State of California
DEPARTMENT OF TRANSPORTATION

Business, Transportation and Housing Agency

Memorandum

Flex your power!
Be energy efficient!

To: ROSS CHITTENDEN
Chief, Division of Transportation Programming

Date: August 18, 2005

File: 10-Alp-88 KP 0.0/R9.7
(PM 0.0/R6.0)
10-0J600K
RAS-201.120 (HA22) Program

From: DAVID S. FRANKE
Design Engineer, Branch G
Central Region - Project Development Design Division

Subject: Supplemental PSSR

The above-referenced HA22 project proposes to rehabilitate 9.7 kilometers of State Route 88 in Alpine County from the Amador County line to 1.24 Km east of the Carson Pass Summit. A Project Scope Summary Report (PSSR) was approved on February 4, 2004 (Attachment A). We have completed a review of the technical data supporting the PSSR and found no significant changes.

An updated Preliminary Environmental Analysis Report (PEAR) has been completed (Attachment B) and indicates that no additional environmental issues or concerns have been discovered. The expected environmental document for this proposed project is a Negative Declaration/Finding of No Significant Impact (ND/FONSI). The updated PEAR assumes that if cultural sites can be avoided and a Finding of Effect/Memorandum of Agreement (FOE/MOA) is not necessary, the final environmental determination would be projected to occur within 36 months from the start of environmental studies. The Mitigation Cost Compliance Estimate Form indicates a need for $6,000 for permits, up from $5,200 in the previous form.

Technical data not available at this time include an updated Deflection Study with Structural Section Recommendations and an updated Safety Analysis. Pavement condition is assumed to have further deteriorated since the previous deflection study was performed but an overlay project completed in 2005 and other maintenance work have improved some locations. Because of these mitigating factors the overall pavement condition is assumed to not be significantly different to that when the former deflection study was completed.

Project scope has not changed and all proposed Design Exceptions are approved.

The cost estimate has been updated, accounting for unit cost increases to the most significant construction items. Asphalt Concrete, Import Borrow, and Pavement Grinding prices have been adjusted to reflect increases in costs since approval of the PSSR. The current estimate is approximately $12,570,000 (Attachment F) up from the $10,872,240 estimated in the approved PSSR. The majority of this cost increase is due to a significant increase in the price of Asphalt since January of 2004. Environmental permit costs have increased also and are reflected in the Right of Way Data Sheet (Attachment C) but are insignificant to the overall cost of the project. Any right of way required to construct the project will be acquired through a Federal Land Transfer from the United States Forest Service with no cost to the State.

Project Programming and Support

This project is proposed for programming in the 2006 SHOPP as a long-lead project under the 20.10.201.120 Roadway Rehabilitation and Restoration (HA22) program. The escalated Construction and Support Costs are summarized in the table below, followed by the proposed project schedule.

Project Cost Component	Fiscal Years								Total
	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	
R/W Capital				$18					$18
Construction Capital						$15,008			$15,008
PA&ED	$914								$914
PS&E			$574						$574
R/W Support				$22					$22
Construction Support						$1,569			$1,569
Total	$914	$0	$574	$40	$0	$16,577	$0	$0	$18,105

1. All costs X$1,000. Construction Capital is escalated at 3% per year and Support Costs are escalated 2% per year.
2. Support Categories are the same as those identified by SB 45.
3. Support Cost Ratio: 21%. *[All Support Costs (*) divided by the escalated Construction Capital]*

Project Schedule

PA&ED	01/2010
District PS&E	05/2011
R/W Certification	05/2011
Ready to List	07/2011
Approve Construction Contract	12/2011
Job Complete	11/2013

The following items could adversely affect the project delivery schedule:

- Conveyance of right of way from US Forest Service.
- Approval of modifications to earth dam.
- Inability to avoid culturally sensitive areas.

Risk Management

A Risk Management Plan is included as Attachment E.

In late May, 2005, priorities for the SHOPP program were changed to broaden the types of projects potentially available for programming in the 2006 SHOPP cycle. This change, plus the addition of potential funding in certain programs, resulted in the need to quickly update or initiate candidate projects. Due to the fact that only approximately two months have been available to update this project, various risks have been taken by the Project Development Team and the District in presenting this project for programming.

- **Deflection Studies**

  An updated deflection study report has been requested, but was not received in time to be included in this report. Therefore, the basis of the scope and cost for the pavement design for this project was based upon joint discussions with the District and Headquarters program advisors and the District Maintenance Laboratory.

  When the actual deflection study report is received, the Project Development Team and District will need to assess if the results of the report are compatible with the project as scoped. Assumptions made in this report without the availability of a deflection study report could have significant impacts on the cost, scope and schedule of the project.

- **Task Force Field Reviews**

  The original task force field review occurred on October 7, 2003. Due to the limited time to prepare this document, a new task force field review was not held. However, Alvin Mangindin, the District HA22 Program Advisor, and Rob Marsh, the Headquarters HA22 Program Advisor, have reviewed the site and concur on the scope of work as contained in this document.

- **Constructibility Review**

  A constructibility review for the proposed project was originally held on April 24, 2003. The scope of work has not changed from the original review, and due to time constraints in completing this document, the Project Development Team has determined that a constructibility review will not be held at this time. However, it is recommended that a review be held at 30% to verify that no fatal flaws exist.

Distribution List:

FHWA, Mahfoud Licha
HQ Division of Design (2)
HQ Trans. Prog. (2), John Van Berkel, Ross Chittenden
HQ Environmental, Kelly Dunlap
Hdq Maintenance, Rob Marsh
Project Manager, Iorzua Akuva
Design Engineer (3), Original + 2
Resident Engineer (held by Design Engineer)
District Maintenance, Alvin Mangindin
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District Traffic Operations, Vu H Nguyen
District Traffic Safety, Thomas Schribner
Region Materials, Dave Dhillon
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Surveys, Tama Gonzalez (Electronic copy only)
HQ DES/OPPM, Peggy Lim (Structures)
District Records, Renee Maragos
Region Records, Tami Cox

I Have reviewed the right of way information contained in this Project Scope Summary Report and the R/W Data Sheet attached hereto, and find the data to be complete, current and accurate:

SPIROS KARIMBAKAS (Acting)
Chief, Central Region Right of Way

9/28/05
Date

APPROVAL RECOMMENDED:

IORZUA AKUVA
Project Manager

10/4/05
Date

APPROVED:

Julie Dunning
for KOME AJISE
District Director, District 10

10.14.05
Date

Ross Chittenden
August 18, 2005

This Supplemental Project Scope Summary Report has been prepared under the direction of the following registered Civil Engineer. The registered Civil Engineer attests to the technical information contained therein and has judged the qualifications of any technical specialists providing engineering data upon which recommendations, conclusions, and decisions are based.

REGISTERED CIVIL ENGINEER

8/19/05
DATE

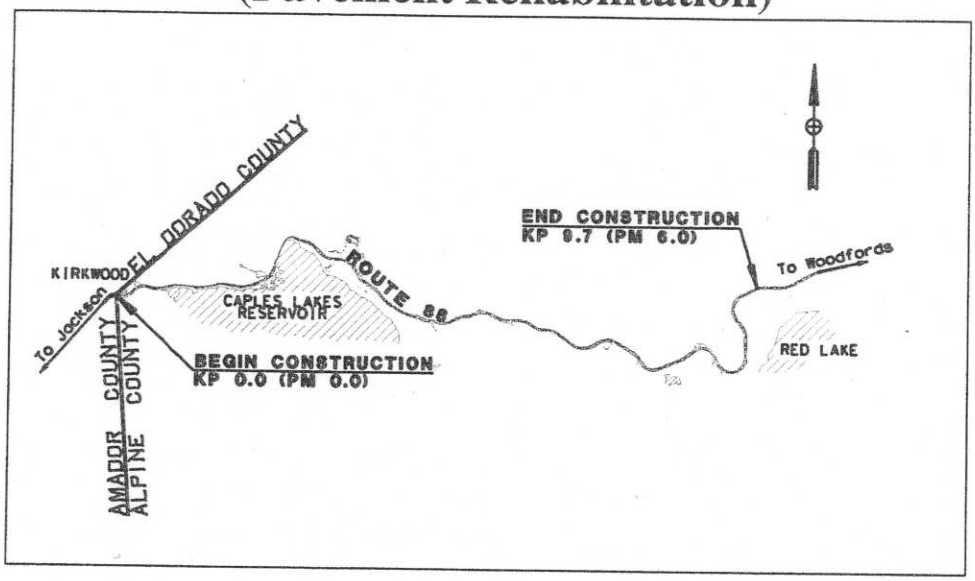
Attachment A

Project Scope Summary Report (Approved February 2004)

Caltrans Metric

10-Alp-88, KP 0.0/R9.7 (PM0.0/R6.0)
10-0J600K
20.xx.201.120 (HA22) Program
11/2003

PROJECT SCOPE SUMMARY REPORT
(Pavement Rehabilitation)



On	Route 88 in Alpine County
From	Amador County Line KP 0.0 (PM 0.0)
To	1.24 km East of the Carson Pass Summit KP R9.7 (PM R6.0)

I have reviewed the right of way information contained in this Project Scope Summary Report and the R/W Data Sheet attached hereto, and find the data to be complete, current, and accurate:

RANDEEN WALTER
CHIEF, CENTRAL REGION RIGHT OF WAY

APPROVAL RECOMMENDED: _____

KEVIN SHERIDAN
PROJECT MANAGER

APPROVED: Julie Dunning _____ 2.4.04

MARK LEJA — *DATE*
DISTRICT DIRECTOR, DISTRICT 10

CONCURRENCE BY: for _____ 2/4/04

J. MIKE LEONARDO — *DATE*
DISTRICT DIRECTOR DISTRICT 6 – CENTRAL REGION

EXPIRATION DATE: 2/04/07

This Project Scope Summary Report has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

Eric Olson
REGISTERED CIVIL ENGINEER

11/24/03
DATE

PROJECT SCOPE SUMMARY REPORT
(Pavement Rehabilitation)

1. Project Limits: 10-Alp-88-KP 0.0/9.7 (PM 0.0/6.0)

2. Project Description:

This project proposes to rehabilitate the existing pavement of State Route 88 from the Amador County line to 1.24 km east of the Carson Pass Summit. The project includes repairing localized distressed areas, sealing of all cracks greater than 5 mm, placing a 105 mm dense graded asphalt concrete overlay, and widening shoulders to 1.2 m where existing shoulders are less than 1.2 m. The project also proposes safety improvements including curve corrections, cross section corrections, snow storage placements where runoff problems exist, and metal beam guardrail upgrades.

3. Environmental Status:

The expected environmental document for the proposed project is a Negative Declaration/Finding of No Significant Impact (ND/FONSI). The Federal Highway Administration and the California Department of Transportation would act as lead agencies in the preparation of a joint CEQA/NEPA (California Environmental Quality Act/National Environmental Policy Act) environmental document. Assuming that cultural sites could be avoided the final environmental determination is projected to occur within 36 months from the start of environmental studies. Assuming a start date of October 1, 2004, completion of the environmental document would be expected by October 1, 2007.

Date Approved: N/A

4. Traffic Data

Present ADT	4560 (2008)	10-Year ADT	6830 (Interpolated between 2008-2028)
DHV	1250	% Trucks	6.3%
*T.I. (10 Year)	*8.0 (9.0)	Safety Field Review(s)	11/05/02 07/07/03

* Must correlate with T.I. in Materials Report/Deflection Study

Latest 3-Year Accident Data:

A Safety Analysis was received on December 10, 2002 and a supplemental analysis was received on July 14, 2003.

The table below is from TASAS Table B for the three-year period from July 1, 1999 to June 30, 2002. The table compares the actual fatal, fatal plus injury, and total accident rates for this segment of State Route 88 with the statewide averages for similar roadways. The actual averages are higher than the statewide averages for all three categories.

Accident Type	Actual	Average
Fatal	0.051	0.038
Fatal + Injury	1.18	0.83
Total	**2.66**	**1.68**

Location(s) of Accident Concentration:

Review of the TASAS Table B, Safety Analyses, and meetings with Maintenance personnel have identified 5 locations of accident concentrations within the project limits.

1) At KP 0.16/0.64 (PM 0.1/0.4)
2) At KP 2.33/2.51 (PM 1.45/1.56)
3) At KP 4.51/4.67 (PM 2.8/2.9)
4) At KP 7.89/R8.26 (PM 4.9/R5.13)
5) At KP R9.16/R9.25 (PM R5.69/R5.75)

Corrective Strategy:

The supplemental Safety Analysis indicates that accidents at KP 0.16/0.64 (PM 0.1/0.4) occur during snowy icy road conditions. It is noted that this section of roadway is in cut with no snow storage area and on a downgrade in the westbound direction. For this location the project proposes snow storage on the high side of the roadway. The snow storage should break away from the shoulder such that snowmelt would be diverted away from the roadway.

The highest concentration of accidents within the project limits are on the curve at KP 2.33/2.51 (PM 1.45/1.56). The accidents occur predominantly in the westbound direction. The design speed for the existing curve is 40 km/h less than the preceding curves in each direction and 15 km/h less than the minimum standard for this roadway. The curve is also at the bottom of a downgrade in the westbound direction and a turnout is adjacent. The project proposes to improve this curve to standard and construct a public intersection style driveway approach at the turnout.

Another location with a concentration of accidents is at KP 4.51/4.67 (PM 2.8/2.9). The supplemental safety analysis states the majority of these accidents occur during snowy and icy conditions. Accidents are predominantly in the westbound direction and the curve is at the bottom of a downgrade. A survey roadway profile is not available but field observation reveals a vertical drop immediately preceding the curve making the horizontal alignment not visible. Due to limited shoulder space it is difficult to place warning signs at or near this curve. Also a large Juniper tree is on the inside of the curve preventing the horizontal sight distance standard from being met. The project proposes a profile correction, a curve correction, and installation of a traffic warning sign east of the curve.

At KP 7.89/R8.26 (PM 4.9/R5.13) the safety analysis indicates multiple overturn accidents. The TASAS Table B indicates that these accidents are vehicles leaving the roadway. At this location the accidents are predominantly in the eastbound direction. Field observation has determined that the super-elevation is not continued through the curve, and the inside shoulder narrows. The project proposes correction of super-elevation and runoff, and shoulder widening to 1.2 m.

The final location with a concentration of accidents is the curve at KP R9.16/R9.25 (PM R5.69/R5.75). The TASAS Table B indicates that accidents here occur in each direction. Horizontal sight distance standard is not met due to the closeness of the rock face adjacent to the roadway. It is proposed to widen the roadway prism to provide 1.2m shoulders and drainage on the inside of the curve.

In addition to the improvements listed above other safety measures will be included in the project to improve the overall safety of this highway segment. Preliminary investigations have identified 10 curves within the project limits that do not meet horizontal sight distance standards. Continuous 1.2m shoulders will provide the offset distance needed to meet standard sight distance requirements. Also guardrail, guardrail approaches, delineators, and signs will be brought to current standards. Pedestrian crossing signs should be installed in both directions at two locations. There is significant pedestrian traffic near the summit between the parking lots on the north and south sides of the highway and near the Caples Lake Marina and the Caples Lake campground. Public intersection style driveway approaches are proposed at the Margaret Lake trailhead connection KP 0.19 (PM 0.12), at the driveway to a planned Forest Service boat ramp at KP 3.22 (PM 2.0), and the intersection of the old Alpine Highway at KP 8.51 (PM 5.29).

5. Roadway Geometric Information

Mandatory Design Exceptions for curve radii and shoulder widths have been approved. Advisory Design Exceptions are also approved for uniform catch point, median width at passing lane locations, horizontal clearance for clear recovery zone, and superelevation transition.

Within the project limits are three curves that do not meet mandatory design standards for minimum curve radius at the designated design speed of 60 km/h. The project proposes to improve the radius of the curve at KP 2.33/2.51 (PM 1.45/1.56) to the current standard. Design Exceptions have been approved for maintaining existing radii of the curves at KP 0.08/0.19 (PM 0.05/0.12) and KP 7.89/R8.26 (PM 4.9/R5.13).

This project proposes to provide 1.2m shoulders throughout the project limits. Shoulder widths within the project limits are below the Minimum In-Place widths specified in Design Information Bulletin 79-02 (DIB 79-02). Where shoulder widths are below the Minimum In-Place standard, DIB 79-02 states they shall be widened to 2.4m. A Design Exception has been approved for this proposal.

The Advisory Design Exceptions are related to minimizing the roadway prism and environmental impacts. Impact avoidance and excessive cost are common reasons for requesting these exceptions.

Cross slope corrections should be made at numerous locations within the project limits. When survey information is available consideration should be given to correction of drainage, superelevation, and superelevation runoff deficiencies. During this preliminary study several locations were observed with a depressed center of roadway. Super-elevation and runoff should be corrected at the curve at KP 7.89/R8.26 (PM 4.9/R5.13).

Survey information should be requested at the beginning of PA&ED to enable design to determine geometric requirements and provide an accurate footprint to perform environmental studies.

			Through Traffic Lanes					Paved Shoulder		Median
Facility	PM	Minimum	Westbound Lane		Eastbound Lane					
	Limits of Segment	Curve Radius	No. of Lanes	Lane Width	No. of Lanes	Lane Width	Type (AC or PCC)	Left	Right	Width
Existing	KP 0.0/6.44 PM 0.0/4.0	91 m	1	3.6 m (12')	1	3.6 m (12')	AC	0.5 m	0.5 m	N/A
Proposed	KP 0.0/6.44 PM 0.0/4.0	125 m	1	3.6 m (12')	1	3.6 m (12')	AC	1.2 m	1.2 m	N/A
Min. 3R Stds.	KP 0.0/6.44 PM 0.0/4.0	150 m	N/A	3.6 m (12')	N/A	3.6 m (12')	N/A	2.4 m	2.4 m	N/A
Existing	KP 6.44/7.56 PM 4.0/4.7	152 m	1	3.6 m (12')	2	3.6 m (12')	AC	2.4 m	1.2 m	0.0m
Proposed	KP 6.44/7.56 PM 4.0/4.7	152 m	1	3.6 m (12')	2	3.6 m (12')	AC	2.4 m	1.2 m	0.0
Min. 3R Stds.	KP 6.44/7.56 PM 4.0/4.7	150 m	N/A	3.6 m (12')	N/A	3.6 m (12')	N/A	2.4 m	2.4 m	1.2m
Existing	KP 7.56/8.37 PM 4.7/5.1	137.5 m	1	3.6 m (12')	1	3.6 m (12')	AC	2.4 m	2.4 m	N/A
Proposed	KP 7.56/8.37 PM 4.7/5.1	137.5 m	1	3.6 m (12')	1	3.6 m (12')	AC	2.4 m	2.4 m	N/A
Min. 3R Stds.	KP 7.56/8.37 PM 4.7/5.1	150 m	N/A	3.6 m (12')	N/A	3.6 m (12')	N/A	2.4 m	2.4 m	N/A
Existing	KP 8.37/9.33 PM 5.1/5.8	153.6 m	1	3.6 m (12')	1	3.6 m (12')	AC	0.5 m	0.5 m	N/A
Proposed	KP 8.37/9.33 PM 5.1/5.8	153.6 m	1	3.6 m (12')	1	3.6 m (12')	AC	1.2 m	1.2 m	N/A
Min. 3R Stds.	KP 8.37/9.33 PM 5.1/5.8	150 m	N/A	3.6 m (12')	N/A	3.6 m (12')	N/A	2.4 m	2.4 m	N/A
Existing	KP 9.33/9.66 PM 5.8/6.0	182.9 m	2	3.6 m (12')	1	3.6 m (12')	AC	0.5 m	0.5 m	0.0m
Proposed	KP 9.33/9.66 PM 5.8/6.0	182.9 m	2	3.6 m (12')	1	3.6 m (12')	AC	1.2 m	1.2 m	0.0m
Min. 3R Stds.	KP 9.33/9.66 PM 5.8/6.0	150 m	N/A	3.6 m (12')	N/A	3.6 m (12')	N/A	2.4 m	2.4 m	1.2m

6. Structures Information

Structures	Width Between Curbs			Replace Bridge Railings	Vertical Clearance			Work Identified in STRAIN	Replace Bridge Approach Rail	Replace Bridge Approach Slab	
Name/No.	Exist	3R Std	Prop	(Y or N)	Exist	3R Std	Prop	(Y or N)	(Y or N)	(Y/N)	#
Caples Lake Spillway/ 31-15	12.2	12.0	12.2	N	N/A	N/A	N/A	N	Y	N/A	

Remarks:

Caples Lake Spillway Bridge, the only structure within the project limits, meets the current design standards and is not on the STRAIN report.

