or other waters). All temporary construction impacts to aquatic habitat will be mitigated through conditions in NPDES permits and using BMPS for water quality (see #10. Above).

G. Summary of Success Criteria, Monitoring and Reporting Measures

A Mitigation, Monitoring, Restoration and Success Criteria Plan shall be prepared for this project summarizing all information found in Appendix D. Details of this plan are final as [redacted], but pending negotiation and review of the NES and environmental documents by various agencies and all members of the PDT.

The plan shall include all recommendations made for avoidance, minimization and compensatory mitigation for special status species, migratory birds, aquatic habitat, revegetation, stream and streambank habitat restoration, and eradication and control of the spread of invasive plants.

It shall also include success criteria for each item that is specified in the Compensatory Mitigation Plan.

A three-five year monitoring schedule, with annual reports to various agencies is typically recommended.

1. Establish Bi-Annual Monitoring Schedule. For 3 years, conduct biannual environmental monitoring for all mitigation plantings and aquatic habitat restoration work in order to determine if project meets success criteria and to request any needed replacement plantings. Resident Engineer to contact Lisa Schicker, Biologist at 805-549-3628, Supervising Environmental Planner John Luchetta (549-3493) or Dennis Reeves, Landscape Architect (549-3191).

1. Develop an Installation and Maintenance Contract. Develop an installation and maintenance contract for all mitigation plantings and habitat restoration areas. The maintenance agreement shall be at least three years in length. During that time, all invasive weeds should be regularly removed and a 70% survival rate for of all plantings three years post construction is the target goal.

2. Annual Reporting. Caltrans Biologist or designee will prepare monitoring reports for various agencies if they are needed as part of conditions set forth in permits. Annual reports summarizing results shall be sent to any requesting and appropriate State and Federal Agencies (ACOE).

3. Create a Restoration and Monitoring Plan. A Restoration and Monitoring Plan may also be required by ACOE as part of their permitting authority and project conditions. Such a plan must include, but is not limited to, the project description, location of the restoration, species to be used, restoration techniques, time of year the work will be done, identifiable success criteria for completion, and remedial actions if the success criteria are not achieved.

EXHIBIT L
TRANSPORTATION MANAGEMENT PLAN SUMMARY

PLN0080218- California Department of Transporation
Bridge at Pitkins Curve and Rock Shed at Rain Rocks

Planning Commission
March 25, 2009

SUMMARY
TRANSPORTATION MANAGEMENT PLAN

Highway 1 Improvements at Pitkins Curve and Rain Rocks

www.dot.ca.gov/dist05/projects/#mon

- Purpose of Project: Repeated landslides have reduced and stopped travel on Highway 1 for months at a time and have profoundly affected local and regional economies. The purpose is to increase safety, decrease maintenance expenditures and improve roadway reliability.

- Construction of Bridge (620 feet) and Rock Shed (240 feet) is estimated to take between three and four years

- Construction is scheduled to begin in Fall/Winter of 2009

- Traffic Management Plan:
  Purpose: Outlines steps to minimize traffic impacts and delays associated with constructing the project. Provides information to the community: residents, businesses, emergency personnel, and travelers for the duration of the project.
  Development: The draft plan was mailed to Stakeholders to solicit input in July 2008 with responses due by September 2008. Three responses were received from Kirk Gafill (Big Sur Chamber of Commerce), John Handy (Tree Bones Resort), and Nick Franco (Department of Parks and Recreation). The report has since been finalized and placed on the website for Pitkins Curve.

- Contractor will have four types of traffic control available to construct the project
  Emergency personnel will be allowed access at all times:

  1. Type I: single open lane, 12 feet wide, regulated by a traffic signal, no advance notification required, allowed 24/7. (15 minute maximum delay)

  2. Type II: single open lane, 12 feet wide, regulated by flaggers, no notification required, allowed Monday- Friday, 8AM- 4PM. (15 minute maximum delay)

  3. Type III: Full road closure during nighttime hours. Closures would begin 9PM Sunday evening opening by 6AM the following morning (9-hour total duration). No closures will occur Friday or Saturday evenings. One-week notification is required.

4. Type IV: Allows a total of 12 daytime extended delays lasting between 15 and 120 minutes (maximum). These delays would occur between the hours of 9AM and 4PM Monday- Thursday. The contractor may request this type of traffic control 12 times per calendar year for the life of the project. One-week notification is required.

- Six changeable message signs (CMS) will be utilized to post traveler information during the construction period. Two will be located within the project limits. Two will be located north of the project site in Monterey County at the Carmel River Bridge and Coast Gallery. Two will be located south of the project in San Luis Obispo County near San Simeon and the Highway 1/46 Intersection. The Resident Engineer and the District Traffic Manager will be responsible for the timing, activation, and messages provided on the CMS. The District Traffic Manager will post Type III (closure) and Type IV (delay) messages on the CMS located within the project limits 48 hours in advance and 24 hours in advance for the CMS located further to the north and south of the project limits.

