

05 – SLO – 101, PM R21.6/R23.97
20.XX.201.121
0512000017 (0S790K)
September 2011

CAPITAL PREVENTIVE MAINTENANCE PROJECT REPORT

To

Request Programming in the 2012 SHOPP And Provide Project Approval

On Route 101

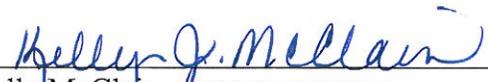
Between San Luis Obispo Creek Bridge No. 49-14

And 0.3 miles south of Santa Fe Undercrossing No. 49-115

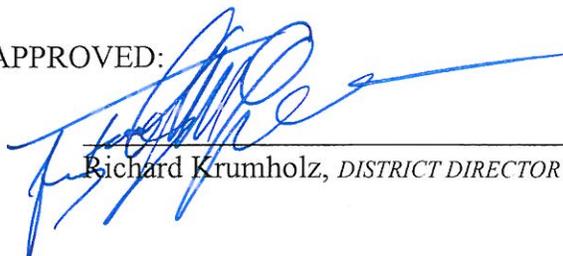
I have reviewed the right of way information contained in this CAPM Report and the R/W Data Sheet attached hereto, and find the data to be complete, current and accurate:


for Spiros Karimbakas, DISTRICT DIVISION CHIEF – R/W

APPROVAL RECOMMENDED:

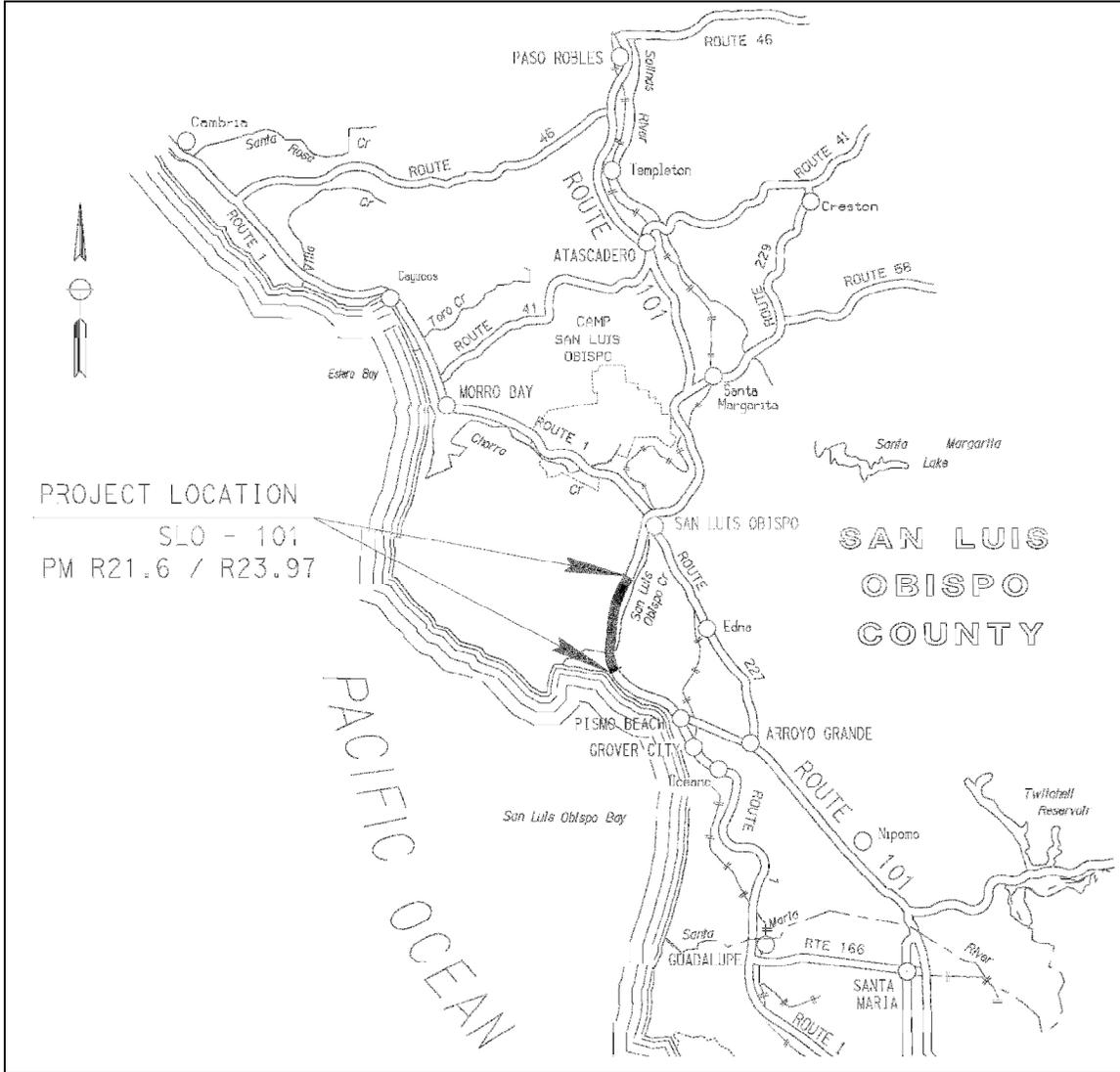

Kelly McClain, PROJECT MANAGER

APPROVED:


Richard Krumholz, DISTRICT DIRECTOR

9/20/11
DATE

05 – SLO – 101, PM R21.6/R23.97
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On Route 101

Between San Luis Obispo Creek Bridge No. 49-14

And 0.3 miles south of Santa Fe Undercrossing No. 49-115

05 - SLO - 101 – PM R21.6/23.97
0512000017 (0S790K)

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



Lien Gubbins, REGISTERED CIVIL ENGINEER

09/19/2011

DATE

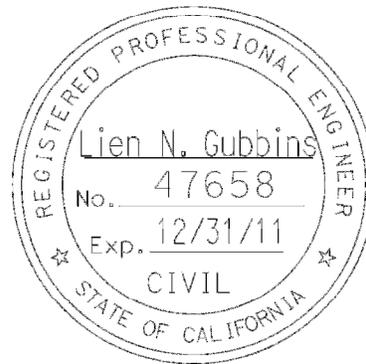


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1. INTRODUCTION AND BACKGROUND

Brief Project Description:

This project is on Route 101 in San Luis Obispo County from the San Luis Obispo Creek Bridge #49-14 to 0.3 mile south of the Santa Fe Undercrossing #49-115. The proposed project includes overlaying the existing pavement with a layer of Asphalt Rubber Chip Seal (ARCS), then capping with 0.20' Rubberized Hot Mix Asphalt (RHMA). Three-foot wide shoulder backing will be placed along the pavement edges. Additional items of work include replacing Asphalt Concrete (AC) dikes, adjusting existing metal beam guardrails (MBGR), single (STBB) and double thrie beam barriers (DTBB), upgrading end treatments and the MBGR connections to bridge railings and abutments. Inside and outside shoulder rumble strips will also be reinstalled. Pavement Safety Edge treatment will be implemented on this project. Existing utilities may need to be positively identified in the areas of the railings.

The total project cost is estimated at \$3,470,000 (Construction capital cost is \$3,461,500 and Right of Way cost is \$8500). This project is proposed for programming in the 2012 SHOPP (20.XX.201.121) Capital Preventative Maintenance (CAPM) Program.

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

Project Limits	05 – SLO – 101 – PM R21.6/R23.97
Capital Costs:	\$3,470,000 (non-escalated)
Type of Facility:	Multilane Divided Freeway
Environmental Determination/ Document and date approved:	CE / 08-25-11

2. RECOMMENDATION

It is recommended that this Project Report be approved and authorization be granted to proceed to the design phase using the preferred Alternative 1.