7. Condition of Existing Facility:

Three distinct homogeneous segments are present within the project limits. The following data is based on the Caltrans Maintenance Program 2002 Pavement Condition Survey Inventory (See attachment C).

1) Kp 0.0/6.4 (PM 0.0/4.0)

PMS Category (1-29) 2-10 Priority Classification (.1-.4) .3

Ride Score 19-46 (IRI 142-250) Project Priority Score 45

*PCC Pavement: * AC Pavement:

* From latest PMS-Pavement Condition Inventory Survey Data.

3rd Stage Cracking% N/A Alligator B Cracking% 48%-100%

Faulting N/A Patching% None reported

Joint Spalls N/A Rutting None reported

Pumping N/A Bleeding None reported

Corner Breaks% N/A Raveling None reported

Locations(s) of subsurface or ponded surface-water problem, to be provided by maintenance supervisor.

2) Kp 6.4/8.1 (PM 4.0/5.1)

PMS Category (1-29) 4-10 Priority Classification (.1-.4) .3

Ride Score 7-31 (IRI 94-188) Project Priority Score 45

*PCC Pavement: * AC Pavement:

* From latest PMS-Pavement Condition Inventory Survey Data.

3rd Stage Cracking%	N/A	Alligator B Cracking%	0%
Faulting	N/A	Patching%	None reported
Joint Spalls	N/A	Rutting	None reported
Pumping	N/A	Bleeding	None reported
Corner Breaks%	N/A	Raveling	None reported

Locations(s) of subsurface or ponded surface-water problem, to be provided by maintenance supervisor.

3) Kp 8.1/9.7 (PM 5.1/6.0)

PMS Category (1-29) 8-10 Priority Classification (.1-.4) .3

Ride Score 28-31 (IRI 176-188) Project Priority Score 45

*PCC Pavement: * AC Pavement:

* From latest PMS-Pavement Condition Inventory Survey Data.

3rd Stage Cracking%	N/A	Alligator B Cracking%	50%-60%
Faulting	N/A	Patching%	None reported
Joint Spalls	N/A	Rutting	None reported
Pumping	N/A	Bleeding	None reported
Corner Breaks%	N/A	Raveling	None reported

Locations(s) of subsurface or ponded surface-water problem, to be provided by maintenance supervisor.

8. Deflection Study Data:

The Office of Materials Engineering & Testing Services (METS) conducted a deflection study on September 10, 2002. The District 10 Office of Structural Section Design and Rehabilitation has prepared a Flexible Pavement Deflection Study Report with recommendations of four alternatives for roadway rehabilitation. Each alternative proposes a strategy for a ten-year rehabilitation. Alternative one has been selected to establish an estimate for programming purposes. During PA&ED a request for a recommendation of AC type should be made to Materials lab. This request should include consideration of a polymer based AC.

Alternative one proposes repairing all areas of localized distress and sealing all cracks greater than 5 mm, then placing a Dense Graded Asphalt Concrete (DGAC) layer of 105 mm over the existing pavement. The segment of roadway from KP 6.4/8.1 (PM 4.0/5.1) did not warrant an overlay when this report was written, however an overlay of the entire project limits has been estimated assuming that this new segment would be at least 10 years old at the time of project delivery. An updated deflection study should be requested during PS&E.

9. Cost Estimate Breakdown:

Structural Section Work	Lane-Kilometers	Number	*Cost
AC Overlay of AC Pavement (recycle not included)[1,2]	21.24		$2,682,000
Hot Recycled AC[1,2]	No		
Cold Recycled AC[1,2]	No		
Reconstruct Lane(s)	No		
AC Overlay of PCC Pavement[2]	No		
PCC Overlay of PCC Pavement[2]	No		
PCC Pavement Rehabilitation (List appropriate work type: grind, slab replacement, spall repair, rout & seal random cracks, lane replacement, joint seal, etc.) **	No		
Ramps and OC/UC Approaches	No	N/A	
Edge Drain (side km)	No		
Bridge Approaches (ground, replaced)		2	$103,000
Total Lane-Kilometers of Rehabilitation	21.24		
STRAIN Work ** (List Structures:)		N/A	
COSTS SUBTOTAL			$2,785,000

Notes:
1. Include cost to remove and replace localized failed areas.
2. Include cost of shoulder backing material for increased thickness at shoulder edge, as needed.

* If duplicated in other items, show cost in parenthesis.

** Add additional lines as necessary.

Does the Project Include?	Yes/No*	Cost
Main Line Widening (lanes and/or shoulders)	Yes	$1,738,000
Bridge Widening and Rail Upgrade	No	
Included in Project	No	
Deferred (why) **		
Bridge Rail Upgrade - Without Widening	No	
Included in Project	No	
Deferred (why) **		
Vertical Clearance Adjustment	No	
Drainage Rehabilitation	Yes	
(List appropriate work type: roadbed surface, roadside, offsite, subsurface, etc.) **		$315,000
Pedestrian Facilities	Yes	
Alternations Required (List): **	Yes	$2,000

Safety **	Yes/No*	Cost
Rumble Strip	No	
Superelevation Correction	Yes	$100,000
Vertical Alignment	Yes	$58,000
Horizontal Alignment	Yes	$1,820,000
Left/Right-Turn Storage/Widening/Lengthening	Yes	$192,000
Signal Upgrade	No	
Median Barrier (State type: e.g., PCC, Thrie Beam)	No	
Metal Beam Guardrails (New)	Yes	$80,000
Concrete Guardrail (New)	No	
Roadside Cleanup	Yes	$70,000
Gore Cleanup	No	
Electroliers	No	
Utility Relocation	No	
Railroad Agreements	No	
Right of Way	No	
Environmental Mitigation	Yes	$600,200
Traffic Control	Yes	$190,000
Other (Identify: e.g., Mobilization Cost, Hazardous Waste Mitigation, etc.) **	Yes	$1,065,000
COSTS SUBTOTAL		$6,275,200
SUM OF SUBTOTALS		$9,060,200

20% Contingency	$1,812,040
TOTAL PROJECT COST	$10,872,240

Notes: * If duplicated in other items, show cost in parenthesis.
** Add additional lines as necessary. Do not include support costs.

10. Other Agencies Involved (Permits/Approvals from Fish & Game, Corps of Engineers, Coastal Commission, etc.):

The project is entirely within two National Forests with Right of Way by Special Use Permit. The Eldorado National Forest has jurisdiction west of the Carson Pass summit and the Toiyabe National Forest has jurisdiction east of the summit. The curve correction at KP 2.33/2.51 (PM 1.45/1.56) will require additional Right of Way from Eldorado National Forest. Also, Eldorado has been asked to provide potential construction staging areas to be included in environmental studies during PA&ED.

The curve correction on the east end of the earth dam at Caples Lake would require modifications to the dam. El Dorado Irrigation District would be point of contact for gaining approval from the Federal Energy Regulatory Commission (FERC) and Department of Safety Of Dams (DSOD). A positive determination on the feasibility of this improvement has been obtained from FERC and DSOD.

11. Other Considerations

Hazardous waste disposal site required? If yes, where are sites?

The Preliminary Environmental Analysis Report (PEAR) has identified several leaking underground storage tanks within the project area. An Initial Site Assessment would be required to identify potential hazardous waste associated with these tanks and disposal sites may be required.

Materials and or disposal site needs and availability?

Potential stockpile and material sites should be located during the PA&ED phase of this project and included in the environmental studies. The location of available sites will have significant impact on earthwork costs. The Forest Service should be contacted regarding potential sites on their land. As this report is being written their local stockpile site is full. There is a potential stockpile site at Hope Valley which may have mitigation benefits. Frank Tortorich, a member of the Oregon California Trail Association (OCTA), indicated at a PDT meeting held on July 23, 2003 that a portion of the Mormon Emigrant Trail was excavated by a contractor on a previous project. He stated disposal material may enable future reconstruction of the excavated portion of trail.

<u>Utility Involvement:</u>

N/A

Railroad Involvement:

N/A

Consistency with other planning:

The concept Level of Service (LOS) for SR-88 is "C" and the concept facility within the project area is a 2-lane conventional highway with passing lanes.

Salvaging and recycling of hardware and other non-renewable resources:

Signs, delineators, and guardrail that are not damaged and meet current standards should not need to be replaced. The serviceability of this hardware would need to be determined during the PA&ED or PS&E phase of the project. While hardware may be serviceable shoulder widening or other roadway improvements may create the need to move the items. Specific quantities for replacement and/or movement will also need to be determined during the PA&ED or PS&E phase. Guardrail has been conservatively figured to be completely replaced in this document's estimate.

Prolonged temporary ramp closures:

N/A

Effects on bicycle traffic:

This segment of SR-88 is a designated bicycle route. The Forest Service and Caltrans maintenance indicate that bicycle traffic has been increasing between Kirkwood Ski Resort and the Carson Pass Summit. The widening of shoulders to 1.2 m would improve conditions for bicyclists.

Recycling of AC:

Alternative 4 of the rehabilitation strategies recommends the use of Hot Recycled Asphalt Concrete (HRAC). At the time of this report this is not the preferred alternative.

Environmental Issues:

A Preliminary Environmental Analysis Report (PEAR) has been prepared for this project (See Attachment F). The PEAR indicates the following Environmental

Technical Reports and Studies may be required in the preparation of the Environmental Document for this project:

- ❑ Section 4(f) Evaluation
- ❑ Visual Impact Assessment
- ❑ Water Quality Study
- ❑ Paleontology
- ❑ Cultural Resources
  - ASR (Archaeological Survey Report)
  - HSR (Historic Survey Report)
  - HRER (Historic Resource Evaluation Report)
  - HPSR (Historic Property Survey Report)
  - Section 106 / SHPO (State Historic Preservation Office)
  - Native American Coordination
- ❑ Hazardous Waste
  - ISA (Initial Site Assessment)
  - PSI (Preliminary Site Investigation)
- ❑ Biological
  - Endangered Species (State and Federal)
  - Wetlands
  - Natural Environment Study

The following permits would be anticipated due to potential impacts to wetlands, Caples Lake and other water bodies in the project area:

- ❑ 401 Permit Coordination
- ❑ 404 Permit Coordination (Nationwide Permit for 0.5 acres or less)
- ❑ 1601 Permit Coordination
- ❑ NPDES Coordination

A Storm Water Data Report has been prepared (See Attachment K) and cost included in the estimate. Permanent and Treatment Best Management Practice's (BMP's) are included in the construction estimate and Construction Site BMP's are estimated as 5% of total construction costs. Additionally $10,000 has been included for preparation of a Storm Water Pollution Prevention Plan (SWPPP).

In meetings with the U.S. Forest Service it was agreed that drill hole splitting for blasting left an unacceptable appearance on rock surfaces adjacent to the highway. It was furthermore agreed that in order to leave an acceptable after condition blasting work should be performed by the chip fracture method. Also discussed was the possibility that mitigation dollars for visual impacts could be used outside the project limits to correct previous drill hole splitting scars on other rock faces.

A Phase I survey would be conducted to determine if all culturally sensitive sites can be avoided by construction activities. If these sites cannot be avoided, then

Phase II excavations would be required to determine site eligibility and a Finding of Effect and Memorandum of Agreement (FOE/MOA) with the SHPO would be required. This process would add 18 to 24 months to the project schedule. The PEAR schedule assumes no Phase II or FOE/MOA will be needed.

Native American Coordination should be initiated as early as possible. The District's Resident Engineer's office, the District's Native American Coordinator, District Environmental, and the Forest Service should be contacted for information on individuals and tribes that have concerns in the project area.

What are the consequences of not doing this entire project?

Traffic volume is expected to increase. Without this project the existing pavement will continue to deteriorate to unacceptable levels and maintenance costs will continue to increase. This route is used as an alternate east-west corridor when there are closures on Route 50. At times traffic will reflect conditions from that route. Also an increase in the number of accidents would be anticipated due to the increased traffic.

12A. Has the project been field reviewed by:

District Yes Date 08/07/02

DES-METS Yes Date 09/10/02

12B. Project Reviewed by:

District Maintenance Yes Date 08/07/02

District Safety Yes Date 11/05/02 & 07/07/03

Region Materials Yes Date 05/07/03

HQ Design Task Force Date 10/07/03

HQ Maintenance Program Task Force Date 10/07/03

FHWA No Date

Type of federal Involvement: Exempt
(Exempt, CA, or PxP)

Others U.S. Forest Service Date 07/23/03

13. Proposed Funding (IM, NH, etc.):

This project is proposed for programming in the 2004 SHOPP with funding from the 201.120 Roadway Rehabilitation program (HA22). The current estimated construction capital cost is $10,872,240 in 2003 dollars with no Right of Way capital cost. The total support costs to be programmed, from PA&ED through completion of construction, is $2,769,000.

Tentative Project Schedule

Milestone Dates	Month/Year
PID Approval	11/03
PA&ED	10/07
RW Cert	06/08
RTL	06/08
Approve Contract	08/08
Const. Complete	11/10

Survey information should be requested at the beginning of the PA&ED phase of this project. Design and Environmental clearance efforts should be performed concurrently to ensure that the project is delivered within the SHOPP cycle. The risk associated with performing concurrent design and environmental work is minimal for this project.

14. Project Support:

Capital and Support Cost Summary

	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	
R/W Capital				5200			5200
Const. Capital**				12597			12597
PA&ED*	652						652
PS&E*				385			385
R/W Support*				42			42
Const.Support*					1690		1690
Total	652	0	0	18224	1690	0	20566

Note:

1) All costs X$1000. Construction Capital escalated at 3.4% per year and Support Costs escalated at 2.7% per year.
2) Support Categories are the same as those identified by SB 45.
3) Support Cost Ratio: 22%. *[All Support Costs (*) divided by the escalated Construction Capital(**)]*

15. Remarks (List all alternatives studied, cost, reasons not recommended, etc.) **

An initial alternative was considered that proposed improvements needed to correct all identifiable non-standard features of this highway segment. The initial

alternative was modified based on review of the Traffic Safety Analysis, impacts to the environment, context sensitivity, a prior planning agreement, and costs.

The initial alternative would correct the radii on three non-standard curves. To correct two of these curves would impact Environmentally Sensitive Areas (ESA's) identified by prior projects within these limits and add approximately $500,000 to the project cost. The initial alternative would also propose widening non-standard shoulders to 2.4m. This would require significant amounts of additional blasting work, removal of sensitive vegetation including historic Juniper trees, and add approximately $1.8 million to the project cost. Furthermore it is possible that 2.4m shoulders would encourage recreational users to park along the highway. The improvements proposed by this initial alternative are not believed to be essential to correct safety issues and would create a highway segment inconsistent with adjoining segments.

During the Project Initiation Document (PID) phase of this project meetings were held with the Eldorado National Forest District of the U.S. Forest Service to solicit input in determining the project scope. In the meetings it was agreed that drill hole splitting for blasting left an unacceptable appearance on rock surfaces adjacent to the highway. It was furthermore agreed that in order to leave an acceptable after condition blasting work should be performed by the chip fracture method. Also talked about was the possibility that mitigation dollars for visual impacts could be used outside the project limits. The Forest Service would like to see the drill hole splitting scars smoothed out that were created in rock faces for the Silver Lake Rehabilitation project (EA 10-352404). It is conceivable that the mitigation dollars identified for this project could be used to do the clean up work for the Silver Lake project. This possibility needs to be studied further during PA&ED.

District Traffic and the Resident Engineer's office have emphasized the need for a well developed traffic handling plan, including lane closure charts. Blasting work would likely require road closures and a plan for emergency traffic would need to be developed. Furthermore weather conditions limit the construction window, from May until October. A Traffic Management Plan (TMP) Checklist has been provided (see attachment K) and the following cost, associated with traffic handling, are included in the estimate: COZEEP, CMS signs, construction area signs, and flaggers.

16. List of Attachments

A. GIS Map

B. Typical Section(s)

C. PMS Inventory Data

D. TASAS Table B

E. Deflection Study Report

F. Preliminary Environmental Analysis Report

G. Right of Way Data Sheet

H. Task Force Field Review Attendance Roster

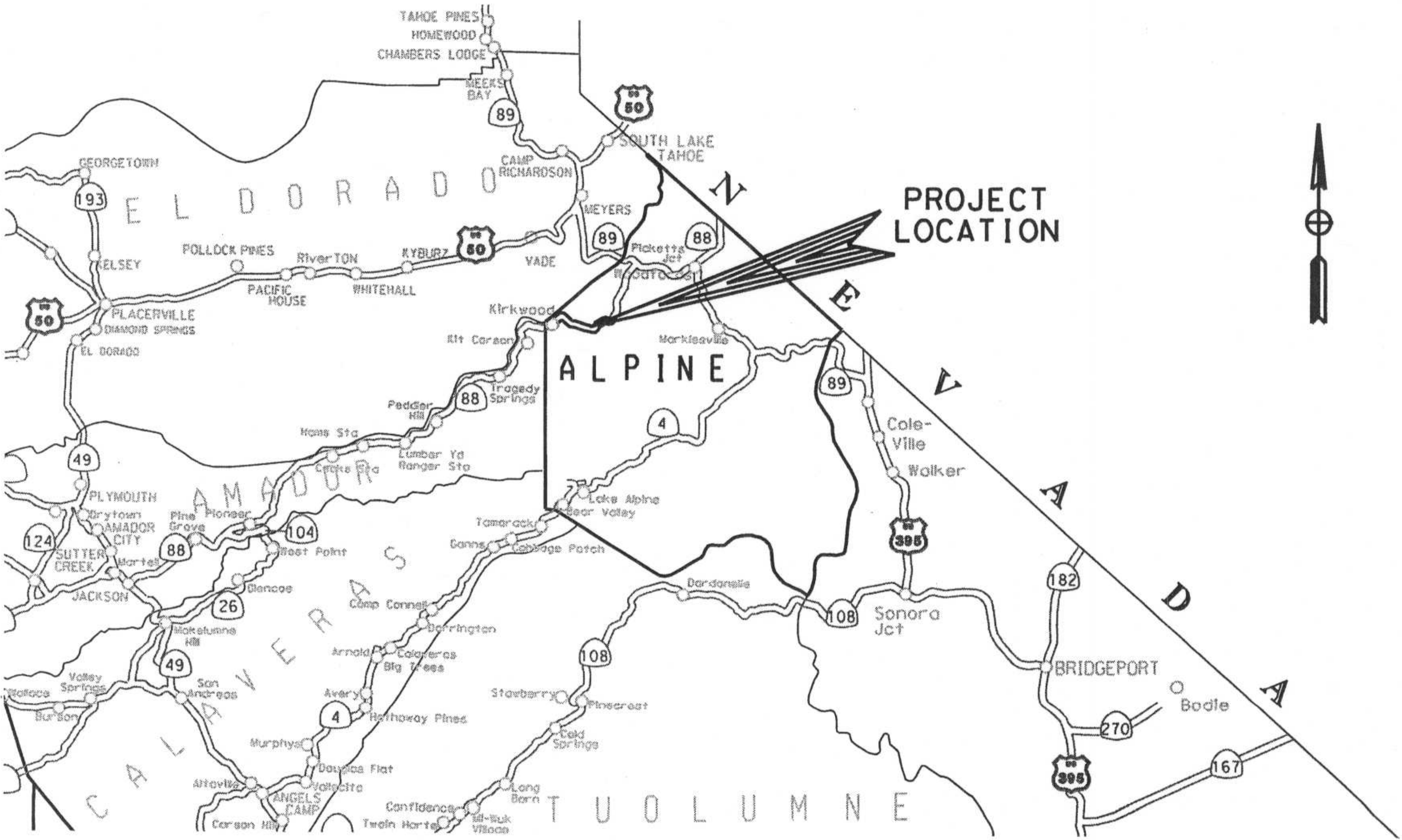
I. Structural Section Recommendation (Memo from District Materials Unit for widening, realignment, etc.)

