

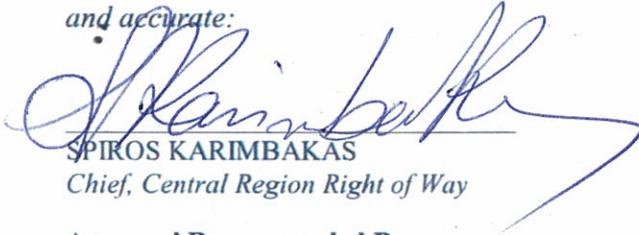
LAWS REHAB
PROJECT SCOPE SUMMARY REPORT
To Request Programming in the 2010 SHOPP:

On Route: US6

From: US 395

To: Chalfant

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
Chief, Central Region Right of Way

Date

Approval Recommended By:


Cedrik Zemitis
Project Manager

4/8/10

Date

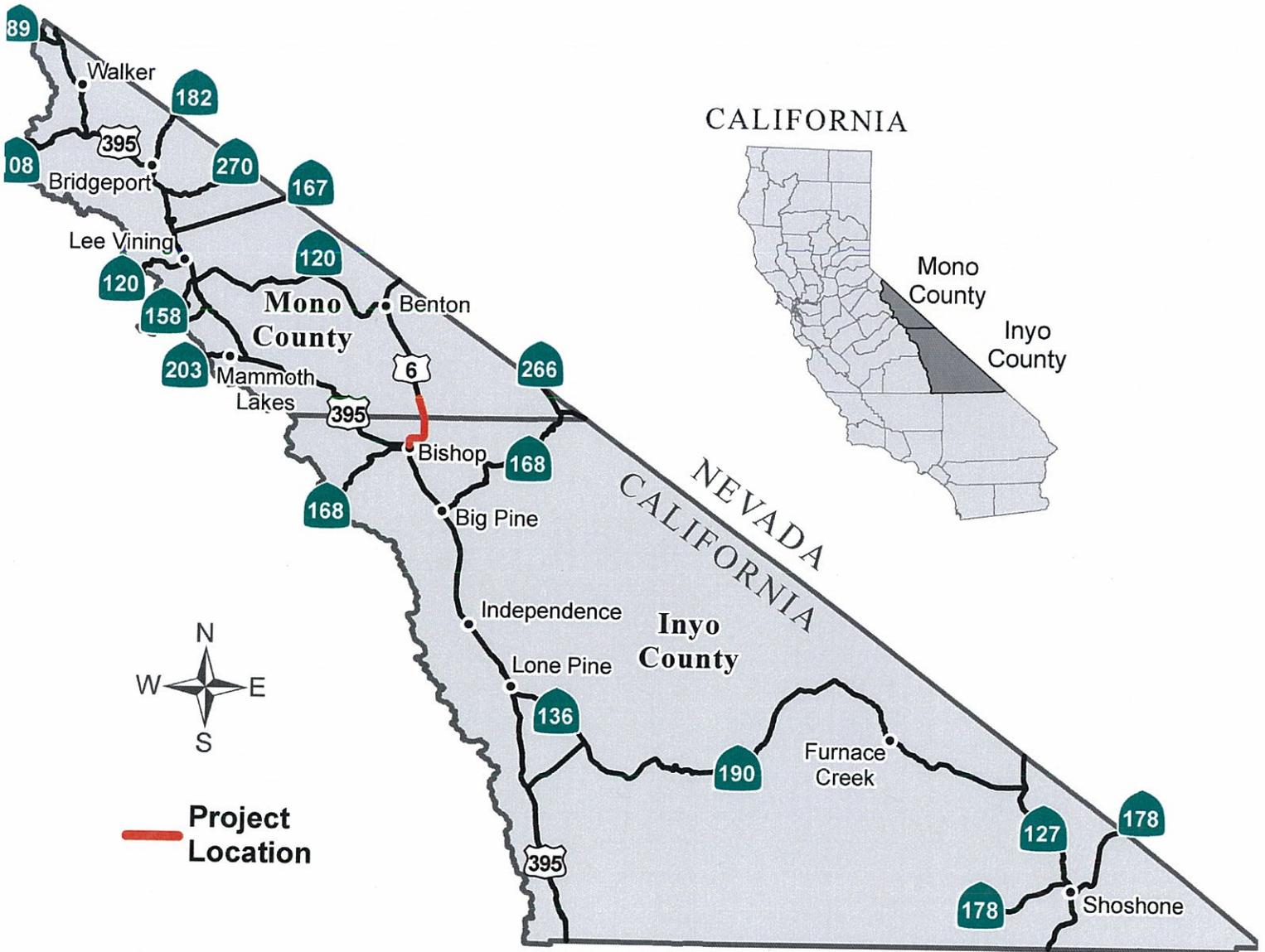
Approved By:


THOMAS P. HALLENBECK
District Director - District 9

5/1/10

Date

PROJECT SCOPE & TECHNICAL DATA ARE VALID THROUGH 31 DEC 2012
COST & WORK PLAN MUST BE UPDATED PRIOR TO USE FOR
PROGRAMMING



Rehabilitating US 6 in Inyo and Mono Counties North of Bishop from the intersection with US 395 to Hunter Ave in Chalfant Valley.

This Project Scope Summary Report has been prepared by 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.



GRANT MICHAEL KRUEGER

24 March 2010

DATE



Table of Contents

TITLE/SIGNATURE SHEET	PAGE 1
VICINITY MAP	PAGE 2
AUTHOR'S SIGNATURE AND STAMP	PAGE 3
TABLE OF CONTENTS	PAGE 4
INTRODUCTION AND BACKGROUND	PAGE 5
RECOMMENDATION	PAGE 6
PURPOSE AND NEED STATEMENT	PAGE 6
EXISTING FACILITY, DEFICIENCIES AND TRAFFIC DATA	PAGE 7
CONDITION OF EXISTING FACILITY	PAGE 8-11
CORRIDOR AND SYSTEM COORDINATION	PAGE 11
ALTERNATIVES	PAGE 12
TRANSPORTATION MANAGEMENT	PAGE 14
ENVIRONMENTAL DETERMINATION/DOCUMENT	PAGE 15
FUNDING/SCHEDULING	PAGE 16
FEDERAL COORDINATION	PAGE 20
SCOPING TEAM REVIEW SUMMARY	PAGE 20
LIST OF ATTACHMENTS	PAGE 20
DISTRIBUTION LIST	PAGE 21
TITLE SHEET	ATTACHMENT A
TYPICAL CROSS SECTIONS	ATTACHMENT B
PRELIMINARY ENVIRONMENTAL ASSESSMENT REPORT	ATTACHMENT C
STORM WATER DATA REPORT SIGNATURES	ATTACHMENT D
RIGHT OF WAY DATA SHEET	ATTACHMENT E
ADVANCED PLANNING STUDY	ATTACHMENT F
STRAIN DATA	ATTACHMENT G
TRAFFIC MANAGEMENT PLAN	ATTACHMENT H
DEFLECTION STUDY RESULTS	ATTACHMENT I
RISK REGISTER	ATTACHMENT J
LIFE CYCLE COST ANALYSIS (LCCA)	ATTACHMENT K

1. INTRODUCTION AND BACKGROUND

This project will resurface the roadway, realign an intersection with a local road, upgrade pedestrian facilities, remove un-used count stations within the project limits, upgrade railings at 2 of 4 existing structures within the project limits and replace the 2 remaining structures with functionally equivalent culverts.

Alternative 1 is to build the project as described in this document. Alternative 2 is the no build alternative. Alternatives 3 & 4 were studied but not recommended (see section 6Q for details.) Alternative 1 is the recommended programming alternative for this project.

See the cost estimate for specific work items included in this project.

Project Limits [Dist., Co., Rte., PM]	09-Inyo/Mno-6-Inyo PM 0.0/Mno PM 4.4
Current Capital Costs:	\$9,800,000
Current Capital Right of way Costs:	\$66,000 (Construction Easements)
Funding Source:	20.10.201.120
Number of Alternatives:	2
Recommended Alternative (for programming and scheduling):	Alternative 1
Type of Facility: (conventional, expressway, freeway):	Rural 2 Lane Highway
Number of Structures:	4
Anticipated Environmental Determination/Document:	CE/CE
Legal Description:	Rehabilitating US 6 in Inyo and Mono Counties North of Bishop from the intersection with US 395 to Hunter Ave in Chalfant Valley.

2. RECOMMENDATION

Alternative 1 is the recommended alternative used for programming of this project. This alternative will remove a portion of existing pavement, resurface the entire roadway with new asphalt concrete, realign an intersection with a local road, upgrade pedestrian facilities, remove un-used count stations within the project limits, upgrade railings at 2 of 4 existing structures within the project limits, replace the two remaining structures with culverts, replace AC on bridge decks with Polyester Concrete and replace existing rumble strips within the project limits. Both existing & proposed rumble strips are MUTCD compliant.

3. PURPOSE AND NEED STATEMENT

Purpose: The purpose of the project is to extend the service life of the existing pavement by 20 years with minimal maintenance expenditures and to upgrade safety features within the scope of a rehabilitation project. This will include replacing 2 of 4 existing structures with functionally equivalent culverts and upgrading approach, transition and bridge rails at the other 2 structures.

Need: The existing pavement within the project limits is failing. The approach, transition and bridge rails at all 4 existing structures need to be upgraded to current standards. However, at 2 of these structures (Upper and Lower McNally Canals – Str #48-38 and #48-39), the estimated cost of rail upgrades is approximately equal to the estimated cost of replacing the structures with functionally equivalent culverts. Replacing the 2 McNally Canal structures has the added benefit of reducing future maintenance and upgrade costs and is part of the preferred alternative.

4. EXISTING FACILITY, DEFICIENCIES AND TRAFFIC DATA

4A. - Roadway Geometric Information

	Facility Location (PM)	Minimum Curve Radius	Through Traffic Lanes			Paved Shoulder Width		Median Width	Shoulder is a Bicycle Lane (Y/N) -Width	Other Bicycle Lane Width	Bicycle Route (Y/N)	Facilities Adjacent to the Roadbed (Code/Width)
			No. of Lanes	Lane Width	Type (Flex, Rigid, or Composite)	Left	Right					
Existing	Iny0.0/Mno 4.4	2,100'	2	12'	Flexible	Var 4' - 8'	Var 4' - 8'	N/A	Y - Var 4'-8'	N/A	Y	N/A
Proposed	Iny0.0/Mno 4.4	2,100'	2	12'	Flexible	Var 4' - 8'	Var 4' - 8'	N/A	Y - Var 4'-8'	N/A	Y	N/A

Remarks:-

No existing geometric deficiencies.

4B. Condition of Existing Facility:

(1) Traveled Way Data

PMS Category (1-29): 0-10 Priority Classification (.1-.4) 0.31

Ride Score: 44-65

***Rigid Pavement:**

* From latest PMS-Pavement Condition Inventory Survey Data.

3rd Stage Cracking %: N/A

Faulting: N/A

Joint Spalls: N/A

Pumping: N/A

Corner Breaks %: N/A

***Flexible Pavement:**

Alligator B Cracking % Var 19%-50%

Patching % None

Rutting None

Bleeding None

Raveling None

Locations(s) of subsurface or ponded surface -water problem: None

Deflection Study Results: Crack Retardation governed the 20 year design life recommendations of 0.15' RAC Overlay or 0.25' DGAC Overlay. LCCA results show 0.15'RAC solution to be the most cost effective. See Attached Deflection Study and LCCA for more information

(2) Shoulder Data

The 2007 Pavement Summary (from which data was derived) does not distinguish between Traveled Way and Shoulder

(3) Pedestrian Facility Data

Facility Type and Location(s)(Station, post mile or other reference point)	Meets ADA Standards? (Yes or No for each listed location)	If Facility does not meet ADA Standards, what feature(s) are not ADA compliant? (List features per location)	Status of Each Noncompliant Location [Use the following statements, as appropriate: <ul style="list-style-type: none"> • Will be corrected as part of this project; • Will not be corrected because it is technically infeasible to correct; • This work is outside the scope of this project. This facility and its location have been so documented in the Project History File and this information was submitted to the District ADA Coordinator on (Date) for inclusion in the Department's Transition Plan.]
Sidewalks: Iny-6-0.0/0.1	N	Discontinuities	Will be corrected as part of this project
Curb Ramps: Iny-6-0.0/0.1	N	No Detectable Warning Surface	Will be corrected as part of this project
Crosswalks: Iny-6-0.0/0.1	N	Discontinuities	Will be corrected as part of this project
Driveways: Iny-6-0.0/0.1	N	Discontinuities	Will be corrected as part of this project
Shared bicycle/ pedestrian facility: Iny-6-0.0/8.4, Mno-6-0.0/4.4	Y	N/A	N/A
Others:	N/A	N/A	N/A

Remarks:-

Any other ADA issues that become apparent after this report is printed will also be corrected as part of this project.

