

03 - Nev & Pla - 80, PM Various
20.XX.201.110
03-2F570K
November/2011

PROJECT SCOPE SUMMARY REPORT (STRUCTURE REHABILITATION)

To

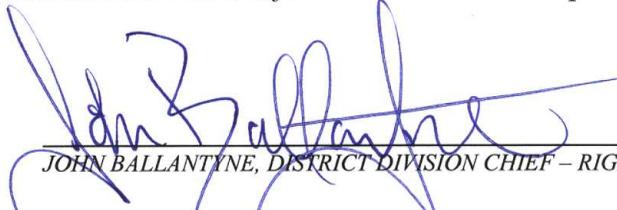
Request Programming in the 2012 SHOPP

On Route 80 at 7 Locations

Between Weimar Overhead (Bridge No. 19-0038)

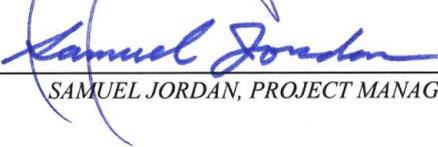
And Cisco Overcrossing (Bridge No. 19-0118)

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:



JOHN BALLANTYNE, DISTRICT DIVISION CHIEF - RIGHT OF WAY

APPROVAL RECOMMENDED:



SAMUEL JORDAN, PROJECT MANAGER

APPROVED:

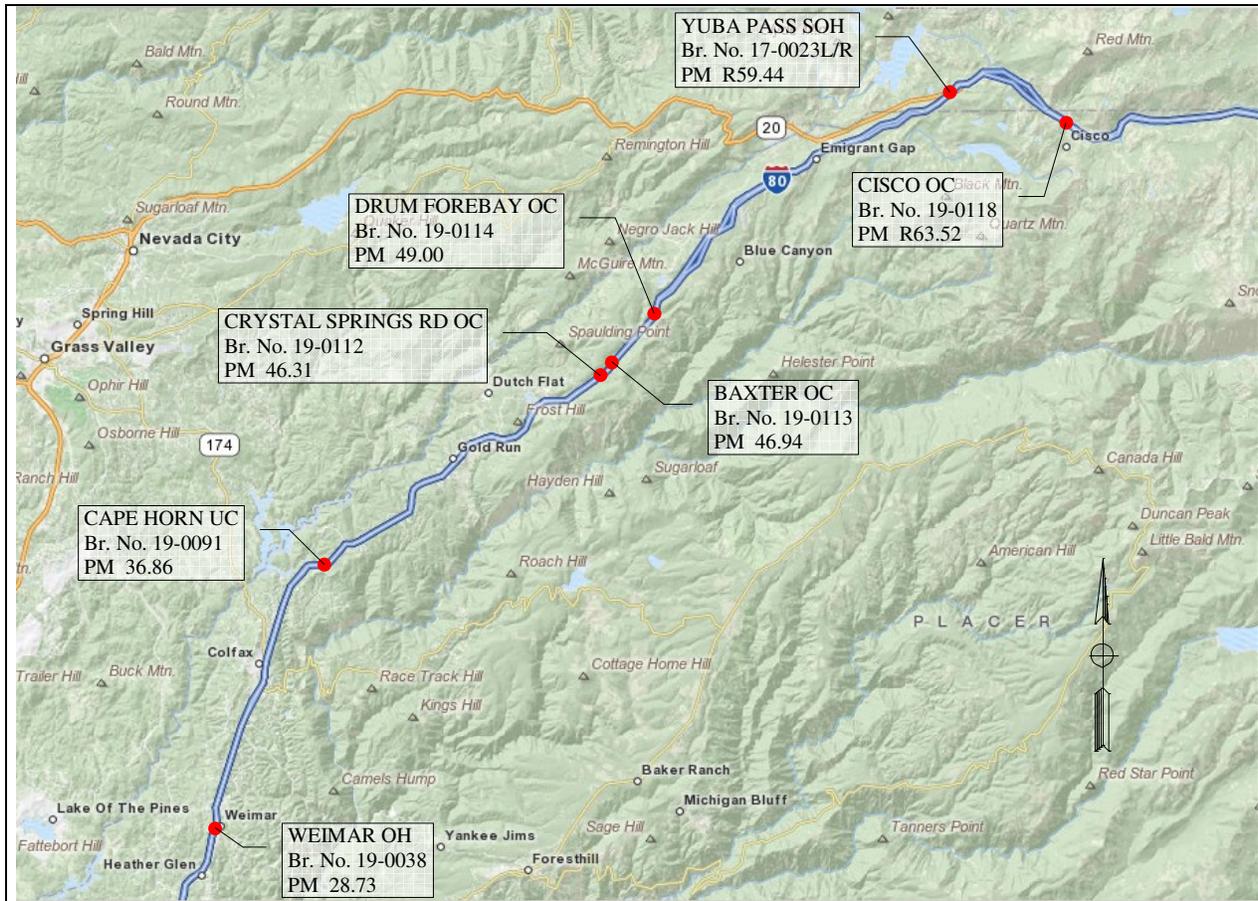


JODY JONES, DISTRICT DIRECTOR

11/14/11

DATE

03 - Nev & Pla - 80, PM Various
03-2F570K
November/2011



On Route 80 at 7 Locations _____

Between Weimar Overhead (Bridge No. 19-0038) _____

And Cisco Overcrossing (Bridge No. 19-0118) _____

03 - Nev & Pla - 80, PM Various

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

Sarju D. Patel

SARJU D. PATEL, REGISTERED CIVIL ENGINEER

10/31/11

DATE



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1. INTRODUCTION AND BACKGROUND

Brief Project Description:

The proposed project will address the following bridges.

	Bridge Name	Bridge Number	Location		Description of Work
			County	PM	
1	Weimar Overhead (OH)	19-0038	Placer	28.7	Replace Bridge Deck
2	Cape Horn Undercrossing (UC)	19-0091	Placer	36.8	Replace Bridge
3	Crystal Springs Road Overcrossing (OC)	19-0112	Placer	46.3	Replace Bridge
4	Baxter OC	19-0113	Placer	46.9	Replace Bridge
5	Drum Forebay OC	19-0114	Placer	49.0	Replace Bridge
6	Yuba Pass Separation & OH (SOH)	17-0023L/R	Nevada	R59.4	Replace Bearing Pads at Abutments
7	Cisco OC	19-0118	Placer	R63.5	Replace Bridge

See attached cost estimates for specific work items included in this project.

Project Limits:	03, Nev & Pla, 80, PM Various
Capital Cost*:	\$33,200,000
Roadway Cost*:	\$12,120,000
Structure Cost*:	\$20,870,000
Right of way Cost:	\$210,000
Funding Source:	SHOPP
Number of Alternatives:	3
Recommended Alternative:	Rehabilitate bridge and Replace bridge.
Type of Facility:	Freeway (along Route 80) and Local Road (at Overcrossings)
Number of Structures:	7
Anticipated Environmental Determination/Document:	Initial Study with a Negative Declaration and Categorical Exclusion
Legal Description	In Nevada and Placer Counties at various locations

*For escalated costs, please see attached Programming Sheet.

2. RECOMMENDATION

It is recommended that this Project Scope Summary Report be approved and the project proceeds to the PA&ED Phase.

3. PURPOSE AND NEED STATEMENT

Need:

Due to the severity of the transverse and longitudinal cracks in the concrete decks, spalling concrete, and high corrosive chloride content in the concrete deck surfaces and bridge superstructures and substructures, these structures are in need of major rehabilitation or replacement.

Purpose:

The purpose of this project is to rehabilitate or replace the deficient structural components at each of the seven bridges located at various locations along Route 80 in Nevada and Placer Counties.

4. EXISTING FACILITY, DEFICIENCIES AND TRAFFIC DATA

See next page.

4A. Roadway Geometric Information

	Facility (1)	Minimum Curve Radius	Through Traffic Lanes (2)			Paved Shoulder Width (3)		Median Width (4)	Shoulder is a Bicycle Lane (Y/N) (5)	Other Bicycle Lane Width (6)	Bicycle Route (7)	Facilities Adjacent to the Roadbed (8)
			No. of Lanes	Lane Width	Type (Flex, Rigid, or Composite)	Left	Right					
Existing/ Proposed	Location (on Route 80) Weimar OH (Br. No. 19-0038), PM 28.7	2500'	4	12'	Flex	10'	9.25'	0	N	N/A	N	N/A
Existing	Cape Horn UC (Br. No. 19- 0091), PM 36.8	1500'	4	12'	Flex	1'	4'	0	N	N/A	N	N/A
Proposed	Cape Horn UC (Br. No. 19- 0091), PM 36.8	1500'	4	12'	Flex	5'	10'	0	N	N/A	N	N/A
	Min. 3R Stds. (applies to all 3 Freeway locations)		4	12'	Flex	5'	10'	N/A	N/A	N/A	N/A	N/A
Existing	Crystal Springs Rd OC (Br. No. 19-0112), PM 46.3	N/A	2	12'	Flex	0	2', 4'	0	N	N/A	N	N/A
Proposed	Crystal Springs Rd OC (Br. No. 19-0112), PM 46.3	N/A	2	12'	Flex	0	8'	0	N	N/A	N	P/5'
Existing	Baxter OC (Br. No. 19-0113), PM 46.9	N/A	2	12'	Flex	0	2'	0	N	N/A	N	N/A
Proposed	Baxter OC (Br. No. 19-0113), PM 46.9	N/A	2	12'	Flex	0	8'	0	N	N/A	N	P/5'
Existing	Drum Forebay OC (Br. No. 19- 0114), PM 49.0	N/A	2	12'	Flex	0	2', 4'	0	N	N/A	N	N/A
Proposed	Drum Forebay OC (Br. No. 19- 0114), PM 49.0	N/A	2	12'	Flex	0	8'	0	N	N/A	N	P/5'
	Min. 3R Stds. (applies to all 5 OC locations)	N/A	2	12'	Flex	0	8'	N/A	N/A	N/A	N/A	P/5'
Existing/ Proposed	Yuba Pass SOH (Br. No. 17- 0023L/R), PM R59.4	1350'	4	12'	Rigid	10'	10'	75'	N	N/A	N	N/A
Existing	Cisco OC (Br. No. 19-0118), PM R63.5	N/A	2	12'	Flex	0	2', 4'	0	N	N/A	N	P/5'
Proposed	Cisco OC (Br. No. 19-0118), PM R63.5	N/A	2	12'	Flex	0	8'	0	N	N/A	N	P/5'

Remarks:

The code P, under the Facilities Adjacent to the Roadbed column, is the abbreviation for Pedestrian Walkway.

4B. Condition of Existing Facility:

(1) Pedestrian Facility Data

Facility Type and Locations	Meets ADA Standards?	If Facility does not meet ADA Standards, what feature(s) are not ADA compliant?	Status of Each Noncompliant Location
Sidewalks: Crystal Springs Rd OC (Br. No. 19-0112), PM 46.3 Baxter OC (Br. No. 19-0113), PM 46.9 Drum Forebay OC (Br. No. 19-0114), PM 49.0 Cisco OC (Br. No. 19-0118), PM R63.5	<i>No (along roadway), Yes (on bridge).</i>	<i>No existing Sidewalk along roadway.</i>	<i>Will be corrected as part of this project.</i>
Curb Ramps: Crystal Springs Rd OC (Br. No. 19-0112), PM 46.3 Baxter OC (Br. No. 19-0113), PM 46.9 Drum Forebay OC (Br. No. 19-0114), PM 49.0 Cisco OC (Br. No. 19-0118), PM R63.5	<i>No</i>	<i>No existing Curb Ramps</i>	<i>Will be corrected as part of this project.</i>
Crosswalks:	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>
Driveways:	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>
Shared bicycle/ pedestrian path:	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>
Others:	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>

Remarks:

Pedestrian facilities are not present at Weimar Overhead, Cape Horn Undercrossing, and Yuba Pass Separation & Overhead.

(2) Bicycle Path Data

Remarks:

Bicycle paths are not present at each of the project locations.

4C. Structures Information

Structures	Width Between Curbs			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	
	Exist	3R Std	Prop		Exist	3R Std	Prop			(Y/N)	#
Weimar OH (Br. No. 19-0038), PM 28.7	43.25'	39'	N/A	Y	23.75'	23'	N/A	Y	Y	N/A	
Cape Horn UC (Br. No. 19-0091), PM 36.8	29'	39'	39'	Y	16.5'	15'	15'	Y	Y	Y	2
Crystal Springs Rd OC (Br. No. 19-0112), PM 46.3	30'	40'	40'	Y	16'	16.5'	16.5'	Y	Y	N/A	
Baxter OC (Br. No. 19-0113), PM 46.9	28'	40'	40'	Y	16.58'	16.5'	16.5'	Y	Y	N/A	
Drum Forebay OC (Br. No. 19-0114), PM 49.0	30'	40'	40'	Y	16.83'	16.5'	16.5'	Y	Y	N/A	
Yuba Pass SOH (Br. No. 17-0023L), PM R59.4	51' to 44'	51' to 39'	N/A	N	24.92' & 23'+	16.5' & 23'	N/A	Y	N/A	N/A	
Yuba Pass SOH (Br. No. 17-0023R), PM R59.4	44'	39'	N/A	N	22.25' & 23'+	16.5' & 23'	N/A	Y	N/A	N/A	
Cisco OC (Br. No. 19-0118), PM R63.5	30'	40'	40'	Y	15.58'	16.5'	16.5'	Y	Y	N/A	

Remarks:

Yuba Pass Separation & Overhead (Br. No. 17-0023R) includes an on-ramp lane. Vertical Clearances shown at Yuba Pass Separation & Overhead (Br. No. 17-0023L/R) are at the Route 80/20 separation and the Union Pacific Railroad crossing.

4D. Vehicle Traffic Data

Location (on Route 80)	ADT		DHV	
	Construction Year (2018)	20-Year (2038)	Construction Year (2018)	20-Year (2038)
Weimar OH (Br. No. 19-0038), PM 28.7	45,000	62,500	4,860	6,750
Cape Horn UC (Br. No. 19-0091), PM 36.8	33,000	46,800	4,850	6,880
Crystal Springs Rd OC (Br. No. 19-0112), PM 46.3	30,000	42,500	4,380	6,210
Baxter OC (Br. No. 19-0113), PM 46.9	29,200	38,400	4,290	5,640
Drum Forebay OC (Br. No. 19-0114), PM 49.0	28,600	37,600	4,180	5,490
Yuba Pass SOH (Br. No. 17-0023L/R), PM R59.4	27,500	36,100	4,020	5,270
Cisco OC (Br. No. 19-0118), PM R63.5	30,200	40,600	4,470	6,010

The data shown above is for the traffic on Route 80. Data is not available at this time for the traffic on the Overcrossings. The directional split is 65% at each location and the percentage of trucks is 10% at Weimar Overhead and 13% at the other six locations.

The collision summary and rates shown below were obtained from a three-year period from April 1, 2007 to March 31, 2010.