3. PURPOSE AND NEED STATEMENT

Need:

Route 101 is a principal arterial in the State of California that runs north and south and connects the coastal communities. It is a High Emphasis Route and in the Interregional Road System. The pavement within the project limits is exhibiting minor distress and unacceptable ride quality, which if left unattended, will continue to deteriorate.

Purpose:

The purpose of this project is to restore pavement surface and ride quality while extending its service life 7 to 10 years.

4. EXISTING FACILITY, DEFICIENCIES AND TRAFFIC DATA

4A. Roadway Geometric Information

Facility	Minimum	Through Traffic Lanes			Paved Shoulder Width		Median	Bicycle / Ped Path Separated from the Roadbed	Bridge Approach Slab Work
		No. of Lanes	Lane Width	Type (Flex, Rigid, or Composite))	Left	Right			
R21.6/R23.97	gently curved Varies from 2000' -13,000'	4	12'	Flexible	5'	8' – 9'	36' – 75'	N/A	N/A

This project has been identified and developed as a CAPM candidate per Design Information Bulletin 81-01. As such, the scope of the project does not intend to change and/or upgrade existing geometric features. It has been reviewed by the HQ Design Coordinator on 8/31/2011 and has been determined that no design exceptions are needed because it is beyond the scope of the project to correct the non-standard features.

4B. Condition of Existing Facility (Repeat info for each homogeneous segment):

(1) Traveled Way Data

PMS Category (1-29) 7 Priority Classification (.1-.4) 0.3
International Ride Index

***Rigid Pavement:**

***Flexible Pavement:**

* From latest PMS-Pavement Condition Inventory Survey Data.

3rd Stage Cracking % N/A Alligator B Cracking % 50%-93%

Faulting% N/A Patching % None

Joint Spalls N/A Rutting None

Pumping N/A Bleeding None

Corner Breaks % N/A Raveling None

Locations of subsurface or ponded surface-water: N/A

(2) Pedestrian Facility Data

There are no existing pedestrian facilities within the project limits and none are being proposed for the project. Curb ramps have been identified as needed at the North Avila Road OC (San Luis Bay Dr.) and are being addressed under EA 05-0R830_.

4C. Structure Information

There are two structures within the project limits: North Avila Road Overcrossing No. 49-192 and San Luis Obispo Creek Bridge No. 49-14. No work is proposed on these structures. All structure vertical clearances will be maintained with this project. The existing AC paving under Br. No. 49-192 and leading up to Br. No. 49-14 shall first be cold planed then re-paved with the same thickness.

4D. Vehicle Traffic Data

Traffic Volumes

Construction Year ADT 80,128 (2016)

DHV 8800 (2011) % Trucks 6% in Peak hour, 9.3% in ADT

Accident Data:

The accident rates for the highway section (accidents per million vehicle miles) for the most recent three-year study (from April 1, 2007 to March 31, 2010) are as follows:

Mainline

Location	Accident Statistics	Accident Type		
		Fatal	Fatal + Injury	Total Rate
SLO-101 PM R21.6/R23.97	Actual	0.000	0.11	0.28
	State Avg.	0.013	0.21	0.58

All three actual accident rates are below the statewide average accident rates. The actual fatal and actual fatal plus injury accident rates are less than the statewide average accident rate in each category (0.000<0.013 and 0.11<0.21, respectively). The actual total accident rate is also below the statewide average total accident rate (0.28<0.58). There is no concentrated accident problem within the project.

Safety Review Date: July 5, 2011

The following safety review recommendations are incorporated into this project:

- Double Thrie Beam Barrier, Single Thrie Beam Barrier, and Metal Beam Guard Rail will be reconstructed as necessary to meet current standards (metal post and current standard height at time of construction).
- Bridge rail and structure connections at San Luis Obispo Creek Bridge (Southbound) and at North Avila Road Overcrossing (both northbound and southbound directions) will be upgraded to meet current standards.
- Replace rumble strips along inside and outside shoulders.
- Pavement Safety Edge Treatment will be constructed along all edges of pavement.

5. CORRIDOR AND SYSTEM COORDINATION

There are two other SHOPP candidate projects that are near the limits of this project. The two projects, which are EA 0H530 and EA 0H370, did not receive programming in the 2010 SHOPP cycle and are currently on hold. EA 0H530 is a project to install Traffic Monitoring Stations Transportation Management Systems (TMS) - vehicle detection stations - and EA 0H370 is an operational improvements project.

Additionally, EA 0R830 addresses ADA curb ramps in both Santa Barbara and San Luis Obispo counties and is to be constructed in 2015. That project will take care of the identified need for curb ramps at North Avila Road OC (San Luis Bay Dr.). More details on this project can be provided as the project progresses towards the design phase.

6. ALTERNATIVES

6A. CAPM Strategy:

A Deflection Study and Traffic Index (T.I.) are not required for this project according to the CAPM guidelines contained in the Design Information Bulletin (DIB) # 81-01.

Preferred Alternative:

Alternative 1: Due to the pavement's high amount of cracking and crack sealing, it is recommended that a layer of ARCS be placed then capped with an overlay of 0.20' RHMA. This strategy will retard reflective cracking of the pavement within the project limits.

The proposed project also includes shoulder backing placed along the pavement edges and in median area. Additional work items include replacing AC dikes, adjusting existing MBGR, STBB and DTBB, upgrading end treatments as well as the MBGR connections to bridge railings and abutments. Inside and outside shoulder rumble strips will also be reinstalled.

The proposal also contains work on the on and off-ramps at the North Avila Road Overcrossing. The work here consists of cold planing the AC pavement of the ramps and replacing with 0.15' HMA. A maintenance project of the ramps was recently finished in 2006, and the ramps look to be in good condition. Thus, as this project progresses, the work on the ramps can be deleted if the designer deems possible.

Alternative 2: The scope and items of work in this alternative are the same as in Alternative 1. The difference is in the type of HMA utilized for the mainline pavement: 0.20' HMA will be utilized instead of 0.20' RHMA.

Life Cycle Cost Analysis

A Life Cycle Cost Analysis was performed for this project comparing an RHMA overlay to a conventional HMA overlay (Alternative 1 to Alternative 2, respectively). Although Alternative 2 is slightly less expensive than Alternative 1 in Initial Construction cost, this project will adopt the RHMA strategy as the preferred alternative, because the cost difference is small and there are other considerations including pavement durability, and less future maintenance expense that offset the nominal cost difference. The Life Cycle Cost Analysis proves that the Total Life-Cycle cost for Alternative 1 is less.

Enhancements

The following DIB 81-01 recommended enhancements are incorporated into this project:

- Double Thrie Beam Barrier, Single Thrie Beam Barrier, Metal Beam Guard Rail and associated End Treatments will be reconstructed as necessary to meet current standards.
- Bridge rail and structure connections at San Luis Obispo Creek Bridge (Southbound) and at North Avila Road Overcrossing (both northbound and southbound directions) will be upgraded to meet current standards.
- Dike, where necessary, will be reconstructed to meet current standards.
- Replace existing traffic stripe, and pavement markings to meet current standards.
- Shoulder backing material shall be specified and used at edge of pavements to eliminate drop-offs.
- Pavement Safety Edge Treatment will be constructed along all edges of pavement.

Date of Traffic Operational Review Report 07/05/2011.

No Build Alternative:

It is not recommended to adopt this “no build” alternative because the pavement is slowly exhibiting minor distress and unacceptable ride quality, which if left unattended, will continue to deteriorate.