(4) Bicycle Path Data

Deficiency	Location
N/A	N/A

Remarks - There are no bicycle paths on this project

4C. Structures Information

Structures	Width Between Rails			Replace Bridge Railings (Y or N)	Vertical Clearance			Work Identified in STRAIN (Y or N)	Replace Bridge Approach Rail (Y or N)	Replace Bridge Approach Slab (Y/N)
	Exist	3R Std	Prop		Exist	3R Std	Prop			
Bishop Cr Bridge # 48-23	40'	Var 32 ft- 40 ft	40'	Y	N/A	N/A	N/A	Y	Y	N/A
Owens River # 48-24	40'	Var 32 ft- 40 ft	40'	Y	N/A	N/A	N/A	Y	Y	N/A
Lower/South McNally #48-38	40'	Var 32 ft- 40 ft	40'	N**	N/A	N/A	N/A	Y	N**	N/A
Upper/North Mc Nally # 48-39 *	40'	Var 32 ft- 40 ft	40'	N**	N/A	N/A	N/A	Y	N**	N/A

Remarks: - * Br 48-39, Upper/North McNally Bridge, is classified as a short bridge/culvert and is not listed in the bridge log.

** Both McNally Bridges (str #s48-38 and 48-39) will be replaced with functionally equivalent culverts as part of this project.

4D: Vehicle Traffic Data

2007 Year ADT	2,000
Construction Year 2012 AADT	2,050
5-Year AADT (2017 AADT)	2,100
10-Year ADT (2022 AADT)	2,160
20-Year AADT (2032 AADT)	2,270
5 Year TI (2017 TI)	9.0
10 Year TI (2022 TI)	9.5
20 Year TI (2032 TI)	10.5
Construction Year DHV (2012 DHV)	180
5 Year DHV (2017 DHV)	190
10 Year DHV (2022 DHV)	190
20 Year DHV (2032 DHV)	200
2007 Directional Split	80.86 %
2007 Trucks	21.8%

Latest 3-Year Accident Data: The three year data shows an actual average of 0.85 accidents per Million Vehicle Miles (MVM) as opposed to a Statewide Average of 1.11 accidents per MVM.

Although collisions were recorded within the project limits during the study period, no accident concentrations are apparent. There were no fatalities and the actual rate of Fatalities + Injuries (actual F+I = 0.28/MVM) was below the Statewide Average of 0.54/MVM.

Corrective Strategy: This project will resurface the pavement and upgrade existing railing at 2 of 4 structures within the project limits. The other 2 structures will be replaced with functionally equivalent culverts.

4E: Materials:

A deflection study dated 22 April 2009 gives 2 separate structural section recommendations that are designed to extend the pavement life by 20 years with minimal maintenance. See Attachment I – Deflection Study Results - for more details

5. CORRIDOR AND SYSTEM COORDINATION

US Hwy 6 begins in Inyo County near the north end of the City of Bishop and provides access to residential areas and also to the northern end of the Owens Valley. Although it is generally an East-West Route, this portion is oriented more north-south. North ('East') of Silver Canyon Road (09-Iny-6-PM 3.95), Route 6 parallels the base of the White Mountains. Hwy 6 is functionally classified as a

Rural Principal Arterial, which provides access from US 395 in Bishop to the California/Nevada border. US Hwy 6 is also a high emphasis route within California's Interregional Roadway System (IRRS) and is also part of the STRAHNET and STAA networks.

The segment of the highway in this project is a two lane conventional highway with posted speed limits that vary from 35 mph to 65 mph. The majority of the road is straight, in slightly rolling terrain. Passing opportunities are abundant due to lengthy sight distances.

6.

ALTERNATIVES

6A. Rehabilitation Strategy

Alternative 1 consists of removing a portion of the existing pavement, overlaying remaining pavement with a 20 year pavement design, maintaining existing rumble strip locations, replacing 2 of 4 existing structures with culverts and upgrading railings at 2 remaining structures. Estimated construction cost is \$9.8 million.

Alternative #2 is the no-build alternative. Estimated construction cost is \$0, but user costs and ultimate rehabilitation costs resulting from a greatly deteriorated facility will surpass the construction costs of other alternatives.

LCCA Results: 0.15' DGAC overlay is the most cost-effective solution of the two recommended in the deflection study. See attached Deflection Study (attachment I) and Life Cycle Cost Analysis (attachment K) - for greater detail.

Alternative 3 is to widen all shoulders to 8' and add rumble strips to the entire length of the project. However, existing shoulder widths meet current standards. Estimated Cost is \$17.4 million.

Alternative 4 is to widen all shoulders to 5' and add rumble strips to the entire length of the project. Estimated cost is \$16.1 million.

Alternative 5 consists of removing a portion of the existing pavement, overlaying remaining pavement with a 10 year pavement design, maintaining existing rumble strip locations, replacing 2 of 4 existing structures with culverts and upgrading railings at 2 remaining structures. Estimated construction cost is \$9.8 million.

Alternative #1 is the Recommended Programming Alternative.

6B. Design Exceptions

None Required.

6C. Environmental Compliance

Categorical Exemption/ Categorical Exclusion (CE/CE) is the anticipated environmental document for this project. Refer to the attached Preliminary Environmental Analysis Report (Attachment C) for greater detail.

6D. Hazardous Waste Disposal Site Required?

No disposal site is anticipated for this project as proposed, however, there is a risk of discovering some un-anticipated hazardous waste, particularly near INY-6-0.0 (i.e. the intersection of US Routes 6 and 395)

6E. Other Agency Involvement:

No other agency involvement is anticipated for this project as proposed.

6F. Material and/or Disposal site needs/availability

No disposal site is required for this project as proposed.

6G. Highway Planting and irrigation

N/A

6H. Roadside Design and Management

N/A.

6I. Stormwater Compliance

Standard BMPs will be incorporated into the project. Required scour work in channels with live flow will require extensive lead times that will coincide with but not extend beyond those of environmental.

6J. Right of Way Issues

Temporary Construction Easements will be required for Americans with Disabilities Act Upgrades. Refer to the Right of Way Data Sheet (Attachment E) for further details.

6K. Railroad Involvement

There is no railroad involvement with this project as proposed.

6L. Salvaging and recycling of hardware and other non-renewable resources:

Existing bridge railing and MBGR may be recycled or salvaged

6M. Prolonged Temporary Ramp Closures

N/A

6N. Recycled Materials:

Existing bridge railing, AC Grindings and MBGR may be recycled or salvaged.

6O. Local and Regional Input

No local or regional input for this project has been received.

6P. What are the consequences of not doing this entire project?

The existing pavement will continue to deteriorate eventually requiring a full replacement.

6Q. List all alternatives studied, Cost, Reasons not recommended, etc:

Alternative 1 consists of removing a portion of existing pavement, overlaying remaining pavement (with a 20 year pavement design), replacing 2 (of 4) existing structures (Upper and Lower McNally Canals – Str #s 48-38 and 48-39) with functionally equivalent culverts as well as upgrading the approach, transition, and bridge railing at 2 structures that are to remain (Bishop Creek and Owens River Bridges (Str #s 48-23 and 48-24.) Alternative 1 is the preferred alternative. Cost is estimated at \$9.8 million

Alternative 2 is the no build alternative which is not acceptable as the pavement surface would deteriorate and several safety features would be left as is rather than upgrading to current standards. This alternative was not recommended as it will not meet the needs of the traveling public.

7. TRANSPORTATION MANAGEMENT

7A. Traffic Management Plan

Stage construction with one way traffic control will be required. Refer to the attached TMP Checklist in the traffic data – Attachment H.

7B. Vehicle Detection Systems

N/A

8. ENVIRONMENTAL DETERMINATION/DOCUMENT

A Categorical Exemption/Categorical Exclusion (CE/CE) is the anticipated environmental document for this project as proposed. No mitigation is anticipated. Refer to the Preliminary Environmental Analysis Report (PEAR) – Attachment C - for more details.

9. FUNDING/SCHEDULING

9A: Cost Estimate

<u>Pavement Work</u>	<u>Lane-Miles</u>	<u>Number</u>	<u>*Cost</u>
Flex Overlay of Flex Pavement	<u>12.8</u>		<u>\$6,590,000</u>
Rigid Overlay of Flex Pavement	<u>N/A</u>		
Hot Recycled AC ^{1,2}	<u>N/A</u>		
Cold Recycled AC ^{1,2}	<u>N/A</u>		
Reconstruct Lane(s)	<u>N/A</u>		
Crack Seal and Flex Overlay of Rigid Pavement ²	<u>N/A</u>		
Rigid Overlay of Rigid Pavement ²	<u>N/A</u>		
Rigid Pavement Rehabilitation	<u>N/A</u>		
Ramps and OC/UC Approaches	<u>N/A</u>		
Edge Drain (side mi)	<u>N/A</u>		
Bridge Approaches (ground, replaced)	<u>2 EA</u>		Included

Total Lane-Miles of Rehabilitation 25.8

STRAIN Work **

(List Structures: \$48-23, #48-24, #48-38, #48-39)

COSTS SUBTOTAL \$6,590,000

* If duplicated in other items, show cost in parenthesis.
 ** Add additional lines as necessary.

<u>Does the Project Include?</u>	<u>Yes/No</u> *	<u>Cost</u>
Main Line Widening (lanes and/or shoulders)	<u>No</u>	
Bridge Removal	<u>Yes</u>	<u>\$250,000</u>
Bridge Rail Upgrade - Without Widening Included in Project	<u>Yes</u>	<u>\$510,000</u>
Vertical Clearance Adjustment	<u>N/A</u>	
Drainage Rehabilitation	<u>N/A</u>	
Pedestrian Facilities	<u>Yes</u>	
Alterations Required (List):	<u>Yes</u>	<u>\$150,000</u>
<u>Sidewalks and Curb Ramps at 09-INY-6-0.0</u>		
 <u>Safety</u> **	 <u>Yes/No</u> *	 <u>Cost</u>
Rumble Strip (Replace Existing only)	<u>Yes</u>	<u>\$40,000</u>
Superelevation Correction	<u>No</u>	
Vertical Alignment	<u>No</u>	
Horizontal Alignment	<u>No</u>	
Left/Right-Turn Storage/Widening/Lengthening	<u>No</u>	
Signal Upgrade	<u>No</u>	
Median Barrier (State type: e.g., PCC, Thrie Beam)	<u>No</u>	
Metal Beam Guardrails (New)	<u>Yes</u>	<u>\$200,000</u>
Concrete Guardrail (New)	<u>No</u>	
Roadside Cleanup	<u>No</u>	
Gore Cleanup	<u>N/A</u>	
Electroliers	<u>N/A</u>	
 <u>Roadside Management</u>	 <u>Yes/No</u> *	 <u>Cost</u>
Gore Area Pavement	<u>N/A</u>	
Pavement beyond Gore Area	<u>N/A</u>	
Miscellaneous Paving	<u>N/A</u>	
Maintenance Vehicle Pull outs	<u>N/A</u>	
Off-Freeway Access (gates, stairways, etc.)	<u>N/A</u>	
Roadside Facilities	<u>N/A</u>	
 <u>Traffic Control</u>	 <u>Yes</u>	 <u>\$250,000</u>
<u>Other</u> (Identify: e.g., Mobilization Cost, Hazardous Waste Compliance, etc.) **	<u>Misc</u>	<u>\$120,000</u>
 SUM OF SUBTOTALS		<u>\$8,170,000</u>
 20% Contingency (of Subtotals)		<u>\$1,630,000</u>

	<u>Yes/No*</u>	<u>Cost</u>
<u>Utility Relocation</u>	<u>No</u>	
<u>Railroad Agreements</u>	<u>N/A</u>	
<u>Right of Way</u>	<u>Yes</u>	\$60,000
<u>Environmental Compliance</u>	<u>No</u>	
<hr/>		
	TOTAL PROJECT COST	<u>\$9,800,000</u>

Notes: -

Total Project Cost is in 2009 Dollars

** Mobilization, Contingencies and Incidental Costs

9B - Project Support:

This project is being proposed for funding in the 2010 SHOPP under 20.20.201.120, Roadway Rehabilitation Program. It is anticipated that programming for construction would occur in the 2013/2014 FY.