Location (on Route 80)	No. of Accidents				Accident Rates					
	Tot	Fat	Inj	F + I	Actual			Average		
					Fat	F + I	Tot	Fat	F + I	Tot
Weimar OH (Br. No. 19-0038), PM 28.7	0	0	0	0	0.000	0.00	0.00	0.011	0.17	0.48
Cape Horn UC (Br. No. 19-0091), PM 36.8	6	0	2	2	0.000	0.85	2.55	0.010	0.16	0.44
Crystal Springs Rd OC (Br. No. 19-0112), PM 46.3	4	0	1	1	0.000	0.14	0.55	0.009	0.16	0.43
WB Off	0	0	0	0	0.000	0.00	0.00	0.007	0.37	1.20
WB On	0	0	0	0	0.000	0.00	0.00	0.004	0.18	0.60
EB Off	0	0	0	0	0.000	0.00	0.00	0.007	0.37	1.20
EB On	0	0	0	0	0.000	0.00	0.00	0.004	0.18	0.60
Baxter OC (Br. No. 19-0113), PM 46.9	6	0	2	2	0.000	0.24	0.72	0.009	0.16	0.43
WB Off	0	0	0	0	0.000	0.00	0.00	0.007	0.37	1.20
WB On	0	0	0	0	0.000	0.00	0.00	0.004	0.18	0.60
EB Off	0	0	0	0	0.000	0.00	0.00	0.007	0.37	1.20
EB On	0	0	0	0	0.000	0.00	0.00	0.004	0.18	0.60
Drum Forebay OC (Br. No. 19-0114), PM 49.0	13	0	3	3	0.000	0.34	1.45	0.009	0.16	0.43
WB Off	0	0	0	0	0.000	0.00	0.00	0.007	0.37	1.20
WB On	0	0	0	0	0.000	0.00	0.00	0.004	0.18	0.60
EB Off	0	0	0	0	0.000	0.00	0.00	0.007	0.37	1.20
EB On	1	0	0	0	0.000	0.00	18.18	0.004	0.18	0.60
Yuba Pass SOH (Br. No. 17-0023L/R), PM R59.4	9	0	4	4	0.000	0.65	1.45	0.010	0.16	0.44
WB On	0	0	0	0	0.000	0.00	0.00	0.002	0.26	0.75
Cisco OC (Br. No. 19-0118), PM R63.5	6	0	2	2	0.000	0.26	0.75	0.010	0.16	0.44
WB Off	1	0	0	0	0.000	0.00	4.61	0.007	0.37	1.20
WB On	0	0	0	0	0.000	0.00	0.00	0.004	0.18	0.60
EB Off	1	0	0	0	0.000	0.00	2.99	0.007	0.37	1.20
EB On	0	0	0	0	0.000	0.00	0.00	0.004	0.18	0.60

No correctable pattern of accidents were identified at any of the locations. The

higher accident rates on some of the mainline segments are due to the extreme weather, mountainous terrain, chain control operations, and peak seasonal/recreational traffic volumes which do not exist on most other freeways that are used for comparison. The higher rates on some of the ramps are also due to the same issues as the mainline. The ramps have very low traffic volumes which skew the rate calculation.

5. CORRIDOR AND SYSTEM COORDINATION

The proposed scope is consistent with the Transportation Corridor Concept Report (September, 2010) for normal maintenance and rehabilitation as needed.

6. ALTERNATIVES

Two alternatives were studied on this project in addition to the no-build alternative. Alternative one is structure rehabilitation and alternative two is structure replacement. See Rehabilitation Strategy section for the recommended alternative.

6A. Rehabilitation Strategy:

Weimar Overhead: The bridge deck will be replaced including the joint seals, concrete bridge rails, and median concrete barrier. Metal beam guard railing will also be upgraded to current design standards.

Cape Horn Undercrossing: The bridge will be replaced with a wider bridge that will incorporate standard shoulders. The roadway will also be widened to meet current design standards.

Crystal Springs Road Overcrossing: The bridge will be replaced with a wider bridge that will incorporate standard shoulders. The roadway will also be widened to meet current design standards.

Baxter Overcrossing: The bridge will be replaced with a wider bridge that will incorporate standard shoulders. The roadway will also be widened to meet current design standards.

Drum Forebay Overcrossing: The bridge will be replaced with a wider bridge that will incorporate standard shoulders. The roadway will also be widened to meet current design standards.

Yuba Pass Separation and Overhead: The existing bearing pads will be replaced at the abutments.

Cisco Overcrossing: The bridge will be replaced with a wider bridge that will incorporate standard shoulders. The roadway will also be widened to

meet current design standards.

6B. Design Exceptions:

Design Exceptions will be evaluated and addressed during the PA&ED phase of this project if needed.

6C. Environmental Compliance:

This project is anticipated to be in compliance with all the regulatory agencies. In order to identify environmental issues, constraints, costs and resource needs, a Mini PEAR (Preliminary Environmental Analysis Report) was prepared for this project. Specific construction activities and environmental issues affected will be evaluated further during the PA&ED phase of this project. It is anticipated that an Initial Study with a Negative Declaration and a Categorical Exclusion will be required on this project.

6D. Hazardous Waste:

Aerially Deposited Lead exists within the State R/W and soil-disturbing activities are anticipated so a Preliminary Site Investigation will be required.

Thermoplastic and/or paint striping removed independently from the existing pavement surface will require Standard Special Provision (SSP) 14-001. Removal of thermoplastic and/or paint striping while grinding the existing pavement surface will require SSP 15-305.

Asbestos is assumed to be present in bridges and an Asbestos Survey will be required. The contractor will need to notify the Air District prior to bridge demolition.

SSP 15-025 will be required to address Lead Based Paint.

6E. Other Agencies Involved:

Other agencies may be involved to obtain permits/approvals and will be addressed during the PA&ED phase of this project.

6F. Materials and/or Disposal Site:

The contractor will be responsible for providing a materials and/or disposal site, if one is needed. Excess material will become the property of the contractor.

6G. Highway Planting and Irrigation:

Highway planting and irrigation is not warranted on this project. Replacement of native vegetation will likely be required at areas that are temporarily disturbed/cleared during construction.

6H. Roadside Design and Management:

Metal Beam Guard Railing will be upgraded with WB transition connections. Paving of maintenance vehicle pull-out will be considered during the PA&ED phase.

6I. Stormwater Compliance:

Temporary Construction Best Management Practices (BMPs) are included as part of the project's cost estimate. A Storm Water Data Report will be developed during the PA&ED phase.

6J. Right of Way Issues:

Most of the work will be performed within the existing Right of Way. A Temporary Construction Easement will be needed for staging the work at the Weimar Overhead location. Utility relocation will also be required at the following five locations: Weimar Overhead, Crystal Springs Road Overcrossing, Baxter Overcrossing, Drum Forebay Overcrossing, and Cisco Overcrossing.

6K. Railroad Involvement:

Coordination will be required with Union Pacific Railroad during construction at Weimar Overhead and Yuba Pass Separation & Overhead.

6L. Salvaging and Recycling of Hardware and other Non-Renewable Resources:

The contractor will be responsible for salvaging and recycling of any material.

6M. Prolonged Temporary Ramp Closures:

Ramp closures may be required during construction at the following four Overcrossing locations: Crystal Springs Road Overcrossing, Baxter Overcrossing, Drum Forebay Overcrossing, and Cisco Overcrossing. Traffic will be detoured to the preceding or following interchange.

6N. Recycled Materials:

Asphalt grindings may be used as shoulder backing material.

6O. Local and Regional Input:

Locals agencies and the public may be consulted at the Undercrossing and Overcrossing locations.

6P. Consequences of not doing entire project:

The no build alternative will not meet the purpose and need for this project. The previously mentioned deficient structural components will continue to deteriorate and the associated maintenance costs will increase as well.

6Q. Alternatives studied:

Two alternatives were studied on this project in addition to the no-build alternative.

Alternative 1 proposes structure rehabilitation at each location except for the Cape Horn Undercrossing location. This alternative will meet the purpose and need by maintaining the existing bridge and is the low cost alternative. Structure rehabilitation is the only option for the Yuba Pass Separation & Overhead location. The scope of work at this location is replacement of bearing pads at the abutments.

Location (on Route 80)	Rehabilitation Alternative Costs*
Weimar OH (Br. No. 19-0038), PM 28.7	\$4,660,000
Cape Horn UC (Br. No. 19-0091), PM 36.8	N/A
Crystal Springs Rd OC (Br. No. 19-0112), PM 46.3	\$3,680,000
Baxter OC (Br. No. 19-0113), PM 46.9	\$2,290,000
Drum Forebay OC (Br. No. 19-0114), PM 49.0	\$2,480,000
Yuba Pass SOH (Br. No. 17-0023L/R), PM R59.4	\$290,000
Cisco OC (Br. No. 19-0118), PM R63.5	\$2,160,000

*Present cost shown (not escalated).

Alternative 2 proposes structure replacement at each location except for the Yuba Pass Separation & Overhead location. This alternative will also meet the purpose and need by replacing the existing bridge and bringing it up to current design standards. This is the high cost alternative. The table below shows the associated cost of replacing the bridges.

Location (on Route 80)	Replacement Alternative Costs*
Weimar OH (Br. No. 19-0038), PM 28.7	\$9,420,000
Cape Horn UC (Br. No. 19-0091), PM 36.8	\$8,050,000
Crystal Springs Rd OC (Br. No. 19-0112), PM 46.3	\$4,650,000
Baxter OC (Br. No. 19-0113), PM 46.9	\$4,590,000
Drum Forebay OC (Br. No. 19-0114), PM 49.0	\$4,590,000
Yuba Pass SOH (Br. No. 17-0023L/R), PM R59.4	N/A
Cisco OC (Br. No. 19-0118), PM R63.5	\$6,370,000

*Present cost shown (not escalated).

A peer review was conducted in 2010 for the Cape Horn Undercrossing, Baxter Overcrossing, and Drum Forebay Overcrossing locations to determine the appropriate rehabilitation strategy for these structures based upon their current condition. The peer review members unanimously agreed that the preferred alternative was structure replacement over rehabilitation.

At the Crystal Springs Road Overcrossing location, structure replacement was recommended due to the current condition and amount of rehabilitation work needed. Due to superstructure type, age of the structure, and existing deck deterioration, replacement was also recommended at the Cisco Overcrossing location.

The no-build alternative was not selected because it does not meet the purpose and need of this project.

7. TRANSPORTATION MANAGEMENT

7A. Transportation Management Plan

A Traffic Management Plan will be required for this project. The plan will include provisions for use of an appropriate Traffic Control System for lane or full closures including detours, portable changeable message signs, and a Construction Zone Enhanced Enforcement Program.

7B. Vehicle Detection Systems

Vehicle Detection Systems are present at/near the Cisco Overcrossing location, located on all four ramps and on Route 80 in both directions. These systems are temporarily out of service due to a current roadway reconstruction project and will be replaced. The systems will not be affected by the proposed replacement work. Vehicle Detection Systems are not present at each of the other project locations.

8. ANTICIPATED ENVIRONMENTAL DETERMINATION/DOCUMENT

The anticipated Environmental Document will be an Initial Study with a Negative Declaration for CEQA and a Categorical Exclusion for NEPA. See attached Mini PEAR for details.

Date Mini PEAR Signed: 10/26/11

9. FUNDING/SCHEDULING

9A. Cost Estimate:

The table below shows the cost of the preferred alternative.

Location (on Route 80)	Preferred Alternative Cost			
	Structure*	Roadway*	Right of Way	Total
Weimar OH (Br. No. 19-0038), PM 28.7	\$2,610,000	\$2,000,000	\$50,000	\$4,660,000
Cape Horn UC (Br. No. 19-0091), PM 36.8	\$3,240,000	\$4,770,000	\$40,000	\$8,050,000
Crystal Springs Rd OC (Br. No. 19-0112), PM 46.3	\$3,320,000	\$1,310,000	\$20,000	\$4,650,000
Baxter OC (Br. No. 19-0113), PM 46.9	\$3,260,000	\$1,310,000	\$20,000	\$4,590,000
Drum Forebay OC (Br. No. 19-0114), PM 49.0	\$3,260,000	\$1,310,000	\$20,000	\$4,590,000
Yuba Pass SOH (Br. No. 17-0023L/R), PM R59.4	\$140,000	\$110,000	\$40,000	\$290,000
Cisco OC (Br. No. 19-0118), PM R63.5	\$5,040,000	\$1,310,000	\$20,000	\$6,370,000

*For escalated costs, please see attached Programming Sheet.

See attached cost estimates for details on each of the preferred alternatives selected.

9B. Project Support:

For project support costs, please see attached Programming Sheet.

9C. Project Schedule:

See next page.

Milestones	Delivery Date (Month/Day/Year)
Begin Project Report	07/01/2012
Begin Environmental	08/01/2012
Circulate DED	08/01/2013
PA & ED	12/01/2013
Regular Right of Way	06/01/2014
Project PS&E	01/01/2016
Right of Way Certification	03/01/2016
Ready to List	04/01/2016
Approve Contract	10/01/2016
Contract Acceptance	10/01/2020
End Project	10/01/2022

10. FEDERAL COORDINATION

This project is eligible for federal-aid funding and is considered to be Full Oversight under the current FHWA-Caltrans Stewardship Agreement.

11. SCOPING TEAM FIELD REVIEW ATTENDANCE ROSTER:

See attached scoping team field review attendance roster.

12. REVIEWS

Project Reviewed by:

District Maintenance David Lamb Date 10/25/11

District Safety Naghi Ghafari Date 10/25/11

HQ Division of Design Jim Deluca/Heidi Sykes Date 10/25/11

HQ Program Advisor Kevin Wall Date 10/25/11

13. ATTACHMENTS

- A. Location Map
- B. Typical Cross Sections
- C. Aerial Mapping
- D. Advance Planning Studies
- E. Bridge Inspection Reports
- F. Cost Estimates
- G. Programming Sheet
- H. Anticipated Environmental Determination/Document
- I. Initial Site Assessment
- J. Right of Way Data Sheet
- K. Scoping Team Field Review Attendance Roster
- L. SHOPP Performance Output
- M. Landscape Architecture Assessment Sheet
- N. Traffic Management Plan Data Sheet

ATTACHMENT A

LOCATION MAP

**STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION**

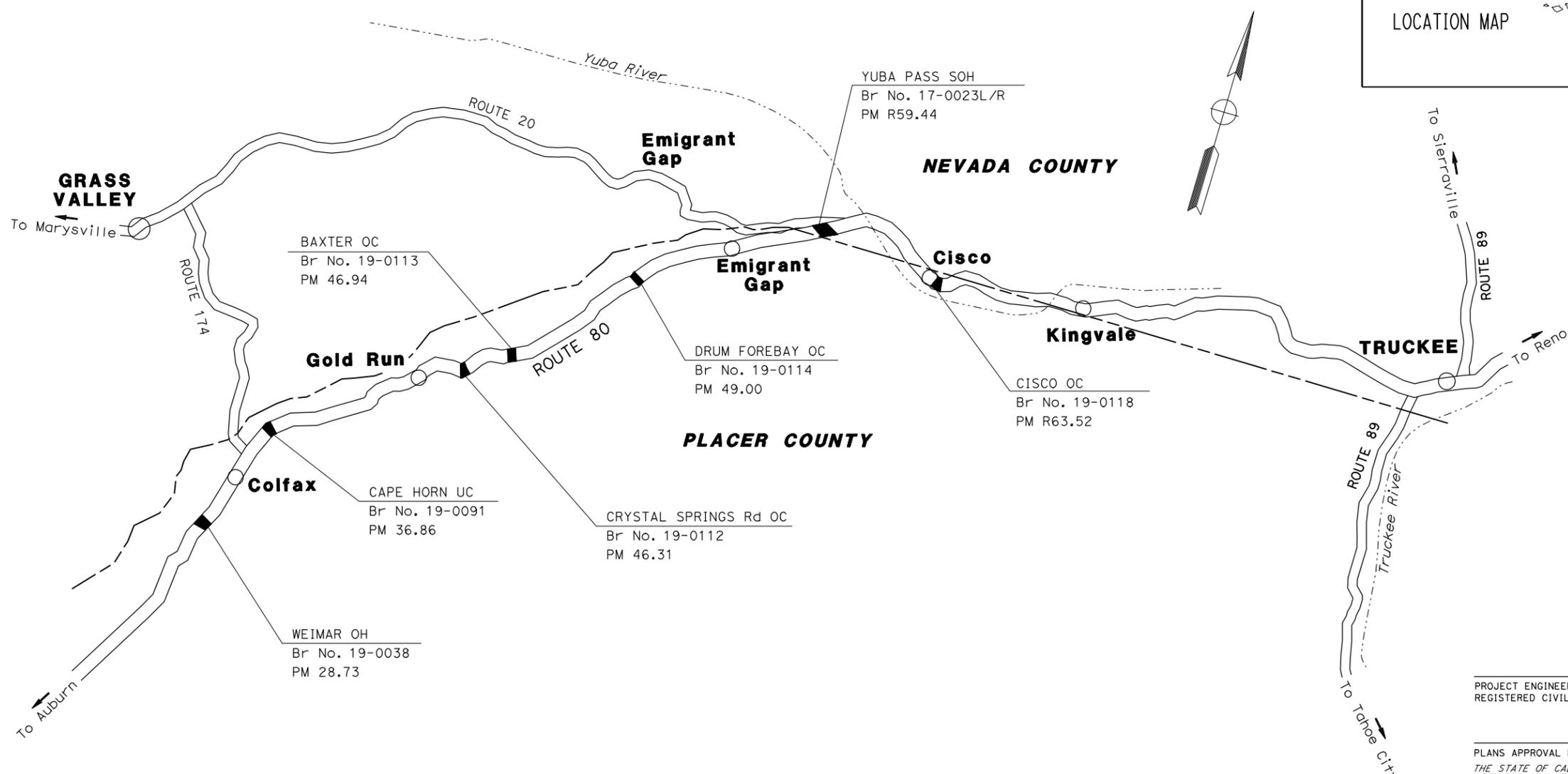
**PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY**