6B. Environmental Compliance:

This project will create no significant impacts to the environment, and thus a Categorical Exclusion/Exemption was determined to be appropriate for this project on 08/25/2011.

6C. Hazardous waste disposal site required? If yes, where are sites?

Dust generated from grinding and cutting operations as well as debris from yellow thermoplastic paint may contain hazardous wastes. Specification for the project will contain provisions that will ensure worker protection. No on-site hazardous waste disposal site will be required.

6D. Other Agencies Involved (Permits/Approvals from Fish & Game, Corps of Engineers, Coastal Commission, etc.):

The project lies in the local coastal development area of San Luis Obispo county. However, work will be contained in the existing roadway prism so permits will not be required.

6E. Materials and or disposal site needs and availability?

Not required.

6F. Roadside Design and Management:

The project is within existing State Right of Way. Appropriate roadside management will be implemented and specification for the project will contain provisions that will ensure worker protection. Roadside enhancements are not included in the scope of this project.

6G. Right of Way Issues (include utility issues):

Additional Right of Way is not required. There are a number of utilities located within the project area that will need to be verified when the existing MBGR and median barrier are to be reconstructed.

6H. Railroad Involvement:

There are no railroad conflicts within the project limits.

6I. Recycled Materials:

Guardrail materials may be recycled.

6J. Local and Regional Input:

None

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

The pavement will continue to deteriorate. As a result, maintenance and repair will increase. The ride quality and functionality will decrease for the traveling public.

7. TRANSPORTATION MANAGEMENT

7A. Transportation Management Plan

Traffic on this section of Route 101 will be affected during the construction period. Shoulder and lane closures will be required. Night time construction will be required.

This project will require a Traffic Management Plan (TMP) to minimize and manage traffic delays during construction operations of the project. At the minimum, the TMP will include changeable message signs, COZEEP, and public notification campaign.

7B. Vehicle Detection Systems

Vehicle detection stations will be installed under EA 0H530. Construction of EA 0H530 was scheduled to begin in 2013; however, it is currently on hold. Any stations impacted by the construction of this pavement preservation project will be re-established.

8. FUNDING/SCHEDULING

8A. Cost Estimate

Pavement Work	Lane-Miles/Number	Cost
Total Lane -Miles of CAPM Work	9.48	
Asphalt Rubber Chip Seal (Binder)	300 Tons	\$150,000
Asphalt Rubber Chip Seal (Aggregates)	2250 Tons	\$68,000
RHMA (Ramps not included)	14,000 Tons	\$1,400,000
HMA (Ramps)	600 Tons	\$48,000
Asphaltic Emulsion	59 Tons	\$29,500
Project Drainage	Lump Sum	\$40,000
Replace HMA Dike	20,000 LF	\$35,000
Cold Planing	5500 SQYD	\$4,500
Shoulder Backing	1,200 Ton	\$30,000
SUBTOTALS		\$1,805,000

Non-Pavement Work	Does the Project Include?	Cost
Barriers and Guardrails	Yes	\$600,000
Traffic Control	Yes	\$100,000
Rumble Strips	Yes	\$7,500
Correct Superelevation Cross Slope	No	\$0
Pavement Delineation	Yes	\$220,000
Traffic Management Plan	Yes	\$100,000
ADA Ramps	No	\$0
Water Pollution Control	Yes	\$15,000
Resident Engineers Office Space	Yes	\$20,000
Minor Items & Supplemental Work	Yes	\$293,000
SUBTOTALS		\$1,355,500

SUM OF SUBTOTALS	\$3,160,500
CONTINGENCIES (10%)	\$301,000
RIGHT-OF-WAY	\$8,500
TOTAL PROJECT COST	\$3,470,000

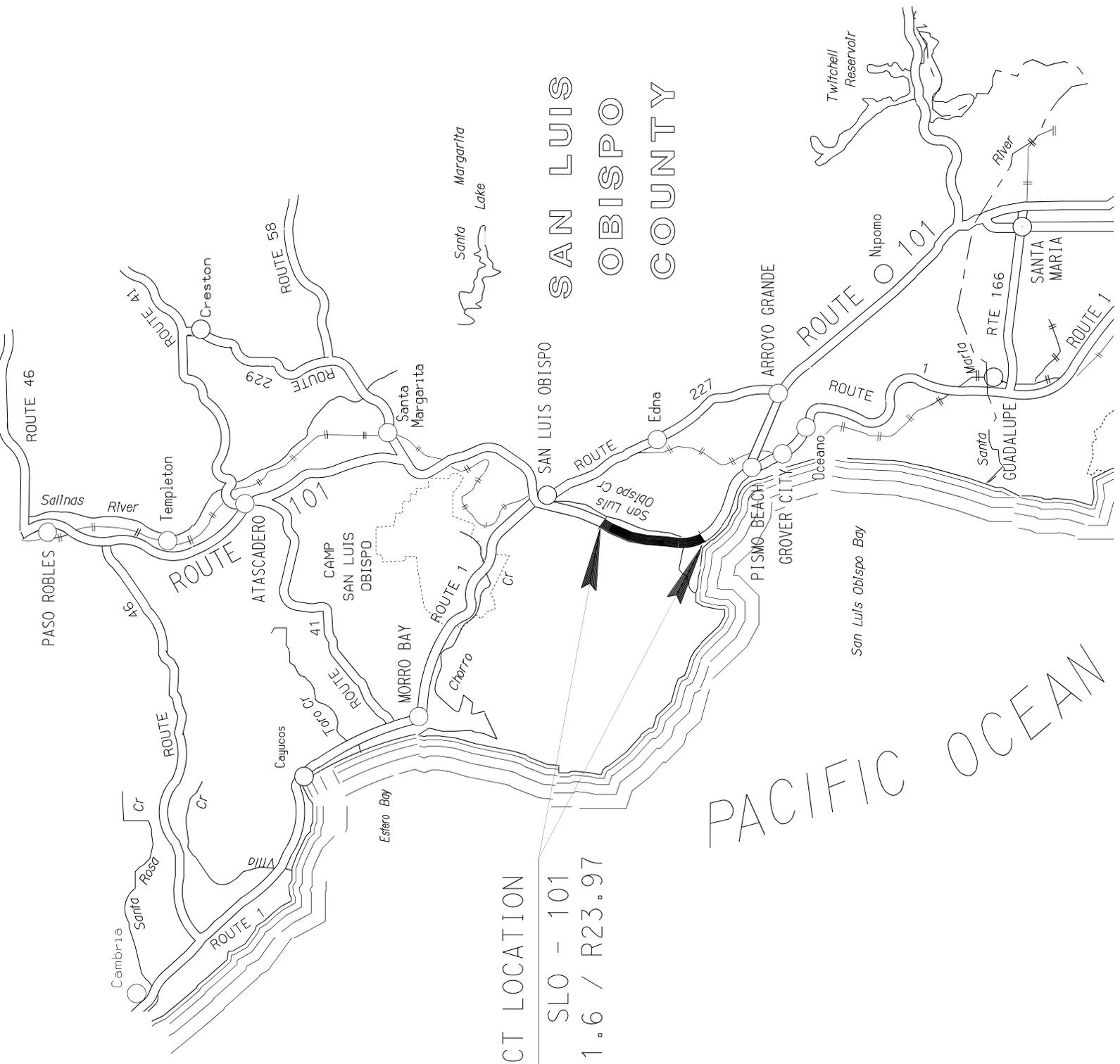
8B. Project Support:

PROJECT COST COMPONENT	Fiscal Years					Total
	2012/13	2013/14	2014/15	2015/16	2016/17	
R/W Capital		\$10		0		\$10
Constr. Capital				\$4,418		\$4,418
Subtotal Capital by FY		\$10		\$4,418		\$4,428
PA&ED Support	\$179					\$179
PS&E Support		\$691				\$691
R/W Support		\$9				\$9
Constr. Support				\$353		\$353
Subtotal Total Support	\$179	\$700		\$353		\$1,232
Total Project Cost	\$179	\$710	0	\$4,771		\$5,660

Note: All costs X \$1,000. Support categories are the same as those identified by SB 45. Support Costs escalated at 3.1% for all years. Construction Capital escalated at 5% per year. Right of Way Capital estimate is escalated at 5% per year. Support Cost ratio: 28% (All Support Costs divided by the sum of the escalated Construction Capital and escalated R/W Capital).