The support costs are estimated at \$2,455,000. The total escalated construction capital cost for the project is \$11,920,000. The support costs and escalated capital costs are summarized in the following table. (Dollars are in Thousands)

Project Cost Component	Fiscal Year			Total
	2010/11	2011/12	2013/14	
R/W Capital		\$66		\$66
Construction Capital			\$11,920	\$11,920
PA & ED	\$265			\$265
PS&E		\$900		\$900
R/W Support		\$110		\$110
Construction Support			\$1,180	\$1,180
Total	\$265	\$1,076	\$13,100	\$14,441

The escalation rate for capital costs is 5% and for support costs is 3.1%

9C - Project Schedule:

Milestones	Delivery Date (Month, Day, Year)
Begin Environmental	10/01/2010
PA & ED	07/15/2011
Project PS&E	03/01/2013
Right of way Cert	02/15/2013
Ready to List	07/01/2013
Approve Contract	02/19/2014
Contract Acceptance	11/01/2014
End Project	05/01/2015

10. FEDERAL COORDINATION

This project is eligible for federal-aid funding and is considered to be STATE-AUTHORIZED under current FHWA-Caltrans Stewardship Agreements.

11. SCOPING TEAM REVIEW SUMMARY:

This project has been reviewed by Maintenance, Traffic, Environmental, Right of Way and Structures. Caltrans Staff have reviewed this proposed project on various dates in 2009. The ABME, District Maintenance Engineer and HQ Program Advisor are all in concurrence with the needs and proposed alternatives for this proposed project. A safety review was held on 11 June 2009.

12. PROJECT REVIEWED BY:

- Field Review	Grant Krueger	March 2009
- District 9 Maintenance	John Fox	June 2009
- District 9 Safety	Terry Erlwein	June 2009
- CR Design Chief	Rory Quince	December 2009
- CR Design Review	Mike Janzen	January 2010
- HQ Div of Pavmnt Mgt	Rob Marsh	June 2009
- Dist 9 Construction	Tim Schultz	June 2009

13. LIST OF ATTACHMENTS

- A. Title Sheet
- B. Typical Cross Sections
- C. Preliminary Environmental Analysis Report (PEAR)
- D. Storm Water Data Report Signatures
- E. Right of Way Data Sheet
- F. Advanced Planning Study
- G. STRAIN Data
- H. Traffic Management Plan
- I. Deflection Study Results
- J. Risk Register
- K. Life Cycle Cost Analysis (LCCA)

14. **DISTRIBUTION LIST**

HQ Division of Design (2 Copies)
HQ Program Advisor– Rob Marsh
HQ Division of Engineering Services (DES) -- Andrew Tan
HQ Transportation Programming – Kurt Scherzinger and Rick Guevel
HQ Environmental – Bob Pavlik
HQ Div of Pavmnt Mgt – Rob Marsh
HQ Maintenance: Dan Irvine
Roger Hunter
Jim Varney
Patty-Jo Dickinson
HQ Traffic Operations – Nagi Pagadala
HQ Traffic Safety – Shaila Chowdhury
Project Manager – Cedrik Zemitis
Design Manager – Truman Denio (2 Copies)
Central Region Construction Engineer – Tim Schultz
District Maintenance – Craig Holste
District 9 Traffic Management – Terry Erlwein
Central Region Traffic Design – Mohammed Qatami
Central Region Materials Lab – Dave Dhillon
Central Region Environmental – David Hyatt
Central Region Right-of-Way – Nancy Escallier
District 9 Planning – Brad Mettam
District 9 Landscape Architect – R. Steve Miller
PPM – Sarah Lesnikowski
District 9 Single Focal Point – Bryan Winzenread
Central Region Surveys – Howard Brunetti (electronic copy)
Central Region Records – Victoria Pozuelo

9-Iny/Mno-6-Iny 0.0/8.4, Mno 0.0/4.4

09-144-34100K

20.20.201.120

March 2010

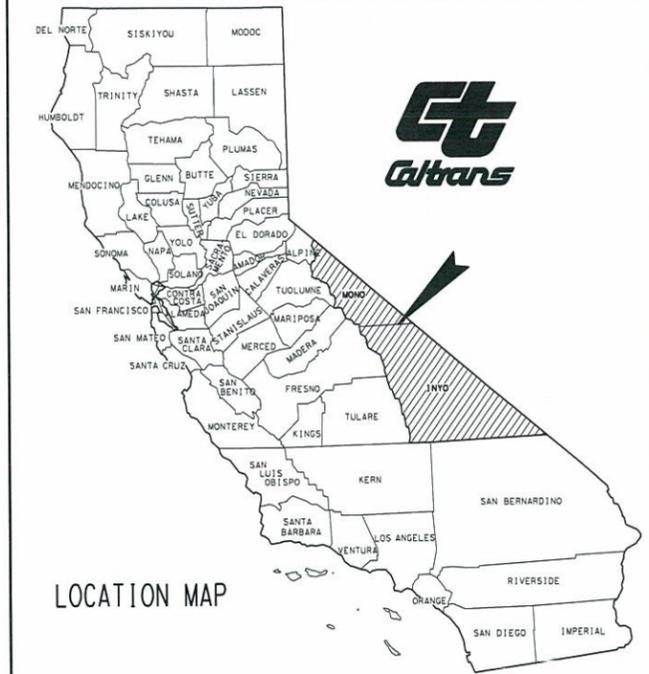
ATTACHMENT A
Location Map
(i.e. Title Sheet)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY

IN INYO AND MONO COUNTIES
NEAR BISHOP FROM WYE ROAD
TO HUNTER AVE

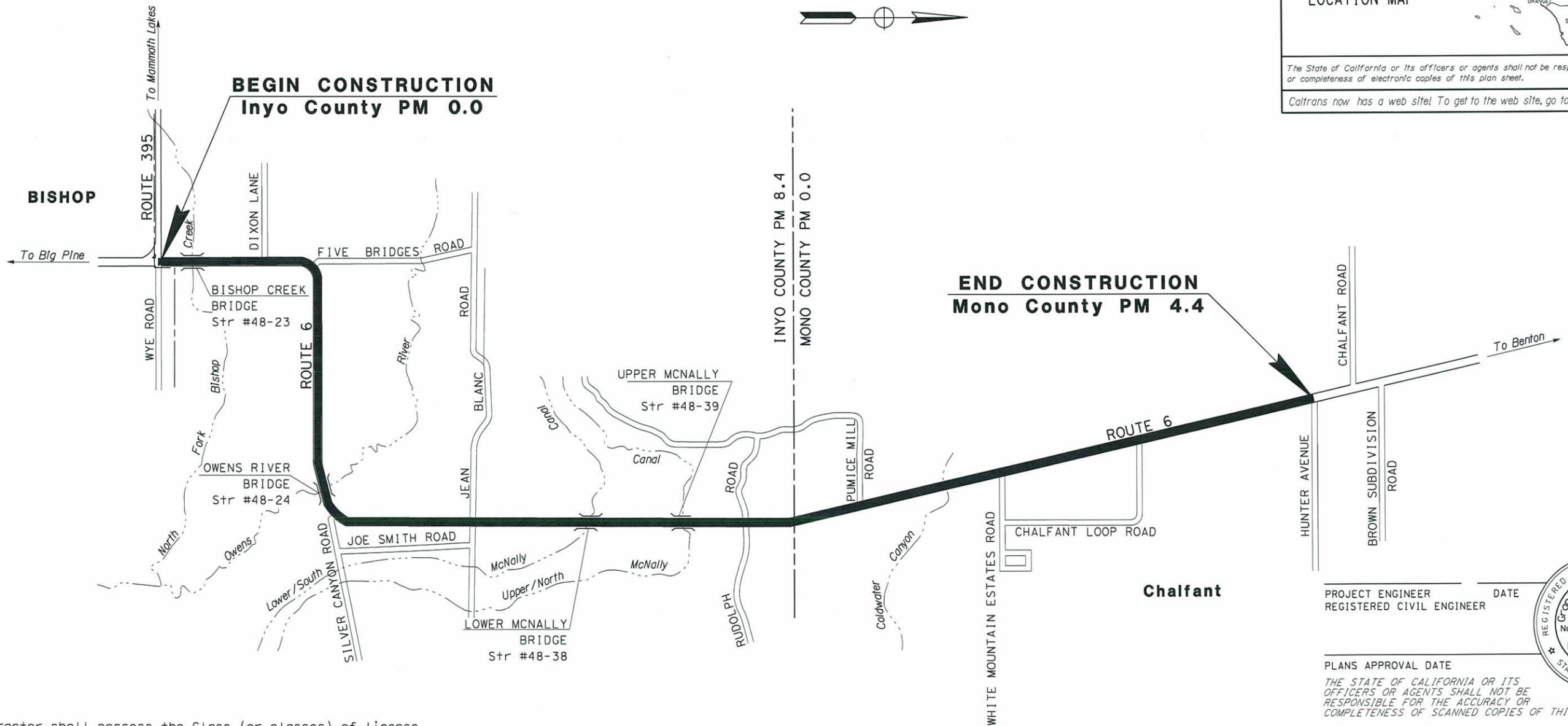
To be supplemented by Standard Plans dated May, 2006

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
09	Inyo, Mono	6	Inyo 0.0/Mono 4.4	1	X



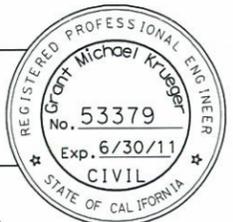
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

Caltrans now has a web site! To get to the web site, go to: <http://www.dot.ca.gov>



Chalfant

PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER



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

The Contractor shall possess the Class (or classes) of license as specified in the "Notice to Contractors".

NO SCALE

PROJECT ENGINEER PROJECT MANAGER
G M Krueger C Zemitis

ATTACHMENT B
Typical Cross Sections

9-Iny/Mno-6-Iny 0.0/8.4, Mno 0.0/4.4

09-144-34100K

20.20.201.120

March 2010

ATTACHMENT C
Preliminary Environmental Assessment Report
(PEAR)



Preliminary Environmental Analysis Report

Project Information

District 09 County Iny/Mno U.S. 6 Post Mile Iny 0.0- EA 34100K
 Hwy. 8.3/Mno 0.0-
 4.5

Project Title:	Laws Rehab	
Project Manager:	Cedrik Zemitis	Phone #: (760) 872-5250
Design Manager:	Truman Denio	Phone #: (760) 872-0733
Design Engineer:	Grant Michael Krueger	Phone #: (760) 872-0649
Environmental Manager:	Sarah Gassner	Phone #: (559) 243-8243
Environmental Planner:	Stephen Ruiz	Phone #: (559) 243-8232

PSR Summary Statement

The anticipated environmental document for the proposed project is a Categorical Exemption/Categorical Exclusion. This document level has been selected based on potential impacts. The California Department of Transportation would act as the lead agency in the preparation of a joint NEPA/CEQA (National Environmental Policy Act/California Environmental Quality Act) environmental document. Caltrans will serve as the NEPA lead agency under its assumption of responsibility pursuant to 23 U.S. Code 327. The estimated time to obtain environmental approval is five months from the start of environmental studies. Assuming a start date of July 1, 2010, environmental studies would begin January 1, 2011 after project preliminary maps and permits to enter are completed. A completed CE/CE would be anticipated by June 1, 2011.

It is anticipated that a Natural Environmental Study would be required for this project.

Project Description

The California Department of Transportation (Caltrans), proposes to replace failing pavement and upgrade bridge/transition railing locations to current design standards on U.S. Highway 6, in Inyo (PM 0.0-8.3) and Mono (PM 0.0-4.5) Counties, from U.S. Highway 395 to Hunter Avenue. The project would remove a portion (Min 0.10 feet) of existing pavement and resurface the entire roadway with 0.25 feet of new asphalt concrete. The project would replace the Upper and Lower McNally Canals- (Str.#48-38 and #48-39) with culverts, upgrade rails at North Fork Bishop Creek and Owens River (Str.# 48-23 and #48-24), replace asphalt concrete on bridge decks with Polyester Concrete, and replace existing rumble strips within the project limits. The total length of the project is 12.8 miles.