J. Traffic Management Plan (TMP) Checklist

K. Storm Water Data Report (SWDR)

Attachment A

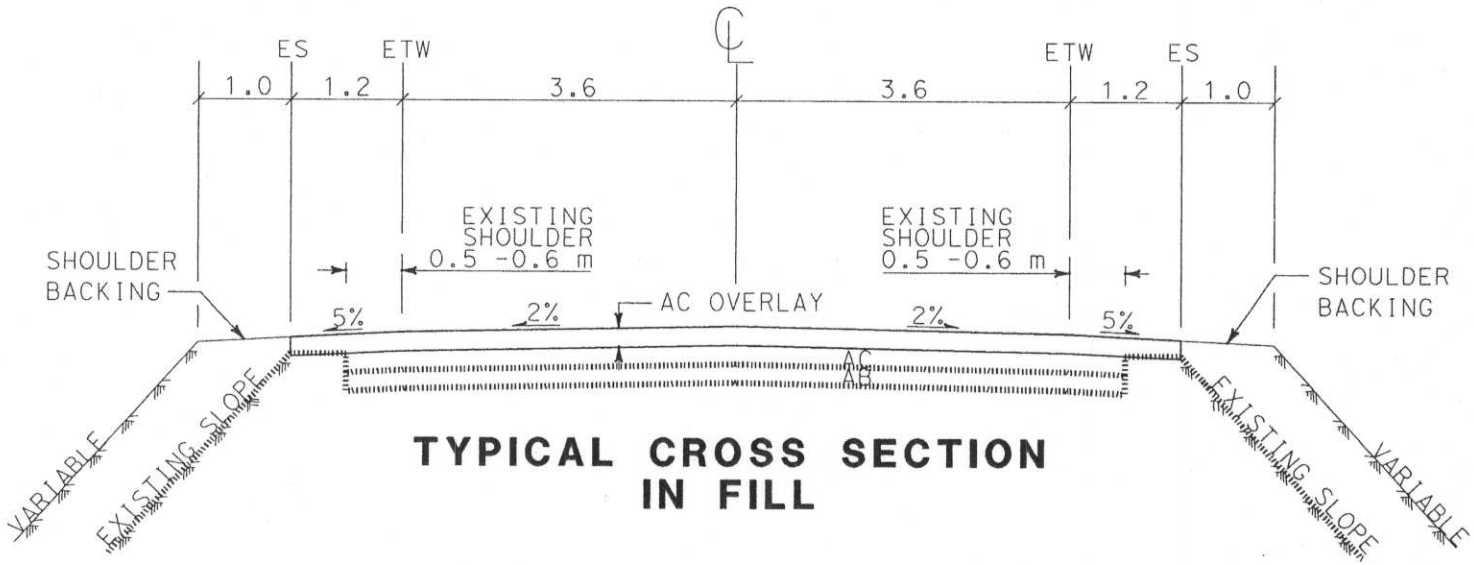
GIS Map


PROJECT
LOCATION
ALPINE
EL DORADO
AMADOR
CALAVERAS
TUOLUMNE
NEVADA
TAHOE PINES
HOMEWOOD
CHAMBERS LODGE
MEEKS BAY
SOUTH LAKE TAHOE
CAMP RICHARDSON
MEYERS
GEORGETOWN
KELSEY
POLLOCK PINES
RiverTON
KYBURZ
VADE
PACIFIC HOUSE
WHITEHALL
PLACERVILLE
DIAMOND SPRINGS
EL DORADO
Kirkwood
Kit Carson
Picketts Jct
Markleeville
Tragedy Springs
Peddler Hill
Lumber Yd Ranger Sta
PLYMOUTH
Drytown
AMADOR CITY
Pine Grove
Pioneer
SUTTER CREEK
Martell
JACKSON
West Point
Glencoe
Lake Alpine
Bear Valley
Tamarack
Ganns
Cabbage Patch
Camp Connell
Dorrington
Arnold
Calaveras Big Trees
Avery
Hathaway Pines
Murphys
Douglas Flat
Vallecito
ANGELS CAMP
Altaville
Carson Hill
San Andreas
Valley Springs
Wallace
Burson
Dardanelle
Strawberry
Pinecrest
Cold Springs
Long Barn
Confidence
Twain Harte
Mi-Wuk Village
Cole-Ville
Walker
Sonora Jct
BRIDGEPORT
Bodie
50
89
88
193
49
124
104
26
4
108
395
182
270
167

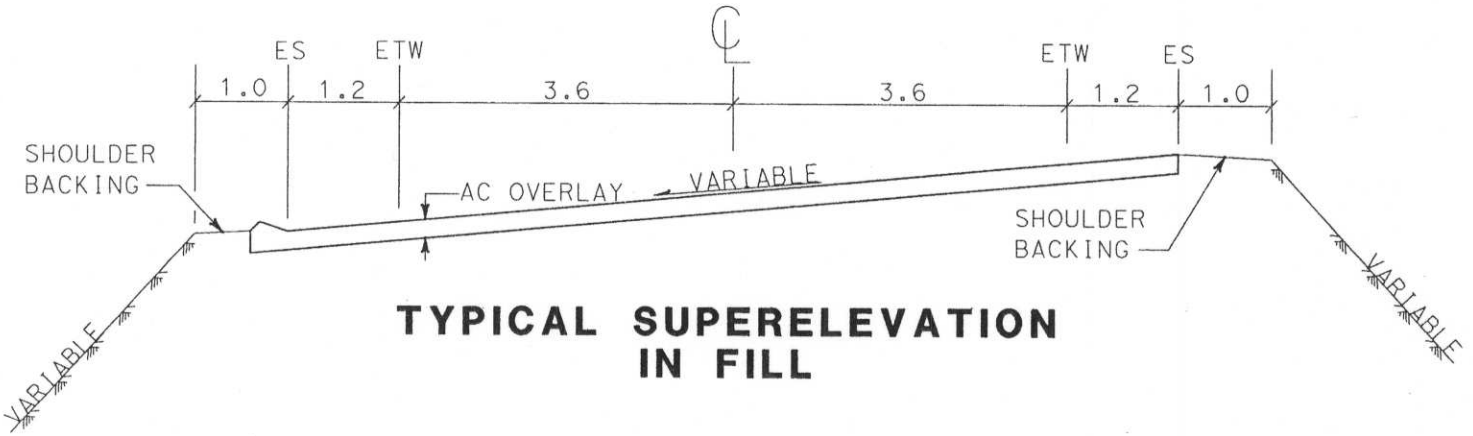
Attachment B

Typical Cross Sections

ALPINE 88
EA 10-0J600K
KP 0.0/R9.7 (PM 0.0/R6.0)



TYPICAL CROSS SECTION IN FILL



TYPICAL SUPERELEVATION IN FILL

ALL DIMENSIONS ARE IN METERS
UNLESS OTHERWISE SHOWN

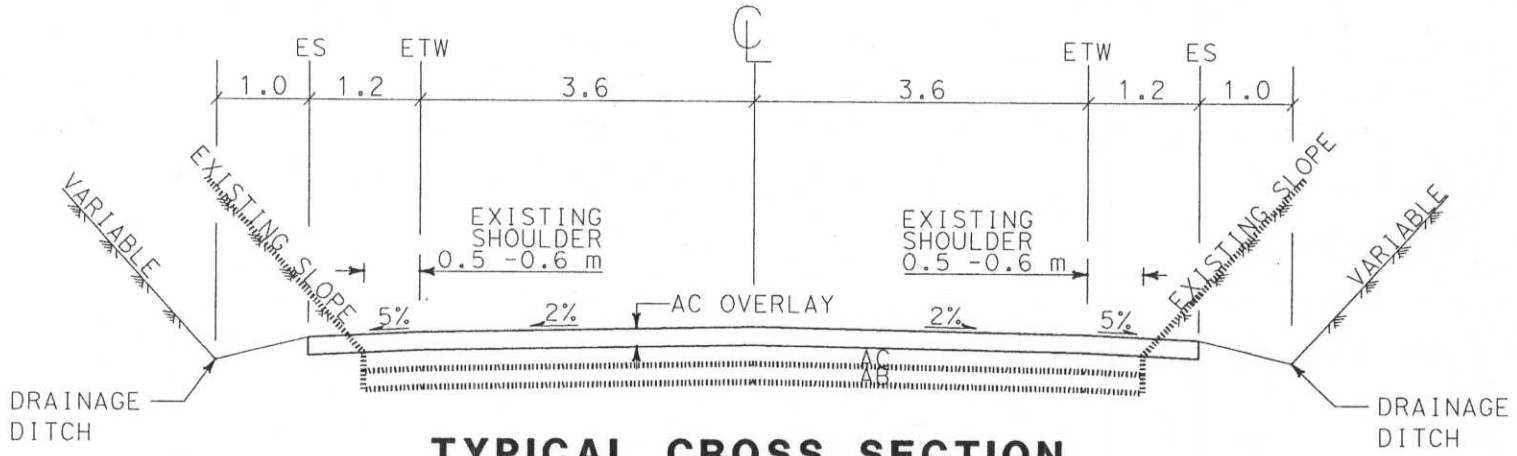
NOTES:
1. V-DITCH SLOPE IS 1:6 OR FLATTER
2. TYPE E DIKE AT LOW SIDE OF SUPERELEVATION OR AS DIRECTED BY MAINTENANCE

LEGEND:

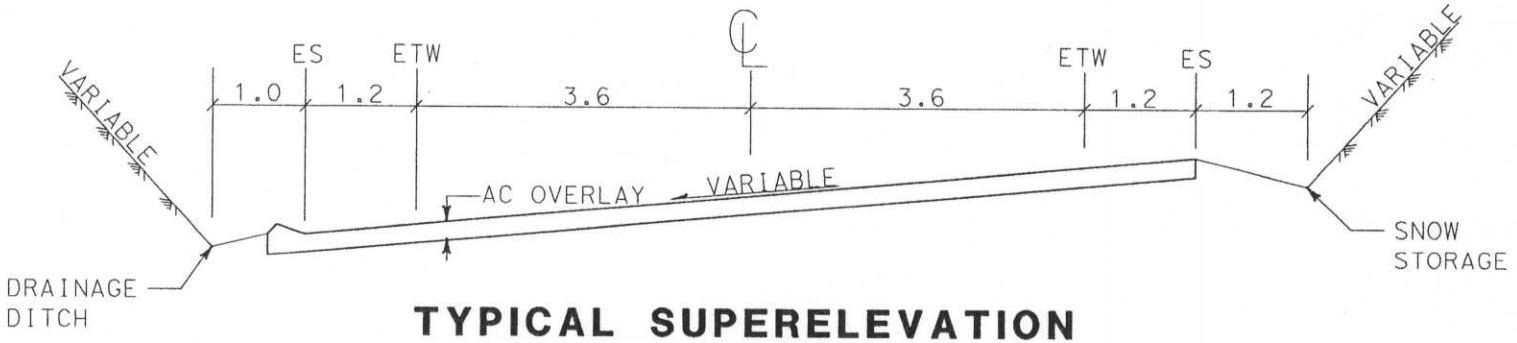
EXISTING

PROPOSED

ALPINE 88
EA 10-0J600K
KP 0.0/R9.7 (PM 0.0/R6.0)



TYPICAL CROSS SECTION IN CUT



TYPICAL SUPERELEVATION IN CUT

ALL DIMENSIONS ARE IN METERS
UNLESS OTHERWISE SHOWN

NOTES:
1. V-DITCH SLOPE IS 1:6 OR FLATTER
2. TYPE E DIKE AT LOW SIDE OF SUPERELEVATION OR AS DIRECTED BY MAINTENANCE

LEGEND:

EXISTING

PROPOSED

Attachment C

PMS Inventory Data

Collection Date: 05/12/2002
Printed: 04/16/2003

Caltrans Maintenance Program
2002 Pavement Condition Survey Inventory
Caltrans Drive Order

District 10 County ALP Route 088

District	10
County	ALP
Route	088
Begin PM	0.000

Begin PM - End PM	Length	LaneMi. (Est.)	Type	AADT (,000)	MSL

Lane	Surface Type	Alligator Cracking A %	Alligator Cracking B %	Alligator Cracking C (Y/N)?	Rutting, Bleeding	Slab Cracking 1st %	Slab Cracking 3rd %	Slab Cracking Corner %	Faulting	Patching Area %	Patching Poor Cond.?	Ride, IRI		Priority	Skid	Defect
0.000 - 1.105					**1.105**	**2.210**	**2LNU**	**2**	**2**							
L1	F-DG	0	50									33	197	8		HIGH ABC
R1	F-DG	0	50									34	199	8		HIGH ABC
1.105 - 2.005					**0.900**	**1.800**	**2LNU**	**3**	**2**							
L1	F-DG	18	50									37	213	8		HIGH ABC
R1	F-DG	25	50									35	203	8		HIGH ABC
2.005 - 2.805					**0.800**	**2.400**	**MLU**	**3**	**2**							
L1	F-DG	20	57									43	238	2		HIGH ABC, RIDE
R1	F-DG	17	64									30	185	8		HIGH ABC
2.805 - 3.805					**1.000**	**2.000**	**2LNU**	**2**	**2**							
L1	F-DG	0	53									38	217	8		HIGH ABC
R1	F-DG	0	59									46	250	2		HIGH ABC, RIDE
3.805 - 4.305					**0.500**	**1.000**	**2LNU**	**2**	**2**							
L1	F-DG	0	48									19	142	8		HIGH ABC
R1	F-DG	0	100	Yes								27	172	8		HIGH ABC
4.305 - 4.988					**0.683**	**1.366**	**2LNU**	**2**	**2**							
L1	F-DG	0	0									9	102			
R1	F-DG	0	0									7	94			
R 4.992 - R 5.109					**0.117**	**0.234**	**2LNU**	**2**	**2**							
L1	F-DG	0	0									31	188			
R1	F-DG	0	0									22	152			
R 5.109 - R 6.009					**0.900**	**2.700**	**MLU**	**2**	**2**							
L1	F-DG	25	60									31	188	8		HIGH ABC
R1	F-DG	27	50									28	176	8		HIGH ABC
R 6.009 - R 7.209					**1.200**	**3.600**	**MLU**	**2**	**2**							
L1	F-DG	24	16									11	110	10		MOD ABC
R1	F-DG	29	20									6	89	10		MOD ABC

*Surface type of 'EB' is Enhanced Binder.

Attachment D

TASAS Table B

TASAS TABLE B SELECTIVE ACCIDENT RATE CALCULATION
REQUEST ACTIVITY REPORT

MESSAGE	DT REQ NO	A S	L T	RTE	D I	TIME PERIOD FROM	TIME PERIOD TO	SELECT LOCATION BEGIN	SELECT LOCATION END	S C	SEQ 123	R T	A P	AVE RATE	PC IN	PC FA	ADT MAIN	ADT XST	R T	RR UA	PR DT
* * * * *	10 0001	C	H	088	T	07/01/99	06/30/02 ALP	000.000-ALP	R006.001	I			P								06

TASAS TABLE B DISTRICT 06
SELECTIVE ACCIDENT RATE CALCULATION
ROUTE SEQUENCE

LOCATION DESCRIPTION	RA GRP (RUS)	*-NUMBER OF ACCIDENTS/SIGNIFICANCE* TOT	FAT	INJ	MULTI F+I	VEH	WET	DARK	PER KLD INJ	*ADT * MAIN X-ST	TOTAL MV+ OR MVM	*-ACCIDENT RATE ACCS/MV+ OR MVM-* ACTUAL FAT	F+I	TOT	AVERAGE FAT	F+I	TOT
088 ALP 0.000 THRU ALP R006.000	H	52	1	22	23	17	2	7	1	3.0	19.52	.051	1.18	2.66	.038	.83	1.68
10-0001 5.997M 99-07-01 02-06-30 36 MO	(R)	H99		H90	H92				36								