**IN NEVADA AND PLACER COUNTIES
AT VARIOUS LOCATIONS**

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	Nev, Pla	80	Var	1	

LOCATION MAP



NO SCALE

PROJECT MANAGER
 SAMUEL JORDAN
 DESIGN ENGINEER
 ROBERT E. POLGAR

PROJECT ENGINEER _____ DATE _____
 REGISTERED CIVIL ENGINEER



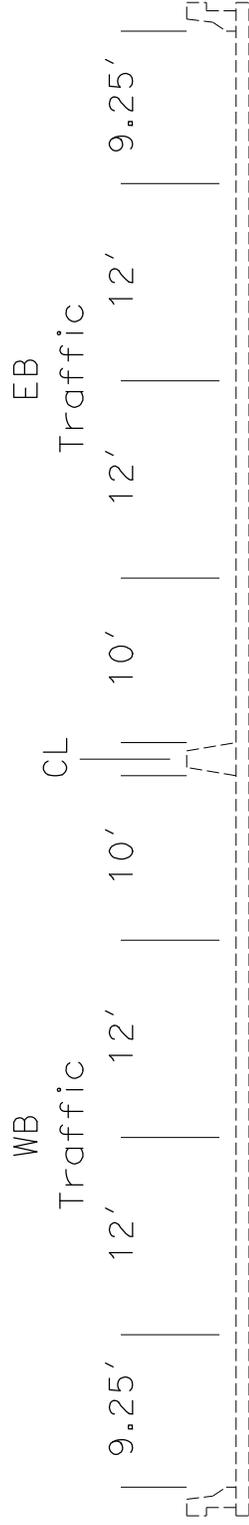
PLANS APPROVAL DATE _____
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

CONTRACT No.	03-2F5704
PROJECT ID	0300020615

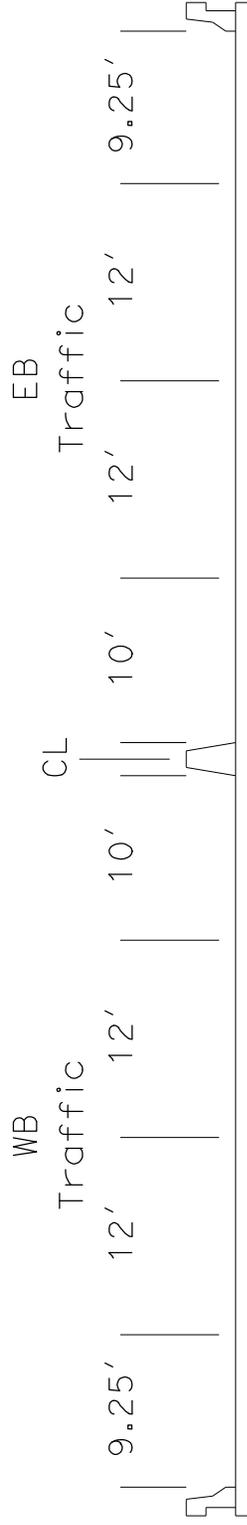
THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

ATTACHMENT B

TYPICAL CROSS SECTIONS

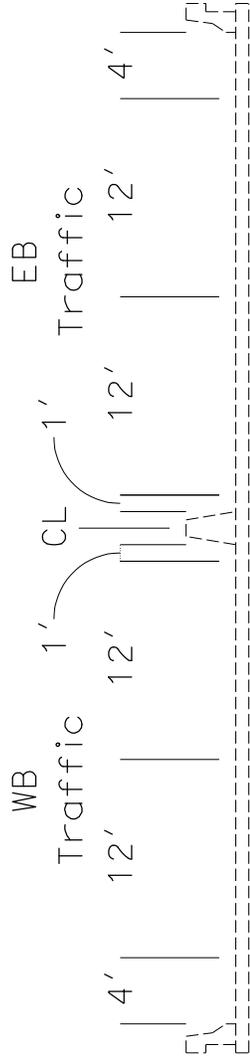


Existing

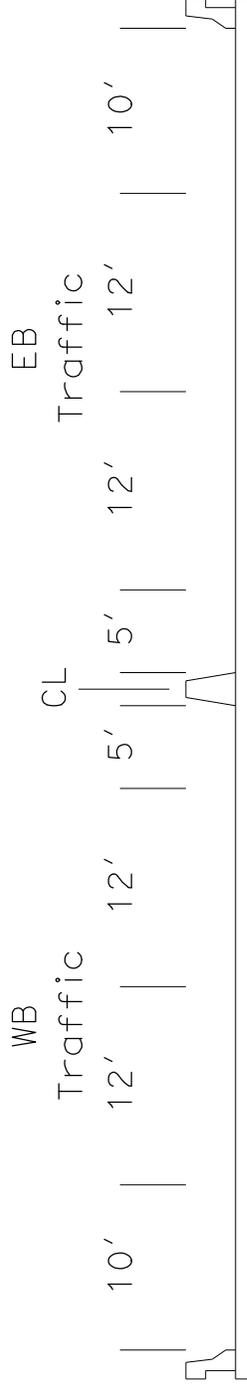


Proposed

WEIMAR OH TYPICAL SECTIONS

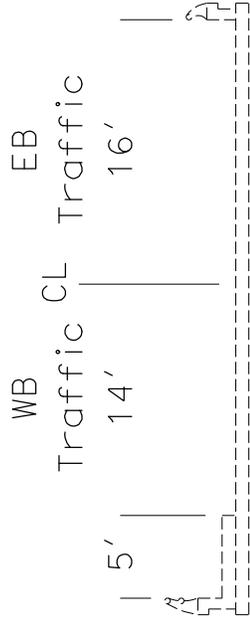


Existing

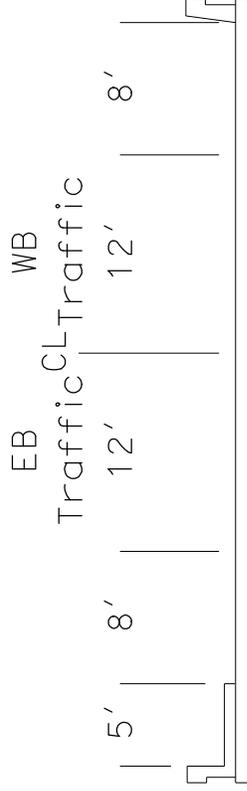


Proposed

CAPE HORN UC TYPICAL SECTIONS

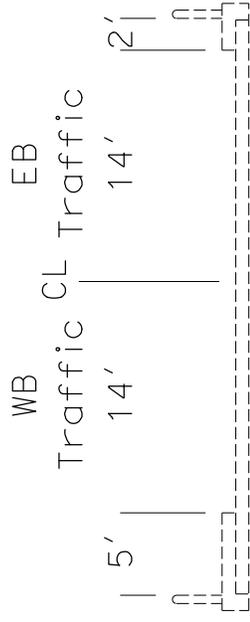


Existing

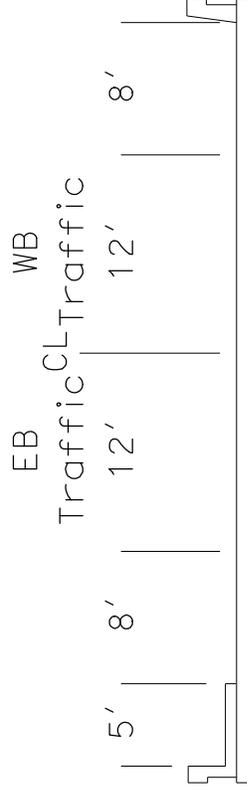


Proposed

CRYSTAL SPRINGS Rd OC TYPICAL SECTIONS

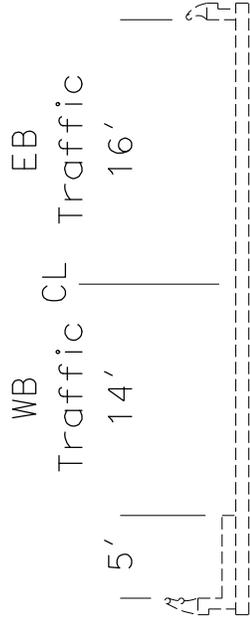


Existing

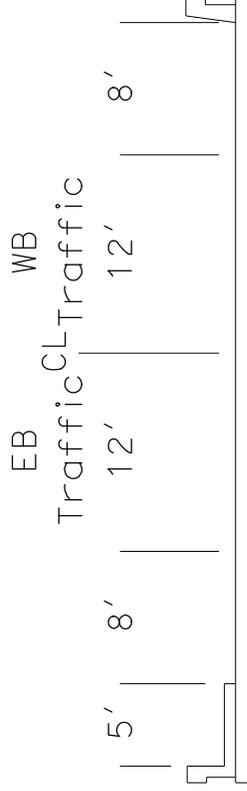


Proposed

BAXTER OC TYPICAL SECTIONS



Existing

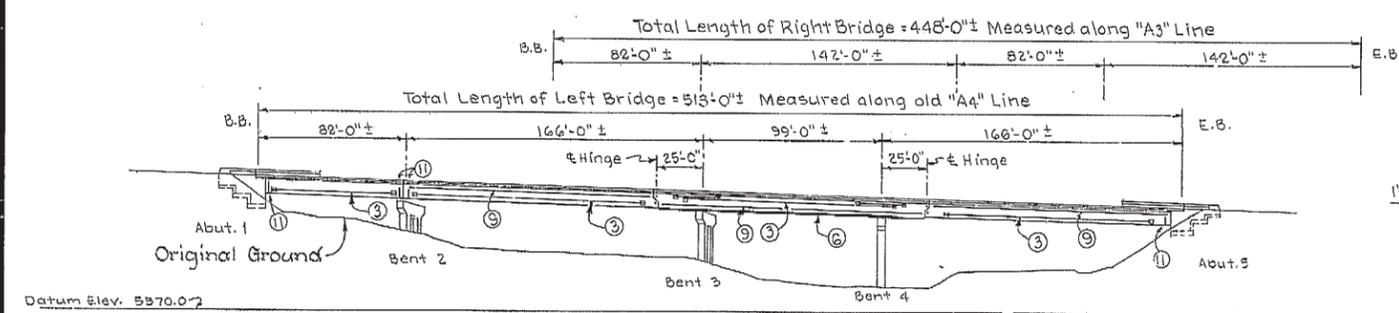


Proposed

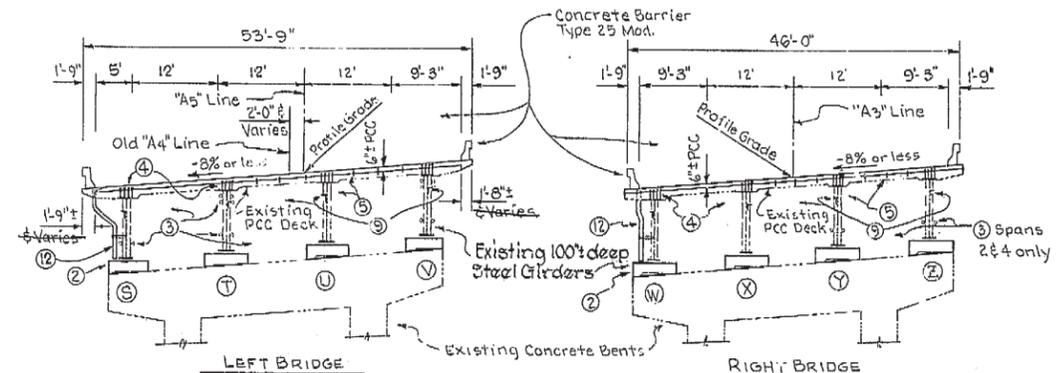
DRUM FOREBAY OC TYPICAL SECTIONS

DET.	COUNTY	ROUTE	POST MILES-TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
03	NeV	80	R59.4	23	37

R.C. Cassano 9013
 CHIEF, OFFICE OF STRUCTURAL DESIGN REGISTERED CIVIL ENGINEER NUMBER
 DATE APPROVED February 19, 1985

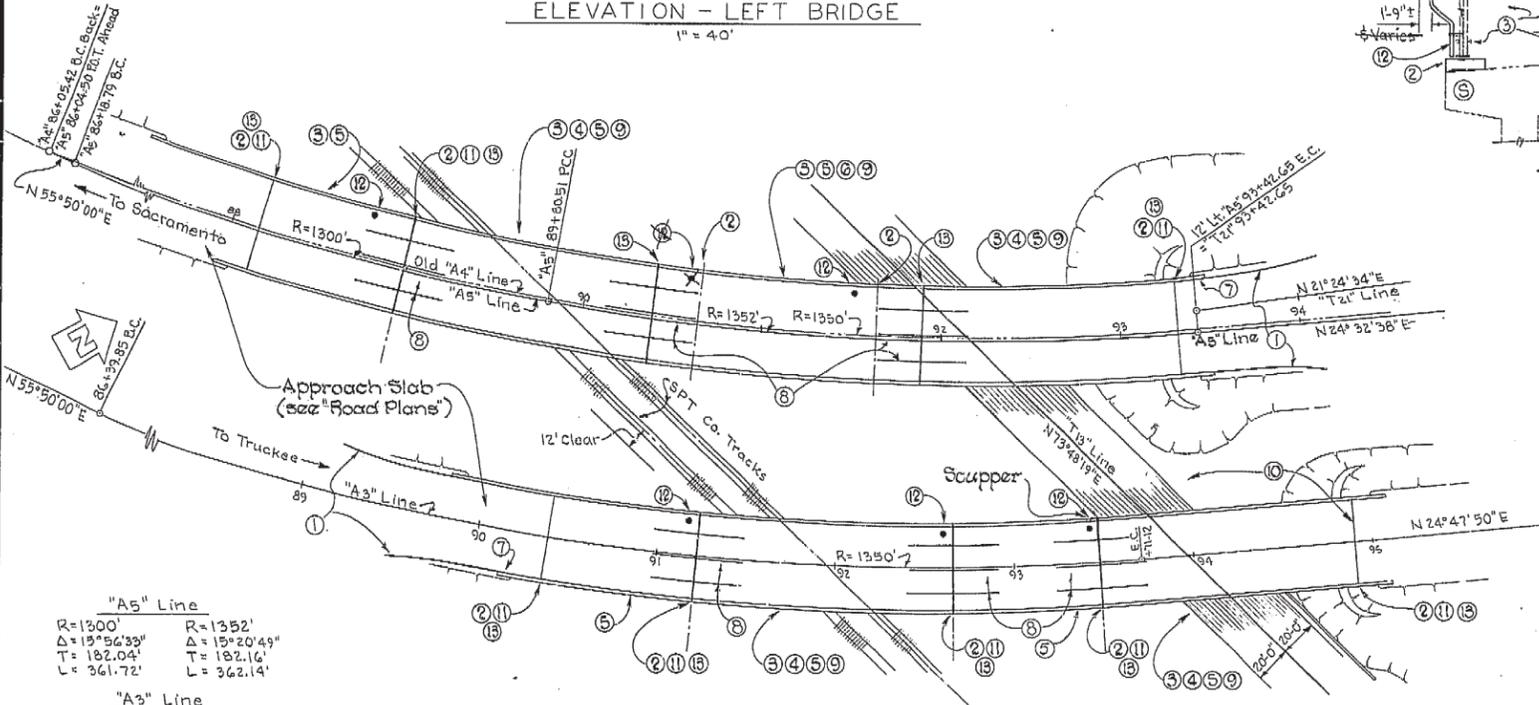


ELEVATION - LEFT BRIDGE
 1" = 40'



TYPICAL SECTION
 1" = 10'

Note:
 Portions of existing decks to be removed.