Purpose and Need

The purpose of the project is to extend the service life of the existing pavement by 10 years, reduce maintenance expenditures, and to upgrade safety features within the scope of a rehabilitation project.

The existing pavement within the project limit is failing. The approach, transition and bridge rails at all four structures need to be upgraded to current design standards. However, at two of these structures (Upper and Lower McNally Canals- Str.#48-38 and #48-39), the estimated cost of rail upgrades is approximately equal to the estimated cost of replacing the structures with functionally equivalent culverts. In light of this as well as the added benefit of reducing future maintenance and upgrade costs at two bridges, replacing the two McNally Canals structures is part of the preferred alternative.

Description of Work

The project would remove a portion (Min 0.10 feet) of existing pavement and resurface the entire roadway with 0.25 feet of new asphalt concrete. The project would replace the Upper and Lower McNally Canals- (Str.#48-38 and #48-39) with culverts, upgrade rails at North Fork Bishop Creek and Owens River (Str.# 48-23 and #48-24), replace asphalt concrete on bridge decks with Polyester Concrete, and replace existing rumble strips within the project limits. Upper and lower McNally Canals are classified as short bridge/culverts and not listed in the bridge log. ADA upgrades would be constructed for existing pedestrian facilities at INY-6 - PM 0.0/0.25. Some of this work would require a construction easement, but no permanent right-of-way take would be needed.

Alternatives

There are two alternatives being considered for this project: one build alternative and a no-build alternative.

Funding

State Federal

This project is included in the 2008 – 2009 PID Work Program and is proposed for funding in the 2010 State Highway Operation and Protection Plan.

Anticipated Environmental Approval

CEQA

- Categorical Exemption/Statutory Exemption**
- Negative Declaration/Mitigated ND(Appendix G)**
- Environmental Impact Report**

NEPA

- Categorical Exclusion (6004/ 6005)**
- Finding of No Significant Impact**
- Environmental Impact Statement**

Anticipated Environmental Schedule

Total Time for Environmental Approval	Five months
Start Date	07/01/10
Begin Environmental	1/01/11
CE/CE Completion	6/01/11
PA&ED*	7/01/11

Assumptions and Risks

Risks to the project have been defined in accordance with the Project Risk Management Handbook, May 2, 2007, Second Edition, Rev 0:

- The project would require a Categorical Exemption/ Categorical Exclusion.
- Asbestos and/or lead-based paint would not be identified during the bridge survey of the Upper and Lower McNally bridge structures.
- The blanket Section 1600 permit would not require a higher-level document.
- No cultural resources would be encountered.
- No sensitive and/or plant species would be impacted in the project area.
- No impacts to potential migratory bird and/or bat nesting locations would occur.
- No potential wetlands would be encountered in the project area.

Risk Probability Ranking	
Ranking	Probability of Risk Event
5	60-99%
4	40-59%
3	20-39%
2	10-19%
1	1-9%

Risks:

- If environmental impacts were identified, the project would require a higher-level document. Probability of occurrence is a 2, the impact to schedule would be very high, and the impact to cost would be very high.
- If asbestos and/or lead-based paint were identified during the bridge survey, there would be a corresponding impact to cost and schedule. Probability of occurrence is a 3, the impact to schedule would be low, and the impact to cost would be moderate.
- If required, the project could require a higher-level document because of the Section 1600 permit. Probability of occurrence is a 2, the impact to schedule would be moderate, and the impact to cost would be moderate.
- If the project were to encounter cultural resources, there would be a corresponding impact to cost and schedule. Probability of occurrence is a 3, the impact to schedule would be a moderate, and the impact to cost would be moderate.
- If mitigation were required because of impacts to potential sensitive and/or plant species, there would be a corresponding impact to cost and schedule. Probability of occurrence is a 2, the impact to the schedule would be moderate, and the impact to cost would be moderate.
- If mitigation were required because of impacts to potential migratory bird and/or bat nesting locations, there would be a corresponding impact to cost and schedule. Probability of occurrence is a 2, the impact to the schedule would be high, and the impact to cost would be low.

- If mitigation were required because of potential wetlands near the project area, there would be a corresponding impact to cost and schedule. Probability of occurrence is a 4, the impact to the schedule would be high, and the impact to cost would be high.

Mitigation

Known mitigation costs, which were determined during the creation of this document, are listed in the respective categories below. Further studies may reveal the need for additional mitigation, which would be added to the cost of the project and included in an updated Mitigation Cost Compliance Estimate Form.

Right of Way Capital (050)

Biology

The Section 1600 permit fee would cost approximately \$4,000. This is based on the Department of Fish and Games' Streambed Alteration Fee Schedule for a project \$500,000 or more.

Construction Capital (042)

Hazardous Waste

The lead compliance plan would cost approximately \$3,000. The Asbestos Work Plan Analysis Report would cost approximately \$5,000.

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 Initiation Document. Changes in project scope, alternatives, or environmental laws will require a reevaluation of this report.

Approved by:



Environmental Manager

Date: 6/29/09



Environmental Office Chief

Date: 6/29/09



Project Manager

Date: 6/30/09

Environmental Technical Reports or Studies Required

Required – requires analysis including field surveys, database searches, report, or memo to file and brief explanation in the environmental document.

Not Required – Issue is not applicable to the proposed project.

Possible Critical Path – Major issue that has the potential to drive the schedule and determine the length of time to reach PA&ED (can be more than one major issue).

	Required	Clearance Memo Received	Not Required	Possible Critical Path
Biology		<input type="checkbox"/>		<input type="checkbox"/>
Endangered Species (Federal)	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Endangered Species (State)	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Species of Concern (CNPS, USFS, BLM, S, F)	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Wetland Delineation	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Natural Environment Study	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Biological Assessment (USFWS, NMFS, State)	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Cultural Resources				<input type="checkbox"/>
ASR	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
HRER	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
HPSR/HRCR	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Screening Memo	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SHPO Concurrence	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Native American Coordination	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
Finding of Effect Document	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Treatment Plan & MOA	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Hazardous Waste		<input type="checkbox"/>		<input type="checkbox"/>
ISA	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
PSI	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
ADL	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Air Quality Analysis		<input checked="" type="checkbox"/>		<input type="checkbox"/>
Hot Spot Analysis	<input type="checkbox"/>		<input type="checkbox"/>	
MSAT	<input type="checkbox"/>		<input type="checkbox"/>	
Noise Study	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water Quality	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Community Impact Assessment				<input type="checkbox"/>
Environmental Justice	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Growth Related Impacts	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Cumulative Impacts	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Farmland	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Visual Resources		<input checked="" type="checkbox"/>		<input type="checkbox"/>
Scenic Resource Evaluation	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Visual Impact Assessment	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
Floodplain Evaluation	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Paleontology	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Section 4(f) Evaluation	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wild and Scenic River Consistency	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>

Permits Anticipated for Construction

	<u>Required</u>	<u>Not Required</u>
401 Permit Coordination (discharge into navigable waters)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
404 Permit Coordination (discharge into waters of the US including Wetlands)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> - Nationwide		
<input type="checkbox"/> - Individual		
1600 Permit (Streambed Alteration)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
City/County Coastal Permit Coordination	<input type="checkbox"/>	<input checked="" type="checkbox"/>
State Coastal Permit Coordination	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NPDES Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>
US Coast Guard (Section 10)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
State 2081 Permit (State only incidental take of threatened or endangered species)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion of Technical Review

Biology

A Biological Scoping Report was conducted on June 23, 2009. A Natural Environmental Study would be required.

Surveys for the sensitive and rare botanical resources would be required. Surveys for migratory birds nesting at the culverts and bridges would be conducted. There is a small chance migratory birds and/or bats could use some of the culverts/bridges as nesting locations. If migratory birds were found, construction timing could be affected, or exclusionary devices could be installed before bird breeding season (February 15- September 15). Wetlands could potentially be adjacent to Bishop Creek and Owens River. No shoulder widening associated with this project would occur in either of these areas, therefore, no impacts would be expected to potential wetlands in the project area.

This project would likely fall under a 'blanket' Section 1600 permit, held by District 09. No 401/404 coordination efforts would be necessary because Upper and Lower McNally Canals do not convey water and remain dry year-round.

Cultural Resources

A Cultural Resources Scoping Worksheet was conducted on February 24, 2009. An updated report was conducted on June 24, 2009. It is expected that no cultural resources would be affected with the current project limits. A cultural screening memo would be anticipated.

The Lower McNally Canal (Str.#48-38) is not eligible for the National Register of Historic Places. The Upper McNally Canal (Str.#48-39) is no longer considered a structure but a bridge/culvert.

The proposed Area of Potential Effect (APE) must include all access roads, work areas, and staging areas beyond the existing paved highway. Any subsequent changes in project scope could require additional archaeological studies.

The following Native American tribe may have an interest in or be affected by the proposed project: Bishop Paiute Tribe.

Hazardous Waste

A scoping report was conducted on March 24, 2009.

Based on design changes to the project, before demolition a bridge survey would be required. To determine if lead based paint or asbestos containing materials are present. Appropriate SSP and NSSP would be provided. Depending on method of pavement removal, SSP for the handling for yellow thermoplastic may be required.

If analysis confirms the presence of ACM or lead-based paint on the bridge structure a certified contractor would be required to remove and properly dispose of the waste otherwise before bridge demolition. Appropriate NSSP and SSP would be provided.

The project is in an area of no concern as recognized by the U.S. Environmental Protection Agency for airborne deposited lead. The area has a low ADT (less than 10,000).

Air Quality Analysis

A scoping report was conducted on March 24, 2009. No further analysis would be required. The proposed project would not have any significant long-term impacts to any air quality parameters.

The project limits lie within the Great Basin Air Pollution Control District. The project limits are in a PM₁₀ nonattainment area and in an unclassified area for ozone and PM_{2.5}. The project would not significantly alter existing roadbed conditions where PM_{2.5} emissions would be adversely affected.

A short-term degradation of mesoscale air quality would potentially occur from construction equipment exhaust. Elevated dust levels would potentially occur due to grading operations and the creation of bare slopes. The enforcement of Caltrans dust control specifications would minimize these short-term conditions.

Noise Study

A scoping report was conducted on March 24, 2009. No further analysis would be required.

The projected peak-hour noise levels were found to be below Federal Highway Administration requirements for all receptors within the project vicinity. Construction activities would cause a temporary increase in noise levels.

Water Quality

A scoping report was conducted on March 24, 2009. No further analysis would be required.

A temporary reduction in water quality could occur during project construction. Caltrans and the project contractor would comply with all permits required by the permitting agencies to minimize any impacts. All appropriate Best Management Practices would be used as outlined in the NPDES Statewide Storm Water Permit and the Waste Discharge requirements.

Contamination of any surface water would be avoided. Requirements on minimizing contamination would be provided in the contractor's Best Management Practices, which is mandated. If used, no reclaimed water would be allowed to mingle with surface flows.

Community Impact Assessment

This would not be required. No new right-of-way would be required.

Cumulative Impacts

This would not be required. No new right-of-way would be required. This project would not increase capacity or congestion.

Farmland

This would not be required. No new right-of-way would be required.

Visual Resources

A Preliminary Landscape and Visual Scoping was conducted on March 12, 2009. It was determined that no qualifying scenic resources, as defined in the Caltrans Standard Environmental Reference manual and in the enactment of Section 15300.2(d) of the California Environmental Quality Act Implementation Guidelines, would be affected the proposed project.

Based upon the project description, there would be only minimal disturbance outside of the existing roadway. If the project scope changes, Caltrans Landscape Architecture must be notified immediately. The project would need to be reviewed once again for visual issues.

Removal of vegetation from the roadside could result in a noticeable change to the visual environment. Efforts should be made during the design stage to preserve as much vegetation as possible.

Floodplain Evaluation

There are no associated impacts with the proposed project.

Paleontology

A Paleontological Identification Report was conducted on March 2, 2009. The project appears unlikely to encounter significant paleontological resources and no additional studies are recommended.

Section 4(f) Evaluation

This would not be required. No new right-of-way would be required.

Wild and Scenic River Consistency

There are no wild and scenic rivers in the project area.

Permits.

A National Pollutant Discharge Elimination permit and a 'blanket' Section 1600 permit would be required as proposed.