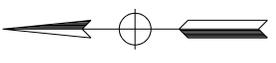
8C. Project Schedule:

HQ Milestones	Delivery Date (Month & Year)
Program Project	April 2012
Begin Environmental	July 2012
PA & ED	December 2013
Project PS&E	April 2015
Right of Way Certification	April 2015
Ready to List	August 2015
Award	January 2016
Contract Acceptance	October 2016
End Project	October 2017



SAN LUIS
OBISPO
COUNTY

PROJECT LOCATION
SLO - 101
PM R21.6 / R23.97

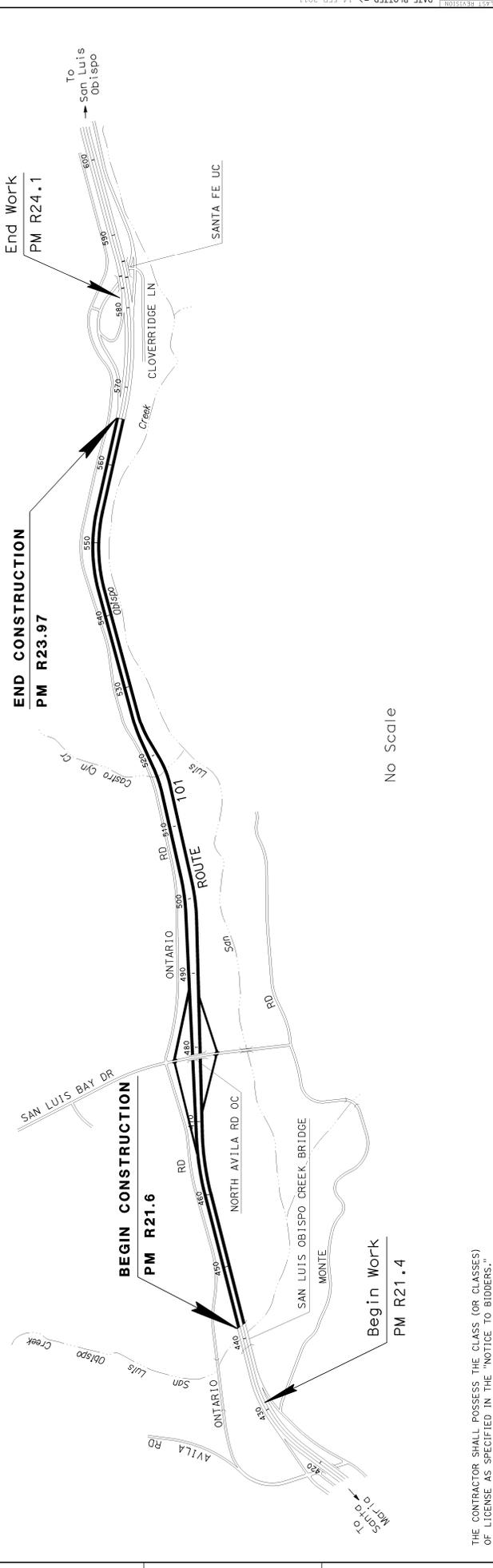
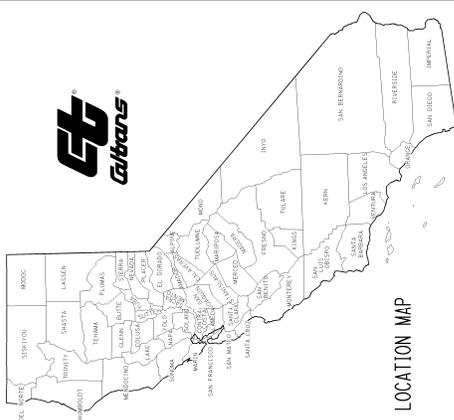


INDEX OF PLANS

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
 PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
 IN SAN LUIS OBISPO COUNTY
 NEAR SAN LUIS OBISPO
 FROM SAN LUIS OBISPO CREEK BRIDGE
 TO 0.3 MILE SOUTH OF SANTA FE UNDERCROSSING

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL SHEETS
05	SLO	101	PM R21.6/R23.97	

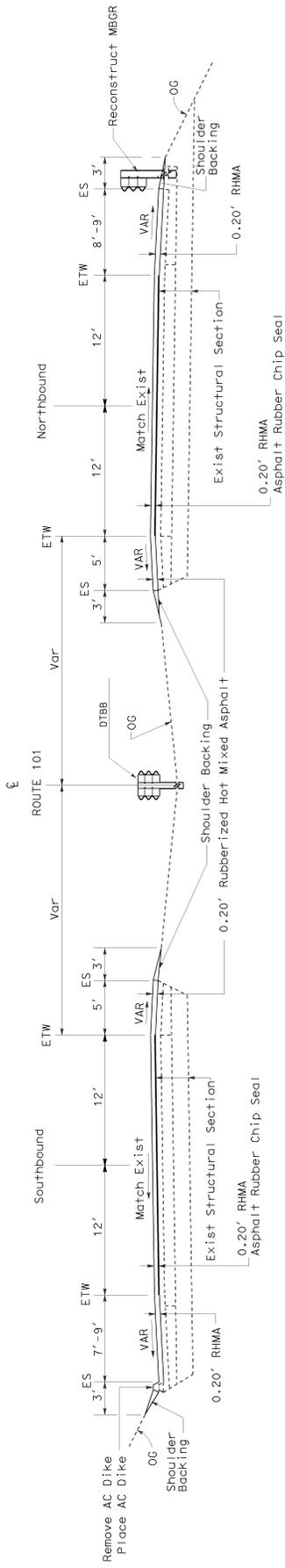


No Scale

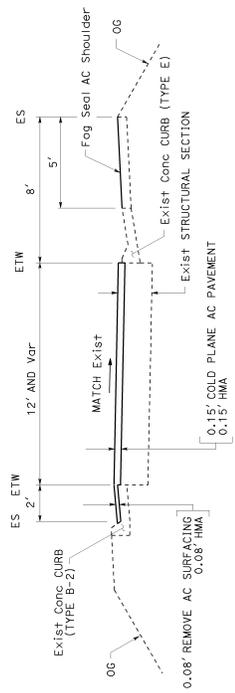
THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

05 SLO 101 R21.6/R23.97
 POST MILES TOTAL PROJECT SHEET TOTAL
 ROUTE 101 R21.6/R23.97
 REGISTERED CIVIL ENGINEER DATE
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS
 THE ACCURACY OR COMPLETENESS OF THE
 CONTENTS OF THIS PLAN SHEET.