"A5" Line
 R=1300' R=1352'
 Δ = 19°50'33" Δ = 15°20'49"
 T = 182.04' T = 182.16'
 L = 361.72' L = 362.14'

"A3" Line
 R = 1350'
 Δ = 31°02'10"
 T = 374.85'
 L = 731.21'

PLAN
 1" = 40'

- ① Metal Beam Guard Rail, See Road Plans.
 - ② Existing bearings to be removed and replaced with elastomeric pads on concrete pedestals.
 - ③ Strengthen existing girders with grouted prestressed tendons.
 - ④ Shear connectors for composite action. (Spans 2 & 4 only)
 - ⑤ Deck dowels.
 - ⑥ Bolted cover plate. (Left Bridge only)
 - ⑦ Paint Bridge Name and Number.
 - ⑧ Longitudinal Earthquake Restrainers
 - ⑨ Longitudinal Stiffener
 - ⑩ Repair Spalled Concrete
 - ⑪ Bearing Stiffeners
 - ⑫ Deck Drains
 - ⑬ Joint Seals
- For Bent Modification See sheet 2A

SHEET NO.	TITLE
1	GENERAL PLAN 1
2	GENERAL PLAN 2
3	GRID GRADES
4	ABUTMENT 1 DETAILS
5A	ABUTMENT 5 DETAILS
6A	ABUTMENT 5 DETAILS
7	BENT DETAILS
8	TYPICAL SECTION
9	CONCRETE BARRIER TYPE 25 MOD. DETAILS
10	GIRDER ELEVATIONS-LEFT BRIDGE
11	GIRDER ELEVATIONS-RIGHT BRIDGE
12	STRESSING BRACKET DETAILS
13	GIRDER DETAILS 1
14	SHEAR CONNECTOR DETAILS
15	RESTRAINER UNIT TYPE B
16	BEAR 100'0" VERTICALS

APPROXIMATE QUANTITIES	
REMOVE DECK SURFACE	46,500 SQFT
BRIDGE REMOVAL (PORTION)	LUMP SUM
MODIFY BEARINGS	48 EA
MODIFY BEARINGS (3L and 4L)	8 EA
PRESTRESSING	LUMP SUM
DRILL AND GROUT DOWEL	2,820 LF
FURNISH DECK OVERLAY (CONCRETE)	905 CY
PLACE DECK OVERLAY (CONCRETE)	LUMP SUM
JOINT SEAL (TYPE B-MR 1")	192 LF
JOINT SEAL (TYPE B-MR 1 1/2")	288 LF
SHEAR CONNECTORS	754 EA
CLEAN AND PAINT STRUCTURAL STEEL	LUMP SUM
CONCRETE BARRIER (TYPE 25 MODIFIED)	2,167 LF

FINAL PAY QUANTITIES	
STRUCTURAL CONCRETE, BRIDGE	55 CY
BAR REINFORCING STEEL (EPOXY COATED)	211,000 LB
FURNISH STRUCTURAL STEEL (BRIDGE)	208,500 LB
ERECT STRUCTURAL STEEL (BRIDGE)	208,500 LB
MISCELLANEOUS METAL (BRIDGE)	600 LB
MISCELLANEOUS METAL (RESTRAINER)	1,900 LB

AS BUILT PLANS
 Contract No. 03-221704
 Date Completed 08/12/87
 Document No. _____

NOTE:
 THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

Standard Plan Sheet No. _____
 Detail No. _____

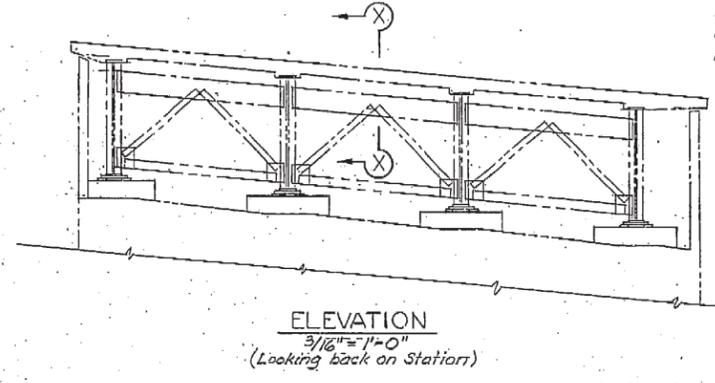
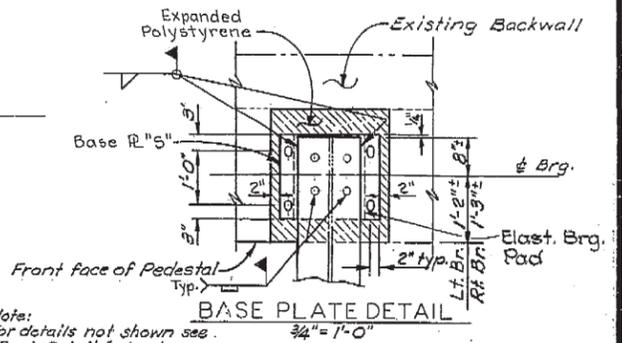
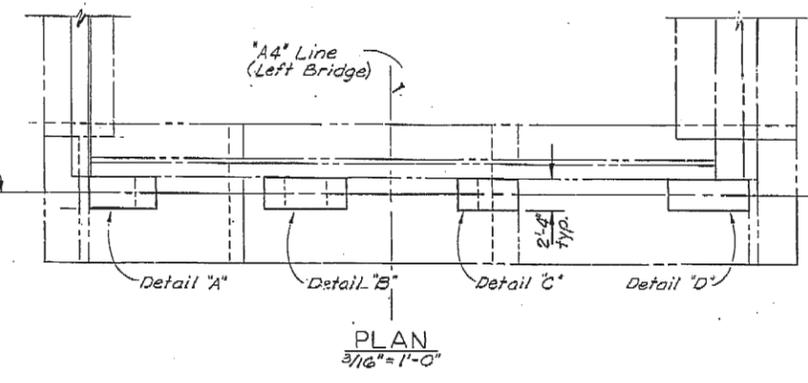
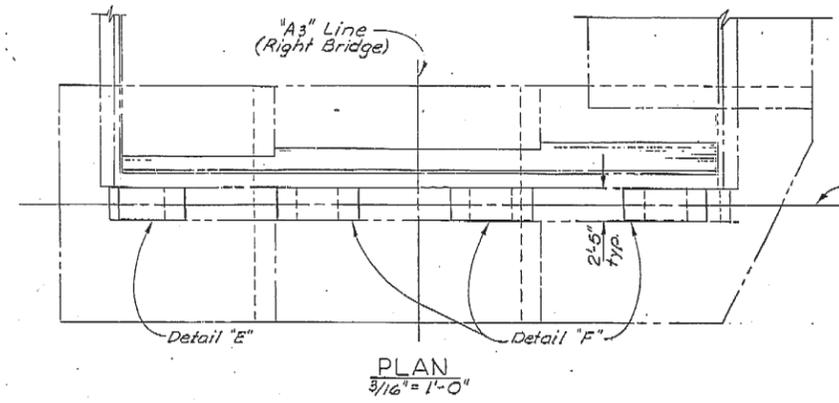
For General Notes see "General Plan 2" sheet.
 ⑤ indicates girder designation

DESIGNED BY <i>J. K. Kellerman</i> 7-84	CHECKED BY <i>D. W. H. ...</i> 7-84	LOAD FACTOR DESIGN	LIVE LOADING: HS20-14 AND ALTERNATIVE AND PERMIT DESIGN LOAD	State of CALIFORNIA DEPARTMENT OF TRANSPORTATION	STRUCTURES - DESIGN 8	BRIDGE NO. 17-23 L/R	YUBA PASS O.H. & SEP REDECKING
DETAILS BY <i>H. Conrad</i> 12-83	CHECKED BY <i>H. Conrad</i> 7-84	LAYOUT	BY <i>J. Kellerman</i> 7-84	PROJECT ENGINEER <i>A. M. ...</i> 9-84	REGISTERED CIVIL ENGINEER NO. 59.4	POST MILE 59.4	GENERAL PLAN 1
QUANTITIES BY <i>H. Conrad</i> 7-84	CHECKED BY <i>D. ...</i> 7-84	SPECIFICATIONS	BY <i>L. ...</i> 7-84	DATE 03-210	WO 221701	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET 1 OF 1

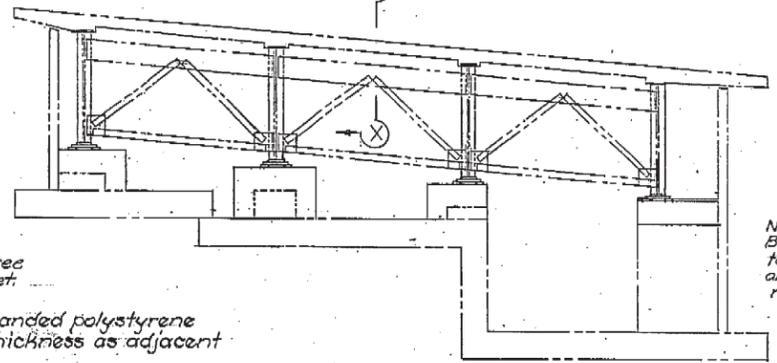
29X

I HEREBY CERTIFY THAT THIS IS A TRUE AND ACCURATE COPY OF THE ABOVE DOCUMENT TAKEN UNDER MY DIRECTION AND CONTROL ON THIS DATE IN SACRAMENTO, CALIFORNIA PURSUANT TO AUTHORIZATION BY THE DIRECTOR OF TRANSPORTATION.
 DATE 12-31-88
 SIGNATURE *Donald Blackford*
 SUPERVISOR OF MICROFILM SERVICES

DIST. COUNTY POST MILES-TOTAL PROJECT
 03 Nev 80 R59.4 126.137
 DESIGN ENGINEER
 DATE APPROVED February 19, 1985
 REGISTERED CIVIL ENGINEER NO. 12111



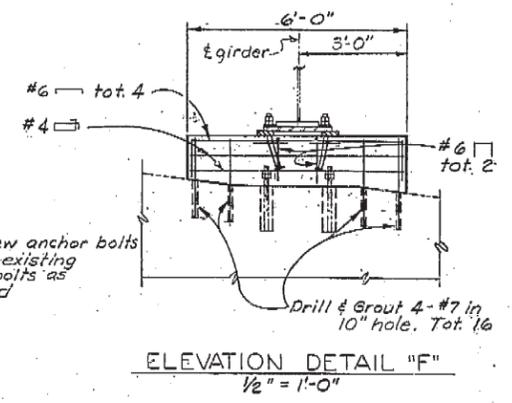
Note:
 Concrete Barrier &
 Deck Overlay not shown.



Note:
 For "Section X-X" see
 "Drain Details" sheet.

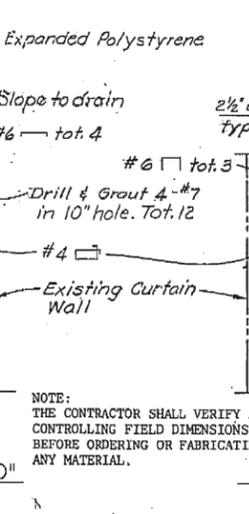
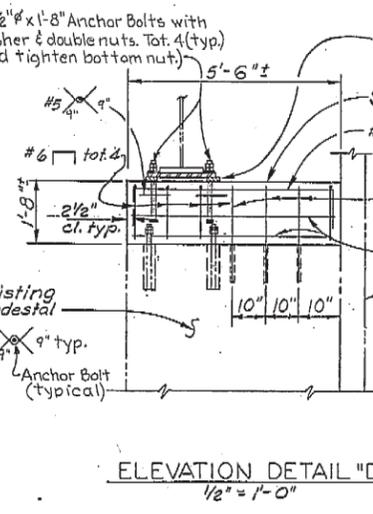
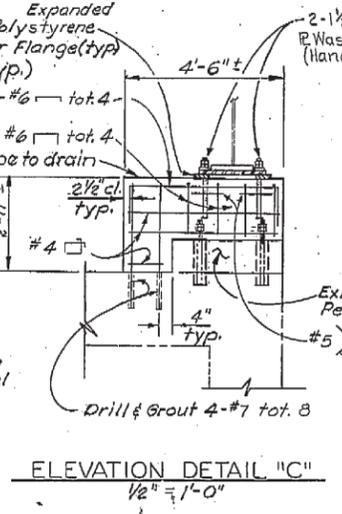
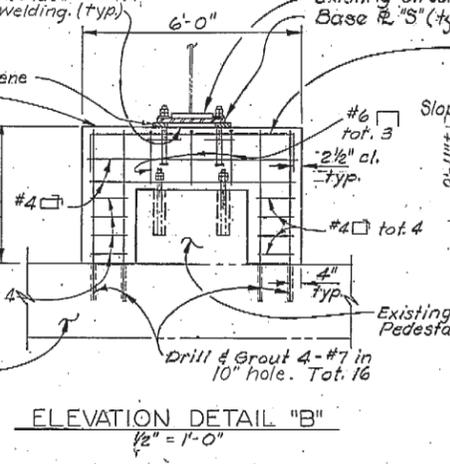
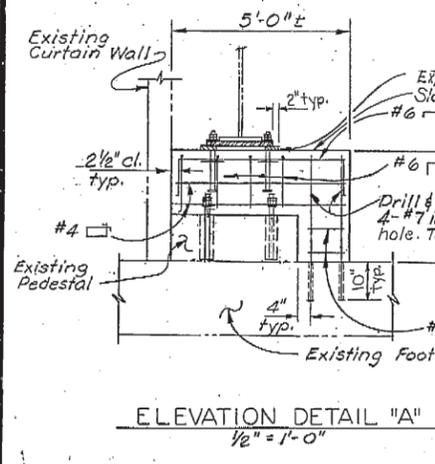
Thickness of expanded polystyrene
 to be the same thickness as adjacent
 bearing pad.

Note:
 Bend New anchor bolts
 to clear existing
 anchor bolts as
 required



Note:
 Existing Bolts & Nuts to remain in all
 pedestals. Existing Bearings
 to be removed. Bottom of Bearing remains (see #17).
 See Attached Sheets.

16 x 18 x 1 Elastomeric
 Brg. Pad bonded to Base
 Pl. after welding. (Typ.)



NOTE:
 THE CONTRACTOR SHALL VERIFY ALL
 CONTROLLING FIELD DIMENSIONS
 BEFORE ORDERING OR FABRICATING
 ANY MATERIAL.

AS BUILT
 CORRECTIONS BY R. Smedley / B. Ford
 CONTRACT NO. 03-221704
 DATE 5-19-87 / 5-12-88

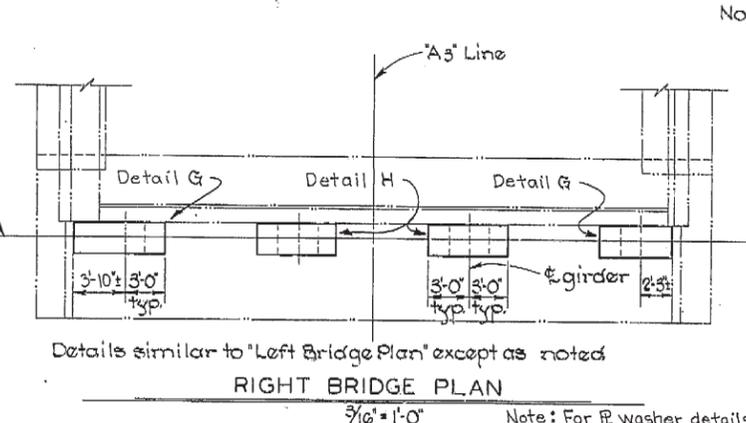
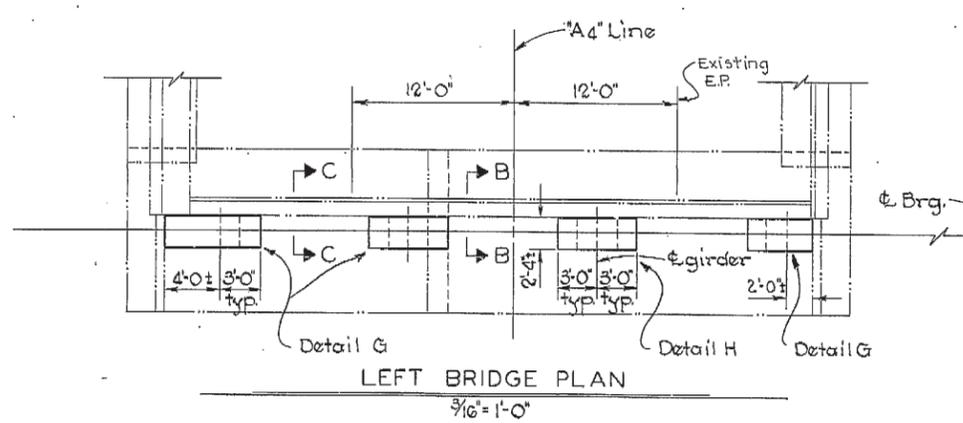
DESIGN	By J. Williams 7-84	Checked J. H. Haggard 7-84	State of CALIFORNIA	STRUCTURES - DESIGN 8	BRIDGE NO. 17-23 9/1	YUBA PASS O.H. & SEP REDECKING ABUTMENT I DETAILS
DETAILS	By H. Baker 7-84	Checked O. Taylor 7-84	DEPARTMENT OF TRANSPORTATION	O. W. Murray 9-84	POST MILE 59.4	
QUANTITIES	By H. Conrad 7-84	Checked D. B. B. 7-84				

AS BUILT PLANS
 Contract No. 03-221704
 Date Completed 08/19/87
 Document No.