List of Preparers

Cultural Review by Angie Boston	June 24, 2009
Paleontology Review by Peter Hansen	June 24, 2009
Visual Review by R. Steve Miller	March 12, 2009
Biology Review by Daniel Boughter	June 23, 2009
Air Quality Review by Daniel Holland	March 24, 2009
Hazardous Waste Review by Daniel Holland	March 24, 2009
Water Quality Review by Daniel Holland	March 24, 2009
Preliminary Environmental Analysis Report by Stephen Ruiz	April 14, 2009

9-Iny/Mno-6-Iny 0.0/8.4, Mno 0.0/4.4

09-144-34100K

20.20.201.120

March 2010

ATTACHMENT D
StormWater Data Sheet Signature Pages

Short Form - Storm Water Data Report



Dist-County-Route: 09-Iny/Mno-6
Post Mile (Kilometer Post) Limits: Iny 0.0/Mno 4.4

Project Type: Rehab
EA: 09-34100K
RU: 09/144
Program Identification: 20.20.201.120

Phase: [X]PID []PA/ED []PS&E

Regional Water Quality Control Board(s):

- 1. Is the project required to consider incorporating Treatment BMPs? []Yes [X]No
2. Does the project disturb more than 0.25 acres of soil? []Yes [X]No
3. Is the project part of a Common Plan of Development? []Yes [X]No
4. Does the project potentially create permanent water quality impacts? []Yes [X]No
5. Does the project require a notification of ADL reuse? []Yes [X]No

If the answer to any of the preceding questions is "Yes", prepare a Long Form - Storm Water Data Report.

Estimated Construction Start Date: May 2012 Construction Completion Date: Aug 2012

Separate Dewatering Permit (if Yes, permit number) []Yes Permit #: []No

This Short Form - Storm Water Data 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.

Grant Michael Krueger, Registered Professional Engineer 5/28/09 Date

I have reviewed the storm water quality design issues and find this report to be complete, current, and accurate:

STAMP [Required for PS&E only]

Dan Holland District/Regional SW Coordinator or Designee 5/28/09 Date

Evaluation Documentation Form

DATE: 28 May '09

See Figure 4-1, Project Evaluation Process for Consideration of Permanent Treatment BMPs

EA: 09-34100K

NO.	CRITERIA	YES	NO	SUPPLEMENTAL INFORMATION FOR EVALUATION
1.	Begin Project Evaluation regarding requirement for consideration of Treatment BMPs	<input checked="" type="checkbox"/>		Go to 2
2.	Is this an emergency project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	If Yes, go to 11. If No, continue to 3.
3.	Have TMDLs OR OTHER Pollution Control Requirements been established for surface waters within the project limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	If Yes, contact the District/Regional NPDES coordinator to discuss the Department's obligations under the TMDL (if Applicable) or Pollution Control Requirements, go to 10 or 4 (as determined by the NPDES Coordinator). _____ (Dist./Reg. SW Coordinator initials) If No, continue to 4.
4.	Is the project within an urban MS4?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	If Yes, continue to 5. (write the MS4 Area here) If No, go to 11.
5.	Is the project directly or indirectly discharging to surface waters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	If Yes, continue to 6. If No, go to 11.
6.	Is this a new facility or major reconstruction?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	If Yes, continue to 8. If No, go to 7.
7.	Will there be a change in line/grade or hydraulic capacity?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	If Yes, continue to 8. If No, go to 11.
8.	Is the Disturbed Soil Area (DSA) created by the project <u>greater than or equal to 3.0 acres</u> or does the project result in a <u>net increase of one acre or more of new impervious surface</u> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	If Yes, continue to 10. If No, go to 9. _____ (Total DSA quantity)
9.	Is the project part of a Common Plan of Development?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	If Yes, continue to 10. If No, go to 11.
10.	Project is required to consider approved Treatment BMPs.	<input type="checkbox"/>		See Sections 2.4 and either Section 5.5 or 6.5 for BMP Evaluation and Selection Process. Complete Checklist T-1 in this Appendix E.
11.	Project is not required to consider Treatment BMPs. <div style="font-size: small;"> <u>DM</u> (Dist./Reg. SW Coord. Initials) <u>SM</u> (Project Engineer Initials) 28 May 2009 (Date) </div>	<input checked="" type="checkbox"/>		Document for Project Files by completing this form, and attaching it to the SWDR.

See Figure 4-1, Project Evaluation Process for Consideration of Permanent Treatment BMPs



9-Iny/Mno-6-Iny 0.0/8.4, Mno 0.0/4.4
09-144-34100K
20.20.201.120
March 2010

ATTACHMENT E
Right of Way Data Sheet

Right of Way Data Sheet Report

To: Cedrik Zemitis
Project Manager – Bishop

Date: January 14, 2010
File Ref.: Inyo 6 PM 0.0/8.3
Mono 6 PM 0.0/4.4
EA: 09-34100k updated
Alt No.: No Demo, No RAP

Attention: Truman Denio, Design Manager
Grant Krueger, Project Engineer

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

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: January 12, 2010 to update the August 19, 2009 data sheet to include the MCCE costs: "Laws Rehab". The following assumptions and limiting conditions were identified:

1. Contractor needs to be aware that USA Alert has to be contacted prior to any digging. This information should go in the specials.
2. The December 2009 Bishop "Status of Projects", page 4, **has not/has** outlined a target right of way certification date: project in PID Stages. The Project Engineer has noted that the Anticipated Const/Award date is in the 2012/2013 FY.
3. The Project Engineer indicates that **new** right of way is required for this project – TCE's.
4. The MCCE form provided with 1/12/2010 update request, it outlines the need for permit fees.
5. Utilities are involved, water/sewer, electric and possibly phone and cable tv. Will need longer lead-times due to this involvement.
6. Right of Way activities (ordering title reports, preparing base maps, preparing appraisal maps, etc) can commence upon receipt of completed Certificate of Sufficiency. Anticipated Lead Times for this project will be –
 - ◆ Preparation of R/W Maps to Regular R/W activities (base map prep, order title reports, appraisal map prep, comparable sales search) 4 Months
 - ◆ Regular R/W activities (acquiring parcels or permits, performing RAP, utility relocation activities) to Right of Way Certification. 18 Months

NOTE: The last chance to submit map/project changes to Right of Way, without jeopardizing r/w certification date, is 3 months after start of regular right of way work.

ANTICIPATED Right of Way LEAD - TIME will require a minimum of 18 months after we receive certified Appraisal Maps, the necessary environmental clearances have been obtained, and freeway agreements have been approved.


NANCY ESCALLIER
Field Office Chief
Right of Way, Central Region - Bishop
(760) 872-0641; Fax (760) 872-0755

RIGHT OF WAY DATA SHEET

REQUEST DATE: January 14, 2010

From: FRE STK SLO BIS

District: 09 County: Inyo & Mono Route: 6
 PM 0.0/8.3 and 0.0/4.4
 EA: 09-34100k Alt No.: No Demo, no RAP

1. **RIGHT OF WAY COST ESTIMATE:**
 (entered into PMCS COST RW1-5 Screens)

	Current Value (Year 2009)	Escalation Rate	Escalated Value (Year 2012)
Acquisition (Excess, Damages, Goodwill and Grantor Appraisal fees)	\$ 31,500.00	5%	\$ 33,313.00
Project permit fees			
Mitigation			
Utility Relocation (States share)	\$21,850.00	10%	\$25,300.00
Relocation Assistance			
Clearance/Demolition			
Title and Escrow Fees	\$ 3,000.00		\$ 3,000.00
TOTAL CURRENT VALUE	\$56,350.00		\$61,600.00
R/W SUPPORT COSTS			
Environmental permit/filing fees as noted on MCCE form dated 7/1/2009.	\$4,000.00		\$4,000.00
Construction Contract Work (construction costs to be included in projects PS&E)			

2. Current anticipated date of RIGHT OF WAY CERTIFICATION: 2012

3. **PARCEL DATA:**
 (entered on PMCS EVNT RW screen)

TYPE	NUMBER	DUAL/APPR	UTILITIES		RR INVOLVEMENT	
X			U4-1		None	X
A	4 - TCE's		-2		C & M Agmt	
B			-3		Service Contract	
C			-4		Lic/RE/Clauses	
D					MISC R/W WORK	
TOTAL:	4		U5-7	6	RAP Displacement	None
			5-8		Clear/Demo	None
			5-9		Const Permits	
EXCESS:	0				Condemnation	

Parcel Area: **Right of Way** - 2778 square feet **Excess** - N/A

4. Items of construction contract work: YES NO

5. Provide a general description of the right of way and excess lands required (zoning, use, major improvements, critical or sensitive parcels, etc.): private parcels plus one owned by La-DWP with leased buildings for the Wye Rd area; otherwise common desert scrub land.

YES - RIGHT OF WAY REQUIRED (TCE's) NO - NONE REQUIRED

- 6. Effect on assessed valuation: YES NOT SIGNIFICANT NO
- 7. Utility facilities or rights of way affected: YES Utility Worksheet attached. NO
Note: The following items may seriously impact lead time for utility relocation: a) Longitudinal policy conflict(s)
b) Environmental concerns impacting acquisition of potential easements c) Power lines operating in excess of 50KV and substations.
- 8. Railroad facilities or rights of way affected: YES Railroad Worksheet attached. NO
- 9. Previously unidentified sites with hazardous waste and/or material found: NONE EVIDENT
- 10. RAP displacements required: YES NO
- 11. Material borrow and/or disposal sites required: YES NO
- 12. Potential relinquishments and/or vacations: YES NO
- 13. Existing and/or potential Airspace sites: YES NO
- 14. Environmental mitigation parcels required: YES NO Note: MCCE dated 7/1/09 declares the need for permit fees only, 1600 permit, at a cost of \$4,000.00.
- 15. All Right of Way work will be performed by Caltrans staff: YES NO

16. Data for evaluation provided by:

Estimator:

Lora Ruscher Date: 1/14/2010
for Kathlene Brown

Utility Relocation Coordinator:

Lora Ruscher Date: 1/14/2010
for Julie Dogris

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.

1/14/10
Date

Nancy Escallier
NANCY ESCALLIER
Field Office Chief
Right of Way, Central Region - Bishop

R/W UTILITY ESTIMATE WORKSHEET

(Form #)

Date 8-10-09
Post Mile Inyo 0.0/8.3 to Mono 0.0/4.4
Expenditure Authorization 34100K

Description of Project:

Laws Rehab in Inyo and Mono Counties from US Highway 395 to 4.4 miles north of Mono County line.

Estimate for: [] Preliminary Route Estimate (Alternate No. ...)
[X] R/W Data Sheet (Preferred Alternate)

Evidence of Utilities:

[] Gas [] Electric [] Telephone [] Cable TV [X] Water [] Public Drainage/Irrigation
[] Sewer [] Fiber Optics [X] Other (Explain in "Remarks")

Anticipated Utility Relocations:

[] Gas [] Electric [] Telephone [] Cable TV [X] Water [] Public Drainage/Irrigation
[] Sewer [] Fiber Optics [X] Other (Explain in "Remarks")

Estimated Cost of Utility Relocations:

Table with 4 columns: Description, Unit, Rate, Total Cost. Includes items like L.F. of Gas Line, Wood Poles (Electric), Fire Hydrants, Pot Holing, etc.

TOTAL ESTIMATE (State's Share) = \$ 19,000

Remarks:

There is a pole with a light attached to it that will need to be moved back out of the right of way.

Handwritten notes: DWP, SCE, VERIZON, USA, City Water

**Central Region Environmental Division Mitigation Cost Compliance
Estimate Form (MCCE)**

This MCCE is for: **PEAR**

Dist - Co - Rte - PM: <u>09-INY-6-0.0 / 8.3</u>	EA: <u>09-34100</u>
Project Name: <u>LAWS REHAB</u>	Alternative #: _____
Project Description: <u>REHAB PAVEMENT</u>	(If applicable)
Environmental Manager: <u>Sarah Gassner</u>	Phone Number: <u>559-243-8243</u>
Design Manager: <u>Truman Denio</u>	Phone Number: <u>(760) 872-0733</u>
Design Engineer: <u>Grant Michael Krueger</u>	Phone Number: <u>(760) 872-0649</u>
Project Manager: <u>Cedrik Zemitis</u>	Phone Number: <u>(760) 872-5250</u>
Date: <u>6/26/2009</u>	
MCCE Prepared By: <u>Stephen Ruiz</u>	Phone Number: <u>(559) 243-8232</u>

	Right of Way Capital (Prior to Construction 050-\$'s)	Construction Capital (During & Post Construction 042-\$'s)
Archaeological		\$0
Historical		\$0
Paleontology		\$0
Hazardous Waste		\$8,000
Air Emissions		
Biological		
Mitigation parcels (# of acres only)		
Mitigation/Bank Credits (\$-only)		
Monitoring		
Permit Fees		
401 Permit Fee		
404 Permit Fee		
1600 Permit Fee	\$4,000	
Coastal Development Permit Fee		
DFG Fee		
Bat/Swallow Exclusion		\$0
Other: _____		
Other: _____		
TOTAL	\$4,000	\$8,000

Approved By: *Paul Gassner* Environmental Branch Chief Date: 7/1/09

This form is completed as part of the PEAR for all candidate projects, at completion of the Draft Environmental Document, at completion of the Final Environmental Document, and during preparation of the PS&E

This form is to be completed for all SHOPP, STIP, and Minor A & B projects (even those without mitigation).