REQ NO	DIST	RTES NO	RTES F	RTES CO	P LOC E	POST MILE	I F	S R	D O	ACCIDENT DATE T	L	H	Y	MO	DA	YR	TIME HHMM	COMMON ACCIDENT NUMBER	P C	ENVIR COND F	W	L	S	R C	R W	T O	NO MTR VEH	P T	D I	V H	S I	PERSN I	K	O L I S	O L O S	O L O S	O L O S	OA O 12	M F	SD P 12
0001	10	088	ALP		000.010		H	-	E	6	06	22	01	2345	924614506	1	A	C	A	H	D	E	01	A	E	1	<	00	00	24B	44B	---	---	4<	C	B<
0001	10	088	ALP		000.110		H	-	W	7	12	08	01	1115	924610588	5	B	A	C	H	D	E	01	A	W	1	D	00	00	40C	44F	---	---	N<	C	A<
0001	10	088	ALP		000.300		H	-	W	6	02	18	00	1000	924607775	5	A	A	C	H	D	E	01	A	W	1	<	00	00	43B	---	---	---	N<	C	A<
0001	10	088	ALP		000.400		H	-	W	7	11	10	01	0820	924613807	6	A	A	C	H	A	E	01	A	W	1	D	00	00	23B	44D	---	---	5<	C	A<
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																																	D	W	1	<	00	00	V1F	---	---	---	N<	A	A<
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																																	A	E	1	<	00	00	V1F	---	---	---	6E	A	A<
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																																	G	W	1	D	00	00	V1F	---	---	---	<<	B	A<
0001	10	088	ALP		001.540		H	-	W	1	09	23	01	1020	924611736	6	B	A	A	H	A	F	02	C	W	1	C	00	01	44H	V2H	---	---	N<	C	A<
																																	D	S	1	D	00	00	---	V1J	---	---	N<	O	<<
0001	10	088	ALP		001.560		H	-	W	6	10	15	99	0900	924610509	6	A	A	A	H	D	A	02	D	W	1	<	00	00	V2D	---	---	---	6<	B	A<
																																	G	E	1	<	00	00	V1F	---	---	---	N<	B	A<
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																																	D	W	1	C	00	00	V1F	---	---	---	6<	E	A<
0001	10	088	ALP		002.100		H	-	E	7	03	04	00	2000	924614506	5	A	D	C	H	D	E	01	D	E	1	<	00	00	23H	44F	---	---	N<	C	A<
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																																	A	E	1	D	00	00	V1F	---	---	---	N<	B	A<
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                                                                                M < 1 C 00 00 --- V1F 43B --- I< A H<
0001    10  088  ALP  004.620      H - W 5 02-21-02 0830 924613807 6 A A A H D D 02   A W 1 D 00 01 V2D --- --- --- N< N A<
                                                                                D E 1 < 00 02 V1F --- --- --- N< B A<
0001    10  088  ALP  004.820      H - W 2 12-06-99 1620 924613944 6 B A B H D A 02   A W 1 < 00 00 V2D --- --- --- N< N A<
                                                                                A E 1 < 00 02 V1F --- --- --- N< B A<
0001    10  088  ALP  004.900      H - E 7 10-30-99 1310 924609165 E A A A H D E 01   A E 1 < 00 01 43B 44B --- --- 6< N A<
0001    10  088  ALP  004.930      H - W 6 01-21-00 1025 924613807 6 A A C H D A 02   A W 1 < 00 01 V2D --- --- --- N< N A<
                                                                                D E 1 < 00 01 V1F 43H --- --- N< B A<
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REQ NO	DIST	RTES U NO	F	CO	P LOC R POST E MILE	I S D F R O A T L H Y	ACCIDENT DATE MO DA YR	TIME HHMM	COMMON ACCIDENT NUMBER	P C	ENVIR COND	R W L S	R T O C C	NO MTR VEH	P T	D I R	V H I	S I	PERSN K	O L S P	O L O S C	O L O S O	O L O S O	O L O S O	OA F 12	M O V	SD P 12
0001	10	088	ALP	R005.020	H - E	4	10-18-00	0925	924614506	B	A A A	D A B	02	F	E	1	<	00	00	V2F	---	---	---	N<	L	A<
														G	E	1	<	00	01	V1F	---	---	---	N<	B	A<
0001	10	088	ALP	R005.030	H - W	5	11-22-01	1035	924613807	6	B A C	H A E	01	A	W	1	D	00	00	24B	44B	---	---	PN	C	A<
0001	10	088	ALP	R005.130	H - W	3	12-21-99	1220	924609165	6	A A A	H D F	01	A	W	1	<	00	00	44B	24B	---	---	F<	C	A<
0001	10	088	ALP	R005.130	H - E	6	02-01-02	1645	924609299	6	A A B	H D F	01	A	E	1	D	00	00	24H	44H	---	---	N<	C	A<
0001	10	088	ALP	R005.130	H - W	6	04-05-02	1640	924609461	6	B A A	H D F	01	A	W	1	D	00	00	24B	44B	---	---	6<	C	A<
0001	10	088	ALP	R005.130	H - E	7	04-27-02	1330	924609933	6	D A A	B A E	01	A	E	1	D	00	01	99B	18H	22H	24H	P6	C	A<
0001	10	088	ALP	R005.240	H - E	7	04-15-00	1710	924614964	1	B A A	H A G	03	A	E	1	<	00	03	V2H	V3H	---	---	6<	C	BE
														V	E	-	<	01	00	V1-	---	---	---	N<	6	G<
														A	E	2	<	00	00	---	V1J	---	---	N<	O	<<
0001	10	088	ALP	R005.430	H - W	5	12-21-00	2000	924613807	6	D D C	H A E	01	A	W	1	<	00	00	23H	---	---	---	6<	C	A<
0001	10	088	ALP	R005.430	H - E	1	03-24-02	1715	924614964	6	B A C	H D E	01	A	E	1	D	00	00	15H	---	---	---	N<	C	A<
0001	10	088	ALP	R005.480	H - W	2	06-12-00	1000	924607775	3	B A A	H D A	02	A	W	1	<	00	00	V2D	---	---	---	F<	E	A<
														A	E	1	<	00	02	V1F	---	---	---	N<	B	A<
0001	10	088	ALP	R005.690	H - E	6	06-07-02	0930	924611964	5	A A A	H A F	01	L	E	1	C	00	01	44F	---	---	---	N<	B	G<
0001	10	088	ALP	R005.720	H - W	3	09-21-99	1330	924607775	C	A A A	H D H	01	A	W	1	<	00	00	99F	---	---	---	K<	B	A<
0001	10	088	ALP	R005.720	H - E	4	03-13-02	1645	924611964	6	D A C	H D C	02	J	E	1	C	00	00	V2F	---	---	---	N<	A	H<
														D	E	1	C	00	00	V1F	---	---	---	N<	B	A<
0001	10	088	ALP	R005.730	H - W	2	03-18-02	1525	924611964	5	A A C	H D E	01	D	W	1	C	00	00	15B	---	---	---	N<	B	A<
0001	10	088	ALP	R005.750	H - E	5	11-01-01	1510	924609299	6	A A A	H D F	01	A	E	1	<	00	01	44H	---	---	---	N<	C	A<

REQ NO	ACC COUNT
0001	52

Attachment E

Deflection Study Report

State of California

Business, Transportation and Housing Agency

Memorandum

To: David Dhillon, P.E.
District 10 Materials Engineer

Date: September 27, 2002

File: 10-Alp-88
Project Limits: KP 0.0/9.6
(PM 0.0/6.0)
EA: 10-0J600K
Equipment No.: 0638-8033

From: **DEPARTMENT OF TRANSPORTATION**
DIVISION OF ENGINEERING SERVICES
MATERIALS ENGINEERING AND TESTING SERVICES - MS #5

Subject: Flexible Pavement Deflection Study Report

In accordance with your request received August 5, 2002 we have developed pavement rehabilitation alternatives for the file subject project. Design recommendations are based on the deflection study conducted by Material Engineering & Testing Services (METS) on September 10, 2002. The Traffic Index (TI), 80th percentile, tolerable deflection, and the 2000 Pavement Condition Survey (PCS) data are used in the proceeding recommendations for this two-lane rural roadway.

The AC thickness, average evaluated 80th percentile deflection and tolerable deflection used to develop the recommendations are as follows:

TI_{10}	Average AC Depth mm (ft)	80th Percentile Deflection mm (in)	Tolerable Deflection mm (in)
8.0	216 (0.71)	0.254 (0.010)	0.432 (0.017)

A condition survey made at the time of the current deflection study revealed that the pavement contains transverse, longitudinal and some alligator cracks. New overlay patches are noted from PM 1.6/2.6 (KP 2.6/ 4.2).

The pavement appears new from PM 4.0/5.1 (KP 6.4/8.1). Our record indicated that a previous study was performed for this location on August 26,1998 recommending 105 mm DGAC. The current low deflections and no sign of distress indicate that new overlay is not warranted at this location.

The data was analyzed for structural adequacy, reflective crack retardation and ride quality improvement. The pavement has a ride quality as indicated by International Roughness Index (IRI) of 164. The maximum acceptable limit of IRI is 225. Reflective crack retardation governs the rehabilitation strategy throughout the project.

Ten-Year Rehabilitation Recommendations
Eastbound & Westbound

Alternative 1– Dense Graded Asphalt Concrete (DGAC) Overlay - Conduct a field-review and locate specific areas of severe distress such as rutting greater than 15 mm and/or loose or spalling pavement. Repair the localized distressed areas and seal all cracks wider than 5 mm. Then:

- Place 105 mm of DGAC
- This alternative will increase the existing profile grade 105 mm

Alternative 2- Rubberized Asphalt Concrete-Gap Graded (RAC-G) Overlay
Conduct a field-review and locate specific areas of severe distress such as rutting greater than 15 mm and/or loose or spalling pavement. Repair the localized distressed areas and seal all cracks wider than 5 mm. Then:

- Place 60 mm of RAC-G
- This alternative will increase the existing profile grade 60 mm.

Alternative 3– DGAC overlay with Rubberized Stress Absorbing Membrane Interlayer (SAMI-R) - Conduct a field-review and locate specific areas of severe distress such as rutting greater than 15 mm and/or loose or spalling pavement. Repair the localized distressed areas and seal all cracks wider than 5 mm. Then:

- Place SAMI-R
- Place 60 mm of DGAC
- This alternative will increase the existing profile grade 60 mm

Alternative 4– Cold plane & overlay with Hot Recycled Asphalt Concrete (HRAC)
Conduct a field-review and locate specific areas of severe distress such as rutting greater than 15 mm and/or loose or spalling pavement.

- Cold Plane 45 mm of existing asphalt pavement to reclaim asphalt for hot recycling
- Repair the localized distressed areas and seal all cracks wider than 5 mm.
- Place 90 mm of HRAC
- This alternative will increase the existing profile grade by 45 mm

Or to maintain the existing grade,

- Cold Plane 75 mm of existing asphalt pavement to reclaim asphalt for hot recycling
- Repair the localized distressed areas and seal all cracks wider than 5 mm.
- Place 75 mm of HRAC or DGAC

REMARKS:

Any of the above rehabilitation strategies should provide 10 years of service with minimum maintenance cost. The recommendations in this report are valid for a period of 18 months.

Cost analysis must be performed for all alternatives. Our office must be consulted if different alternatives are considered.

If you have any questions regarding the above recommendations, please contact Bahman J. Panah at 8-498-5839.

Paul E Mason

PAUL E. MASON, PE
Office of Structural Section Design
and Rehabilitation, Branch A

Bahman Jamil Panah

BAHMAN JAMIL- PANAH, PE
Office of Structural Section Design
and Rehabilitation, Branch A

Attachment: yes

c: K. Herritt
R. Marsh
O. Sherril

DEFLECTION SUMMARY SHEET

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

EA #	DIST.	COUNTY	ROUTE	PROJECT LIMITS	OPERATOR	DATE
0J600K	10	ALPINE	88	0/6	Hoffman	09/10/02

TEST# 1 **P.M.** 0.20 TO 0.40 **L #** 1 OF 1 **DIRECT:** EB

SURFACE DGAC **BASE** AGG. BASE **WEATHER**
CONTROLS? NO , **TEMP** AIR 63 SURFACE 63

DEFLECTION DATA

AC Th.	TOTAL Th.	MEAN	80TH
0.65 FT	0.65 FT	0.010 IN	0.013 IN
198 MM	198 MM	0.258 MM	0.341 MM

ALLIGATOR = CONTINUOUS TRANS = CONTINUOUS LONG = CONTINUOUS D/OUT = NC
D/HOLES = NONE PUMP = NONE CORRU = NONE BLEED = NONE
PATCH = NONE RUTTING = NONE RAVEL = NONE

COMMENTS :

TEST# 2 **P.M.** 0.80 TO 1.00 **L #** 1 OF 1 **DIRECT:** WB

SURFACE DGAC **BASE** AGG. BASE **WEATHER** clear
CONTROLS? NO , **TEMP** AIR 67 SURFACE 67

DEFLECTION DATA

AC Th.	TOTAL Th.	MEAN	80TH
0.83 FT	0.83 FT	0.006 IN	0.007 IN
253 MM	253 MM	0.153 MM	0.183 MM

ALLIGATOR = INTERMITTENT TRANS = CONTINUOUS LONG = CONTINUOUS D/OUT = NONE
D/HOLES = NONE PUMP = NONE CORRU = NONE BLEED = NONE
PATCH = NONE RUTTING = NONE RAVEL = NONE

COMMENTS :

TEST# 3 **P.M.** 1.10 TO 1.30 **L #** 1 OF 1 **DIRECT:** EB

SURFACE DGAC **BASE** AGG. BASE **WEATHER** clear
CONTROLS? NO , **TEMP** AIR 69 SURFACE 60

DEFLECTION DATA

AC Th.	TOTAL Th.	MEAN	80TH
0.87 FT	0.87 FT	0.007 IN	0.008 IN
265 MM	265 MM	0.180 MM	0.211 MM

ALLIGATOR = INTERMITTENT TRANS = CONTINUOUS LONG = CONTINUOUS D/OUT = NONE
D/HOLES = NONE PUMP = NONE CORRU = NONE BLEED = NONE
PATCH = NONE RUTTING = NONE RAVEL = NONE

COMMENTS :

TEST# 4 **P.M.** 1.50 TO 1.70 **L #** 1 OF 1 **DIRECT:** WB

SURFACE DGAC **BASE** AGG. BASE **WEATHER** clear
CONTROLS? NO , **TEMP** AIR 75 SURFACE 83

DEFLECTION DATA

AC Th.	TOTAL Th.	MEAN	80TH
0.83 FT	0.83 FT	0.006 IN	0.007 IN
253 MM	253 MM	0.157 MM	0.190 MM

ALLIGATOR = NONE TRANS = CONTINUOUS LONG = CONTINUOUS D/OUT = NC
D/HOLES = NONE PUMP = NONE CORRU = NONE BLEED = NONE
PATCH = NONE RUTTING = NONE RAVEL = NONE

COMMENTS :

TEST# 5 **P.M.** 2.00 TO 2.20 **L #** 1 OF 1 **DIRECT:** EB

SURFACE DGAC **BASE** AGG. BASE **WEATHER** clear
CONTROLS? NO , **TEMP** AIR 80 SURFACE 86

DEFLECTION DATA

AC Th.	TOTAL Th.	MEAN	80TH
0.74 FT	0.74 FT	0.011 IN	0.013 IN
226 MM	226 MM	0.292 MM	0.335 MM

ALLIGATOR = INTERMITTENT TRANS = CONTINUOUS LONG = INTERMITTENT D/OUT = NC
D/HOLES = NONE PUMP = NONE CORRU = NONE BLEED = NONE
PATCH = NONE RUTTING = NONE RAVEL = NONE

COMMENTS :

DEFLECTION SUMMARY SHEET

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

EA #	DIST	COUNTY	ROUTE	PROJECT LIMITS	OPERATOR	DATE
0J600K	10	ALPINE	88	0/6	Hoffman	09/10/02

TEST# 6 **P.M.** 2.40 TO 2.60 **L #** 1 OF 1 **DIRECT:** WB

SURFACE DGAC **BASE** AGG. BASE **WEATHER** clear
CONTROLS? NO , **TEMP** AIR 79 SURFACE 90

DEFLECTION DATA			
AC Th.	TOTAL Th.	MEAN	80TH
0.75 FT	0.75 FT	0.009 IN	0.010 IN
229 MM	229 MM	0.220 MM	0.267 MM

ALLIGATOR = INTERMITTENT TRANS = CONTINUOUS LONG = NC D/OUT = NC
D/HOLES = NONE PUMP = NONE CORRU = NONE BLEED = NONE
PATCH = NONE RUTTING = NONE RAVEL = NONE

COMMENTS :

TEST# 7 **P.M.** 3.30 TO 3.50 **L #** 1 OF 1 **DIRECT:** EB

SURFACE DGAC **BASE** AGG. BASE **WEATHER** clear
CONTROLS? NO , **TEMP** AIR 79 SURFACE 90

DEFLECTION DATA			
AC Th.	TOTAL Th.	MEAN	80TH
0.84 FT	0.84 FT	0.007 IN	0.008 IN
256 MM	256 MM	0.169 MM	0.210 MM

ALLIGATOR = NONE TRANS = CONTINUOUS LONG = INTERMITTENT D/OUT = NONE
D/HOLES = NONE PUMP = NONE CORRU = NONE BLEED = NONE
PATCH = NONE RUTTING = NONE RAVEL = NONE

COMMENTS :

TEST# 8 **P.M.** 3.80 TO 4.00 **L #** 1 OF 1 **DIRECT:** WB

SURFACE DGAC **BASE** AGG. BASE **WEATHER** clear
CONTROLS? NO , **TEMP** AIR 76 SURFACE 78

DEFLECTION DATA			
AC Th.	TOTAL Th.	MEAN	80TH
0.87 FT	0.87 FT	0.010 IN	0.012 IN
265 MM	265 MM	0.259 MM	0.311 MM

ALLIGATOR = OCCASIONAL TRANS = CONTINUOUS LONG = NC D/OUT = NONE
D/HOLES = NONE PUMP = NONE CORRU = NONE BLEED = NONE
PATCH = NONE RUTTING = NONE RAVEL = NONE

COMMENTS :

TEST# 9 **P.M.** 4.20 TO 4.40 **L #** 2 OF 2 **DIRECT:** EB

SURFACE DGAC **BASE** AGG. BASE **WEATHER** clear
CONTROLS? NO , **TEMP** AIR 80 SURFACE 119

DEFLECTION DATA			
AC Th.	TOTAL Th.	MEAN	80TH
0.49 FT	0.49 FT	0.009 IN	0.010 IN
149 MM	149 MM	0.217 MM	0.255 MM

ALLIGATOR = NONE TRANS = NONE LONG = NONE D/OUT = NONE
D/HOLES = NONE PUMP = NONE CORRU = NONE BLEED = NONE
PATCH = NONE RUTTING = NONE RAVEL = NONE

COMMENTS :

TEST# 10 **P.M.** 4.60 TO 4.80 **L #** 1 OF 1 **DIRECT:** WB

SURFACE DGAC **BASE** AGG. BASE **WEATHER** clear
CONTROLS? NO , **TEMP** AIR 85 SURFACE 110

DEFLECTION DATA			
AC Th.	TOTAL Th.	MEAN	80TH
0.77 FT	0.77 FT	0.004 IN	0.004 IN
235 MM	235 MM	0.094 MM	0.108 MM

ALLIGATOR = NONE TRANS = NONE LONG = NONE D/OUT = NONE
D/HOLES = NONE PUMP = NONE CORRU = NONE BLEED = NONE
PATCH = NONE RUTTING = NONE RAVEL = NONE

COMMENTS :

DEFLECTION SUMMARY SHEET

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

EA #	DIST.	COUNTY	ROUTE	PROJECT LIMITS	OPERATOR	DATE
0J600K	10	ALPINE	88	0/6	Hoffman	09/10/02

TEST# 11 **P.M.** 5.10 TO 5.30 **L #** 1 OF 1 **DIRECT:** EB

SURFACE DGAC **BASE** AGG. BASE **WEATHER** clear

CONTROLS? NO , **TEMP** AIR 85 SURFACE 109

DEFLECTION DATA

	AC Th.	TOTAL Th.	MEAN	80TH
	0.50 FT	0.50 FT	0.010 IN	0.011 IN
	152 MM	152 MM	0.244 MM	0.279 MM

ALLIGATOR = INTERMITTENT TRANS = CONTINUOUS LONG = CONTINUOUS D/OUT = NONE

D/HOLES = NONE PUMP = NONE CORRU = NONE BLEED = NONE

PATCH = NONE RUTTING = NONE RAVEL = NONE

COMMENTS :

TEST# 12 **P.M.** 5.60 TO 5.80 **L #** 1 OF 1 **DIRECT:** WB

SURFACE DGAC **BASE** AGG. BASE **WEATHER** clear

CONTROLS? YES , GUARD RAIL, WA **TEMP** AIR 85 SURFACE 115

DEFLECTION DATA

	AC Th.	TOTAL Th.	MEAN	80TH
	0.40 FT	0.40 FT	0.007 IN	0.008 IN
	122 MM	122 MM	0.189 MM	0.211 MM

ALLIGATOR = INTERMITTENT TRANS = CONTINUOUS LONG = INTERMITTENT D/OUT = NONE

D/HOLES = NONE PUMP = NONE CORRU = NONE BLEED = NONE

PATCH = NONE RUTTING = NONE RAVEL = NONE

COMMENTS :

DYNAFLECT MAP COVER SHEET

EA #	DISTRICT	COUNTY	ROUTE	PROJECT LIMITS	OPERATOR	DATE
0J600K	10	ALPINE	88	0/6	Hoffman	09/10/02

RANGE OF EVALUATED DEFLECTION	**0.108**	**to**	**0.341 MM**
	0.004	to	0.013 IN
AVERAGE EVALUATED DEFLECTION (AVG OF 80TH PCT)			**0.242 MM**
			0.010 IN
AVERAGE AC CORE THICKNESS			**217 MM**
			0.71 FT
TOLERABLE DEFLECTION LEVEL			**0.432 MM**
			0.017 IN
MAXIMUM RIDE QUALITY	**IRI**		**170 in/mi**
	Ride Score		26 in

NOTE:

- ALL DEFLECTIONS ARE IN TERMS OF EQUIVALENT DEFLECTOMETER VALUES.
- SHOWN ARE 80TH PERCENTILE DEFLECTIONS (MM) FOR 1000' TEST SECTIONS.
- PAVEMENT DEFLECTIONS MEASURED AT 0.01 MILE INTERVALS.