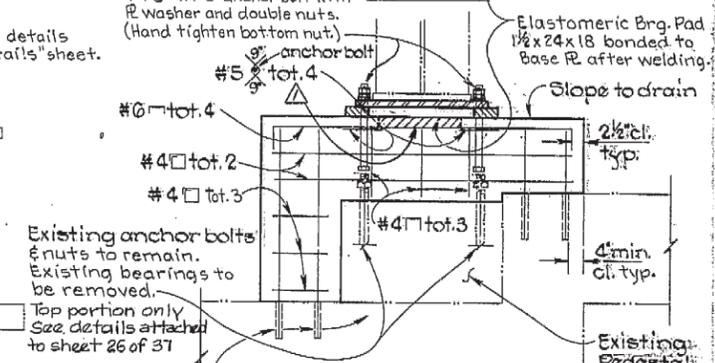
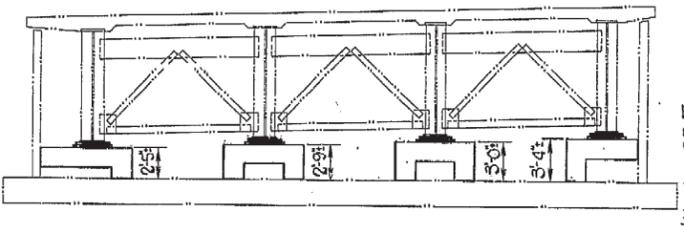
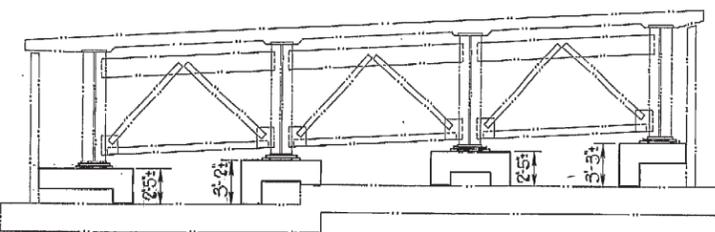
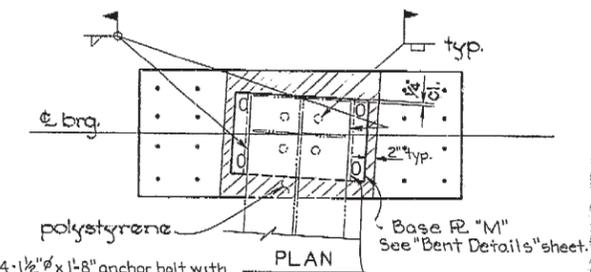
29X

I HEREBY CERTIFY THAT THIS IS A TRUE AND ACCURATE COPY OF THE ABOVE DOCUMENT TAKEN UNDER MY DIRECTION AND CONTROL ON THIS DATE IN SACRAMENTO, CALIFORNIA PURSUANT TO AUTHORIZATION BY THE DIRECTOR OF TRANSPORTATION.
 DATE 10-91-88 BY Donald Bleedford SUPERVISOR OF MICROFILM SERVICES

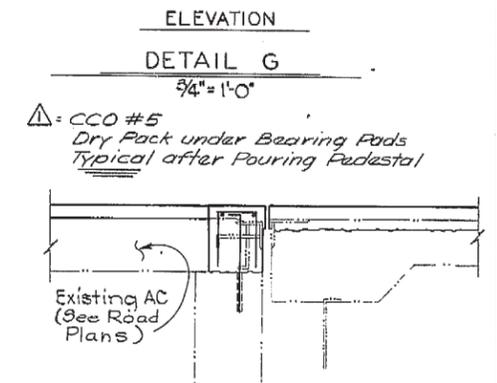
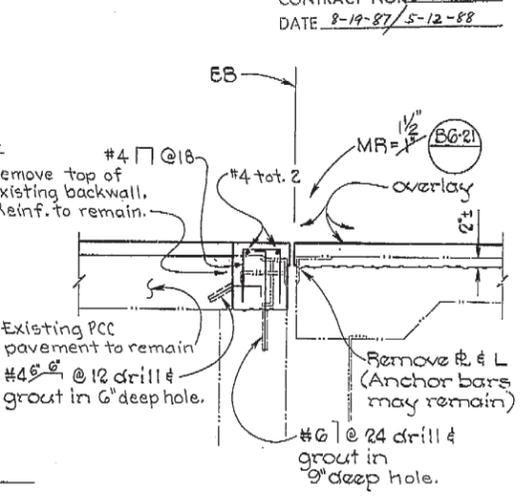
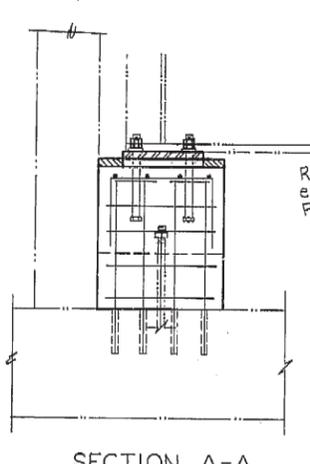
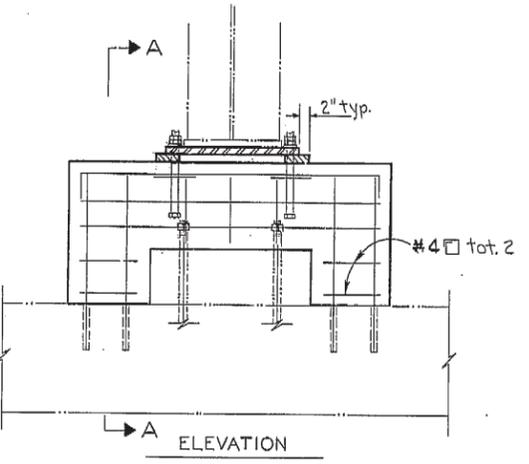
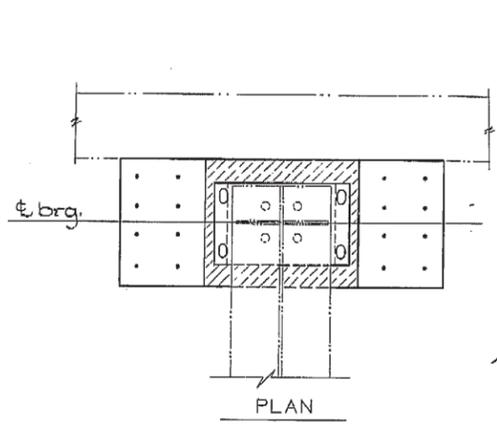
DIR.	COUNTY	ROUTE	POST MILES-TOTAL PROJECT	POST MILES	SHEET NO.
03	Neu	80	R 59.4	28	37
DESIGN ENGINEER: <i>R. Millon</i> 12547 REGISTERED CIVIL ENGINEER NUMBER					
DATE APPROVED: February 19, 1985					



Note: Thickness of expanded polystyrene to be same thickness as adjacent bearing pad.



AS BUILT
CORRECTIONS BY *R. S. Hook*
CONTRACT NO. 03-221704
DATE 8-19-87/5-12-88



Note: Details are similar to "Detail G" except as noted.

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

Note: Details are similar to "Section B-B" except as noted.

Note: Existing approach slabs @ Abutment 5 will remain in place.

DESIGN	BY <i>Millon 7-84</i>	CHECKED <i>J. Harshbarger 7-84</i>
DETAILS	BY <i>Dent 6/84</i>	CHECKED <i>Staple 7/84</i>
QUANTITIES	BY <i>N. Conrad 7-84</i>	CHECKED <i>D. Baker 7-84</i>

State of CALIFORNIA
DEPARTMENT OF TRANSPORTATION

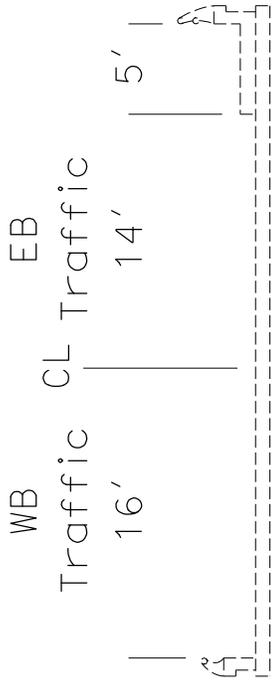
STRUCTURES - DESIGN 8
A. M. Hilary 9/84
PROJECT ENGINEER REGISTERED CIVIL ENGINEER NO.

BRIDGE NO. 17-235L
POST MILE 59.4
YUBA PASS O.H. & SEP. REDECKING
ABUTMENT 5 DETAILS

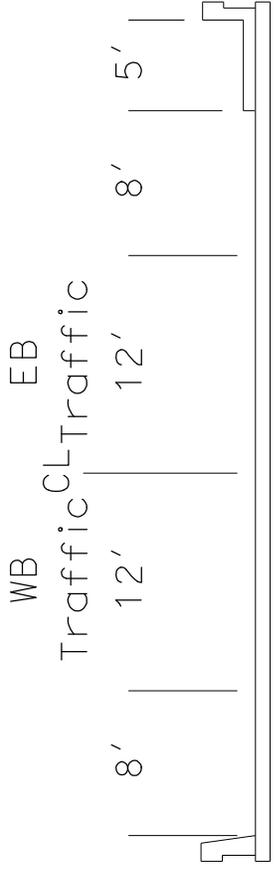
AS BUILT PLANS
Contract No. 03-221704
Date Completed 08/12/87
Document No.

29X

I HEREBY CERTIFY THAT THIS IS A TRUE AND ACCURATE COPY OF THE ABOVE DOCUMENT TAKEN UNDER MY DIRECTION AND CONTROL ON THIS DATE IN SACRAMENTO, CALIFORNIA PURSUANT TO AUTHORIZATION BY THE DIRECTOR OF TRANSPORTATION.
DATE 10-91-88 SIGNATURE *Donald Blackford* TITLE SUPERVISOR OF MICROFILM SERVICES



Existing



Proposed

CISCO OC TYPICAL SECTIONS

ATTACHMENT C

AERIAL MAPPING

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
St. Gobans

FUNCTIONAL SUPERVISOR
 CALCULATED-DESIGNED BY
 CHECKED BY
 REVISED BY
 DATE REVISED

LEGEND:

- R/W
- ESL
- STRUCTURE

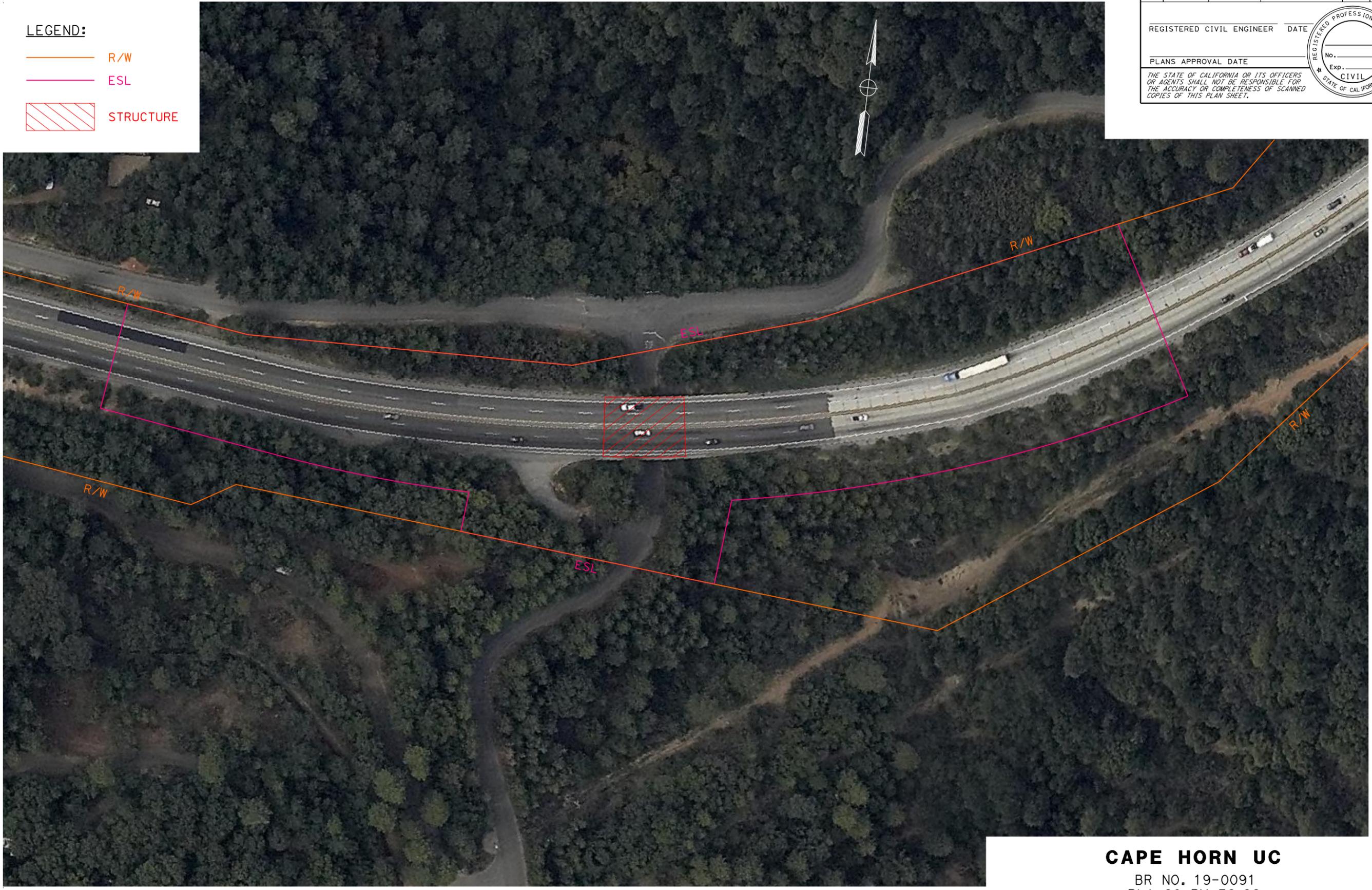
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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

REGISTERED PROFESSIONAL ENGINEER
 No.
 Exp.
 CIVIL
 STATE OF CALIFORNIA



CAPE HORN UC

BR NO. 19-0091
 PLA 80 PM 36.86

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
St. Gobans

FUNCTIONAL SUPERVISOR
 CALCULATED-D-DESIGNED BY
 CHECKED BY
 REVISED BY
 DATE REVISED

LEGEND:

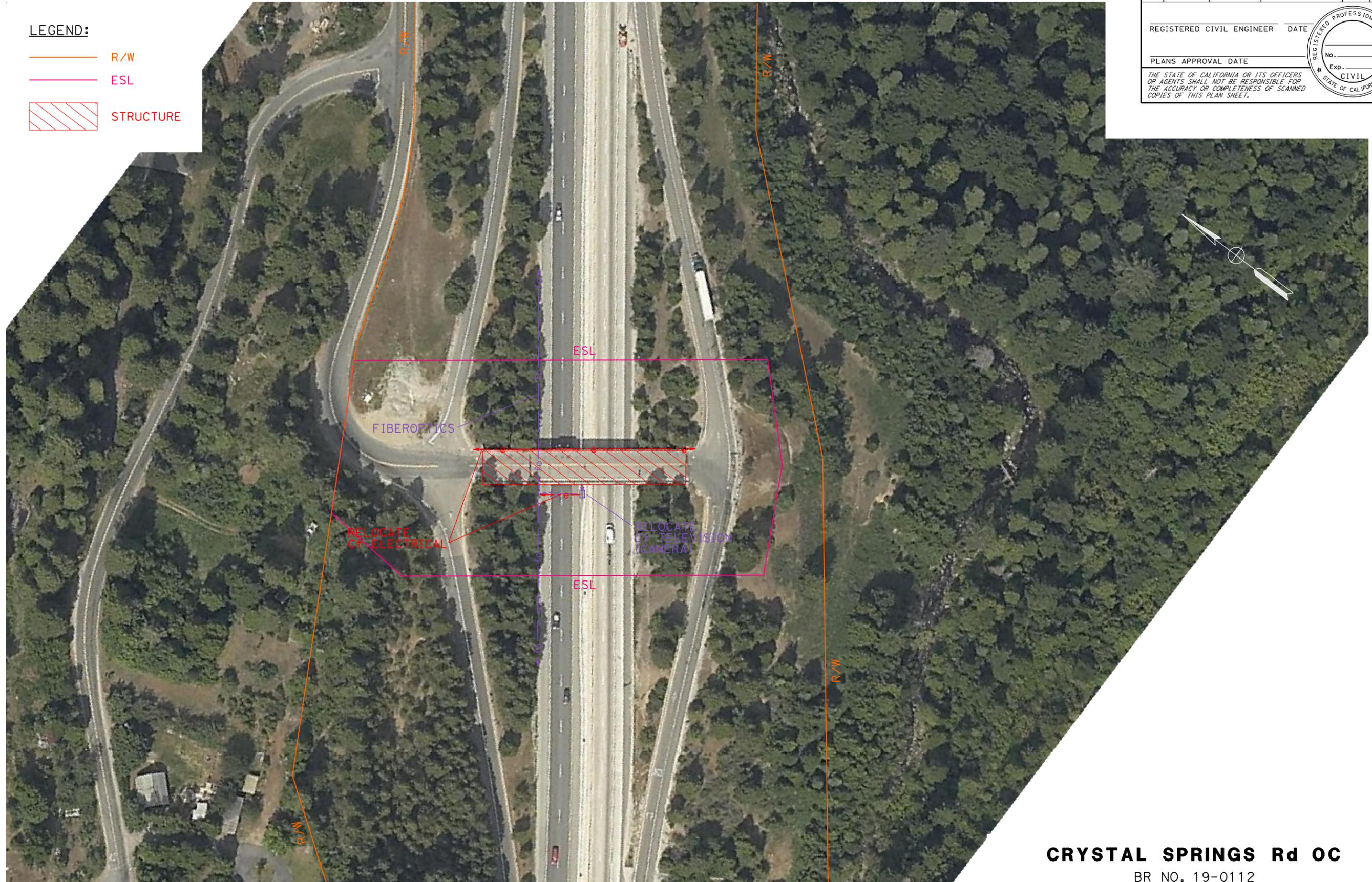
-  R/W
-  ESL
-  STRUCTURE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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

CRYSTAL SPRINGS Rd OC
 BR NO. 19-0112
 PLA 80 PM 46.31

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
St. Gobans

FUNCTIONAL SUPERVISOR
 CALCULATED-DESIGNED BY
 CHECKED BY
 REVISED BY
 DATE REVISED

LEGEND:
 — R/W
 — ESL
 ▨ STRUCTURE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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

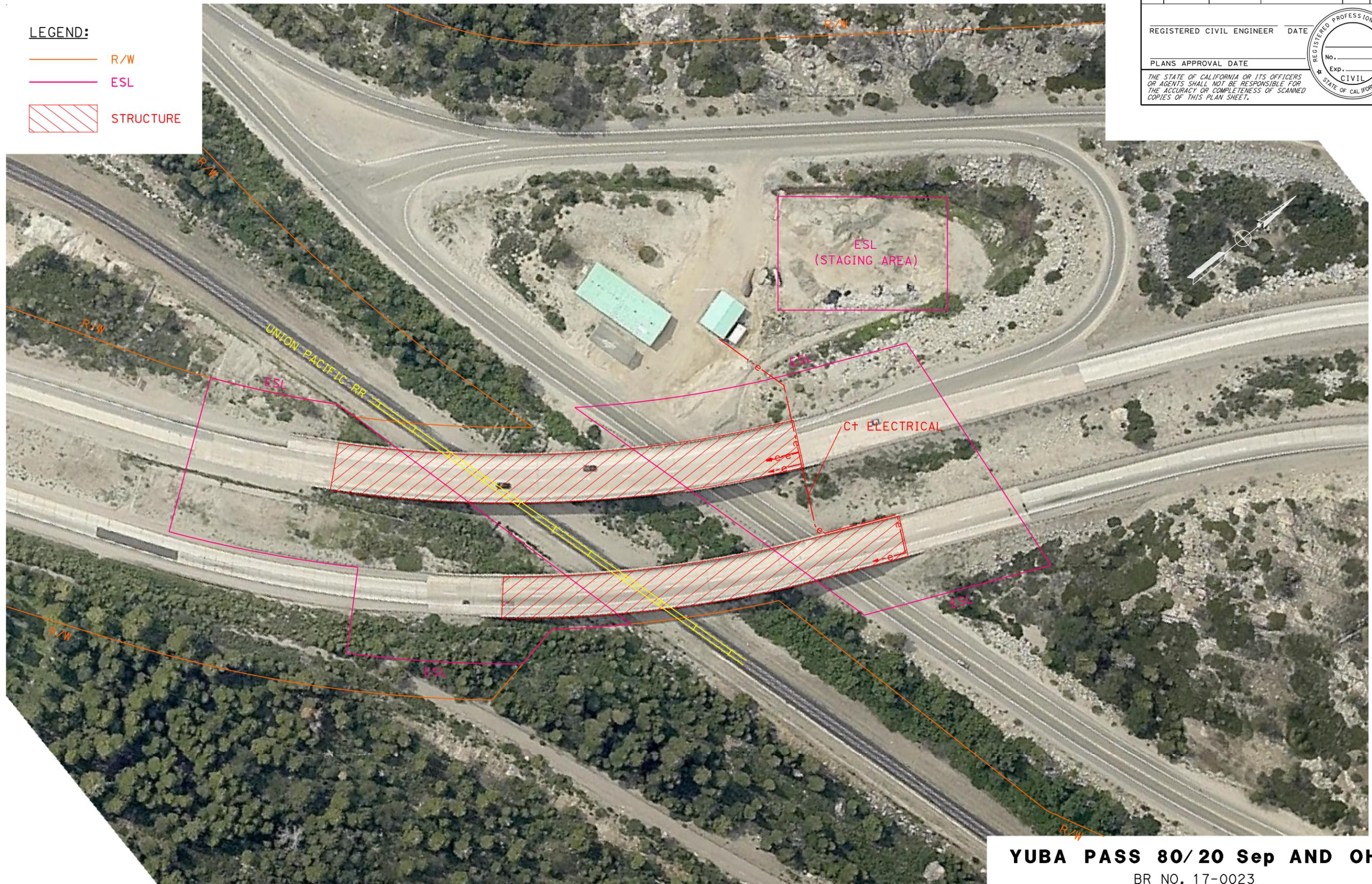


DRUM FOREBAY OC
 BR NO. 19-0114
 PLA 80 PM 49.00

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
REGISTERED CIVIL ENGINEER			DATE		
PLANS APPROVAL DATE					
					
<small>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.</small>					

LEGEND:

-  R/W
-  ESL
-  STRUCTURE



YUBA PASS 80/20 Sep AND OH
 BR NO. 17-0023
 NEV 80 PM R59.44

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION


REVISOR BY
 DATE REVISED

CALCULATED-DESIGNED BY
 CHECKED BY

FUNCTIONAL SUPERVISOR

DATE PLOTTED => 19-OCT-2011
 TIME PLOTTED => 11:15

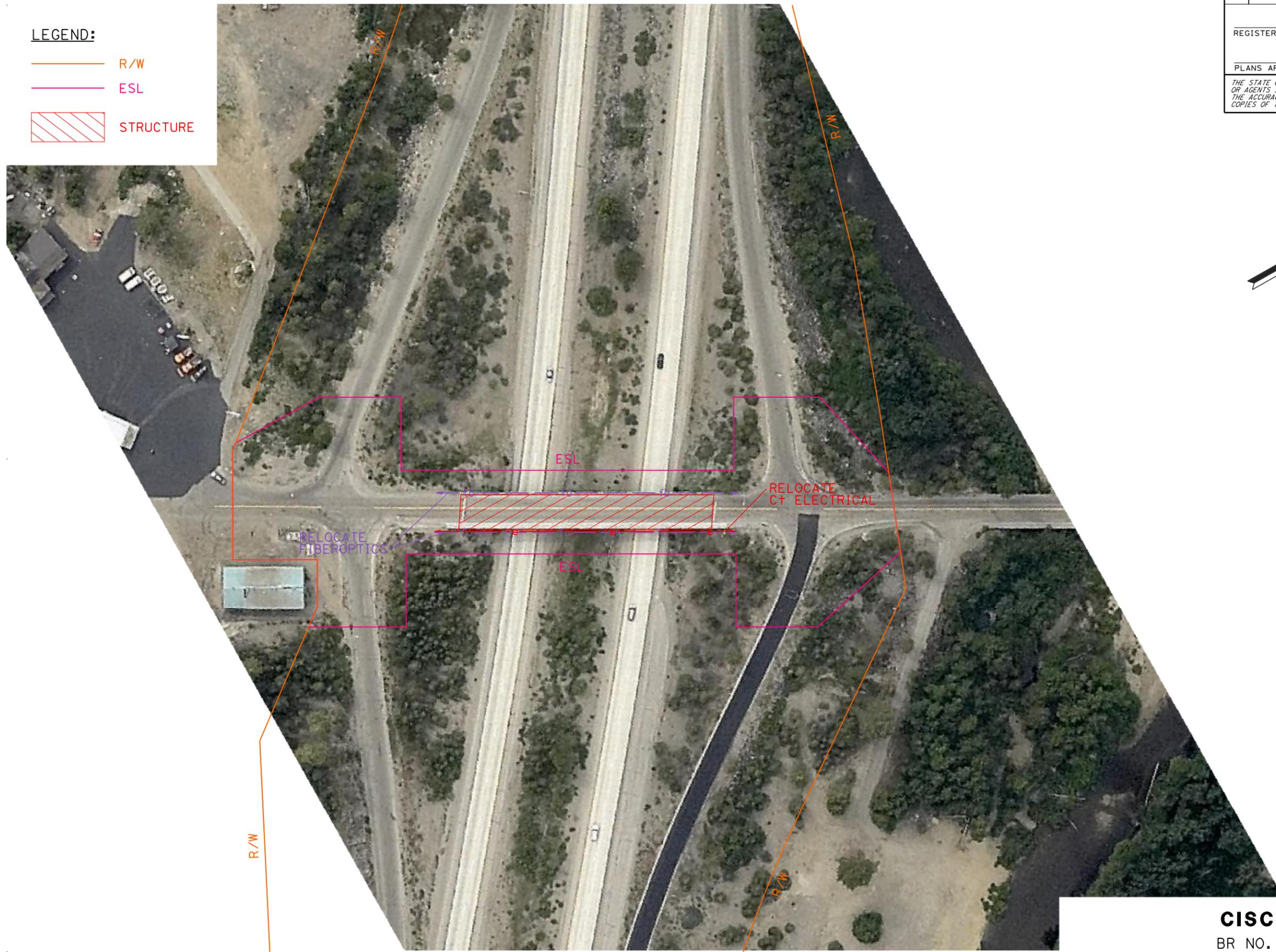
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
St. Gibbons

FUNCTIONAL SUPERVISOR
 CHECKED BY
 DESIGNED BY
 REVISIONS: x x x x x

BORDER LAST REVISED 7/2/2010

LEGEND:

- R/W
- ESL
- STRUCTURE



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER DATE

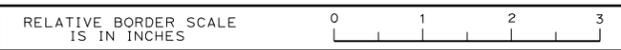
PLANS APPROVAL DATE

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

REGISTERED PROFESSIONAL ENGINEER
 No.
 Exp.
 CIVIL
 STATE OF CALIFORNIA

CISCO OC
 BR NO. 19-0118
 PLA 80 PM R63.52

USERNAME => s128180
 DGN FILE => 19-0118 Cisco OC Mapping.dgn



UNIT 0000

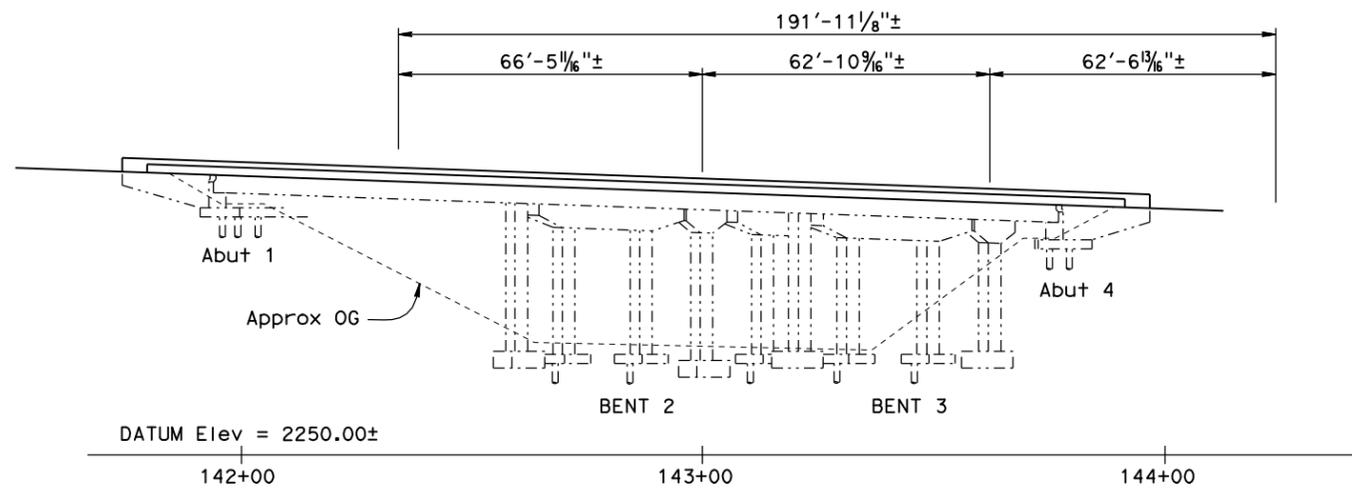
PROJECT NUMBER & PHASE 0000000001

LAST REVISION DATE PLOTTED => 19-OCT-2011
 00-00-00 TIME PLOTTED => 11:15

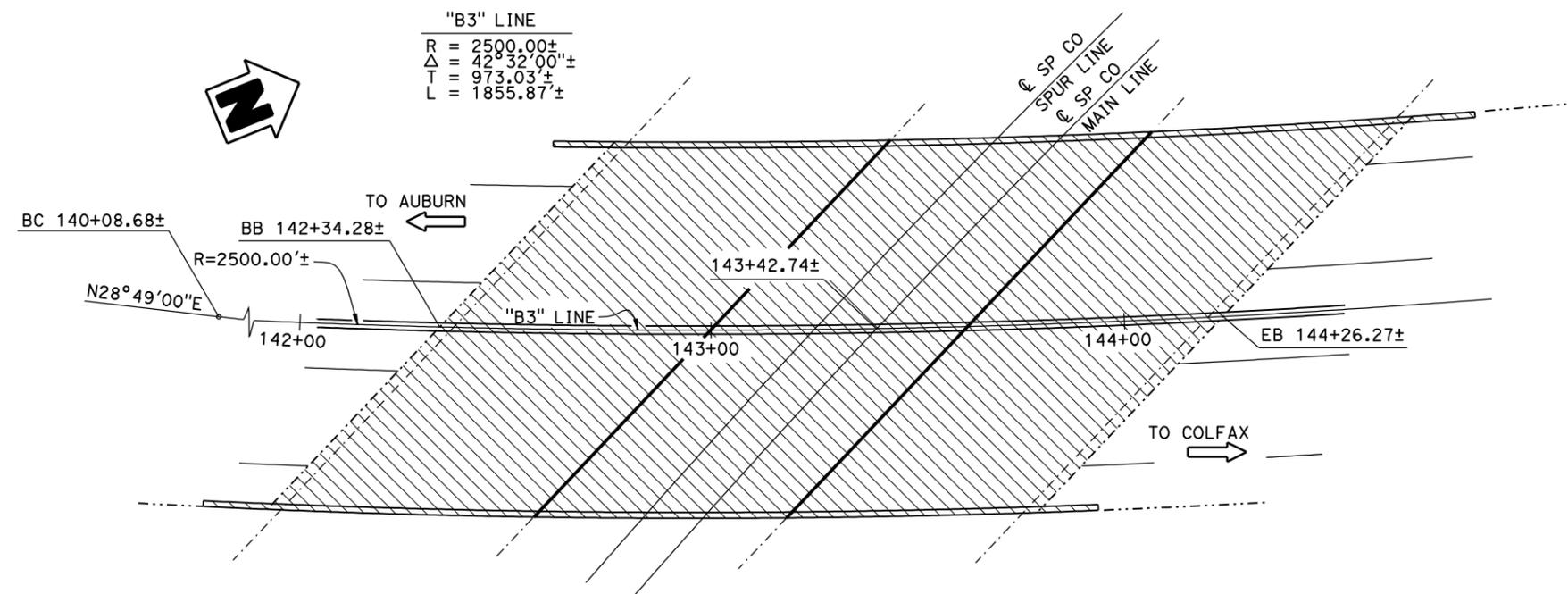
ATTACHMENT D

ADVANCE PLANNING STUDIES

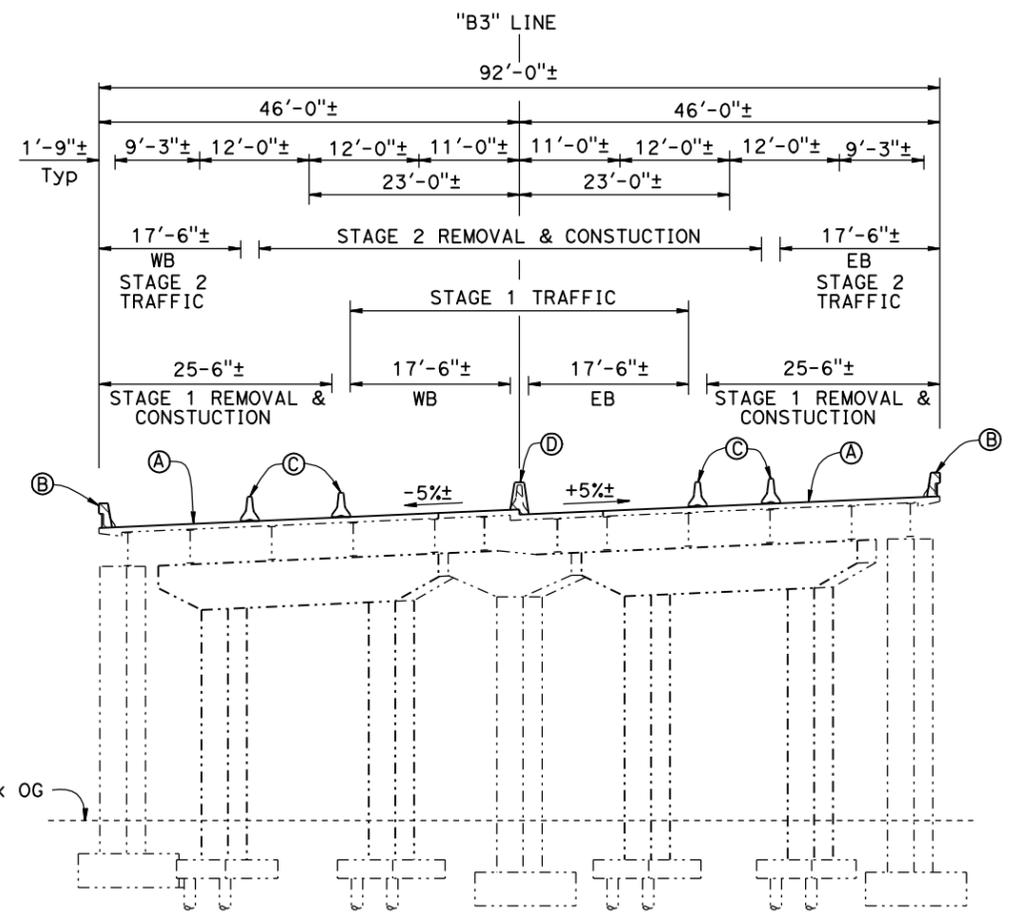
DIST	COUNTY	ROUTE	POST MILE
03	Plac	80	



ELEVATION
1" = 40'



PLAN
1" = 40'



TYPICAL SECTION
1" = 20'

- LEGEND:**
- Indicates Existing Structure
 - Indicates New Structure
 - Indicates Deck Removal & Replacement (in Stages); AC Removal & Deck Cleaned & Repaired, Polyester Concrete Overlay
 - Indicates Joint Seal Replace

- NOTES:**
- (A) AC & Deck Removal, New Deck, Polyester Concrete Overlay
 - (B) Existing Concrete Barrier Removal. New Concrete Barrier Type 732
 - (C) Temporary Railing (Type K), see "ROAD PLANS"
 - (D) Existing Railing Type 50C Removal. New Concrete Barrier Type 60A Mod

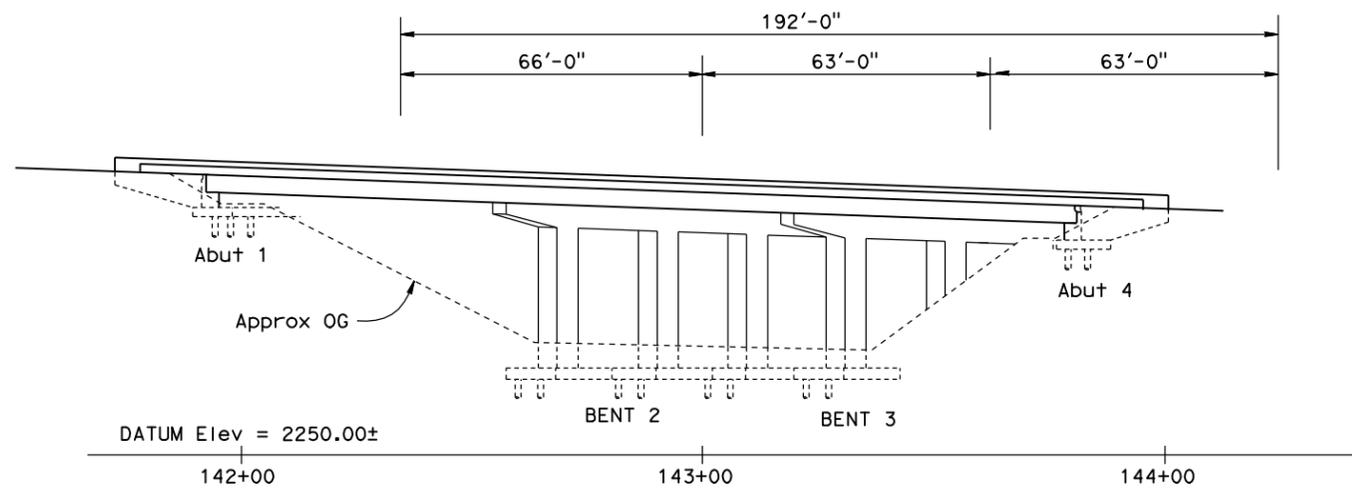
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STRUCTURE DEPTH	= _____
LENGTH	= _____
WIDTH	= _____
AREA	= _____
COST/□ INCLUDING 10% MOBILIZATION & 40% CONTINGENCY	= _____
TOTAL COST	= \$2,611,000

DESIGNED BY	J. AQUINO / L. SHEN	DATE	9-11
DRAWN BY	JANIE CHLUBNA	DATE	9-11
CHECKED BY	X	DATE	X
APPROVED	X	DATE	X

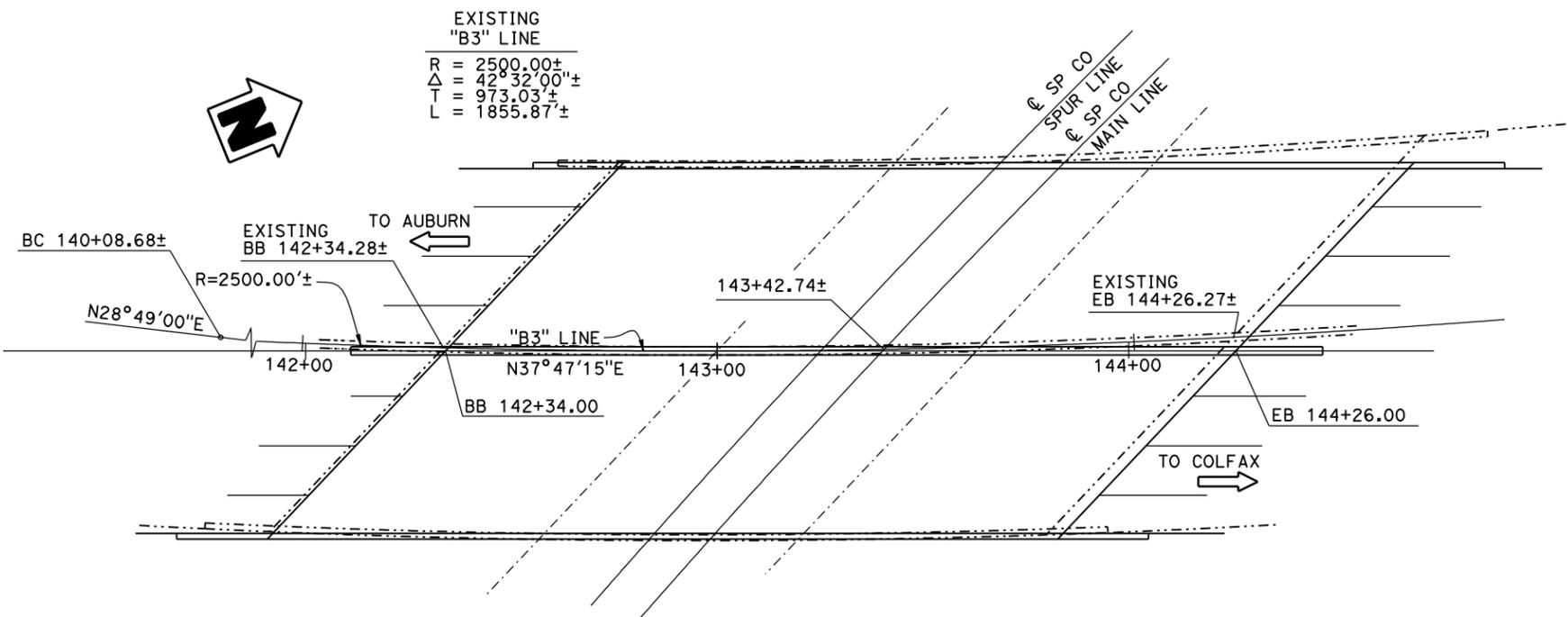
STRUCTURE DESIGN BRANCH
3

REHAB ALTERNATIVE	
PRE-PID STUDY	
WEIMAR OH	
UNIT: 3578	BRIDGE No. 19-0038
SCALE: AS SHOWN	PROJECT No. & PHASE: 0300020615K

DIST	COUNTY	ROUTE	POST MILE
03	Pla	80	



ELEVATION
1" = 40'



PLAN
1" = 40'

LEGEND:

- Indicates Existing Structure
- Indicates New Structure

NOTE:

See "SHEET 2 OF 2" for details

DATE OF ESTIMATE	=	9-7-11 BL
BRIDGE REMOVAL	=	
STRUCTURE DEPTH	=	
LENGTH	=	
WIDTH	=	
AREA	=	
COST/ <input type="checkbox"/> INCLUDING 10% MOBILIZATION & 40% CONTINGENCY	=	
TOTAL COST	=	\$7,365,000

SHEET 1 OF 2

DESIGNED BY	J. AQUINO / L. SHEN	DATE	9-11
DRAWN BY	JANIE CHLUBNA	DATE	9-11
CHECKED BY	X	DATE	X
APPROVED	X	DATE	X

STRUCTURE DESIGN BRANCH
3

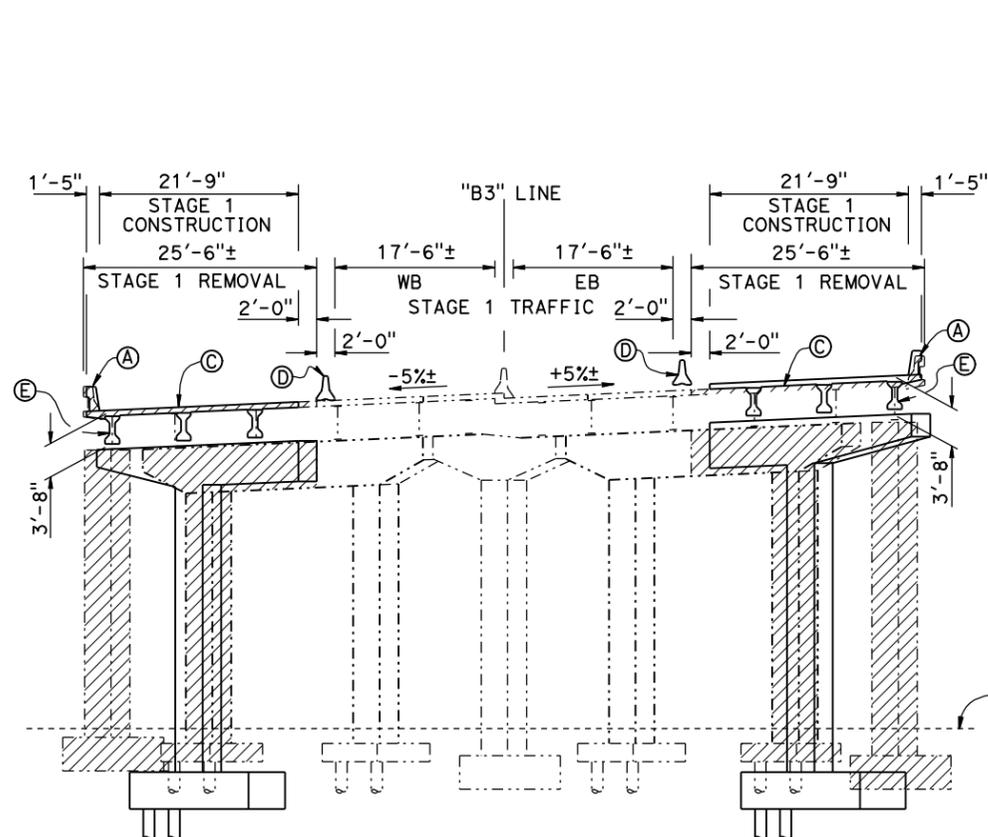
REPLACEMENT ALTERNATIVE

PRE-PID STUDY

WEIMAR OH

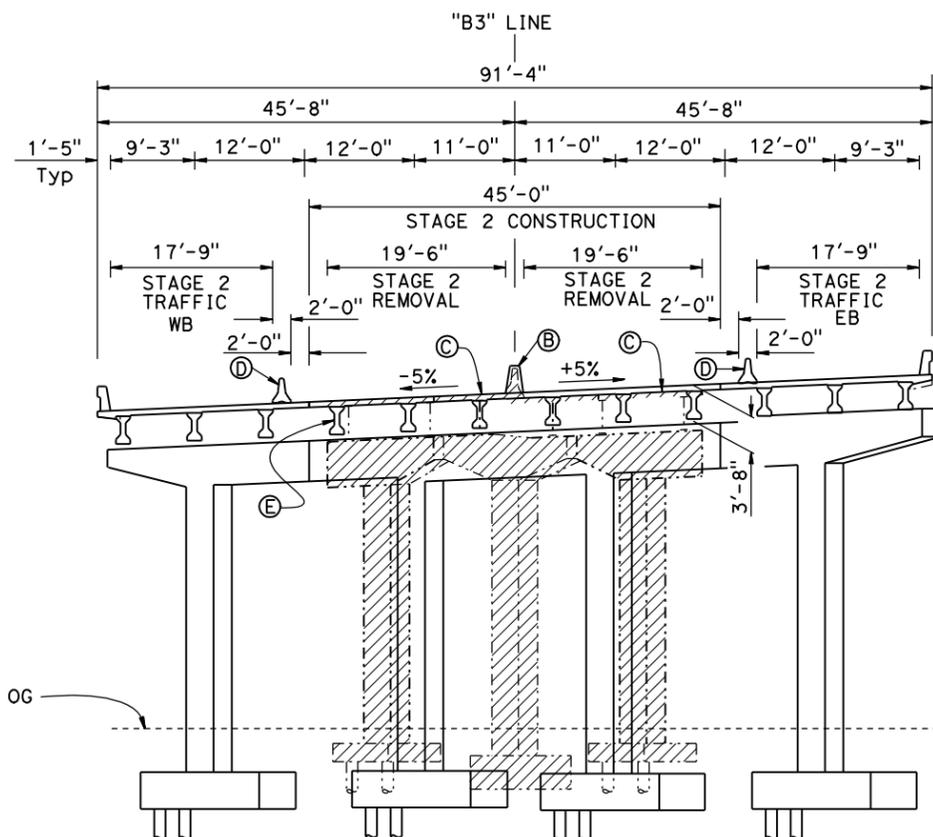
UNIT: 3578	BRIDGE No. 19-0038
SCALE: AS SHOWN	PROJECT No. & PHASE: 0300020615k