- LEGENDS:
 HMA : HOT MIX ASPHALT
 RHMA : RUBBERIZED HOT MIX ASPHALT
 ARCS : ASPHALT RUBBER CHIP SEAL



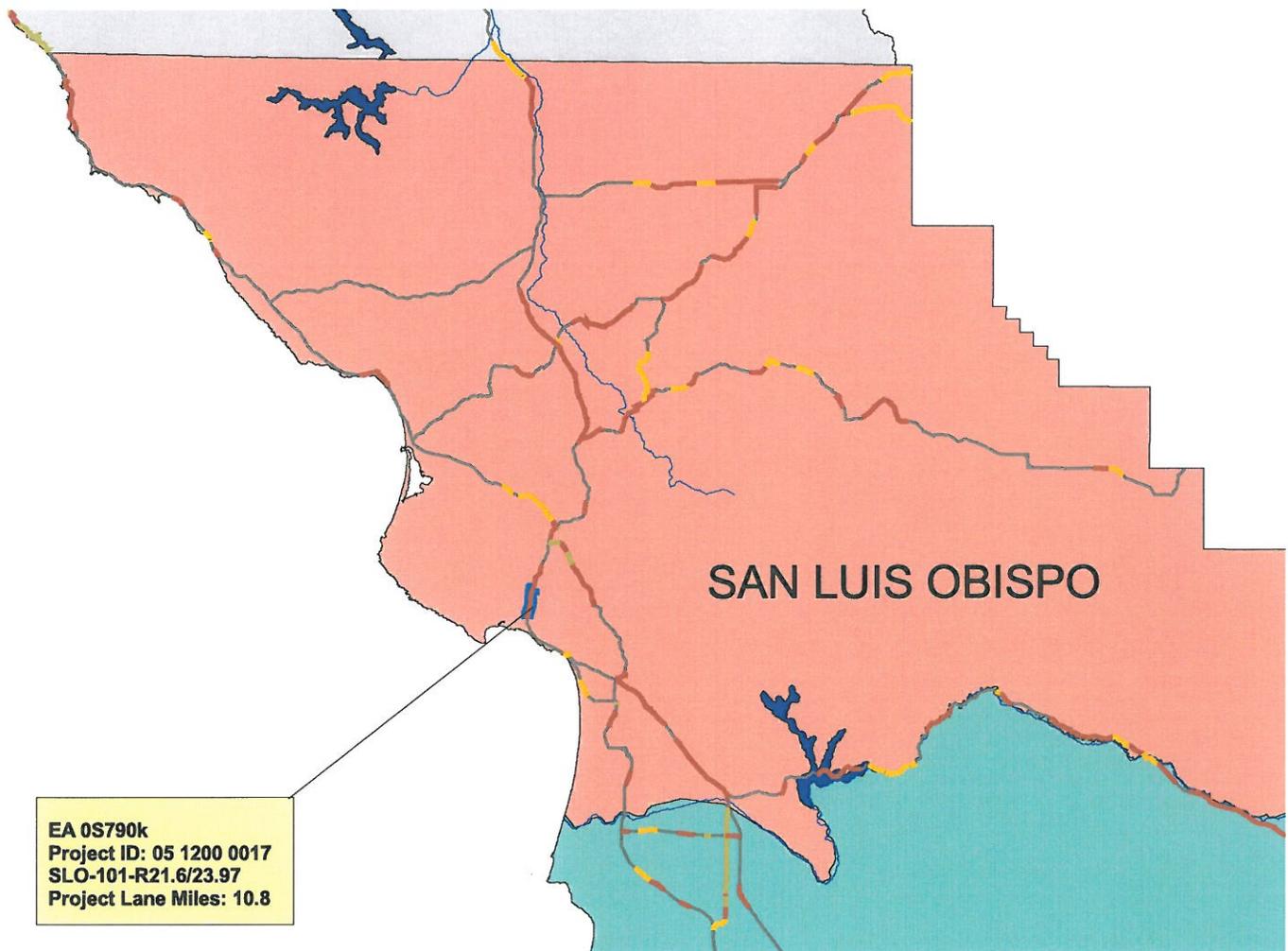
TYPICAL MAINLINE CROSS SECTION



TYPICAL RAMP CROSS SECTION

No Scale

District 5 - Project Locations



Legend

2007 Pavement Condition Survey

-  Major
-  Minor
-  Ride
-  CAPM Location
-  State Highway

County Boundaries

-  MON
-  SB
-  SBT
-  SCR
-  SLO



Caltrans Maintenance Program
2007 Pavement Condition Survey Inventory
Caltrans Drive Order

District 5, SLO, Rte 101, PM 21 - 24

District 5 County SLO Route 101

District 5
 County SLO
 Route 101
 Begin PM R 20.948

Begin PM - End PM	Lane	Surface Type	Alligator Cracking			Rutting, Bleeding	Type (Est.)	Slab Cracking			Faulting	Patching Area % Poor Cond?	Ride, IRI	Priority	Skid	Defect
			A %	B %	C (Y/N)?			1st %	3rd %	Corner %						
R 20,948 - R 21,105	L1	F-OG	0	0	0	0.628	M/D	67	1			N/A	99		NO DISTRESS OBSERVED	
	L2	F-OG	0	0	0							N/A	99		NO DISTRESS OBSERVED	
	R1	F-OG	0	0	0							N/A	99		NO DISTRESS OBSERVED	
	R2	F-OG	0	0	0							N/A	99		NO DISTRESS OBSERVED	
R 21,105 - R 21,135	L1	B				0.120	M/D	62	1			N/A	0		N/A - Bridge	
	L2	B										N/A	0		N/A - Bridge	
	R1	B										N/A	0		N/A - Bridge	
	R2	B										N/A	0		N/A - Bridge	
R 21,135 - R 21,494	L1	F-OG	0	0	0	1.436	M/D	62	1			N/A	99		NO DISTRESS OBSERVED	
	L2	F-OG	0	0	0							N/A	99		NO DISTRESS OBSERVED	
	R1	F-OG	0	0	0							N/A	99		NO DISTRESS OBSERVED	
	R2	F-OG	0	0	0							N/A	99		NO DISTRESS OBSERVED	
R 21,494 - R 21,602	L1	B				0.432	M/D	62	1			N/A	0		N/A - Bridge	
	L2	B										N/A	0		N/A - Bridge	
	R1	B										N/A	0		N/A - Bridge	
	R2	B										N/A	0		N/A - Bridge	
R 21,602 - R 21,748	L1	F-DG	58	0	0	0.584	M/D	62	1			N/A	32		ALL. A, NO B, OPEN CRKS	
	L2	F-DG	0	90	0							N/A	7		HIGH ABC	
	R1	F-DG	50	0	0							N/A	32		ALL. A, NO B, OPEN CRKS	
	R2	F-DG	0	75	0							N/A	7		HIGH ABC	
R 21,748 - R 22,698	L1	F-DG	63	0	0	0.950	M/D	67	1			N/A	32		ALL. A, NO B, OPEN CRKS	
	L2	F-DG	25	75	0							N/A	7		HIGH ABC	
	R1	F-DG	50	0	0							N/A	32		ALL. A, NO B, OPEN CRKS	

*Surface type of 'EB' is Enhanced Binder.
 California Department of Transportation, Maintenance Program, Pavement Management Information Branch, Phone(916) 274-6057