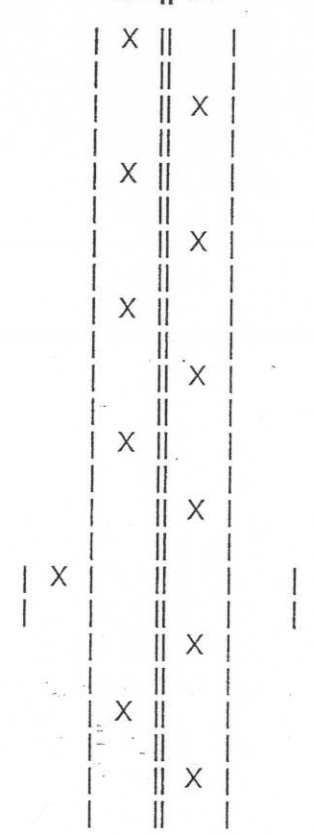
COMMENTS:

Traffic Index = 8.0

DYNAFLECT MAP

EA #	DISTRICT	COUNTY	ROUTE	PROJECT LIMITS	OPERATOR	DATE
0J600K	10	ALPINE	88	0/6	Hoffman	09/10/02

P.M. From	P.M. To	LANE #	Dir.	80th percentile	AC thickness
0.20	0.40	1 / 1	EB	0.341 mm	198 mm
				0.013 (in)	0.65 (ft)
0.80	1.00	1 / 1	WB	0.183 mm	253 mm
				0.007 (in)	0.83 (ft)
1.10	1.30	1 / 1	EB	0.211 mm	265 mm
				0.008 (in)	0.87 (ft)
1.50	1.70	1 / 1	WB	0.190 mm	253 mm
				0.007 (in)	0.83 (ft)
2.00	2.20	1 / 1	EB	0.335 mm	226 mm
				0.013 (in)	0.74 (ft)
2.40	2.60	1 / 1	WB	0.267 mm	229 mm
				0.010 (in)	0.75 (ft)
3.30	3.50	1 / 1	EB	0.210 mm	256 mm
				0.008 (in)	0.84 (ft)
3.80	4.00	1 / 1	WB	0.311 mm	265 mm
				0.012 (in)	0.87 (ft)
4.20	4.40	2 / 2	EB	0.255 mm	149 mm
				0.010 (in)	0.49 (ft)
4.60	4.80	1 / 1	WB	0.108 mm	235 mm
				0.004 (in)	0.77 (ft)
5.10	5.30	1 / 1	EB	0.279 mm	152 mm
				0.011 (in)	0.50 (ft)
5.60	5.80	1 / 1	WB	0.211 mm	122 mm
				0.008 (in)	0.40 (ft)



llection Date: 03/27/2000
ıted: 09/16/2002

Caltrans Maintenance Program
2000 Pavement Condition Survey Inventory
Caltrans Order

District	10
County	ALP
Route	088
Begin PM	0.000

District 10 County ALP Route 088

Begin PM - End PM	Length	LaneMi. (Est.)	Type	AADT (,000)	MSL
0.000 - 1.046	1.046	2.092	2LN	2	2
1.046 - 2.093	1.047	2.094	2LN	2	2
2.093 - 3.163	1.070	2.140	MLU	2	2
3.163 - 4.129	0.966	1.932	2LN	2	2
4.129 - R 5.407	1.274	2.548	2LN	2	2
5.407 - R 6.790	1.383	4.149	MLU	2	2

Lane	Surface Type	Alligator Cracking A %	Alligator Cracking B %	Alligator Cracking C (Y/N)?	Rutting, Bleeding	Slab Cracking 1st %	Slab Cracking 3rd %	Slab Cracking Corner %	Faulting	Patching Area %	Patching Poor Cond.?	Ride, IRI		Priority	Skid	Defect
0.000 - 1.046																
L1	F-DG	28	17									24	162	10		MOD ABC
R1	F-DG	24	19									26	170	10		MOD ABC
1.046 - 2.093																
L1	F-DG	24	27									19	141	10		MOD ABC
R1	F-DG	46	28									19	140	10		MOD ABC
2.093 - 3.163																
L1	F-DG	7	0									25	164			
R1	F-DG	19	43									20	145	8		HIGH ABC
3.163 - 4.129																
L1	F-DG	5	7									20	145			
R1	F-DG	33	38									24	161	8		HIGH ABC
4.129 - R 5.407																
L1	F-DG	9	6									19	141			
R1	F-DG	17	10									18	138			
5.407 - R 6.790																
L1	F-DG	9	0									12	114			
L2	F-DG	16	8							14			N/A	10		PAT, LOW ABC
R1	F-DG	0	0									8	100			

*Surface type of 'FB' is Enhanced Binder

Attachment F

Environmental Scoping Document

Caltrans Metric

Preliminary Environmental Analysis Report

Project Information

District 10 County ALP Route 88 Kilometer Post (Post Mile) 0.0/9.7(0.0/6.0) EA 10-0J600K

Project Name: Caples Rehab

Project Manager Kevin Sheridan Phone # (209) 948-7854

Design Manager David Franke Phone # (559) 243-3809

Environmental Manager Bryan Apper Phone # (559) 243-8156

Environmental Planner Generalist Charles Walbridge Phone # (559) 243-8255

Project Description

Description of work: AC overlay, shoulder widening, and curve corrections

Anticipated Environmental Approval

CEQA		NEPA	
❑	Categorical/Statutory Exemption	❑	Categorical Exclusion
✔	Negative Declaration	✔	Finding of No Significant Impact
❑	Environmental Impact Report	❑	Environmental Impact Statement

PSR Summary Statement

The expected environmental document for the proposed project is a Negative Declaration/Finding of No Significant Impact (ND/FONSI). The Federal Highway Administration and the California Department of Transportation would act as lead agencies in the preparation of a joint CEQA/NEPA (California Environmental Quality Act/National Environmental Policy Act) environmental document. Assuming that cultural sites could be avoided and an FOE/MOA would not be needed, the final environmental determination is projected to occur within 36 months from the start of environmental studies. Assuming a start date of October 1, 2004, completion of the environmental document would be expected by October 1, 2007. *If cultural sites cannot be avoided, completion and approval of an FOE/MOA would add approximately one year to the schedule.*

Mitigation

Historic Resources	$75,000
Archaeology (Native American Monitoring)	$20,000
Landscape/Erosion Control	$500,000
Permits	$5200

Disclaimer

This report is not an environmental document. Preliminary analysis, determinations, and estimates of mitigation costs are based on the project description provided in this report. The estimates and conclusions provided are approximate and are based on cursory analysis of probable effects. This report is to provide a preliminary level of environmental analysis to supplement the Project Study Report. Changes in project scope, alternatives, or environmental laws will require a re-evaluation of this report.

Reviewed by:

Date: 8/4/03

Bryan Apper
Environmental Scoping Branch Chief

Date: 8/19/03

Eric VonBerg
Environmental Branch Chief

Date: 8/22/03

Kevin Sheridan
Project Manager

Environmental Technical Reports or Studies Required

	Study	Document	N/A
Community Impact Study	☐	☐	✓
Farmland	☐	☐	✓
Section 4(f) Evaluation	✓	☐	☐
Visual Resources	✓	☐	☐
Water Quality	✓	☐	☐
Floodplain Evaluation	☐	☐	✓
Noise Study	☐	☐	✓
Air Quality Study	☐	☐	✓
Paleontology	✓	☐	☐
Wild and Scenic River Consistency	☐	☐	✓
Cumulative Impacts	☐	☐	✓
Cultural			
ASR	✓	☐	☐
HSR	✓	☐	☐
HRER	✓	☐	☐
HPSR	✓	☐	☐
Section 106 / SHPO	✓	☐	☐
Native American Coordination	✓	☐	☐
Other			
Finding of Effect_____	✓	☐	☐
Data Recovery Plan_____	☐	☐	✓
Hazardous Waste			
ISA (Additional)	✓	☐	☐
PSI	✓	☐	☐
Other			
_____	☐	☐	☐
Biological			
Endangered Species (Federal)	☐	✓	☐
Endangered Species (State)	☐	✓	☐
Species of Concern (CNPS, USFS, BLM, S, F)	☐	☐	✓
Biological Assessment(USFWS, NMFS, State)	☐	☐	✓
Biological Opinion/ USFS	☐	☐	✓
Wetlands	✓	☐	☐
Invasive Species	☐	☐	✓
Natural Environment Study	✓	☐	☐
NEPA 404 Coordination	☐	☐	✓
Other			
_____	☐	☐	☐

Environmental Technical Reports or Studies Required

	Study	Document	N/A
Permits			
401 Permit Coordination	✓	❑	❑
404 Permit Coordination	✓	❑	❑
Nationwide ✓ Individual ❑			
1601 Permit Coordination	✓	❑	❑
City/County Coastal Permit Coordination	❑	❑	✓
State Coastal Permit Coordination	❑	❑	✓
NPDES Coordination	✓	❑	❑
US Coast Guard (Section 10)	❑	❑	✓

Discussion of Technical Review

Socio-economic and Community Effects. N/A

Farmlands. N/A

Section 4(f) Impacts. Section 4(f) of the Department of Transportation Act requires that avoidance alternatives be studied whenever a property eligible for the National Register of Historic Places may be affected by project activities. Because the project may adversely affect the Mormon Emigrant Trail, a Section 4(f) evaluation would be required. This would require development of a total avoidance alternative for the trail, or justification why total avoidance is not prudent or feasible. Minimization measures would also be required.

Visual Effects. A Visual Impact Assessment would be required. Mitigation for replacement planting, erosion control, storm water, and aesthetic treatments is estimated at $500,000.

Water Quality and Erosion. Review of the USGS 7.5' Caples Lake and Carson Pass Quadrangle maps identified named and unnamed surface waters that crossed or were adjacent to the project area. Named creeks crossing the project include Kirkwood and Caples creeks. State Route 88 runs adjacent to Caples Lake from PM 0.5 to 1.5.

Since the project proposes construction activities adjacent to Caples Lake and other water bodies, a water quality study is recommended. If the project is expected to disturb more than an acre of soil, then the following are required:

1. A Notification of Construction (NOC) is to be submitted to the appropriate Regional Water Quality Control Board (RWQB) at least 30 days prior to the start of construction. The Regional Water Quality Control Board for this project is the Central Valley Regional Water Quality Control Board.
2. A Storm Water Pollution Prevention Plan (SWPPP) is to be prepared and implemented during construction to the satisfaction of the resident engineer.
3. A Notice of Construction Completion shall be submitted to the Regional Water Quality Control Board upon completion of the construction and stabilization of the site. A project would be considered complete when the criteria for final stabilization in the Construction General Permit are met.

The design and construction of the proposed project must adhere to the requirements set forth in the Caltrans National Pollutant Discharge Elimination System (NPDES) permit, the Caltrans Storm Water Management Plan (SWMP), the Caltrans Project Planning and Design Guide, the Construction Site Best Management Practices (BMPs) Manual and Caltrans Standard Specifications.

Air. N/A

Noise. N/A

Wild and Scenic River. N/A

Cultural Resources. One property eligible for listing in the National Register of Historic Places lies within the Area of Potential Effect (APE). The Mormon Emigrant Trail, which includes blazed trees and historic markers, runs adjacent to State Route 88 and even crosses the road in some areas. There are three other sites within or immediately adjacent to the right of way and two

A Phase I survey would utilize records searches and surface observations to determine the general location of cultural sites. An Extended Phase I would then be used to establish site boundaries via subsurface testing for placing protective Environmentally Sensitive Area (ESA) fencing. This assumes that a pending Programmatic Agreement with SHPO is approved and that all cultural sites can be avoided during construction. If sites cannot be avoided, then Phase II excavations would be required to determine site eligibility and a Finding of Effect and Memorandum of Agreement with the SHPO would be required. This process would add 18 to 24 months to the project schedule. Mitigation for potential effects to historic properties is estimated at $75,000.

Hazardous Waste/Materials. Three leaking underground storage tanks with "open" case status are listed on the State Water Resources Control Board Geo Tracker database in the vicinity of the project. These sites are:

- Kirkwood Powerhouse – 1547 Kirkwood Meadows Dr.
- Kirkwood Maintenance Shop – Kirkwood Meadows Rd.
- Caltrans Caples Lake Maintenance Station

The maintenance station is located approximately 300 meters north of State Route 88 at PM 2.15. The depth to groundwater at the station ranges from 1 to 15 feet below ground surface. Environmental Data Resources also identified several unplotted leaking underground storage tanks near SR 88 throughout the project segment. An Initial Site Assessment would be required to identify potential hazardous waste associated with these tanks.

Biological Resources. A species list would be requested from the U.S. Forest Service and surveys for special-status species would be required. Botanical surveys would take place in the spring. Any potential impacts to species would require consultation with the Forest Service.

Paleontology. A highly sensitive rock formation exists within the project limits that may contain fossils. Areas where excavation would occur should be examined by a qualified paleontologist to determine if this formation would be disturbed by construction activities.

Wetlands. There are potential wetlands within the project limits. If wetlands cannot be avoided, then a wetlands delineation would quantify the acreage needed for the project and a 404 permit would be required (Nationwide Permit for 0.5 acres or less).

Permits. Any potential impact to wetlands, Caples Lake, or any other water body would require permits from Department of Fish and Game (1601), Army Corps of Engineers (404), and the Regional Water Quality Control Board (401).

List of Preparers

Hazardous Waste Review by Richard Stewart	Date 4/11/03
Biological Review by Paul Sturm	Date 7/29/03
Architectural Review by Kelly Hobbs	Date 5/17/03
Archaeology Review by Bill Ray	Date 7/24/03
Air, Noise, and Water Review by Richard Stewart	Date 4/11/03
Visual Review by Robyn Fong	Date 4/16/03
Paleontology by Richard Stewart	Date 4/17/03

Central Region Environmental Division
Mitigation Cost Compliance Request Form

☒ Pear ☐ Draft ED ☐ Final ED

Dist.-Co.-Rte.-PM: 10-ALP-88-0.0/6.5 EA: 0J600K
Project Name: Caples Rehab
Project Description: Rehabilitate pavement, widen shoulders, correct curves.

Environmental Manager: Bryan Apper Phone Number: 559-243-8156
Project Manager: Kevin Sheridan Phone Number: 209-948-7854
Date: 8/4/03

Numbers are in thousands

	Prior to Construction	During Construction	Post Construction
Archaeological		$20,000	
Biological			
Historical		$75,000	
Paleontology			
Hazardous Waste Remediation			
Landscape			$500,000
Noise			
Other			
Total		$95,000	$500,000

Total Permit Costs: $5200
(Includes 1601,401,404, and DFG document review fee)

- This form is completed as part of the PEAR for all candidate projects, at completion of the Draft Environmental Document, and at the completion of the Final Environmental Document
- This form is to be completed for all SHOPP & STIP projects (even those w/o Mitigation
- This formis to be completed for all Minor A & B projects with mitigation requirements
- Costs are to include all costs to complete the commitment including: capitol outlay (non-staffing support costs); cost of right-of-way or easements; long-term monitoring and reporting, and; any follow-up maintenance
- **Attach detailed descriptions of line items included in estimates**

After approval by the Project Manager, a copy of the completed form is to be sent to the CR Environmental Support Services Branch, and ROW.
Attach completed ROW data sheets when forwarded to ROW.