Include all costs necessary to complete the commitment including: capital outlay (non-staffing support costs); cost of right-of-way or easements; long-term monitoring and reporting by consultants during the construction phase; and any follow-up maintenance post construction.

Timing of Enhancement/Endowment funds will depend on which agency is requiring the mitigation. Funds may need to be available as 050 or as 042.

*received
1/2/2010 JR.*

9-Iny/Mno-6-Iny 0.0/8.4, Mno 0.0/4.4
09-144-34100K
20.20.201.120
March 2010

ATTACHMENT F
Advanced Planning Study

Michael
Downs/HQ/Caltrans/CAGov
06/08/2009 01:32 PM

To Grant Michael Krueger/D09/Caltrans/CAGov@DOT, Truman
Denio/D09/Caltrans/CAGov@DOT
cc Cedrik Zemitis/D09/Caltrans/CAGov@DOT, Andrew T S
Tan/HQ/Caltrans/CAGov@DOT
bcc

Subject 09-34100 Structure Cost

History: This message has been forwarded.

Grant & Truman,

The following is the APS level structure cost estimate for the subject project.

Bridge Name (Br. No.)	Estimated Cost - Barrier Replacement	Estimated Cost - AC Removal w/ 3" Polyester Conc Overlay	Total Cost
Bishop Creek Bridge (48-0023)	\$59,000	\$90,000	\$149,000
Owens River Bridge (48-0024)	\$128,000	\$232,000	\$360,000
Lower McNally Canal (48-0038)	\$105,000	\$50,000	* \$155,000
Upper McNally Canal (48-0039)	\$48,000	\$30,000	* \$78,000
Totals =	\$340,000	\$402,000	\$742,000 * - BRIDGES TO BE REMOVED - REMOVAL COSTS ACCOUNTED FOR ELSEWHERE \$509,000

The above costs include 10% time related overhead, 10% mobilization and 25% contingencies. The unit costs used were based on the studies prepared under 09-33770 and 09-33750. The scope of work at each structure is as follows:

Bishop Creek Bridge (48-0023):

Remove existing metal beam railing and concrete barrier parapet and replace with a Concrete Barrier Type 732. Abutment wingwall partial removal and reconstruction will be necessary to accommodate new barrier. Excavation and backfill adjacent to abutment wingwalls will be required. The existing bridge deck is assumed to be in good condition.

Previously I anticipated the need to access the creek for ground supported form work, but this no longer the case. Since access to the creek is not necessary, I did not include the scour work recommendation (rock apron along/around Pier 2) in the above estimate. If this substructure scour work is included, it will cost approximately \$25,000, not including any necessary environmental mitigation.

Owens River Bridge (48-0024):

Remove existing Concrete Barrier Type 27 and replace with a Concrete Barrier Type 732. Abutment wingwall removal and reconstruction will be necessary to accommodate new barrier. Excavation and backfill adjacent to abutment wingwalls will be required. It is assumed that the existing overhangs will accommodate barrier replacement without removal and reconstruction.

As previously mentioned, a new concrete end block could easily be constructed at this structure to accommodate the new approach guard railing anchorage without full barrier replacement.

Lower McNally Canal (48-0038):

Remove existing metal beam railing and concrete barrier parapet and 1987 widening and portion of original bridge deck. Reconstructed removed bridge deck portion and construct new Concrete Barrier Type 732. Ground supported form work will be necessary for the deck reconstruction. The remaining existing bridge deck is assumed to be in good condition. Abutment wingwall partial removal and reconstruction will be necessary to accommodate new barrier. Excavation and backfill adjacent to abutment wingwalls will be required.

Upper McNally Canal (48-0039):

Remove existing Type 1 barrier and replace with a Concrete Barrier Type 732. Abutment wingwall partial removal and reconstruction will be necessary to accommodate new barrier. Wingwall extension will be required to provide for a minimum 30' concrete barrier length. Excavation and backfill adjacent to abutment wingwalls will be required. The existing bridge deck is assumed to be in good condition.

AC Removal/Polyester Concrete Overlay:

I provided the cost for AC removal and polyester concrete overlay at each structure since I was not sure of the proposed pavement rehabilitation strategy, if any, through the bridge limits. The 3" polyester overlay, assuming the bridge decks are in good condition, would probably be a conservative. If you leave the existing AC on the bridges, the approaches should conform to the existing. If a major rehab of the existing AC through the bridge limits is necessary, then we will need to get Structure Maintenance and Investigations' recommendations regarding deck protection. From previous experience, SM&I will either want a bare deck or more likely a polyester concrete overlay (3/4" min, 4" max.), especially at this elevation. With a polyester overlay, your approaches will need to conform to the new polyester grade, which could be 2-3" below existing.

The above costs do not including any necessary traffic handling or temporary railing costs. If this is a bike route, then we will need to include a tubular bike railing at each structure.

Let me know if you need further information or clarification.....

MIKE DOWNS

Technical Liaison to District 5, 6, 9 & 10

Office of Bridge Design Central

Structure Design, DES

(916) 227-9365

9-Iny/Mno-6-Iny 0.0/8.4, Mno 0.0/4.4
09-144-34100K
20.20.201.120
March 2010

ATTACHMENT G
STRAIN Data



DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 48 0023 → BISHOP CREEK BRIDGE
 Facility Carried: U.S. HIGHWAY 6
 Location : 09-INY-006-.45-BIS
 City : BISHOP
 Inspection Date : 09/18/2008

Bridge Inspection Report

Inspection Type				
Routine	FC	Underwater	Special	Other
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

STRUCTURE NAME: BISHOP CREEK

CONSTRUCTION INFORMATION

Year Built : 1937 Skew (degrees): 0
 Year Widened: 1973 No. of Joints : 0
 Length (m) : 12.8 No. of Hinges : 0

Structure Description: Continuous, 2 span haunched slab with RC wall pier and closed end rigid frame abutments, all founded on spread footings. Widened 2.5 m on each side.

Span Configuration : (S) 2 @ 6.1 m (N)

LOAD CAPACITY AND RATINGS

Design Live Load: M-13.5 OR H-15			
Inventory Rating: 24.3 metric tons	Calculation Method: LOAD FACTOR		
Operating Rating: 40.5 metric tons	Calculation Method: LOAD FACTOR		
Permit Rating : P P P P P			
Posting Load : Type 3 N/A	Type 3S2 N/A	Type 3-3	N/A

DESCRIPTION ON STRUCTURE

Deck X-Section: (W) 0.4 m br, 2.5 m s, 2 @ 3.7 m, 2.5 m s, 0.4 m br (E)

Total Width: 13.2 m	Net Width: 12.4 m	No. of Lanes: 2
Rail Description: Concrete w/ MBGR		Rail Code : 1111
Min. Vertical Clearance: Unimpaired		

DESCRIPTION UNDER STRUCTURE

Channel Description: Meandering channel in sand and gravel alluvial bed. Moderate slope and velocity. Well vegetated banks.

CONDITION TEXT

CONDITION OF STRUCTURE

Concrete barrier is spall apart at the northwest end. A spall measuring 300 mm x 300 mm with major map pattern cracks has developed so far. Barriers also have vertical cracks at 1' to 3' OC with some areas of horizontal cracks 2" to 3" below top of barrier.

Deck edge has small hairline map pattern cracks indicative of ASR. West edge of deck has 4 small spalls at the bottom portion

Wingwall has minor ASR type map cracks.

CHANNEL INFO

The stream runs 2' to 4' deep in span 1, abut to pier wall. Span 2 has vegetation upstream and downstream and soft mud under bridge that has an elevation about 3' to 6' high than the bottom of span 1. At this time there does not appear to be any scour issues.



DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 48 0038 → LOWER MCNALLY
Facility Carried: U.S. HIGHWAY 6
Location : 09-INY-006-6.46-BIS
City : BISHOP
Inspection Date : 09/18/2008

Bridge Inspection Report

Inspection Type				
Routine	FC	Underwater	Special	Other
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

STRUCTURE NAME: LOWER MCNALLY CANAL

CONSTRUCTION INFORMATION

Year Built : 1949	Skew (degrees): 0
Year Widened: 1987	No. of Joints : 0
Length (m) : 7	No. of Hinges : 0

Structure Description: Single span RC haunched slab with RC open end diaphragm abutments founded on steel piles. Widened each side 0.4 m.

Span Configuration : (S) 1 @ 6.1 m (N)

LOAD CAPACITY AND RATINGS

Design Live Load: MS-18 OR HS-20	Calculation Method: LOAD FACTOR
Inventory Rating: 29.8 metric tons	Calculation Method: LOAD FACTOR
Operating Rating: 49.6 metric tons	
Permit Rating : P P P P P	
Posting Load : Type 3 N/A	Type 3S2 N/A Type 3-3 N/A

DESCRIPTION ON STRUCTURE

Deck X-Section: (W) 0.4 m br, 2.0 m s, 2 @ 3.7 m, 3.0 m s, 0.4 m br (E)

Total Width: 13.2 m	Net Width: 12.4 m	No. of Lanes: 2
Rail Description: Concrete w/ MBGR		Rail Code : 1111
Min. Vertical Clearance: Unimpaired		

DESCRIPTION UNDER STRUCTURE

Channel Description: Natural stream bed.

CONDITION TEXT

CONDITION OF STRUCTURE

E.B. G-11 sign missing.

Concrete barriers have map pattern cracks on top surface.

AC overlay has 1 transverse crack on the top of south end joint.

Soffit has ASR type map pattern cracks with white to light brown efflorescence adjacent to west and east edges of the deck at A1 and along grip line. Soffit has minor longitudinal cracks and 5 minor spalls measuring 50 mm to 150 mm dia.

Abutment A1 has ASR type deterioration at the ends. A2 looks ok.

CHANNEL INFO

Canal not in use on 9/18/2008 channel bone dry with no evidence of recent water

9-Iny/Mno-6-Iny 0.0/8.4, Mno 0.0/4.4
09-144-34100K
20.20.201.120
March 2010

ATTACHMENT H

Traffic Data

M e m o r a n d u m

*Flex your power!
Be energy efficient!*

To: GRANT KRUEGER
Project Coordination

Date: December 29, 2008

File: 09-34100K
INY, MNO-6-PM INY 0.0/MNO 4.5
Laws Rehab



From: DONNA HOLLAND
Traffic Operations

Subject: Traffic Index (TI) Calculations and Design Designation

Attached you will find the Traffic Index (TI) Calculations and Design Designation for the Laws Rehab Project on Inyo and Mono 6 between PM's Inyo 0.0 to Mono 4.5. Please include the DHV below as your Design Designation on your plan sheets. Also attached is the accident analysis through the project limits.

Data Year.....	2007 AADT = 2000
Construction Year AADT.....	2012 AADT = 2050
5 Year AADT.....	2017 AADT = 2100
10 Year AADT.....	2022 AADT = 2160
20 Year AADT.....	2032 AADT = 2270
5 Year TI.....	2017 TI = 9.0
10 Year TI.....	2022 TI = 9.5
20 Year TI.....	2032 TI = 10.5
Construction Year DHV.....	2012 DHV = 180
5 Year DHV.....	2017 DHV = 190
10 Year DHV.....	2022 DHV = 190
20 Year DHV.....	2032 DHV = 200
2007 Directional Split = 80.86 %	
2007 Trucks = 21.8 %	

If you have any questions, please do not hesitate to call me. I may be reached at (760) 872-0711.