Collection Date: 11/15/2007
 Printed: 06/14/2011

**Caltrans Maintenance Program
 2007 Pavement Condition Survey Inventory
 Caltrans Drive Order**

District 5, SLO, Rte 101, PM 21 - 24

District 5 County SLO Route 101

District 5
 County SLO
 Route 101
 Begin PM R 21.748

Begin PM - End PM	Lane	Surface Type	Alligator Cracking			Lane Mi. (Est.)	Type	Slab Cracking		Fauling	Patching		Ride, IRI	Priority	Skid	Defect
			A %	B %	C (Y/N)?			1st %	3rd %		Corner %	Area %				
R 22.698 - R 22.748	R2	F-DG	0	75		0.200	MILD	67	1				N/A	7		HIGH ABC
	L1	F-DG	63	0									N/A	32		ALL. A, NO B, OPEN CRKS
	L2	F-DG	25	75									N/A	7		HIGH ABC
	R1	F-DG	50	0									N/A	32		ALL. A, NO B, OPEN CRKS
	R2	F-DG	50	50									N/A	7		HIGH ABC
R 22.748 - R 23.898	L1	F-DG	61	0		4.600	MILD	67	1				N/A	32		ALL. A, NO B, OPEN CRKS
	L2	F-DG	50	50									N/A	7		HIGH ABC
	R1	F-DG	50	0									N/A	32		ALL. A, NO B, OPEN CRKS
	R2	F-DG	50	50									N/A	7		HIGH ABC
R 23.898 - R 23.948	L1	F-DG	61	0		0.200	MILD	67	1				N/A	32		ALL. A, NO B, OPEN CRKS
	L2	F-DG	50	50									N/A	7		HIGH ABC
	R1	F-DG	50	0									N/A	32		ALL. A, NO B, OPEN CRKS
	R2	F-DG	50	50									N/A	7		HIGH ABC
R 23.948 - R 24.296	L1	F-DG	0	0		1.392	MILD	67	1				N/A	98		GOOD CONDITION
	L2	F-DG	0	93									N/A	7		HIGH ABC
	R1	F-DG	50	0									N/A	32		ALL. A, NO B, OPEN CRKS
	R2	F-DG	50	50									N/A	7		HIGH ABC

*Surface type of 'EB' is Enhanced Binder.
 California Department of Transportation, Maintenance Program, Pavement Management Information Branch, Phone (916) 274-6057

CATEGORICAL EXEMPTION/CATEGORICAL EXCLUSION DETERMINATION FORM
Continuation Sheet

<u>05-SLO-101</u>	<u>21.6/23.97</u>	<u>05-0S790K</u>	<u>N/A</u>
Dist.-Co.-Rte. (or Local Agency)	P.M/P.M.	E.A. (State project)	

Continued from page 1:

Cultural

If project plans change, please contact Terry Joslin at 805.549.3778 or Terry_Joslin@dot.ca.gov.

Biology

- 1) Material and equipment storage shall only be in existing unvegetated pull-outs and paved areas.
- 2) No shrub or tree removal is allowed. Trees and shrubs may be trimmed where necessary, but only to the minimum required.
- 3) Project activities shall be contained to the paved highway and the first three feet of the shoulder from the edge of pavement if shoulder backing is required. Project activities beyond the three-foot shoulder shall be reviewed in advance by District 5 Biologist Tom Edell.

Paleontology

If any fossil remains are found due to a change in scope of work it is required that construction be halted in the immediate vicinity of the discovery until the District Archaeologist (Jack Hunter 805.549.3236) or District Paleontology Coordinator (Isaac Leyva 805.549.3487) have the opportunity to review the site. Remediation may include removal, preparation, and curation of any significant remains.

Water Quality

If the project disturbs one acre or more of soil, the following is required:

- 1) A Notification of Construction (NOC) is to be submitted to the appropriate Regional Water Quality Control Board at least 30 days prior to start of construction.
- 2) A Stormwater Pollution Prevention Plan (SWPP) is to be prepared and implemented during construction to the satisfaction of the Resident Engineer.
- 3) A Notice of Completion of Construction (NOCC) shall be submitted to the Regional Water Board upon completion of construction and site stabilization. A project will be considered complete when the criteria for final stabilization in the Construction General Permit is met.

Memorandum

To: KELLY MCCLAIN

Date: 8/26/2011

File: CD 05 EA 0S790K Alt NA

Attn LIEN GUBBINS

Co SLO RTE 101

From: Department of Transportation
Division of Right of Way Central RegionDESCRIPTION:
PAVEMENT PRESERVATION

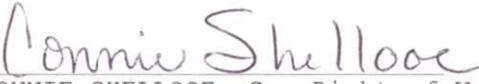
Subject: RIGHT OF WAY DATA SHEET

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 7/21/2011

The following assumptions and limiting conditions were identified:**Appraisal****Utility**

High risk utilities in project area. Based on Project Engineer's Data Sheet Request, cost for 15 potholes have been included. Project Engineer also states that the area of work is limited to the existing roadbed. Comply with USA alert requirements, including at construction sign locations. Avoid and protect in place all existing buried and aerial utility facilities in the project area where possible. 6 month timeframe for potholing should be sufficient provided timely submission of adequate potholing mapping.

Right of Way Lead Time will require a minimum of 6 months after we receive Certified Appraisal Maps and/or Utility Conflict Plans, obtained necessary environmental clearance and applicable freeway agreements have been approved.


CONNIE SHELLOOE, Sr. Right of Way Agent
San Luis Obispo Field Office
(805) 549-3471

Right Of Way Cost Estimate	Current Year 2011	Contingency Rate	Right of Way Escalation Rate	Escalated Year 2015
Acquisition:	\$0	25%	5%	\$0
Mitigation:	\$0	25%	5%	\$0
State Share of Utilities:	\$8,438	25%	5%	\$10,256
Expert Witness:	\$0	25%	5%	\$0
Relocation Assistance:	\$0	25%	5%	\$0
Demolition and Clearance:	\$0	25%	5%	\$0
Title and Escrow:	\$0	25%	5%	\$0
Ad Signs:	\$0	25%	5%	\$0
Total Current Value:	\$8,438			\$10,256
If RW Cost Est fields are blank, Costs = \$0				

Estimated Construction Contract Work (CCW):

R/W LEAD TIME/Mo. 6

Cost Break Down	
Pot Hole	6,750
Mitigation	
Land	
Bank	
Permit Fee	

RR Involvement

Railroad Facilities or Right of Way Affected?	NO
Const/Maint Agreement:	NO
Service Contract:	NO
Right of Entry:	NO
Clauses:	NO
Estimated Lead-time	0 MON

Parcel Data

# of Parcel Type X:			
# of Parcel Type A: less than \$10,000 non-complex			
# of Parcel Type B: more than \$10,000 non-complex			
# of Parcel Type C: complex, special valuation			
# of Parcel Type D: most complex and time consuming		# of Duals Needed:	
Totals:	0	Totals:	0

of Excess Parcels:

Misc R/W Work

# of RAP Displacements:	0
# of Clearance/Demos:	
# of Const Permits:	
# of Condemnations:	

Utilities

U4-1: Owner Expense	0
U4-2: State Expense, Conventional no Fed Aid	0
U4-3: State Expense, Freeway no Fed Aid	2
U4-4: State Expense, both with Fed Aid	0
U5-7: Utility verification, no relocation/potholing	0
U5-8: Utility verification, w/ some relocation/potholing	0
U5-9: Utility verifications, relocation/potholing required	0

Parcel Area

Total R/W Required:
Total Excess Area:

General Description of R/W and Excess Lands Required (zoning, use, major improvements, critical or sensitive parcels, etc.):

General Description of Utility Involvement:

Route 101 is designated freeway in the project area. Project proposes to overlay Route 101 with 2.4 inches of Asphalt Rubber Chip Seal and Hot Mixed Asphalt layers. Shoulder backing will be added along the pavement edges. Existing median barriers and metal beam guardrail will be upgraded. In addition, the on and off-ramps at North Avila Road OC will be cold planed then overlaid with 1.8" of HMA.

Is there a significant effect on assessed valuation:

Were any previously unidentified sites with hazardous waste or material found:

Are RAP displacements required:

of single family: # of muliti-family: # of business/nonprofit: # of farms:

Sufficient replacement housing will be available without last resort housing:

Are material borrow or disposal sites required:

Are there potential relinquishments or abandonments:

Are there any existing or potential airspace sites:

Are environmental mitigation parcels required:

Data for evaluation provided by:

Estimator:

Railroad Liaison Agent: SAH 8/22/2011

Utilitiy Relocation Coordinator: Marshall Garcia 8/17/2011

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.