PA & ED Date	RTL Date	Months Between	Months Required

Right of Way Data Sheet Input Information

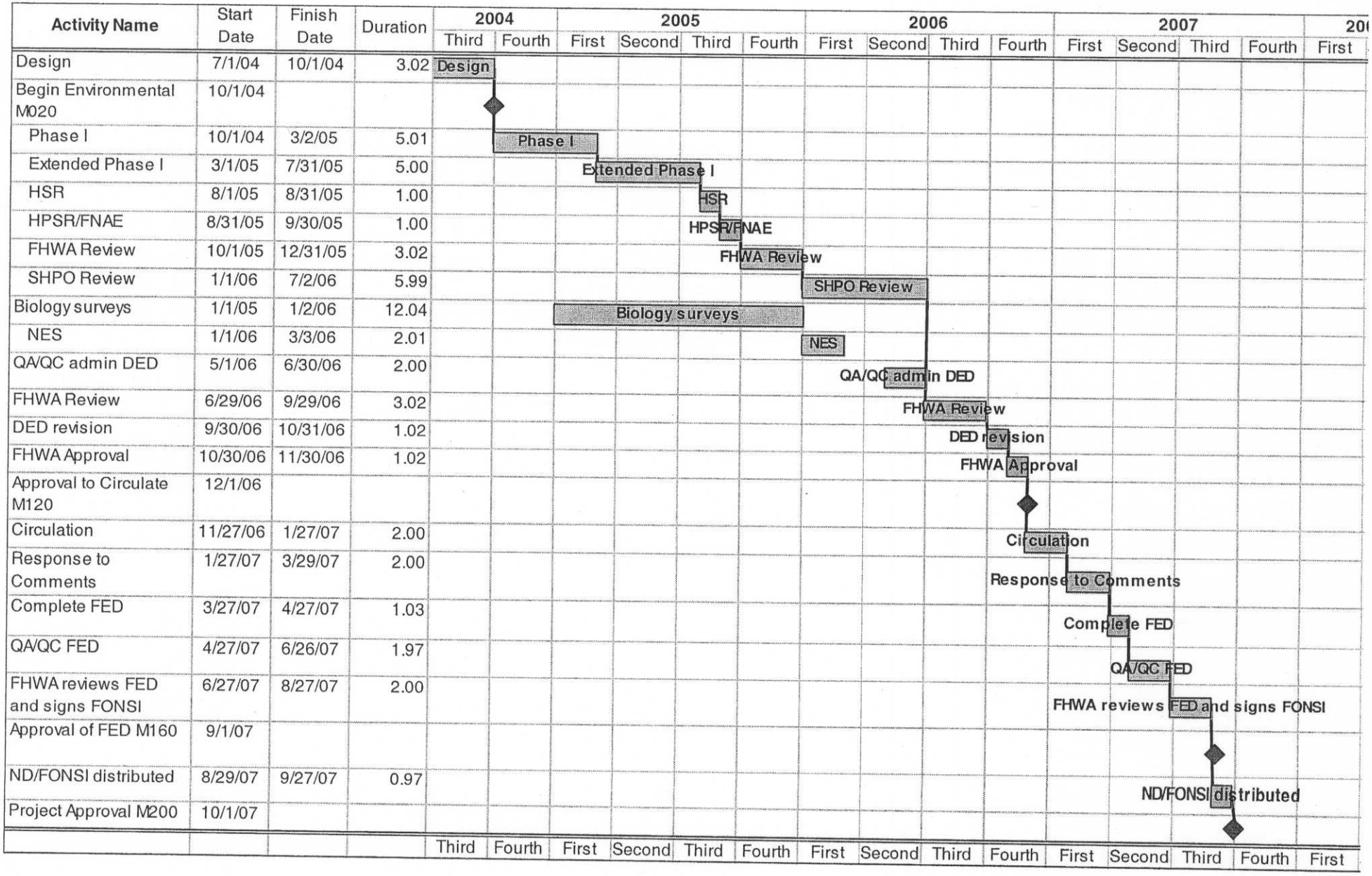
Environmental Mitigation Parcels: ☐ Required ☒ Not Required

0 Acres $5200 Additional Funding

Project Manager: _____ Date: 8/22/03

ND/FONSI schedule for Caples Lake Rehab 9/18/03*
ALP – 88 – PM 0.0/6.5 10-0J600K

Activity Name	Start Date	Finish Date	Duration
Design	7/1/04	10/1/04	3.02
Begin Environmental M020	10/1/04		
Phase I	10/1/04	3/2/05	5.01
Extended Phase I	3/1/05	7/31/05	5.00
HSR	8/1/05	8/31/05	1.00
HPSR/FNAE	8/31/05	9/30/05	1.00
FHWA Review	10/1/05	12/31/05	3.02
SHPO Review	1/1/06	7/2/06	5.99
Biology surveys	1/1/05	1/2/06	12.04
NES	1/1/06	3/3/06	2.01
QA/QC admin DED	5/1/06	6/30/06	2.00
FHWA Review	6/29/06	9/29/06	3.02
DED revision	9/30/06	10/31/06	1.02
FHWA Approval	10/30/06	11/30/06	1.02
Approval to Circulate M120	12/1/06		
Circulation	11/27/06	1/27/07	2.00
Response to Comments	1/27/07	3/29/07	2.00
Complete FED	3/27/07	4/27/07	1.03
QA/QC FED	4/27/07	6/26/07	1.97
FHWA reviews FED and signs FONSI	6/27/07	8/27/07	2.00
Approval of FED M160	9/1/07		
ND/FONSI distributed	8/29/07	9/27/07	0.97
Project Approval M200	10/1/07		



***Assumes cultural resources can be avoided with Finding of No Adverse Effect and ESA fencing. Also assumes that a Section 4(f) Evaluation would not be needed.**

Project Manager: Kevin Sheridan
Design Manager: David Franke
Env. Manager: Bryan Apper

WBS ACTIVITY WORKSHEET

Caples Rehab

Date: 8/4/03
Dist/EA: 10-0J600K

Person Hours				Start Date	End Date	Source Unit	Consultant Hrs.		
Level 5	Level 6	Level 7	Level 8						
180						174		100	PROJECT MANAGEMENT
	60					174		100.10	Project Management - PA & ED Component
		20				174		100.10.05	PA & ED Component Initiation and Planning
		20				174		100.10.10	PA & ED Component Execution and Control
		20				174		100.10.15	PA & ED Component Close Out
	60					174		100.15	Project Management - PS & E Component
		20				174		100.15.05	PS & E Component Initiation and Planning
		20				174		100.15.10	PS & E Component Execution and Control
		20				174		100.15.15	PS & E Component Close Out
	60					174		100.20	Project Management - Construction Component
		20				174		100.20.05	Construction Component Initiation and Planning
		20				174		100.20.10	Construction Component Execution and Control
		20				174		100.20.15	Construction Component Close Out
180								**TOTAL FOR WBS 100**	

Project Manager: Kevin Sheridan
Design Manager: David Franke
Env. Manager: Bryan Apper

WBS ACTIVITY WORKSHEET

Caples Rehab

Date: 8/4/03
Dist/EA: 10-0J600K

Person Hours									
Level 5	Level 6	Level 7	Level 8	Start Date	End Date	Source Unit	Consultant Hrs.		
3280				1/1/05	3/1/07			165	PERFORM ENVIRONMENTAL STUDIES AND PREPARE DED
	100							165.05	Perform Environmental Scoping and Select Alternatives for Study
		20				173		165.05.05	Review Project Information
		40				173		165.05.10	Perform Public and Agency Scoping Process
		20				173		165.05.15	Select Alternatives for Further Study
		20				173		165.05.20	Prepare Maps for Environmental Evaluation
	330							165.10	Perform General Environmental Studies
		10				173		165.10.05	Perform Surveys and Mapping for Environmental Studies
		40				173		165.10.10	Obtain Rights of Entry for Environmental Studies
		0						165.10.15	Perform Community Impact Analysis, Land Use, and Growth Studies
		20				173		165.10.20	Perform Visual Impact Analysis
		0						165.10.25	Perform Noise Study
		0						165.10.30	Perform Air Quality Study
		80				172		165.10.35	Perform Water Quality Studies
		160				172	500	165.10.50	Perform Preliminary Site Investigation for Hazardous Waste
		0						165.10.55	Prepare Draft Right of Way Relocation Impact Document
		0						165.10.60	Prepare Location Hydraulic/Floodplain Study Report

Project Manager: Kevin Sheridan
Design Manager: David Franke
Env. Manager: Bryan Apper

WBS ACTIVITY WORKSHEET

Caples Rehab

Date: 8/4/03
Dist/EA: 10-0J600K

Person Hours								
Level 5	Level 6	Level 7	Level 8	Start Date	End Date	Source Unit	Consultant Hrs.	
		20				172	100	165.10.65 Perform Paleontology Study
	420							165.15 Perform Biological Studies
		0						165.15.05 Perform Biological Assessment
		80				180		165.15.10 Perform Wetlands Study
		40				180		165.15.15 Perform Resource Agency Permit Related Coordination
		300				180		165.15.20 Prepare Natural Environment Study Report
	1550							165.20 Perform Cultural Resource Studies
		430				177		165.20.05 Perform Archaeological Survey (Phase I)
			40			177		165.20.05.05 Prepare Area of Potential Effect (APE)/ Study Area Map
			100			177	40	165.20.05.10 Conduct Native American Consultation
			10			177		165.20.05.15 Perform Records and Literature Search
			120			177		165.20.05.20 Conduct Field Survey
			160			177		165.20.05.25 Prepare Archaeological Survey Report (ASR)
		480				177		165.20.10 Perform Extended Phase I Archaeology Study
			100			177	80	165.20.10.05 Conduct Native American Consultation
			30			177		165.20.10.10 Prepare Proposal
			250			177		165.20.10.15 Conduct Field Investigation

Project Manager: Kevin Sheridan
Design Manager: David Franke
Env. Manager: Bryan Apper

WBS ACTIVITY WORKSHEET

Caples Rehab

Date: 8/4/03
Dist/EA: 10-0J600K

Person Hours								
Level 5	Level 6	Level 7	Level 8	Start Date	End Date	Source Unit	Consultant Hrs.	
			20			177		165.20.10.20
			80			177		165.20.10.25
		0						165.20.15
								165.20.15.05
								165.20.15.10
								165.20.15.15
								165.20.15.20
								165.20.15.25
		260						165.20.20
			40			177		165.20.20.05
			80			177		165.20.20.10
			140			177		165.20.20.15
								165.20.20.20
		380				177		165.20.25
			40			177		165.20.25.05
			20			177		165.20.25.10
			120			177		165.20.25.15

Analyze Materials

Prepare Report

Perform Phase II Archaeology Study

Conduct Native American Consultation

Prepare Proposal

Conduct Field Investigation

Analyze Materials

Prepare Report

Perform Historical and Architectural Resource Studies

Prepare Preliminary Area of Potential Effects (Federal)/ Study Area Maps (State Only) for Architecture
Prepare Historic Architectural Survey Report (HASR)

Prepare Historic Resources Evaluation Report (HRER)

Prepare Bridge Evaluation

Prepare and Process Cultural Resource Compliance Documents

Prepare Final Area of Potential Effects (Federal) / Study Area Maps (State Only)
Perform PRC 5024.5 Consultation

Prepare Historic Property Survey Report (HPSR) / Determination of Eligibility (for Federal projects), Historic Property Compliance Report

Project Manager: Kevin Sheridan
Design Manager: David Franke
Env. Manager: Bryan Apper

WBS ACTIVITY WORKSHEET

Caples Rehab

Date: 8/4/03
Dist/EA: 10-0J600K

Person Hours								
Level 5	Level 6	Level 7	Level 8	Start Date	End Date	Source Unit	Consultant Hrs.	
			100			177		165.20.25.20 Prepare Finding of Effect
								165.20.25.25 Prepare Archaeological Data Recovery Plan / Treatment Plan
			100			177		165.20.25.30 Prepare Memorandum of Agreement
	880							165.25 Prepare And Approve Draft Environmental Document
		600				173		165.25.05 Prepare Draft Environmental Document
		80				173		165.25.10 Prepare Section 4(f) Evaluation
		0						165.25.15 Prepare Categorical Exemption/Categorical Exclusion Determination
		120				173		165.25.20 Conduct Environmental PEER & Other Reviews
		80				173		165.25.25 Obtain Approval to Circulate
3280				1/1/05	3/1/07		720	TOTAL FOR WBS 165

Printing Cost	
Travel Costs	

(DED, FED, Display boards)

Project Manager: Kevin Sheridan
Design Manager: David Franke
Env. Manager: Bryan Apper

WBS ACTIVITY WORKSHEET

Caples Rehab

Date: 8/4/03
Dist/EA: 10-0J600K

Person Hours									
Level 5	Level 6	Level 7	Level 8	Start Date	End Date	Source Unit	Consultant Hrs.		
980				3/1/07	7/1/07	173		175	CIRCULATE DED AND SELECT PREFERRED PROJECT ALTERNATIVE
	200							175.05	Circulate DED
		60						175.05.05	Prepare Master Distribution and Invitation Lists
		40						175.05.10	Prepare Notices Regarding Public Hearing & Availability of DED
		100						175.05.15	Publish and Circulated DED
								175.05.20	Obtain Federal Consistency Determination (Coastal Zone)
	640							175.10	Prepare for and Hold Public Hearing
		40						175.10.05	Determine Need for Public Hearing Process
		80						175.10.10	Arrange for Public Hearing Logistics
		120						175.10.15	Prepare Displays for Public Hearing
		200						175.10.20	Prepare and Publish Notices of Public Hearing & Availability of DED
		40						175.10.25	Review Map Displays & Discuss Public Hearing
		40						175.10.30	Display Public Hearing Maps
		80						175.10.35	Hold Public Hearing
		40						175.10.40	Prepare and Distribute Record of Public Hearing
	100							175.15	Respond to Public Comments and Correspondence
	40							175.20	Select Preferred Alternative
980				3/1/07	7/1/07				TOTAL FOR WBS 175
Printing Cost				(DED, FED, Display boards)					
Travel Costs									

Project Manager: Kevin Sheridan
Design Manager: David Franke
Env. Manager: Bryan Apper

WBS ACTIVITY WORKSHEET

Caples Rehab

Date: 8/4/03
Dist/EA: 10-0J600K

Person Hours									
Level 5	Level 6	Level 7	Level 8	Start Date	End Date	Source Unit	Consultant Hrs.		
620				7/1/07	1/1/08	173		180	PREPARE & APPROVE PROJECT REPORT & FINAL ENVIRON. DOCUMENT
	40					173		180.05	Prepare and Approve Project Report
		20				173		180.05.05	Update Draft Project Report
		20				173		180.05.10	Review and Approve Project Report
	540					173		180.10	Prepare and Approve Final Environmental Document (FED)
		460				173		180.10.05	Prepare and Approve FED
			80			173		180.10.05.05	Circulate for Review
			200			173		180.10.05.10	Prepare and Revise FED due to Review Comments
								180.10.05.15	Section 4(f) Evaluation
								180.10.05.20	Findings Report
								180.10.05.25	Statement of Overriding Considerations
								180.10.05.30	Prepare CEQA Certification
			40			173		180.10.05.35	FHWA and Caltrans Approval
			40			177		180.10.05.40	Section 106 Consultation and Memorandum of Agreement
			40			180		180.10.05.45	Conduct Section 7 Consultation (USFS)
			20			173		180.10.05.50	Finalize Section 4(f) Statement
								180.10.05.55	Prepare Floodplain Only Practicable Alternative Finding

Project Manager: Kevin Sheridan
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Env. Manager: Bryan Apper

WBS ACTIVITY WORKSHEET

Caples Rehab

Date: 8/4/03
Dist/EA: 10-0J600K

Person Hours									
Level 5	Level 6	Level 7	Level 8	Start Date	End Date	Source Unit	Consultant Hrs.		
								180.10.05.60	Prepare Wetlands Only Practicable Alternative Finding
			40			180		180.10.05.65	Coordinate Section 404 Permit
								180.10.05.70	Finalize Mitigation Measures
		80				173		180.10.10	Public Distribution of FED
								180.10.10.05	Response to Comments on the FED (EIS Only)
								180.10.15	Prepare Final Right of Way Relocation Impact Document
	40					173		180.15	Close Out Environmental Process
								180.15.05	Prepare and Approve Record of Decision (NEPA)
		40				173		180.15.10	Prepare and File Notice of Determination (CEQA)
620				7/1/07	1/1/08			TOTAL FOR WBS 180	
Printing Cost				(DED, FED, Display boards)					
Travel Costs									

Level 5	Level 6	Level 7	Level 8	Start Date	End Date	Source Unit	Consultant Hrs.		
0								195	RIGHT OF WAY PROPERTY MANAGEMENT AND EXCESS LAND
								195.45	Excess Land (Environmental Clearance)
0								TOTAL FOR WBS 195	

Project Manager: Kevin Sheridan
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Env. Manager: Bryan Apper

WBS ACTIVITY WORKSHEET

Caples Rehab

Date: 8/4/03
Dist/EA: 10-0J600K

Person Hours									
Level 5	Level 6	Level 7	Level 8	Start Date	End Date	Source Unit	Consultant Hrs.		
120						180		205	OBTAIN PERMITS, AGREEMENTS, AND ROUTE ADOPTIONS
								205.05	Determine Required Permits
	120							205.10	Obtain Permits
		40						205.10.05	Obtain U.S. Corps of Engineers Permit (404)
								205.10.10	Obtain U.S. Forest Service Permit
								205.10.15	Obtain U.S. Coast Guard Permit
		40						205.10.20	Obtain Department of Fish & Game Permit (1601/1603)
								205.10.25	Obtain Coastal Development Permit
								205.10.30	Obtain Local Agency Concurrence/Permit
								205.10.40	Obtain Waste Discharge Permit (NPDES)
								205.10.45	Obtain U.S. Fish and Wildlife Service Approval
		40						205.10.50	Obtain Regional Water Quality Control Board Permit (401)
								205.10.95	Obtain "Other" Permits
								205.25	Prepare Agreement for Material Sites (Environmental Clearance)
	0							205.35	Prepare and Execute Cooperative Agreement
								205.35.05	Prepare & Execute Cooperative Agreement for Environ. Process
								205.45	Obtain MOU from Tribal Employment Rights Office (TERO)
120									TOTAL FOR WBS 205

Project Manager: Kevin Sheridan
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Env. Manager: Bryan Apper

WBS ACTIVITY WORKSHEET

Caples Rehab

Date: 8/4/03
Dist/EA: 10-0J600K

Person Hours									
Level 5	Level 6	Level 7	Level 8	Start Date	End Date	Source Unit	Consultant Hrs.		
200								235	MITIGATE ENVIRONMENTAL IMPACTS AND CLEAN UP HAZARDOUS WASTE
	120							235.05	Perform Environmental Mitigation
		120				177		235.05.05	Perform Historical Structures Mitigation
								235.05.10	Perform Archaeological and Cultural Mitigation
								235.05.15	Perform Biological Mitigation
								235.05.25	Perform Paleontology Mitigation
	0							235.10	Perform Detailed Site Investigation for Hazardous Waste
								235.10.05	Obtain Right or Permit for Hazardous Waste Site Investigations
								235.10.10	Perform Surveys to Locate Hazardous Waste Sites
								235.10.15	Conduct Detailed Investigation
	0							235.15	Develop Hazardous Waste Management Plan
								235.20	Prepare Hazardous Waste PS&E
								235.25	Perform Hazardous Waste Clean-up
	80					172		235.30	Certify Freedom of Hazardous Waste
								235.35	Perform Long Term Mitigation Monitoring
200								TOTAL FOR WBS 235	

Project Manager: Kevin Sheridan
Design Manager: David Franke
Env. Manager: Bryan Apper

WBS ACTIVITY WORKSHEET

Caples Rehab

Date: 8/4/03
Dist/EA: 10-0J600K

Person Hours									
Level 5	Level 6	Level 7	Level 8	Start Date	End Date	Source Unit	Consultant Hrs.		
290						173		255	CIRCULATE, REVIEW, AND PREPARE FINAL DISTRICT PS&E PACKAGE
	40							255.05	Circulate & Review Draft District PS&E Package
	250							255.15	Perform Environmental Reevaluation
290									TOTAL FOR WBS 255

Person Hours									
Level 5	Level 6	Level 7	Level 8	Start Date	End Date	Source Unit	Consultant Hrs.		
40						180		270	PERFORM CONST. ENG. & GENERAL CONTRACT ADMINISTRATION
	0							270.2	Perform Construction Engineering Work
								270.20.45	Review Contractor's Water Pollution Control Program
								270.20.50	Provide Technical Support
	40							270.25	Perform Construction Contract Administration Work
		40						270.25.15	Conduct Pre-construction Meeting
								270.50	Prepare Certificate of Compliance with Environmental Mitigation Requirements
40									TOTAL FOR WBS 270

Project Manager: Kevin Sheridan
Design Manager: David Franke
Env. Manager: Bryan Apper

WBS ACTIVITY WORKSHEET

Caples Rehab

Date: 8/4/03
Dist/EA: 10-0J600K

Person Hours								
Level 5	Level 6	Level 7	Level 8	Start Date	End Date	Source Unit	Consultant Hrs.	
20						173		285 PREPARE AND ADMINISTER CONTRACT CHANGE ORDERS
	20							285.10 Provide Functional Support
		20						285.10.95 Provide "Other" Functional Support
20								TOTAL FOR WBS 285

Person Hours								
Level 5	Level 6	Level 7	Level 8	Start Date	End Date	Source Unit	Consultant Hrs.	
20						173		290 RESOLVE CONTRACT CLAIMS
	20							290.35 Provide Technical Support
20								TOTAL FOR WBS 290

TOTAL FOR ALL WBS

Level 5
5750

Start Date 165	End Date 180
1/1/05	1/1/08

Consultant Hours
720

10. RAP displacements required: YES ☐ NO ☒ If YES, provide the following information:
Number of single family residences: 0 Number of business/nonprofit: 0
Number of multifamily units: 0 Number of mobile homes: 0
Based on Draft/Final Relocation Impact Statement/Study dated ___, it is anticipated that sufficient replacement housing will be available without Last Resort Housing.