Attachment

c: File

TRAFFIC INDEX and DESIGN DESIGNATION CALCULATION SHEET

CO-RTE-PM INY, MNO-6-PM INY 0.0/MNO 4.5
EA 09-34100K
JOB NAME Laws Rehab

Requested by: Grant Krueger
Unit: Project Coordination
Date: 12/29/08

Census Year 2007
Construction Year 2012
Complete Construction Year 2013
2 Way AADT 2,000
Lane Distribution Factor 1.0 (Table 602.3B, Highway Design Manual)

	AM Peak	PM Peak
Peak Hour Percent, K	8.23	8.84
Directional Split, D	80.86	71.84
Product of K and D, KD	6.65	6.35
DHV = AADT x K /100	165	177

PERCENT TRUCKS (%) 21.8
1 WAY TRUCK VOLUME 353
GROWTH FACTOR, %/Year 0.5

-----TRAFFIC INDEX CALCULATIONS-----

Traffic Index Calculations are based on completion of construction per HDM 103.2

FIVE YEAR TRAFFIC INDEX

Vehicle Type	Trucks (%)	Present ADT One Way	Expansion Factor	Expanded ADT One Way	5 Year Constant	Lane Factor	ESALs
2 axle	4.13	15.0	1.0433	16.0	345	1	5,520
3 axle	19.95	70.0	1.0433	73.0	920	1	67,160
4 axle	17.2	61.0	1.0433	64.0	1470	1	94,080
5 axle	58.72	207.0	1.0433	216.0	3445	1	744,120
TOTALS	100	353.0		369.0			910,880

Five Year TI 9.0

TEN YEAR TRAFFIC INDEX

Vehicle Type	Trucks (%)	Present ADT One Way	Expansion Factor	Expanded ADT One Way	10 Year Constant	Lane Factor	ESALs
2 axle	4.13	15.0	1.0564	16.0	690	1	11,040
3 axle	19.95	70.0	1.0564	74.0	1840	1	136,160
4 axle	17.2	61.0	1.0564	64.0	2940	1	188,160
5 axle	58.72	207.0	1.0564	219.0	6890	1	1,508,910
TOTALS	100	353.0		373.0			1,844,270

Ten Year TI 9.5

TWENTY YEAR TRAFFIC INDEX

Vehicle Type	Trucks (%)	Present ADT One Way	Expansion Factor	Expanded ADT One Way	20 Year Constant	Lane Factor	ESALs
2 axle	4.13	15.0	1.0831	16.0	1380	1	22,080
3 axle	19.95	70.0	1.0831	76.0	3680	1	279,680
4 axle	17.2	61.0	1.0831	66.0	5880	1	388,080
5 axle	58.72	207.0	1.0831	224.0	13780	1	3,086,720
TOTALS	100	353.0		382.0			3,776,560

Twenty Yr TI 10.5

SHOULDER TIs

Design Life	2% ESALs	TI
5 Year	18,218	5.5
10 Year	36,885	6.0
20 Year	75,531	6.5

-----DESIGN DESIGNATION-----

Design Designation is based on year of construction per HDM 103.1

Construction Year AADT.....	AADT (2012) = 2050
Five Year AADT.....	AADT (2017) = 2100
Ten Year AADT.....	AADT (2022) = 2160
Twenty Year AADT.....	AADT (2032) = 2270
Construction Year DHV.....	DHV (2012) = 180
Five Year DHV.....	DHV (2017) = 190
Ten Year DHV.....	DHV (2022) = 190
Twenty Year DHV.....	DHV (2032) = 200
D = 80.86 %	
T = 21.8 %	



TRAFFIC OPERATIONS

December 29, 2008

DATE

TRAFFIC DATA REPORT

Project: Laws Rehab-Inyo/Mono SR 6, PM Inyo 0-Mono 4.5, EA 09-34100K

Speed: From Inyo 6 PM 0-2 posted speed limits progress from 35-65 mph. The remainder of the Project is posted 65 mph and at Inyo 6 PM 7, the northbound 85th percentile speed is 71 mph and the southbound is 71 mph. The northbound pace speed is 61-70 mph and the southbound is 61-70 mph.

Accident Data:

3 year Table B – 01/01/2005-12/31/2007, most current data available.
 Accident Rates expressed in Million Vehicle Miles (MVM).

Accident Rates (Per MVM)*		
Types	Actual Avg.	Statewide Avg.
Fatal	0.00	0.041
F + I*	0.28	0.54
Total	0.85	1.11
* Accidents per Million Vehicle Miles		
* Fatal plus Injury		

Summary: Twenty four collisions were recorded during the three-year study period and there were no fatalities and fifteen injuries in eight injury accidents. Sixteen of the collisions were PDO.
 See individual accident data in attached spreadsheet.

Accident Statistics:

- (15) 62.5% Northbound
- (15) 62.5% Single Vehicle

- Primary Collision Factor
- (10) 41.7% Improper turn
 - (4) 16.7% Other Than Driver
 - (3) 12.5% DUI
 - (3) 12.5% Failure to Yield
 - (2) 8.3% Speeding
 - (2) 8.3% Other Violations

**Traffic Data Report
(cont)**

Type of Collision

(10) 41.7% Hit Object

(4) 16.7% Overturn

(3) 12.5% Broadside

(3) 12.5% Other

(1) 4.2% Rear End

(1) 4.2% Auto-Pedestrian

Environmental Conditions

(20) 83.3% Clear weather

(15) 62.5% Daylight

(22) 91.7% Dry roadway

Recommendations:

Improve sight distance at intersections

Improve clear recovery zones

Remove fixed objects

Lessen degree of slopes/embankments

Widen shoulders - pave

Compiled by: Greg Weirick -Traffic Operations & Safety

TRAFFIC MANAGEMENT PLAN CHECKLIST

District / EA: 09-34100K
Date Prepared: May 28, 2009
Prepared By: Grant Krueger

Co.-Rte-PM: INY/MNO-6- INY 0.0/MNO 4.4

Description: AC Overlay

Included in Project	Under Dvlpmt	Not required	Not Applicable	COMMENTS
---------------------	--------------	--------------	----------------	----------

1.0 Public Information

- 1.1 Brochures and Mailers
- 1.2 Media Releases (& minority media sources)
- 1.3 Paid Advertising
- 1.4 Public Information Center
- 1.5 Public Meetings/Speakers Bureau
- 1.6 Telephone Hotline
- 1.7 Visual Information (videos, slide, shows, etc.)
- 1.8 Total Facility Closure
- 1.9 Local cable TV and News
- 1.10 Traveler Information Systems (Internet)
- 1.11 Internet

Included in Project	Under Dvlpmt	Not required	Not Applicable	COMMENTS
		X		
	X			By PIO At time of const.
		X		
		X		
	X			
		X		
		X		
	X			By PIO at time of const.
		X		
	X			By PIO at time of const.

2.0 Motorist Information Strategies

- 2.1 Electronic Message Signs
- 2.2 Changeable Message Signs
- 2.3 Extinguishable Signs
- 2.4 Ground Mounted Signs
- 2.5 Commercial Traffic Signs
- 2.6 Highway Advisory Radio (fixed and mobile)
- 2.7 Planned Lane Closure Web Site
- 2.8 Caltrans Highway Information Network (CHIN)
- 2.9 Radar Speed Message Sign

Included in Project	Under Dvlpmt	Not required	Not Applicable	COMMENTS
		x		
X				CMS at each end of project
		X		
X				CAS included in PS&E
		X		
		X		
		X		
	X			Notify CHIN if reducing rd. width
		X		

3.0 Incident Management

- 3.1 Call Boxes
- 3.2 Construction or Maintenance Zone Enhance Enforcement Program - COZEEP or MAZEEP
- 3.3 Freeway Service Patrol
- 3.4 Traffic Surveillance Stations (loop detectors and CCTV)
- 3.5 911 Cellular Calls
- 3.6 Transportation Management Center
- 3.7 Traffic Control Officers
- 3.8 CHP Officer in TMC during construction
- 3.9 Traffic Management Teams
- 3.10 On-site Traffic Advisor
- 3.11 CHP Helicopter
- 3.12 Upgraded Equipment

Included in Project	Under Dvlpmt	Not required	Not Applicable	COMMENTS
		X		
		X		
		X		
X				Include Loop replacement
X				RE & Inspectors have cell phones
		X		
		X		
		X		
		X		
		X		
		X		
		X		

Included in Project	Under Dvlpmt	Not required	Not Applicable	COMMENTS
---------------------	--------------	--------------	----------------	----------

4.0 Construction Strategies

- 4.1 Incentive/Disincentive Clauses
- 4.2 Ramp Metering
- 4.3 Lane Rental
- 4.4 Off peak/Night/Weekend Work
- 4.5 Planned Lane/Ramp Closures
- 4.6 Project Phasing
- 4.7 Temporary Traffic Screens
- 4.8 Total Facility Closure
- 4.9 Truck Traffic Restrictions
- 4.10 Variables Lanes
- 4.11 Extended Weekend Closures
- 4.12 Reduced Speed Zones
- 4.13 Coordination with adjacent construction
- 4.14 Traffic Control Improvements
- 4.15 Contingency Plans
 - 4.15. Material Plant on standby
 - 4.15. Extra Critical Equipment on site
 - 4.15. Material Testing Plan
 - 4.15. Alternate Material on site
(In case of failure or major delays)
 - 4.15. Emergency Detour Plan
 - 4.15. Emergency Notification Plan
 - 4.15. Weather Conditions Plan
 - 4.15. Emergency Funding Plan
 - 4.15. Delay Timing and Documentation Plan
 - 4.15. Late Closure Reopening Notification
(Policy & Plan)
 - 4.15. Traffic Inspector on site

		X		
			X	
			X	
		X		
			X	
		X		
		X		
		X		
		X		
		X		
		X		
		X		
	X			
		X		
	X			
		X		
		X		
		X		
	X			RE To be Notified
	X			RE To be Notified
		X		
		X		
		X		
		X		
X				Const. Insp. Will be present

5.0 Demand Management

- 5.1 HOV Lanes/Ramps
- 5.2 Park-and-Ride Lots
- 5.3 Parking Management/Pricing
- 5.4 Rideshare Incentives
- 5.5 Rideshare Marketing
- 5.6 Transit, Train, or Light-Rail Incentives
- 5.7 Transit Service Improvements
- 5.8 Variable Work Hours
- 5.9 Telecommute
- 5.10 Ramp Metering

			X	
			X	
			X	
			X	
			X	
			X	
			X	
			X	
			X	
			X	

6.0 Alternate Route Strategies

- 6.1 Ramp Closures
- 6.2 Street Improvements
- 6.3 Reversible Lanes
- 6.4 Temporary Lanes or Shoulders Use
- 6.5 Freeway to freeway connector closures

			X	
		X		
		X		
		X		
			X	

Included in Project	Under Developmt	Not required	Not Applicable	COMMENTS

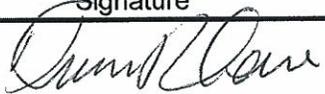
7.0 Other Strategies

- 7.1 Application of new technology
- 7.2 Innovative products
- 7.3 Improved specifications
- 7.4 Staff Training/Development
- 7.5 Upgraded Equipment

		X		
		X		
		X		
		X		
		X		

Peer Review Committee:

This TMP has been reviewed by the following PEER Committee Members:

	Name	Tele/Fax	Representing	Signature
1-	Truman Denio	(760) 872-0733	Project Coordination	
2-	Tim Shultz	(760) 872-5211	North Construction Area	

Approved by:



 DONNA HOLLAND
 PEER COMMITTEE CHAIR

9-Iny/Mno-6-Iny 0.0/8.4, Mno 0.0/4.4
09-144-34100K
20.20.201.120
March 2010

ATTACHMENT I
Deflection Study Results

Memorandum

To: GRANT MICHAEL KRUEGER
Design Engineer

Date: April 22, 2009

Attn:

File: 09-Mno-6-0.0/4.5
Rehabilitation
09-34100K

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

Subject: Flexible Pavement Deflection Study Report

In accordance with your request, we have developed pavement rehabilitation alternatives for the above referenced project. Design recommendations are based on the Deflection Study conducted on March 24, 2009 by personnel from District 06 Materials Branch. The deflection tests were done in ten sections. To determine the existing asphalt concrete (AC) thickness and the type of base materials, one core in each test section was taken during the field testing.

A condition survey was made at the time of the deflection study to assess the severity of pavement distresses. The survey indicated that the surface of pavement is Open Graded Asphalt Concrete (OGAC). The pavement reveals various types of distress conditions. The majority of cracking consisted of intermittent transverse cracks. The project is located in a rural area with few left or right turning lanes.