Connie Shelloe

Date
ENTERED PMCS 8/25/2011
BY: R TABAREZ

CONNIE SHELLOOE
Sr. Right of Way Agent, Right of Way

SLO County Review
ATTENDANCE ROSTER FOR FIELD SCOPING

<u>Name</u>	<u>Title</u>	<u>Dept.</u>	<u>Date</u>	<u>Highway Location</u>
Lien Gubbins	Project Engineer, Maint Design		7/5/2011	SLO-101-PM R21.6/R23.9
Kelly McClain	Senior Eng. Mtee. Desig		7/5/11	"
Leo Mahserelli	SR TRAN ENGR HQ-PAVEMENT		7/5/11	"
Romano Ventengia	Mon. Co / Traffic Liaison / Safety		7/5/11	"
Kathy DiGrazia	ADA Coordinator		7/5/11	"
Steve Falbert	Traffic Safety		7/5/11	"
Aaron Henkel	DESIGN II		7/11/11	

Appendix OO

Life Cycle Cost Analysis Form

Alternative 1 (Preferred Alternative)

CAPM project: Pavement is overlaid with 0.20' Rubberized Hot Mixed Asphalt (RHMA)

Pavement Design Life: <u> 6 </u> Years	
Initial Construction Costs:	\$ <u> 3,921,000 </u>
Initial Project Support Costs:	\$ <u> 451,000 </u>
Future Maintenance & Rehabilitation Costs:**	\$ <u> 2,761,730 </u>
TOTAL AGENCY COSTS:	<u> \$ 7,133,730 </u>
USER COSTS:	<u> \$ 85,250 </u>
TOTAL LIFE-CYCLE COSTS:	<u> \$ 7,218,980 </u>

Alternative 2:

CAPM project: Pavement is overlaid with 0.20' Hot Mixed Asphalt (HMA)

Pavement Design Life: <u> 5 </u> Years	
Initial Construction Costs:	\$ <u> 3,539,000 </u>
Initial Project Support Costs:	\$ <u> 407,000 </u>
Future Maintenance & Rehabilitation Costs:**	\$ <u> 3,049,480 </u>
TOTAL AGENCY COSTS:	<u> \$ 6,995,480 </u>
USER COSTS:	<u> \$ 274,880 </u>
TOTAL LIFE-CYCLE COSTS:	<u> \$ 7,270,360 </u>

Reason that this is not Alternative 1:

Although the initial construction cost for Alternate 2 is slightly less expensive than that of Alternate 1, this project will adopt the alternative using 0.20' RHMA as the preferred alternative because the cost difference is small and there are other considerations including better pavement durability, and less future maintenance expense, that offset the nominal cost difference. This is proven when comparing the two Total Life-Cycle costs.

1. Project Description

- This project is located in San Luis Obispo County near San Luis Obispo on Route 101. The project limits are between San Luis Obispo Creek Bridge (PM R21.6) and 0.3 miles south of Santa Fe Undercrossing (PM R23.97). An Asphalt Rubber chip seal wearing course will be placed on the existing road surface then capped with 0.20' asphalt concrete. It would take approximately 45 days to complete construction of this job. Metal beam guard railings will be upgraded.
- This project is a CAPM project, without mass grading and maintains the original line, grade, and hydraulic capacity of the facility. It is defined as routine maintenance and therefore is exempt from the DSA calculation requirement in the Construction General Permit.
- This project is located in a rural area.
- The receiving water body along the proposed project route would be San Luis Obispo Creek. San Luis Obispo Creek (below west Marsh Street) is 303(d) listed and has TMDLs set for nitrate as nitrate (NO3), nutrients, and pathogens. Caltrans is not named as a stake holder in any of these TMDLs.
- This project is not new construction, will create no net new impervious surfaces, and is only intended to maintain the life of the existing facility. Therefore this project will not need to incorporate permanent storm water treatment BMPs.
- There are no permanent storm water treatment BMPs within this project location. There is a bio-filtration strip in the median to the south of this project from PM R21.13 to PM R21.49. This permanent storm water treatment BMP is not anticipated to be impacted by this project.

2. Construction Site BMPs

- A Water Pollution Control Program (WPCP) will be developed and implemented to control water pollution during construction. The WPCP is developed by the contractor and submitted to the Resident Engineer for approval prior to start of construction. Equipment and material storage, and equipment refueling shall occur within existing un-vegetated areas in the state right of way as follows; if within a floodplain, at least 100 feet from concentrated flows of storm water, drainage courses, and inlets. If outside the floodplain, at least 50 feet from concentrated flows of storm water, drainage courses, and inlets unless approved.
- The applicable temporary construction site BMPs will be identified in the WPCP and employed as necessary during construction to limit discharge of pollutants.

Total project estimate cost is about	\$6,000,000
#074016 Construction Site Management	\$5,000
#074017 Prepare Water Pollution Control Program	\$2,000
#066596 Additional Water Pollution Control	\$1,000

- Concurrence from Zach Coldwell, D-5 CSWC, regarding the temporary construction site BMP implementation strategy and the Temporary Construction Site BMP Consideration Form will be obtained during PS&E.



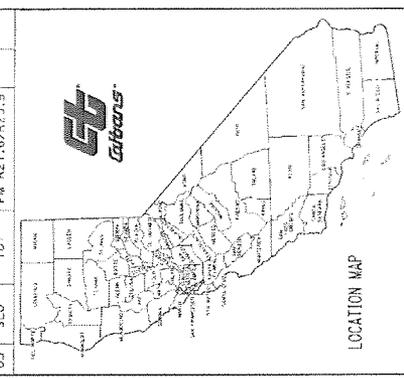
3. Required Attachments¹

- Vicinity Map
- Evaluation Documentation Form

¹

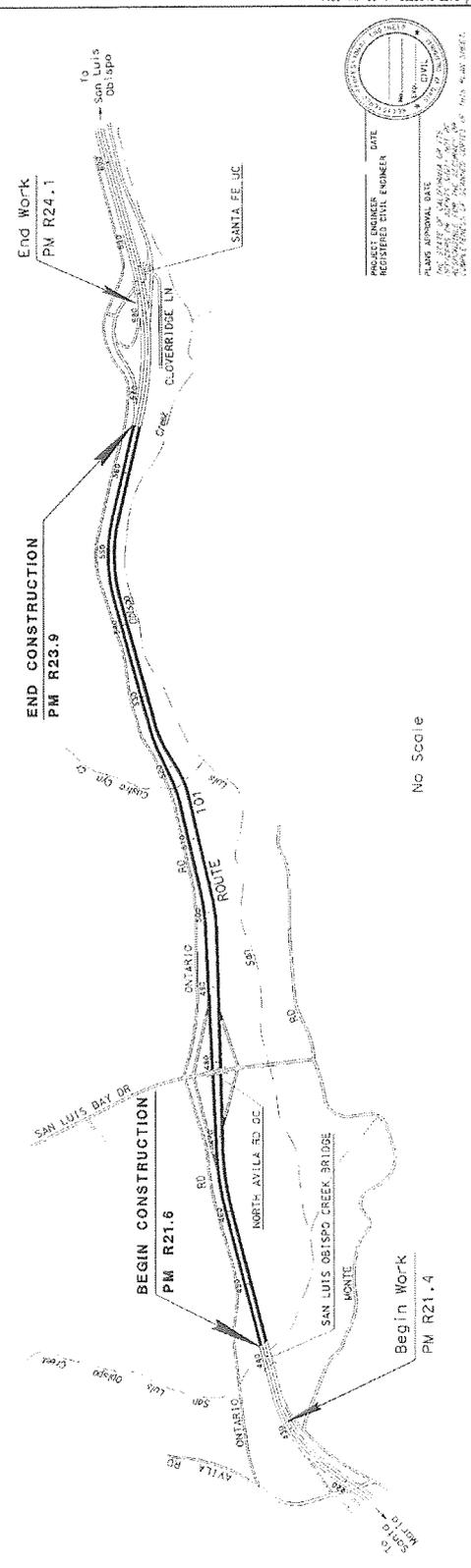


DIST	COUNTY	ROUTE	1 D'	POST MILE TOTAL	SHEET NO. OF SHEETS
05	SLO	PM R21.6/R23.9		PM R21.6/R23.9	



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN SAN LUIS OBISPO COUNTY
NEAR SAN LUIS OBISPO
FROM SAN LUIS OBISPO CREEK BRIDGE
TO 0.3 MILE SOUTH OF SANTA FE UNDERCROSSING**