- During construction the motorist can access current road information by dialing: **Caltrans Highway Information Network (CHIN) at 1-800-427-7623.**

- The Road Information Bulletin (RIB) is updated weekly and can be accessed on the Pitkins Curve website listed above. It lists scheduled maintenance, construction, and permit projects for the week.

- Press releases with more detailed information are also provided by the Caltrans District 05 Public Affairs Department and can be accessed on the Pitkins Curve website listed above.

- The District 05 Public Affairs Department provides updates to the community via fax/email. To be included in the listing you may contact Susana Cruz at (805) 549 3318 or via email at info-d5@dot.ca.gov.

EXHIBIT M
AESTHETIC DESIGN ADVISORY COMMITTEE INFORMATION

PLN0080218- California Department of Transporation
Bridge at Pitkins Curve and Rock Shed at Rain Rocks

Planning Commission
March 25, 2009

Aesthetic Design Advisory Committee (ADAC) Timeline and Process

The Aesthetic Design Advisory Committee (ADAC) was formulated in an effort to assist the Department in the design of the aesthetic features of the Highway 1 Improvement Project at Pitkins Curve and Rain Rocks (Project). The ADAC is comprised of community and agency representatives who have an interest in the project's appearance. The following is a list of ADAC members:

- South Coast Land Use Advisory Committee
- Big Sur Land Use Advisory Committee
- County of Monterey Planning and Building Department
- California Coastal Commission
- California Department of Parks and Recreation
- Big Sur Chamber of Commerce
- Caltrans Landscape Architecture
- Caltrans Environmental Planning
- Caltrans Design/Bridge Design

The role of the ADAC was and (currently is) involved in helping define the important visual character issues that relate to the project setting and to participate in the design process to:

1) Ensure that project features meet the objectives for aesthetic design consistent with the Big Sur Coast Highway Management Plan
2) Facilitate the process of obtaining a Coastal Development Permit for project delivery

Within specified constraints for technical engineering parameters and costs, the ADAC explored a number of design opportunities regarding major structures, architectural treatments and details, landform, general site features, and other project components.

The ADAC efforts were conducted in a series of design workshops, where members worked to share relevant information, discuss options and opportunities and then provide advisory recommendations to the Caltrans Project Development Team (PDT). Following these recommendations, Caltrans engineers, architects, environmental specialists and other technical experts made presentations based on the previous meetings outcomes.

The ADAC process was held in two phases:

Phase 1: focused on the conceptual design in an effort to make recommendations for structure type. The summary of meetings for Phase 1 are listed below:

Meeting 1 – April 19, 2006

- Caltrans presented applicable planning documents
- Caltrans described project – specific site conditions
- The group discussed the visual context, aesthetic principles, values, priorities etc… that relate to the site

Meeting 2 – May 11, 2006

- Members presented their Big Sur images to the group
- The group discussed the Big Sur/Project site aesthetic features and how they should guide project form
- The group developed "Guiding Principles" on which to base design concepts.

*For the next meeting members brought conceptual images/design thoughts of how they envisioned the project responding to the site.

Meeting 3 – June 1, 2006

- Members presented their preliminary design concepts to the group
- The group discussed and selected three rock shed alternatives and three bridge alternatives to pursue further

* For the next meeting Caltrans refined and developed form concepts based on three selected alternatives.

Meeting 4 – July 20, 2006

- Caltrans presented three preliminary formal concepts to the group.
- Group discussed concepts and narrowed down two alternatives
- Continued the discussion to the following meeting

*For the next PDT meeting: Caltrans continued development of final two concepts.

Meeting 5 – September 21, 2006

- Caltrans presented final two refined concepts to the group.
- Discussion of final two concepts
- Group selected "post and Lintel" rock shed with "Haunched Box Girder" bridge concept for recommendation to PDT. As a stand-alone bridge, the group selected the "spandrel Arch".

Phase 2: Focused on details of structure design. The summary of meetings for Phase 2 are listed below:

Meeting 1 – April 18, 2007

- Fundamental bridge and rock shed forms have been determined
- Structures aesthetics have begun design work
- Caltrans presented power point presentation of rock shed design evolution from close of ADAC Phase 1 recommendations to now.
- Group brainstorms on what can/should be done to render a design acceptable and that incorporates community feedback.

*Goal for next meeting: develop comfort with genre of stone buildings and introduce local stone masonry examples, including existing highway masonry.