The collected data was analyzed for structural adequacy, reflective crack retardation and ride quality. The 2002 Pavement Condition Survey (PCS) indicates that the pavement has a maximum ride score of 98 in/mile in terms of International Roughness Index (IRI), which is within the acceptable value of 170 in/mile.

The district reports that the 20 year Traffic Index (TI₂₀) is 10.5 for this project.

The TI₂₀, 80th percentile of the deflections, tolerable deflections, core data, as well as the 2002 Pavement Condition Survey (PCS) data are summarized in Table 1, and were used to develop rehabilitation strategies. For this project, crack retardation governed the rehabilitation design.

Table 1: Data used in developing rehabilitation strategies.

Direction	TI ₂₀	Location PM/PM	Lane	Base Type	Avg. AC Thickness	Avg. 80 th Percentile	Tolerable Deflection	IRI
EB	10.5	0.01/1.00	1	AB	0.52 ft	0.014"	0.012"	98
WB	10.5	1.00/0.01	1	AB	0.48 ft	0.014"	0.012"	98
EB	10.5	1.00/2.00	1	AB	0.47 ft	0.011"	0.012"	98
WB	10.5	2.00/1.00	1	AB	0.45 ft	0.010"	0.012"	98

Direction	20 176 TI	Location PM/PM	Lane	Base Type	Avg. AC Thickness	Avg. 80 th Percentile	Tolerable Deflection	IRI
EB	10.5	2.00/3.00	1	AB	0.44 ft	0.011"	0.012"	98
WB	10.5	3.00/2.00	1	AB	0.50 ft	0.011"	0.012"	98
EB	10.5	3.00/4.00	1	AB	0.45 ft	0.009"	0.012"	98
WB	10.5	4.00/3.00	1	AB	0.47 ft	0.009"	0.012"	98
EB	10.5	4.00/4.50	1	AB	0.52 ft	0.008"	0.012"	98
WB	10.5	4.50/4.00	1	AB	0.47 ft	0.009"	0.012"	98

Twenty-Year Rehabilitation Recommendations

Alternative 1. – Rubberized Asphalt Concrete – Gap Graded (RAC G)

Conduct a field review and locate specific areas of severe failure identified by rutting greater than 1/2" and/or loose or spalling pavement.

Dig out and repair the localized distressed areas and seal all cracks wider than 1/8"

Mill off 0.10' of the AC surface to remove the Open Graded AC.

Finally, place an overlay of 0.15' of Rubberized Hot Mix Asphalt Type G (RHMA-G)

This will raise the existing profile grade 0.05'.

Alternative 2. – Dense graded Asphalt Concrete (DGAC)

Conduct a field review and locate specific areas of severe failure identified by rutting greater than 1/2" and/or loose or spalling pavement.

Dig out and repair the localized distressed areas and seal all cracks wider than 1/8".

Mill off 0.10" of the AC surface to remove the Open Graded AC.

Finally, place a Dense Graded AC (DGAC) overlay of 0.25'.

This will raise the existing profile grade 0.15'.

Remarks

1. The recommended rehabilitation strategies should provide ²⁰ten years of service at a minimum maintenance cost.

2. Water may infiltrate gap-graded pavements. Saturation of the pavement promotes stripping of the binder from aggregate. Therefore, it is important to design cold-planned pavement cross-sections containing gap-graded mix in such a way that infiltrated water may drain.
3. A preliminary investigation must be made of the existing asphalt concrete pavement before choosing recycling as the planned alternative. See Deputy Directive DD- 17 dated November 17, 1993 on Recycling Asphalt Concrete.

If you have any questions or comments, please contact me at (209) 948-7951.

Dave Whaling, P.E.
District Materials engineer

9-Iny/Mno-6-Iny 0.0/8.4, Mno 0.0/4.4

09-144-34100K

20.20.201.120

March 2010

ATTACHMENT J

Risk Register

Central Region Project Management Support Unit - *Caltrans Improves Mobility*

Friday, March 26, 2010, 07:22 AM

Project
1/1

Risk Register Report

Project 09-34100_ / Risk ID 722

CO - RTE - PM INY, MNO - 6, 6 - 0.0 / 8.4, 0.0 / 4.4
 Project Manager Zemitis, Cedrik
 Project Name LAWS REHAB
 Location Desc ON ROUTE US6 FROM US 395 TO CHALFANT
 Work Desc REHAB PAVEMENT

Date Identified	Entered By	Functional Unit	Status	Factor	Priority	Type
05/07/2009	Cedrik Zemitis	Environmental	Active	Threat		Schedule
Strategy	Probability	Impact	Impact (\$)	Impact (days)	Owner	Phase
Avoid	Low	Very High	0	0	Environmental Manager	PID

Description	If environmental impacts were identified, the project would require a higher-level document. Probability of occurrence is a 2, the impact to schedule would be very high, and the impact to cost would be very high.
Trigger	If environmental impacts were identified, the project would require a higher-level document. Probability of occurrence is a 2, the impact to schedule would be very high, and the impact to cost would be very high.
Response	Complete a higher-level document or revise project scope.
Common Risks	Environmental:Historic site, endang. species, riparian, wetlands, pub. park
Other Risks	

Project 09-34100_ / Risk ID 723

Date Identified	Entered By	Functional Unit	Status	Factor	Priority	Type
05/05/2009	Cedrik Zemitis	Environmental	Active	Threat		Schedule
Strategy	Probability	Impact	Impact (\$)	Impact (days)	Owner	Phase
Avoid	Moderate	Moderate	0	0	Environmental Manager	PID

Description	If the project were to encounter cultural resources, there would be a corresponding impact to cost and schedule. Probability of occurrence is a 3, the impact to schedule would be a moderate and the impact to cost would be moderate.
Trigger	Cultural resources found

Response	Either conduct Phase II or rescope.
Common Risks	Environmental:Unexpected Section 106 issues expected
Other Risks	

Project 09-34100_ / Risk ID 724

Date Identified	Entered By	Functional Unit	Status	Factor	Priority	Type
05/05/2009	Cedrik Zemitis	Environmental	Active	Threat		Schedule
Strategy	Probability	Impact	Impact (\$)	Impact (days)	Owner	Phase
Accept	Low	Low	0	0	Environmental Manager	PID

Description	If outdoors conditions do not permit biological surveys to begin on April 1, 2011, there would be corresponding impacts to schedule. Probability of occurrence is a 2, the impact to schedule would be low.
Trigger	Snowy winter
Response	Begin biological surveys as soon as is practicable
Common Risks	Environmental:Environmental analysis incomplete
Other Risks	

Project 09-34100_ / Risk ID 725

Date Identified	Entered By	Functional Unit	Status	Factor	Priority	Type
05/05/2009	Cedrik Zemitis	Environmental	Active	Threat		Cost
Strategy	Probability	Impact	Impact (\$)	Impact (days)	Owner	Phase
Accept	Low	Low	0	0	Environmental Manager	PID

Description	If mitigation were required because of impacts to potential sensitive and/or plant species, there would be a corresponding impact to cost and schedule. Probability of occurrence is a 2, the impact to the schedule would be low, and the impact to cost would be low.
Trigger	Mitigation required
Response	Either mitigate or rescope
Common Risks	Environmental:Acquisition, creation or restoration of on or off-site mitigation
Other Risks	

Project 09-34100_ / Risk ID 727

Date Identified	Entered By	Functional Unit	Status	Factor	Priority	Type
05/05/2009	Cedrik Zemitis	Environmental	Active	Threat		Cost
Strategy	Probability	Impact	Impact (\$)	Impact (days)	Owner	Phase
Accept	High	High	0	0	Environmental Manager	PID

Description	If mitigation were required because of potential wetlands near the project area, there would be a corresponding impact to cost and schedule. Probability of occurrence is a 4, the impact to the schedule would be high, and the impact to cost would be high.
Trigger	Mitigation required
Response	Mitigate or rescope
Common Risks	Environmental:Acquisition, creation or restoration of on or off-site mitigation
Other Risks	

Project 09-34100_ / Risk ID 728

Date Identified	Entered By	Functional Unit	Status	Factor	Priority	Type
05/05/2009	Cedrik Zemitis	Environmental	Active	Threat		Cost
Strategy	Probability	Impact	Impact (\$)	Impact (days)	Owner	Phase
Accept	Very Low	Low	0	0	Environmental Manager	PID

Description	If noticeable change to the visual environment would result from vegetation removal, there would be a corresponding impact to cost. Probability of occurrence is a 1, the impact to cost would be low.
Trigger	Noticeable change to the visual environment
Response	Mitigate for visual impact
Common Risks	Environmental:Project may encroach onto a Scenic Highway
Other Risks	

Project 09-34100_ / Risk ID 752

Date Identified	Entered By	Functional Unit	Status	Factor	Priority	Type
05/05/2009	Cedrik Zemitis	Environmental	Active	Threat		Schedule

Strategy	Probability	Impact	Impact (\$)	Impact (days)	Owner	Phase
Accept	Low	High	0	0	Environmental Manager	PID

Description	If mitigation were required because of impacts to potential migratory bird and/or bat nesting locations, there would be a corresponding impact to cost and schedule. Probability of occurrence is a 2, the impact to the schedule would be high, and the impact to cost would be low.
Trigger	Mitigation required
Response	Mitigate or rescope
Common Risks	Environmental:Acquisition, creation or restoration of on or off-site mitigation
Other Risks	

Project 09-34100_ / Risk ID 754

Date Identified	Entered By	Functional Unit	Status	Factor	Priority	Type
06/29/2009	Cedrik Zemitis	Environmental	Active	Threat		Schedule
Strategy	Probability	Impact	Impact (\$)	Impact (days)	Owner	Phase
Mitigate	Low	Very High	0	0	Environmental Manager	PID

Description	If environmental impacts were identified, the project would require a higher-level document. Probability of occurrence is a 2, the impact to schedule would be very high, and the impact to cost would be very high.
Trigger	Identification of environmental impacts that would require a higher-level document.
Response	Attempt to design project to minimize or avoid environmental impacts that would trigger the need for a higher-level document.
Common Risks	Environmental:Design changes require additional Environmental analysis
Other Risks	

Project 09-34100_ / Risk ID 755

Date Identified	Entered By	Functional Unit	Status	Factor	Priority	Type
06/29/2009	Cedrik Zemitis	Environmental	Active	Threat		Cost
Strategy	Probability	Impact	Impact (\$)	Impact (days)	Owner	Phase
Accept	Moderate	Moderate	0	0	Environmental Manager	PID

Description	If asbestos and/or lead paint were identified during the bridge survey, there would be a corresponding impact to cost and schedule. Probability of occurrence is a 3, the impact to schedule would be low, and the impact to cost would be moderate.
Trigger	Identification of asbestos and/or lead-based paint during the bridge survey.
Response	Mitigate the effects of the asbestos and/or lead paint.
Common Risks	Environmental:Historic site, endang. species, riparian, wetlands, pub. park
Other Risks	

Project 09-34100_ / Risk ID 756

Date Identified	Entered By	Functional Unit	Status	Factor	Priority	Type
06/29/2009	Cedrik Zemitis	Environmental	Active	Threat		Schedule
Strategy	Probability	Impact	Impact (\$)	Impact (days)	Owner	Phase
Accept	Low	Moderate	0	0	Environmental Manager	PID

Description	If required, the project could require a higher-level document because of the Section 1600 permit. Probability of occurrence is a 2, the impact to schedule would be moderate, and the impact to cost would be moderate.
Trigger	A Section 1600 permit is required.
Response	Attempt to determine as early as possible if a 1600 permit will be required.
Common Risks	Environmental:Project may encroach into a floodplain or a regulatory floodway
Other Risks	

9-Iny/Mno-6-Iny 0.0/8.4, Mno 0.0/4.4

09-144-34100K

20.20.201.120

March 2010

ATTACHMENT K
Life Cycle Cost Analysis (LCCA)

Deterministic Results

Total Cost	Alternative 1: Overlay Existing Pavement w/ 0.25' DGAC		Alternative 2: Overlay with 0.15' Rubberized AC	
	Agency Cost (\$1000)	User Cost (\$1000)	Agency Cost (\$1000)	User Cost (\$1000)
Undiscounted Sum	\$37,222.22	\$14,648.90	\$31,500.00	\$13,373.78
Present Value	\$23,717.02	\$9,501.66	\$20,190.53	\$8,902.28
EUAC	\$1,270.69	\$509.07	\$1,081.75	\$476.96