11. Material borrow and/or disposal sites required: YES ☐ NO ☒

12. Potential relinquishments and/or abandonments: YES ☐ NO ☒

13. Existing and/or potential Airspace sites: YES ☐ NO ☒

14. Environmental mitigation parcels required: YES ☐ NO ☒

15. All Right of Way work will be performed by Caltrans staff: YES ☒ NO ☐

16. Data for evaluation provided by:

Estimator — KIMBERLY BRIMMER — Date: 7-21-03

Railroad Liaison — QUENTIN GREEN — Date: 7/22/03

Utility Relocation Coordinator — BILL ANBERG — Date: 7/21/03

I have personally reviewed this Right of Way Data Sheet and all supporting information. I find this Data Sheet complete and current, subject to the limiting conditions set forth.

7/21/03
Date

JOHN F. ALMAZAN
Right of Way Project Coordinator

Entered PMCS (Event, Cost, Agree) By: Bronwyn Gantt Date: 7/23/03

Attachment G

Right of Way Data Sheet

David Franke

State of California

Business, Transportation and Housing Agency

M e m o r a n d u m

To: ERIC OLSON / DAVID FRANKE
Design I
Fresno

Date: December 3, 2003

File Reference: 10-ALP-88-PM 0.0/6.0
EA: OJ600K
R/W Req. No: 2
Alternate No: 1
Updated & Revised

From: **DEPARTMENT OF TRANSPORTATION**
Division of Right of Way, Central Region

Subject: Right of Way Data Sheet

We have completed an updated estimate of the right of way costs for the above-referenced project based on the Right of Way Data Sheet Request Form dated 4-26-03. The following assumptions and limiting conditions were identified:

Utility relocation and Federal land transfer needed.

Environmental mitigation will be accomplished through a land bank. No parcels will be purchased.

Right of Way Lead Time will require a minimum of -12- months after we receive certified Appraisal Maps, the necessary environmental clearance has been obtained, and freeway agreements have been approved.

SAHROOM ALI
Senior Right of Way Agent

RIGHT OF WAY DATA SHEET

DIST: 10 CO: ALP RTE: 88 KP: 0.0/9.7 PM: 0.0/6.0 EA: OJ600K ALTERNATE NO: 1 DATE: 11-19-03

REQUEST DATE: 4-26-03

1. Right of Way Cost Estimate:

	Fiscal Year (Year 2003)	Rate of Escalation	Escalated Value (Year 2008)
Acquisition, including Excess Lands, Damages and Goodwill	$0.00	0%	$0.00
Mitigation Costs	$5,200.00	5%	$6,574.00
Utility Relocation (State share)	$0.00	0%	$0.00
Relocation Assistance	$0.00	0%	$0.00
Clearance/Demolition	$0.00	0%	$0.00
Title and Escrow Fees	$0.00	0%	$0.00
TOTAL CURRENT VALUE	$5,200.00	5%	$6,574.00
Construction Contract Work	$0.00		$0.00

2. Items of construction contract work: YES ☐ NO ☒

3. ANTICIPATED RIGHT OF WAY LEAD TIME REQUIREMENTS: **- 12- months.**

4. Parcel Data:

TYPE	NUMBER	DUAL/APPR
X	0	
A	0	
B	0	
C	0	
D	0	
TOTAL	0	
EXCESS	0	

UTILITIES	
U4-1	2
-2	0
-3	0
-4	0
U5-7	0
-8	0
-9	2

RR INVOLVEMENT	
None	X
C & M Agmt	
Service Contract	
Lic/RE/Clauses	
MISC. R/W WORK	
RAP Displacement	0
Clear/Demo	0
Const Permits	0
Cond	0

Parcel Area: Right of Way[0] Excess [0]

5. Utility facilities or rights of way affected: YES ☐ NO ☒
More accurate utility information will be provided when utility verifications are received from the affected utility owners. Accurate determination of State costs cannot be determined at this time.

6. Railroad facilities or rights of way affected: YES ☐ NO ☒

7. Provide a general description of the right of way and excess lands required (zoning, use, major improvements, critical or sensitive parcels, etc.): RIGHT OF WAY REQUIRED YES ☐ NO ☒
Any Right of Way required will be obtained through a Special Use Permit from the U.S. Forest Service. There are no acquisition costs. There is no merchantable timber. Federal land transfer needed. Allow 12 months.

8. Effect on assessed valuation: NONE.

9. Previously unidentified sites with hazardous waste and/or material found: YES ☐ NONE EVIDENT ☒

10. RAP displacements required: YES ☐ NO ☒ If YES, provide the following information:
Number of single family residences: 0 Number of business/nonprofit: 0
Number of multifamily units: 0 Number of mobile homes: 0
Based on Draft/Final Relocation Impact Statement/Study dated ___, it is anticipated that sufficient replacement housing will be available without Last Resort Housing.

11. Material borrow and/or disposal sites required: YES ☒ NO ☐

12. Potential relinquishments and/or abandonments: YES ☐ NO ☒

13. Existing and/or potential Airspace sites: YES ☐ NO ☒

14. Environmental mitigation parcels required: YES ☐ NO ☒

15. All Right of Way work will be performed by Caltrans staff: YES ☒ NO ☐

16. Data for evaluation provided by:

Estimator — KIMBERLY BRIMMER — Date: 11-20-03

Railroad Liaison — QUENTIN GREEN — Date: 11-20-03

Utility Relocation Coordinator — ANDREA ALVAREZ — Date: 11-20-03

I have personally reviewed this Right of Way Data Sheet and all supporting information. I find this Data Sheet complete and current, subject to the limiting conditions set forth.

11/20/03.
Date

SAHROOM ALI
Senior Right of Way Agent

Entered PMCS (Event, Cost, Agree) By: Date: 12-3-03

Attachment H

Scoping Team Field Review Attendance Roster

Alpine 88 EA 10-0J600K
Task Force Field Review Attendance Roster
October 7, 2003

Rob Marsh	HQ HA-22 Program Advisor	(916) 654-5640
Alvin Mangindin	D-10 HA-22 Program Advisor	(209) 948-7300
Long Huynh	District 10 Maintenance	(209) 948-7195
Richard Levy	District 10 Archaeologist	(209) 948-3811
Mike Janzen	HQ Design Reviewer	(559) 243-3887
David Franke	Design Manager	(559) 243-3809
Eric Olson	Project Engineer	(559) 243-3832
Reza Sadjadi	Engineer	(559) 243-3820

Attachment I

Structural Section Recommendations

State of California

Business Transportation and Housing Agency

Memorandum

To: DAVID S. FRANHE
Design Engineer, Branch I

Date: September 9, 2003

Attn: ERIC OLSON

File: 10-Alp-88-0.0/6.0
Pavement Rehabilitation
10-0J600K

From: **DEPARTMENT OF TRANSPORTATION**
District 10 – Materials Branch

Subject: Structural Section

The following structural sections, based on a TI of 8.0, are recommended for placement over basement soils with a minimum R-value of 50.

MAINLINE ROUTE 88			TI = 8.0
AC	120mm	or	200mm
AB	135mm		----------

SHOULDER ROUTE 88			TI = 5.0
AC	60mm	or	105mm
AB	105mm		----------

If you have any questions or comments, please contact me at ATSS 423-7951.

Dave Whaling, P.E.
District Materials Engineer

DW

Attachment J

Traffic Management Plan (TMP) Checklist

D-10 TRANSPORTATION MANAGEMENT PLAN CHECKLIST

District / EA: 10-0J600K
Date Prepared: 04/15/03
Prepared By: Richard Young
Stage of Project (X box) [X] PID [ ] PSR [ ] PR [ ] PS&E

Co.Rte.-PM.(KP) ALP-88-0.0/6.0
Location: In Alp Co. in and near Caples Lake from Amador Co. Line to 1.24 KM E/of Carson Pass Summit
Description: Road Rehab

	Date Signed	Date Signed	Date Signed	Date Signed

	REQUIRED	RECOMMENDED	NOT APPLICABLE	BEES Item No.	COMMENTS	UNIT COST	REQUIRED IN SPEC.
1.0 Public Information Strategies							
1.1 Brochures and Mailers	X				see note below		
1.2 Media Releases (& minority media sources)	X						
1.3 Paid Advertising			X				
1.4 Public Information Center			X				
1.5 Public Meetings/Speakers Bureau			X	066063			
1.6 Project Telephone Hotline			X				
1.7 Local cable TV and News			X				
1.8 Traveler Information Systems (CHIN/Internet)	X						
1.9 Project Web Page			X				
1.10 Other items							
2.0 Motorist Information Strategies							
2.1 Permanent Changeable Message Signs			X				
2.2 Trailer CMS's	X			128650			
2.3 Special Construction Signs			X	120690			
2.4 Highway Advisory Radio (fixed or mobile)			X	860520			
2.5 Radar Speed Sign			X	066064			
2.6 Other item							
3.0 Incident Management							
3.1 Call Boxes			X				
3.2 COZEEP			X	066062			
3.3 Freeway Service Patrol (tow truck service patrol)			X	066065			
3.4 Traffic Surveillance Stations (loops or CCTV)			X	066876			
3.5 911 Cellular Calls			X				
3.6 Transportation Management Center			X				
3.7 Traffic Control Inspector			X				
3.8 Traffic Management Teams			X				
3.9 On-site Traffic Advisor (contractor)	X						
3.10 Other Items							
4.0 Construction Strategies							
4.1 Delay damage clause			X				
4.2 Night work			X				
4.3 Weekend Work			X				
4.4 Extended Weekend Closures			X				
4.5 Planned Lane Closures	X						
4.6 Planned Ramp Closures			X				
4.7 Total Facility Closure			X				
4.8 Project Phasing			X				
4.9 Truck Traffic Restrictions			X				
4.10 Reduced Lane Widths			X				
4.11 Temporary K-Rail			X	129000			
4.12 Temporary Traffic Screens			X	129150			
4.13 Reduced Speed Zones			X				
4.14 Traffic Control Improvements			X				

	REQUIRED	RECOMMENDED	NOT APPLICABLE	BEES Item No.	COMMENTS	UNIT COST	REQUIRED IN SPEC.
4.0 Construction Strategies (Continued)							
4.15 Contingency Plans	X						
4.15.1 Material Plant on standby	X						
4.15.2 Extra Critical Equipment on site			X				
4.15.3 Material Testing Plan			X				
4.15.4 Alternate Material on site (In case of failure or major delays)			X				
4.15.5 Emergency Detour Plan							
4.15.6 Emergency Notification Plan			X				
4.15.7 Weather Conditions Plan	X						
4.15.8 Emergency Funding Plan	X						
4.15.9 Delay Timing and Documentation Plan			X				
4.15.10 Late Closure Reopening Notification			X				
4.16 Signal timing modification	X						
4.17 Coordination with adjacent construction			X				
4.18 Double Fine Zone	X						
4.19 Other Items	X						
5.0 Demand Management							
5.1 HOV Lanes/Ramps			X				
5.2 Ramp metering			X				
5.3 Park-and-Ride Lots			X				
5.4 Parking Management/Pricing			X				
5.5 Rideshare Incentives			X				
5.6 Rideshare Marketing			X	066069			
5.7 Transit, Train, or Light-Rail Incentives			X	066066			
5.8 Transit Service Improvements			X				
5.9 Variable Work Hours			X				
5.10 Telecommute			X				
5.11 Other Items			X				
6.0 Alternate Route Strategies							
6.1 Ramp Closures			X				
6.2 Street Improvements			X				
6.3 Reversible Lanes			X				
6.4 Temporary Lanes or Shoulders Use			X				
6.5 Freeway to freeway connector closures			X				
7.0 Other Strategies							
7.1 Application of new technology			X				
7.2 Improved specifications			X				
7.3 Staff Training/Development			X				
7.4 Upgraded Equipment			X				

Comments: Please add 0.15 PY's to this project to cover Public Information Office duties.

Approved by:

Laurie R. Jurgens 4/22/03

DISTRICT TRAFFIC MANAGER DATE

Attachment K

Storm Water Data Report (SWDR)

District 10-Alpine County- Route 88
KP 0.0/9.7 (PM 0.0/6.0) Limits
Project Type
EA: 10-0I600K
RU: 20.xx.201.120
Program Identification: SHOPP

Phase: ✖ PID ❑ PA/ED ❑ PS&E

Regional Water Quality Control Board(s): Central Valley and Lahontan

Is the Project exempt from incorporating Treatment BMPs? Yes ❑ No ✖
If yes, attach the Exemption Documentation Form

Are new Treatment BMPs incorporated into the Project? Yes ✖ No ❑

Estimated Construction Start Date: 2009

Notification of Construction (NOC) Date to be Submitted: _____

Notification of ADL reuse (if yes, provide date) Yes ❑ Date_____ No ❑ N/A ✖

Separate Dewatering Permit (if yes, permit no.) Yes ❑ Permit #_____ No ✖ N/A ❑

This Report has been prepared under the direction of the following Licensed Person. The Licensed Person attests to the technical information contained herein and the data upon which recommendations, conclusions, and decisions are based. Professional Engineer or Landscape Architect stamp required at PS&E.

Eric Olson 12/4/03

Registered Project Engineer/Licensed Landscape Architect *Date*
Eric Olson

I have reviewed the storm water quality design issues contained in the Storm Water Data Report and Attachments attached hereto, and find the data to be complete, current, and accurate:

1/5/04

Project Manager *Date*
Kevin Sheridan

Logan Houston 12/23/03

Designated Maintenance Representative *Date*
Logan Houston

12/17/03

Designated Landscape Architect Representative *Date*
Elbert Cox

Marc Boswell 12/17/03

Design District/Regional Storm Water Coordinator or Designee *Date*
Marc Boswell

Attachment B

Updated Preliminary Environmental Analysis Report

Caltrans Metric

Preliminary Environmental Analysis Report

Project Information

District 10 County ALP Route 88 Kilometer Post (Post Mile) 0.0/9.7(0.0/6.0) EA 10-0J600K

Project Name: Caples Rehab

Project Manager Iorzua Akuva Phone # (209) 941-1958

Design Manager David Franke Phone # (559) 243-3809

Environmental Manager David Hyatt Phone # (559) 243-8312

Environmental Planner Generalist Charles Walbridge Phone # (559) 243-8167

Project Description

Description of work: AC overlay, shoulder widening, and curve corrections

Anticipated Environmental Approval

CEQA		NEPA	
❑	Categorical/Statutory Exemption	❑	Categorical Exclusion
✔	Negative Declaration	✔	Finding of No Significant Impact
❑	Environmental Impact Report	❑	Environmental Impact Statement

PSR Summary Statement

The expected environmental document for the proposed project is a Negative Declaration/Finding of No Significant Impact (ND/FONSI). The Federal Highway Administration and the California Department of Transportation would act as lead agencies in the preparation of a joint CEQA/NEPA (California Environmental Quality Act/National Environmental Policy Act) environmental document. Assuming that cultural sites could be avoided and an FOE/MOA would not be needed, the final environmental determination is projected to occur within 36 months from the start of environmental studies. Assuming a start date of October 1, 2006, completion of the environmental document would be expected by October 1, 2009. *If cultural sites cannot be avoided, completion and approval of an FOE/MOA would add approximately one year to the schedule.*

Mitigation

Historic Resources	$75,000
Archaeology (Native American Monitoring)	$20,000
Landscape/Erosion Control	$500,000
Permits	$5200

Disclaimer

This report is not an environmental document. Preliminary analysis, determinations, and estimates of mitigation costs are based on the project description provided in this report. The estimates and conclusions provided are approximate and are based on cursory analysis of probable effects. This report is to provide a preliminary level of environmental analysis to supplement the Project Study Report. Changes in project scope, alternatives, or environmental laws will require a re-evaluation of this report.

Reviewed by:

Date: 8/4/03
Bryan Appel
Environmental Scoping Branch Chief

Date: 8/19/03
Eric VonBerg
Environmental Branch Chief

Date: 8/22/03
Kevin Sheridan
Project Manager

Environmental Technical Reports or Studies Required

	Study	Document	N/A
Community Impact Study	❑	❑	✔
Farmland	❑	❑	✔
Section 4(f) Evaluation	✔	❑	❑
Visual Resources	✔	❑	❑
Water Quality	✔	❑	❑
Floodplain Evaluation	❑	❑	✔
Noise Study	❑	❑	✔
Air Quality Study	❑	❑	✔
Paleontology	✔	❑	❑
Wild and Scenic River Consistency	❑	❑	✔
Cumulative Impacts	❑	❑	✔
Cultural			
ASR	✔	❑	❑
HSR	✔	❑	❑
HRER	✔	❑	❑
HPSR	✔	❑	❑
Section 106 / SHPO	✔	❑	❑
Native American Coordination	✔	❑	❑
Other			
Finding of Effect_____	✔	❑	❑
Data Recovery Plan_____	❑	❑	✔
Hazardous Waste			
ISA (Additional)	✔	❑	❑
PSI	✔	❑	❑
Other			
_____	❑	❑	❑
Biological			
Endangered Species (Federal)	❑	✔	❑
Endangered Species (State)	❑	✔	❑
Species of Concern (CNPS, USFS, BLM, S, F)	❑	❑	✔
Biological Assessment(USFWS, NMFS, State)	❑	❑	✔
Biological Opinion/ USFS	❑	❑	✔
Wetlands	✔	❑	❑
Invasive Species	❑	❑	✔
Natural Environment Study	✔	❑	❑
NEPA 404 Coordination	❑	❑	✔
Other			
_____	❑	❑	❑

Environmental Technical Reports or Studies Required

	Study	Document	N/A
Permits			
401 Permit Coordination	✔	❑	❑
404 Permit Coordination	✔	❑	❑
Nationwide ✔ Individual ❑			
1601 Permit Coordination	✔	❑	❑
City/County Coastal Permit Coordination	❑	❑	✔
State Coastal Permit Coordination	❑	❑	✔
NPDES Coordination	✔	❑	❑
US Coast Guard (Section 10)	❑	❑	✔

Discussion of Technical Review

Socio-economic and Community Effects. N/A

Farmlands. N/A

Section 4(f) Impacts. Section 4(f) of the Department of Transportation Act requires that avoidance alternatives be studied whenever a property eligible for the National Register of Historic Places may be affected by project activities. Because the project may adversely affect the Mormon Emigrant Trail, a Section 4(f) evaluation would be required. This would require development of a total avoidance alternative for the trail, or justification why total avoidance is not prudent or feasible. Minimization measures would also be required.