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006



No Scale

PROJECT ENGINEER
REGISTERED CIVIL ENGINEER

DATE

PLANS APPROVAL DATE

APPROVED BY

DATE

PROJECT ENGINEER

REGISTERED CIVIL ENGINEER

DATE

CONTRACT NO.	00-000004
PROJECT ID	0000000000
PROJECT NUMBER & PHASE	0000000000
UNIT	0500

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

PROJECT NUMBER: 00-000004-0500
CALIFORNIA HIGHWAY BUREAU
CALIFORNIA HIGHWAY BUREAU
CALIFORNIA HIGHWAY BUREAU

DATE: 07/21/11

Project ID (or EA):05-1200-0017-K (05-0S790K)

NO.	CRITERIA	YES ✓	NO ✓	SUPPLEMENTAL INFORMATION FOR EVALUATION
1.	Begin Project Evaluation regarding requirement for consideration of Treatment BMPs	✓		See Figure 4-1, Project Evaluation Process for Consideration of Permanent Treatment BMPs. Go to 2
2.	Is this an emergency project?		✓	If Yes, go to 10. If No, continue to 3.
3.	Have TMDLs or other Pollution Control Requirements been established for surface waters within the project limits? Information provided in the water quality assessment or equivalent document. SLO Creek is 303(d) listed, with TMDLs. As per the DNC go to questions #4	✓		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 9 or 4. <i>RSP</i> (Dist./Reg. SW Coordinator initials) If No, continue to 4.
4.	Is the project located within an area of a local MS4 Permittee?		✓	If Yes. (write the MS4 Area here), go to 5. If No, document in SWDR go to 5.
5.	Is the project directly or indirectly discharging to surface waters?	✓		If Yes, continue to 6. If No, go to 10.
6.	Is it a new facility or major reconstruction?		✓	If Yes, continue to 8. If No, go to 7.
7.	Will there be a change in line/grade or hydraulic capacity?		✓	If Yes, continue to 8. If No, go to 10.
8.	Does the project result in a <u>net increase of one acre or more of new impervious surface</u> ?			If Yes, continue to 9. If No, go to 10. _____ (Net Increase New Impervious Surface)
9.	Project is required to consider approved Treatment BMPs.			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.
10.	Project is not required to consider Treatment BMPs. <i>RSP</i> (Dist./Reg. Design SW Coord. Initials) _____ LNG (Project Engineer Initials) 7/27/11 (Date)	✓		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

DISTRICT 5

TRAFFIC MANAGEMENT PLAN DATA SHEET/CHECKLIST

District / EA: 05/0S790K
 Project Engineer: Lien Gubbins
 Date Prepared: 7/14/2011

Co.-Rte-PM: SLO-101-R21.6/23.97
 Description: Cold plane, place HMA & shoulder backing
 Working Days: 45

Check each box and reference your attachments to the item(s) number(s) shown on the list.

1.0 Public Information

- 1.1 Public Awareness Campaign
- 1.2 Other Strategies

Required	Recommended	Not required	COMMENTS
x			Include \$3500

2.0 Motorist Information Strategies

- 2.1 Changeable Message Signs - Portable
- 2.2 Construction Area Signs
- 2.3 Highway Advisory Radio (fixed and mobile)
- 2.4 Planned Lane Closure Web Site
- 2.5 Caltrans Highway Information Network (CHIN)

Required	Recommended	Not required	COMMENTS
x			Include one CMS per lane/ramp closure -\$200/unit
x			
		x	
x			Construction to provide information to TMC
x			Construction to provide information to TMC

3.0 Incident Management

- 3.1 COZEEP
- 3.2 Freeway Service Patrol

Required	Recommended	Not required	COMMENTS
x			Include \$200/hour nights, \$100/hour days
		x	

4.0 Traffic Management Strategies

- 4.1 Lane/Ramp Closures Charts
- 4.2 Total Facility Closure
- 4.3 Coordination with adjacent construction
- 4.4 Contingency Plan
 - 4.4.1 Material/Equipment Standby
 - 4.4.2 Emergency Detour Plan
 - 4.4.3 Emergency Notification Plan
- 4.5 SSP 12-220 and Others
- 4.6 Other Strategies:
 - Ramp closures require 5 days advance notification.
 - Include \$300/day for Maintain Traffic
 - Special Days include week of graduation at CalPoly. Contractor to verify dates.

Required	Recommended	Not required	COMMENTS
x			To be provided @ PS&E. Nightwork only
x			
x			
x			Standard SSP
x			Construction/Contractor to provide
x			Construction/Contractor to provide
x			Construction/Contractor to provide
x			
x			
x			Includes connector ramps.
x			
x			

5.0 Anticipated Delays

- 5.1 Lane Closure Review Committee (for anticipated delays over 30 minutes)
- 5.2 Planned freeway closures

Required	Recommended	Not required	COMMENTS
		x	
	x		

- 5.3 Minimal delay anticipated - no further action required

yes no If no, explain additional measures on attached sheet.

6.0 Placement of CMS

Required	Recommended	Not required	COMMENTS
x			At direction of RE

Shayne Sandeman
 Prepared by:

Project Report Distribution List

OS790K (0512000017) SLO-101-R21.6/R23.97		CENTRAL REGION PROJECT REPORT	
Division / Program / Office	Project Type	D5	
FHWA	Designated high profile projects only. Refer to Stewardship Agreement	Dominic Hoang	1
HQ Division of Design	All Projects	Design Report Routing	1
HQ Division of Engineering Serv	All Projects	Division of Engineering Services (electronic copy OK)	1
HQ Environmental	All Projects	Bob Pavlik	1
HQ Maintenance	HA22	Leo Mahserelli	1
Project Manager	All Projects	Kelly McClain	1
Design Manager	All Projects	Kelly McClain	2
Resident Engineer	All Projects	Resident Engineer	1
District Maintenance	All Projects	Lance Gorman	1
	SHOPP	Kelly McClain	1
District Traffic Management	All Projects	Jacques Van Zeventer	1
District Traffic Safety	SLO	Steve Talbert	1
Region Materials	All Projects	Doug Lambert	1
Region Environmental	All Projects	Susan Schilder	1
Region Right of Way	All Projects	Connie Shellooe	1
District Planning	All Projects	Claudia Espino	1
District SFP	All Projects	No Copy	0
PPM	All Projects	Linda Araujo	1
District Surveys	All Projects	(electronic copy only)	0
	All Projects	Jeremy Villegas	1
	SB/SLO	Nick Tatarian	1
District Records	All Projects	Gail Hayes / Kristina Jaime	1
TOTAL COPIES		District 5 = 21	
		Last Revised 9/15/2011	