Visual Effects. A Visual Impact Assessment would be required. Mitigation for replacement planting, erosion control, storm water, and aesthetic treatments is estimated at $500,000.

Water Quality and Erosion. Review of the USGS 7.5' Caples Lake and Carson Pass Quadrangle maps identified named and unnamed surface waters that crossed or were adjacent to the project area. Named creeks crossing the project include Kirkwood and Caples creeks. State Route 88 runs adjacent to Caples Lake from PM 0.5 to 1.5.

Since the project proposes construction activities adjacent to Caples Lake and other water bodies, a water quality study is recommended. If the project is expected to disturb more than an acre of soil, then the following are required:

1. A Notification of Construction (NOC) is to be submitted to the appropriate Regional Water Quality Control Board (RWQB) at least 30 days prior to the start of construction. The Regional Water Quality Control Board for this project is the Central Valley Regional Water Quality Control Board.
2. A Storm Water Pollution Prevention Plan (SWPPP) is to be prepared and implemented during construction to the satisfaction of the resident engineer.
3. A Notice of Construction Completion shall be submitted to the Regional Water Quality Control Board upon completion of the construction and stabilization of the site. A project would be considered complete when the criteria for final stabilization in the Construction General Permit are met.

The design and construction of the proposed project must adhere to the requirements set forth in the Caltrans National Pollutant Discharge Elimination System (NPDES) permit, the Caltrans Storm Water Management Plan (SWMP), the Caltrans Project Planning and Design Guide, the Construction Site Best Management Practices (BMPs) Manual and Caltrans Standard Specifications.

Air. N/A

Noise. N/A

Wild and Scenic River. N/A

Cultural Resources. One property eligible for listing in the National Register of Historic Places lies within the Area of Potential Effect (APE). The Mormon Emigrant Trail, which includes blazed trees and historic markers, runs adjacent to State Route 88 and even crosses the road in some areas. There are three other sites within or immediately adjacent to the right of way and two

sites within a quarter mile of the roadway. The Kirkwood Inn is listed as a State Historical Landmark and contributes to a potential historic district.

A Phase I survey would utilize records searches and surface observations to determine the general location of cultural sites. An Extended Phase I would then be used to establish site boundaries via subsurface testing for placing protective Environmentally Sensitive Area (ESA) fencing. This assumes that all cultural sites can be avoided during construction. If sites cannot be avoided, then Phase II excavations would be required to determine site eligibility for the National Register of Historic Places. A Finding of Effect and Memorandum of Agreement with the SHPO would also be required. This process would add 18 to 24 months to the project schedule. Mitigation for potential effects to historic properties is estimated at $75,000.

Hazardous Waste/Materials. Three leaking underground storage tanks with "open" case status are listed on the State Water Resources Control Board Geo Tracker database in the vicinity of the project. These sites are:

- Kirkwood Powerhouse – 1547 Kirkwood Meadows Dr.
- Kirkwood Maintenance Shop – Kirkwood Meadows Rd.
- Caltrans Caples Lake Maintenance Station

The maintenance station is located approximately 300 meters north of State Route 88 at PM 2.15. The depth to groundwater at the station ranges from 1 to 15 feet below ground surface. Environmental Data Resources also identified several unplotted leaking underground storage tanks near SR 88 throughout the project segment. An Initial Site Assessment would be required to identify potential hazardous waste associated with these tanks.

Biological Resources. A species list would be requested from the U.S. Forest Service and surveys for special-status species would be required. Botanical surveys would take place in the spring. Any potential impacts to listed species would require consultation with the Forest Service.

Paleontology. A highly sensitive formation exists within the project limits that may contain fossils. Areas where excavation would occur should be examined by a qualified paleontologist to determine if this formation would be disturbed by construction activities.

Wetlands. There are potential wetlands within the project limits. If wetlands cannot be avoided, then a wetlands delineation would quantify the acreage needed for the project and a 404 permit would be required (Nationwide Permit for 0.5 acres or less).

Permits. Any potential impact to wetlands, Caples Lake, or any other water body would require permits from Department of Fish and Game (1601), Army Corps of Engineers (404), and the Regional Water Quality Control Board (401).

List of Preparers

Hazardous Waste Review by Richard Stewart	Date 4/11/03
Biological Review by Paul Sturm	Date 7/29/03
Architectural Review by Kelly Hobbs	Date 5/17/03
Archaeology Review by Bill Ray	Date 7/24/03
Air, Noise, and Water Review by Richard Stewart	Date 4/11/03
Visual Review by Robyn Fong	Date 4/16/03
Paleontology by Richard Stewart	Date 4/17/03

Central Region Environmental Division
Mitigation Cost Compliance Estimate Form

☒ PEAR ☐ Draft ED ☐ Final ED ☐ PS&E

Dist.-Co.-Rte.-PM: 10-ALP-88-0.0/6.0 EA: 0J600K
Project Name: Caples Rehabilitation
Project Description: AC overlay, shoulder widening, and curve corrections

Environmental Manager: David Hyatt Phone Number: (559) 243-8312
Project Manager: Iorzua Akuva Phone Number: (209) 941-1958
Design Manager: David Franke
Date: 7/15/05

Numbers are in thousands

	Right of Way Capital (Prior to Construction) (050)	**Construction Capital (During and Post Construction) (042)**
Archaeological		$20
Biological		
Historical		$75
Paleontology		
Hazardous Waste Remediation		
Landscape		$500
Noise		
Total Permit Cost*	$6	
Other		
Total	$6	$595

* Includes 1601, 401 and 404 permit fees

- This form is completed as part of the PEAR for all candidate projects, at completion of the Draft Environmental Document, and at the completion of the Final Environmental Document
- This form is to be completed for all SHOPP & STIP projects (even those w/o Mitigation)
- This form is to be completed for all Minor A & B projects with mitigation requirements
- Costs are to include all costs to complete the commitment including: capital outlay (non-staffing support costs); cost of right-of-way or easements; long-term monitoring and reporting, and; any follow-up maintenance
- **Attach detailed descriptions of line items included in estimates**

Attach completed ROW data sheets when forwarded to ROW.

PA & ED Date	**RTL Date**	**Months Between**	**Months Required**
10/1/09			

Right of Way Data Sheet Input Information

3. Environmental mitigation parcels: REQUIRED ☐ NOT REQUIRED ☒
_____ Acres $_____ Additional funding $6,000 Permit Fees
(Mitigation required)

** This information is to be obtained from the Environmental Branch prior to submittal to the Right of Way Field Office Chief

Attachment C

Right Of Way Data Sheet

State of California Business, Transportation and Housing Agency

Memorandum

To: David Franke
Fresno Design I, B-G

Attn: Eric Olson
Fresno Design I, B-G

From: **Department of Transportation**
Division of Right of Way Central Region

Date: 8/18/05

File: **EA** 0J600K **ALT** 1(U2)
CO ALP **RTE** 88

DESCRIPTION:
Roadway rehabilitation project with upgrades to standards and safety improvements.

Subject: **RIGHT OF WAY DATA SHEET**

We have completed an estimate of the right of way costs for the above-referenced project based on the Right of Way Data Sheet Request Form dated **8/1/05**

The following assumptions and limiting conditions were identified:

Appraisal
This estmate includes environmental permit fees of $6000.00 Any Right of way required will be obtained through Special Use Permit from the U.S. Forest Service. There will be no acquistion costs.

Utility

Right of Way Lead Time will require a minimum of **12** months after we receive certified Appraisal Maps, the necessary environmental clearance has been obtained, and freeway agreements have been approved.

SAHROOM ALI
Senior Right of Way Agent
(209)948-3675

REQUEST DATE 8/1/05

REVISED DATE 12/3/03

EA 0J600K ALT 1(U2)

CO/RTE/KP-KP ALP/88/0.0-9.7 & /0/-0.0

RIGHT OF WAY COST ESTIMATE	CURRENT YR 2005	CONTINGENCY RATE	RIGHT OF WAY ESCALATION RATE	ESCALATED YEAR 2010
ACQUISITION	$0	25.00%	5.00%	$0
MITIGATION	$7,500.00	25.00%	5.00%	$9,572
STATE SHARE OF UTILITIES	$6,250	25.00%	5.00%	$7,977
RAP	$0	25.00%	5.00%	$0
CLEARANCE/DEMO	$0	25.00%	5.00%	$0
TITLE AND ESCROW	$0	25.00%	5.00%	$0
PROPERTY MANAGEMENT				
SUPPORT HOURS				
TOTAL CURRENT VALUE *	$13,750			$17,549

ESTIMATED CONSTRUCTION CONTRACT WORK $0

R/W LEAD TIME/MONTH 12

PARCEL DATA			
# OF PCL TYPE X	0	# OF DUAL APPR X	0
# OF PCL TYPE A	1	# OF DUAL APPR A	0
# OF PCL TYPE B	0	# OF DUAL APPR B	0
# OF PCL TYPE C	0	# OF DUAL APPR C	0
# OF PCL TYPE D	0	# OF DUAL APPR D	0
TOTALS	1	TOTALS	0
# OF EXCESS PARCEL	0		

UTILITIES	
U4-1	0
U4-2	0
U4-3	0
U4-4	0
U5-7	0
U5-8	0
U5-9	0

RR INVOLVEMENT	
ARE RAILROAD FACILITIES OR RIGHTS OF WAY	NO
CONST/MAINT AGREEMENT	NO
SERVICE CONTRACT	NO
RIGHT OF ENTRY	NO
CLAUSES	NO

MISC R/W WORK	
# OF RAP DISPLACEMENT	0
# OF CLEARANCE/DEMO	0
# OF CONST PERMITS	0
# OF CONDEMNATION	0

* IF R/W COST ESTIMATE FIELDS ARE BLANK, TOTAL CURRENT VALUE = $0

EA 0J600K	ALT 1(U2)

ARE RAILROAD FACILITIES OR RIGHTS OF WAY AFFECTE: NO

RAILROAD LEADTIME REQUIRED:

PARCEL AREA **UNIT: ACRE**

TOTAL R/W TAKE	0	TOTAL R/W FEE	$0
TOTAL EXCESS AREA	0	TOTAL EXCESS COST	$0

GENERAL DESCRIPTION OF R/W AND EXCESS LANDS REQUIRED (ZONING, USE, MAJOR IMPROVEMENTS, CRITICAL OR SENSITIVE PARCELS, ETC.):

No new R/W required at this time.

GENERAL DESCRIPTION OF UTILITY INVOLVEMENT

monies for pos-loc. A permit search needs to be completed to make sure that there are no UG utilities.

More accurate utility information will be provided when utility verifications are received from the affected utility owners. Accurate determination of State costs cannot be determined at this time.

IS THERE A SIGNIFICANT EFFECT ON ASSESSED VALUATION? No

WERE ANY PREVIOUSLY UNIDENTIFIED SITES WITH HAZARDOUS WASTE OR MATERIAL FOUN: No

ARE RAP DISPLACEMENTS REQUIRE: No

OF SINGLE FAMILY: 0 # OF MULTI FAMILY: 0 # OF BUSINESS/NONPROFIT: 0 # OF FARMS: 0

SUFFICIENT REPLACEMENT HOUSING WILL BE AVAILABLE WITHOUT LAST RESORT HOUSING: N/A

ARE MATERIAL BORROW OR DISPOSAL SITES REQUIRED: Yes

ARE THERE POTENTIAL RELINQUISHMENTS OR ABANDONMENTS? No

ARE THERE ANY EXISTING OR POTENTIAL AIRSPACE SITES: No

ARE ENVIRONMENTAL MITIGATION PARCELS REQUIRED: No

DATA FOR EVALUATION PROVIDED BY

ESTIMATOR **JULIE KELLEY**	Tiaira Moering	8/17/05
RAILROAD LIAISON AGENT	Maria Toles	8/9/05
UTILITY RELOCATION COORDINATOR	Andrea Alvarez	8/16/05

I have personally reviewed this Right of Way Sheet and all supporting information. I find this Data Sheet complete and current, subject to the limiting conditions set forth.

SAHROOM ALI
Senior Right of Way Agent

Date ENTERED PMC 8/18/05

BY CONNIE VALENCIA

cc: Iorzua Akuva

Attachment D

Storm Water Data Report

Caltrans Metric

District 10-Alpine County- Route 88
KP 0.0/9.7 (PM 0.0/6.0) Limits
Project Type
EA: 10-01600K
RU: 20 xx 201 120
Program Identification: SHOPP
Phase: ✖ PID ❑ PA/ED ❑ PS&E

Regional Water Quality Control Board(s): Central Valley and Lahontan

Is the Project exempt from incorporating Treatment BMPs? Yes ❑ No ✖
If yes, attach the Exemption Documentation Form

Are new Treatment BMPs incorporated into the Project? Yes ✖ No ❑

Estimated Construction Start Date: 2009

Notification of Construction (NOC) Date to be Submitted: _____

Notification of ADL reuse (if yes, provide date) Yes ❑ Date _____ No ❑ N/A ✖

Separate Dewatering Permit (if yes, permit no.) Yes ❑ Permit # _____ No ✖ N/A ❑

This Report has been prepared under the direction of the following Licensed Person. The Licensed Person attests to the technical information contained herein and the data upon which recommendations, conclusions, and decisions are based. Professional Engineer or Landscape Architect stamp required at PS&E.

Eric Olson 12/4/03

Registered Project Engineer/Licensed Landscape Architect — *Date*
Eric Olson

I have reviewed the storm water quality design issues contained in the Storm Water Data Report and Attachments attached hereto, and find the data to be complete, current, and accurate:

1/5/04

Project Manager — *Date*
Kevin Sheridan

Logan Houston 12/23/03

Designated Maintenance Representative — *Date*
Logan Houston

12/17/03

Designated Landscape Architect Representative — *Date*
Elbert Cox

Marc Boswell 12/17/03

8/15/05 Marc Boswell for Marc Boswell 8/15/05

Design District/Regional Storm Water Coordinator or Designee — *Date*
Marc Boswell

Attachment E

Risk Management Plan

Attachment F

Cost Estimate

10-ALP-88 *
KP 0.0/R9.7 *
EA 10-0J600K *

COST ESTIMATE BREAKDOWN:

	QUANTITY	UNIT	UNIT $	$ COST
STRUCTURAL SECTION WORK				
AC OVERLAY OF AC PAVEMENT				
ALIGATOR B GRIDING	31,211	m^2	12	**$374,532**
GRINDED PAVEMENT REPLACEMENT	17,098	mton	90	**$1,538,820**
AC OVERLAY ALL BUT BRIDGE APPROACH	18,435	mton	90	**$1,659,150**
5% INCREASE IN AC OVERLAY QUANTITY	922	mton	90	**$82,958**
BRIDGE APPROACHES				
APPROACH GRINDING	806	m^2	12	**$9,672**
GRINDED PAVEMENT REPLACEMENT	1,455	mton	90	**$130,950**
DOES THE PROJECT INCLUDE?				
MAINLINE SHOULDER WIDENING				
SAW CUT	15,800	m	10	**$158,000**
EARTHWORK (EXCAVATION OR EMBANKMENT)	12,514	m^3	55	**$688,270**
AB PLACEMENT	1,990	m^3	40	**$79,600**
AC PAVEMENT	2,734	mton	90	**$246,060**
SHOULDER BACKING	5,214	m^3	40	**$208,560**
DRAINAGE REHABILITATION				
33 CULVERT REPLACEMENT	33	m	5000	**$165,000**
SAND TRAP	30	EACH	5000	**$150,000**
PEDESTRIAN FACILITIES				
SIGNS	1	LS	2000	**$2,000**
SAFETY				
SUPERELEVATION CORRECTION				
SUPERELEVATION CORRECTION	1	LS	100000	**$100,000**
VERTICAL ALIGNMENT CORRECTION				
EARTHWORK (EXCAVATION OR EMBANKMENT)	900	m^3	55	**$49,500**

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KP 0.0/R9.7 *
EA 10-0J600K *

COST ESTIMATE BREAKDOWN:	QUANTITY	UNIT	UNIT $	$ COST
AC PLACEMENT (INCLUDED IN AC OVERLAY)	0	mton	90	**$0**
AB PLACEMENT	324	m^3	40	**$12,960**
HORIZONTAL ALIGNMENT(ONE CURVE CORRECTION)				
EARTHWORK (EXCAVATION)	38,000	m^3	25	**$950,000**
EARTHWORK (EMBANKMENT)	9,150	m^3	55	**$503,250**
AB PLACEMENT	490	m^3	40	**$19,600**
AC PLACEMENT (INCLUDED IN AC OVERLAY)	0	mton	90	**$0**
SHOULDER BACKING (INCLUDED IN SHOULDER WIDENING)	0	m^3	40	**$0**
BLASTING				
BLASTING	700	LS	500	**$350,000**
BLAST CLEANUP (EXCAVATION)	1,680	m^3	25	**$42,000**
LEFT/RIGHT-TURN STORAGE / WIDENING / LENGTHENING				
EARTHWORK (EXCAVATION)	1,425	m^3	25	**$35,625**
EARTHWORK (EMBANKMENT)	1,425	m^3	55	**$78,375**
AB PLACEMENT	950	m^3	40	**$38,000**
AC PLACEMENT	720	mton	90	**$64,800**
SHOULDER BACKING (INCLUDED IN SHOULDER WIDENING)	0	m^3	40	**$0**
METAL BEAM GUARDRAIL				
GUARDRAIL	1,129	m	90	**$101,610**
ROADSIDE CLEANUP				
ROADSIDE CLEANUP	1	LS	80000	**$80,000**
ENVIRONMENTAL MITIGATION				
ENVIRONMENTAL MITIGATION				
ENVIRONMENTAL MITIGATION	1	LS	601000	**$601,000**
TRAFFIC CONTROL				
TRAFFIC CONTROL				
TRAFFIC CONTROL	1	LS	190000	**$190,000**

10-ALP-88 *
KP 0.0/R9.7 *
EA 10-0J600K *

COST ESTIMATE BREAKDOWN:

		QUANTITY	UNIT	UNIT $	$ COST
MOBILIZATION					
MOBILIZATION					
MOBILIZATION		1	LS	600000	**$600,000**
OTHERS					
PAVEMENT MARKERS & DELINEATORS					
RECESSED PAVEMENT MARKERS		2650	EACH	7	**$18,550**
DAM WIDENING					
DAM WIDENING AT CAPLES LAKE		10800	m^3	55	**$594,000**
RETAINING WALLS					
WALL #1 - TO SHIELD ONE JUNIPER TREE		30	m^2	1500	**$45,000**
SUB TOTALS					
CONSTRUCTION COSTS					
CONSTRUCTION COSTS	**(SUM OF THE ABOVE $ COST)**				**$9,967,842**
SWPPP COSTS					
CONSTRUCTION SITE BMP		5%	%	9,967,842	**$498,392**
PLAN PREPARATION		1	LS	10000	**$10,000**
TOTALS					
SUM OF SUBTOTALS					**$10,476,234**
CONTINGENCY		20%	%	10,476,234	**$2,095,247**
TOTAL PROJECT COST					**$12,571,480**