DIST	COUNTY	ROUTE	POST MILE
03	Pla	80	



TYPICAL SECTION

1" = 20'



TYPICAL SECTION

1" = 20'

- LEGEND:**
- Indicates Existing Structure
 - Indicates New Structure
 - ▨▨▨▨▨ Indicates Concrete Removal

- NOTES:**
- (A) Type 732 Concrete Barrier
 - (B) Concrete Barrier Type 60A Mod
 - (C) Polyester Concrete Overlay (3/4")
 - (D) Temporary Railing (Type K), see "ROAD PLANS"
 - (E) PC/PS I-Girders

SHEET 2 OF 2

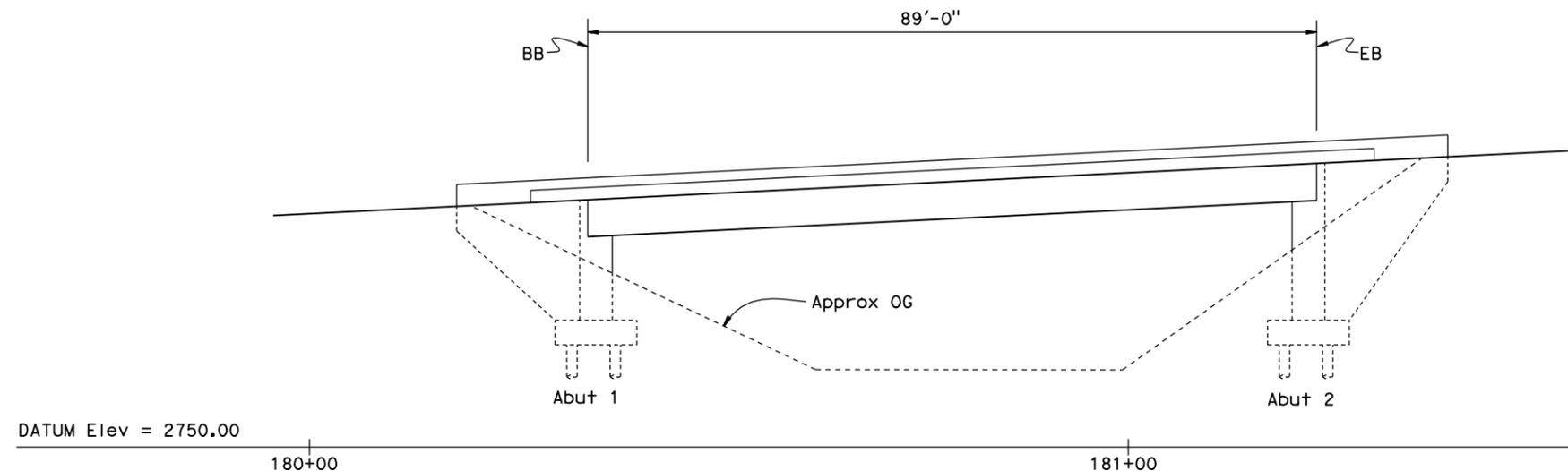
DESIGNED BY	J. AQUINO / L. SHEN	DATE	9-11
DRAWN BY	JANIE CHLUBNA	DATE	9-11
CHECKED BY	X	DATE	X
APPROVED	X	DATE	X

STRUCTURE DESIGN BRANCH

3

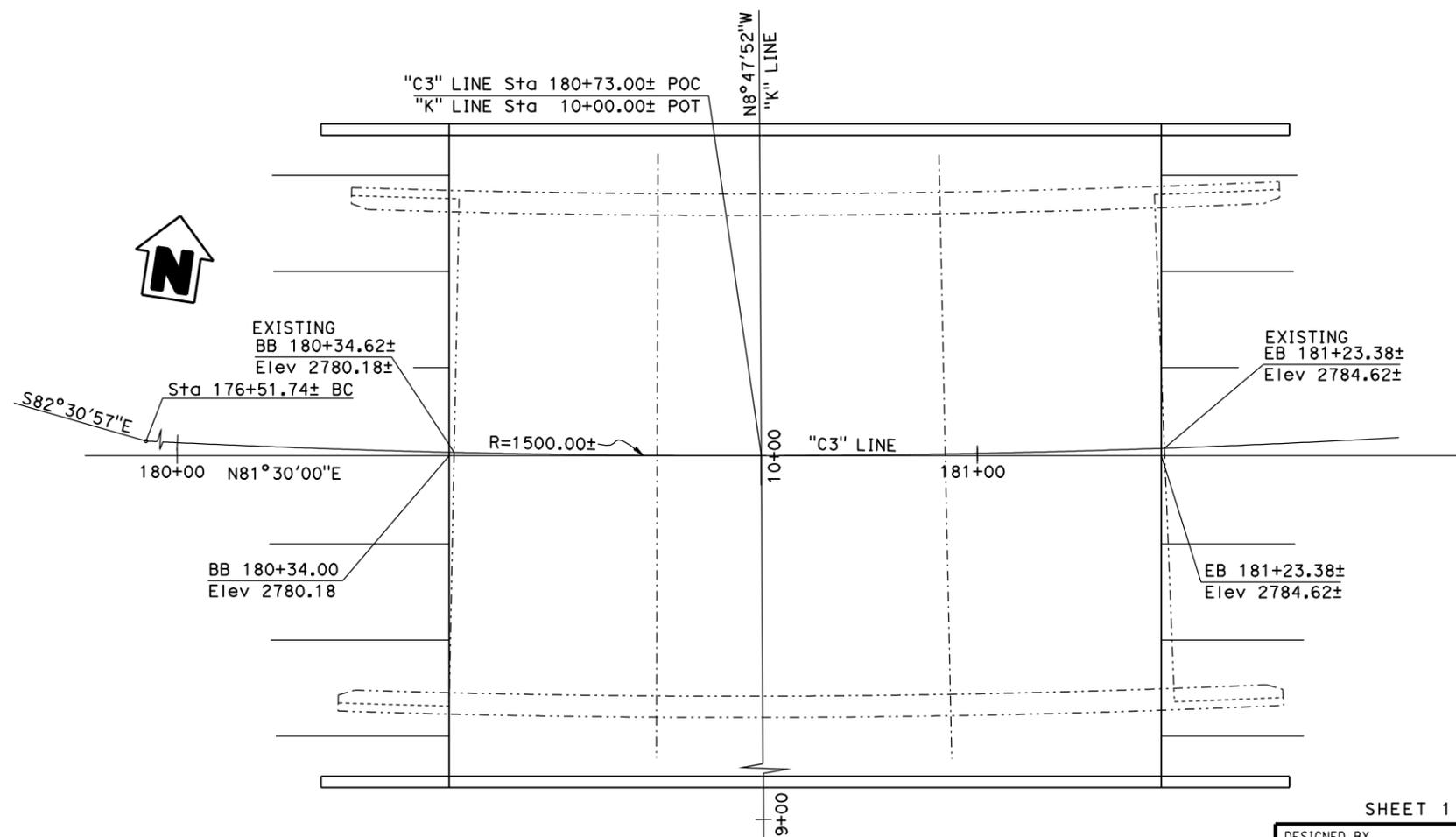
REPLACEMENT ALTERNATIVE	
PRE-PID STUDY	
WEIMAR OH	
UNIT: 3578	BRIDGE No. 19-0038
SCALE: AS SHOWN	PROJECT No. & PHASE: 0300020615k

DIST	COUNTY	ROUTE	POST MILE
03	Pla	80	



ELEVATION

1" = 20'



PLAN

1" = 20'

LEGEND:

- Indicates Existing Structure
- Indicates New Structure

NOTE:

See "SHEET 2 OF 2" for details

DATE OF ESTIMATE	=	9-7-11 BL
BRIDGE REMOVAL	=	_____
STRUCTURE DEPTH	=	_____
LENGTH	=	_____
WIDTH	=	_____
AREA	=	_____
COST/ <input type="checkbox"/> INCLUDING 10% MOBILIZATION & 40% CONTINGENCY	=	_____
TOTAL COST	=	\$3,238,000

SHEET 1 OF 2

DESIGNED BY	LEWIS L SHEN	DATE	9-11
DRAWN BY	JANIE CHLUBNA	DATE	9-11
CHECKED BY	X	DATE	X
APPROVED	X	DATE	X

STRUCTURE DESIGN BRANCH
3

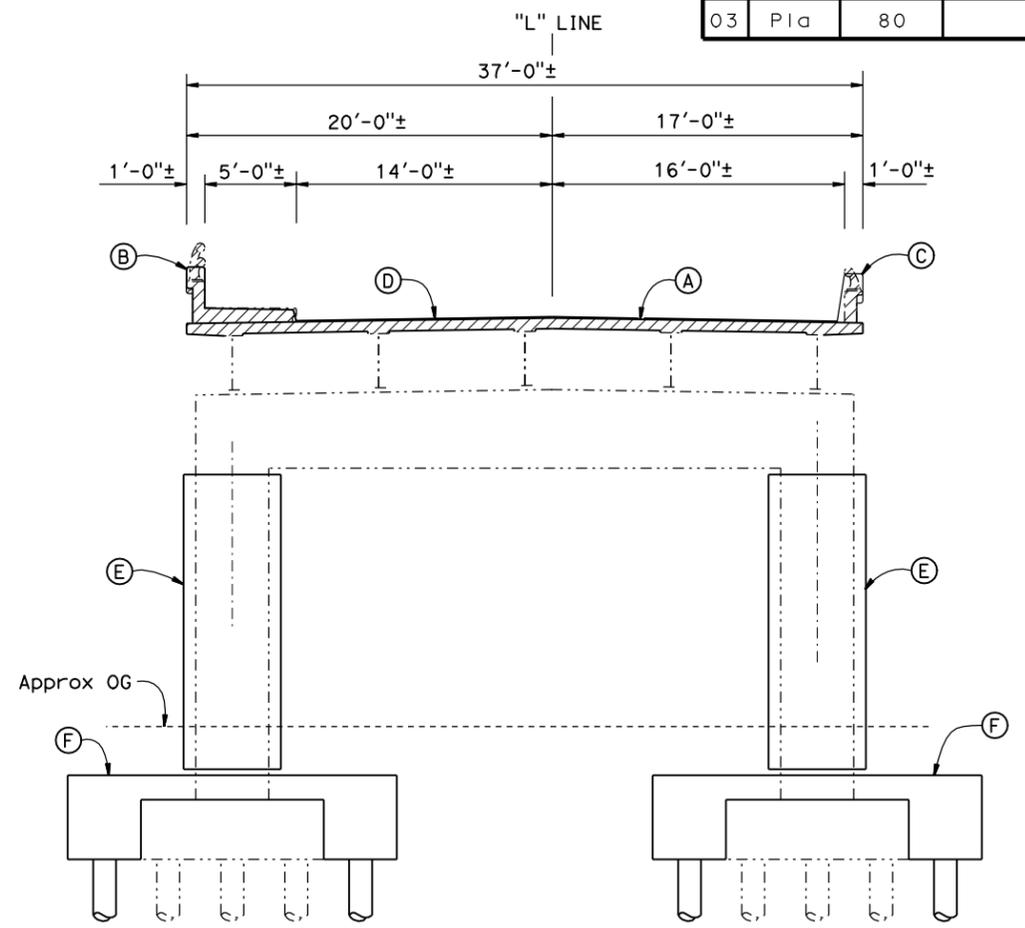
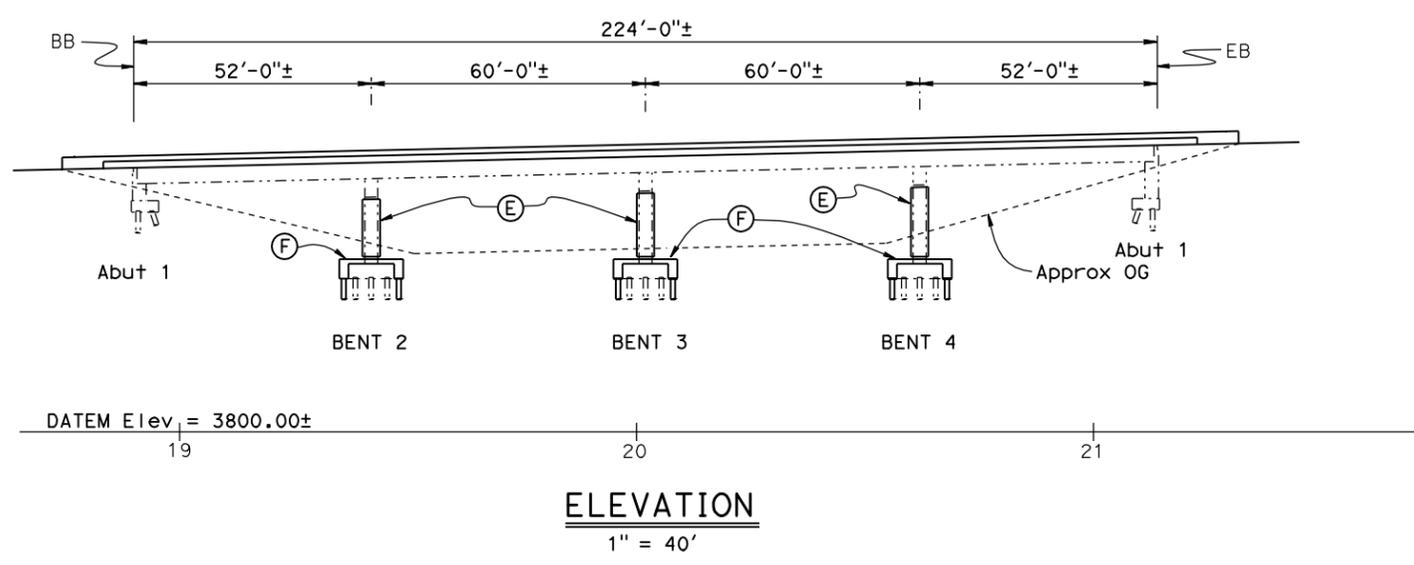
REPLACEMENT ALTERNATIVE

PLANNING STUDY

CAPE HORN UC

UNIT: 3578	BRIDGE No. 19-0091
SCALE: AS SHOWN	PROJECT No. & PHASE: 0300020615k

DIST	COUNTY	ROUTE	POST MILE
03	Plac	80	



TYPICAL SECTION

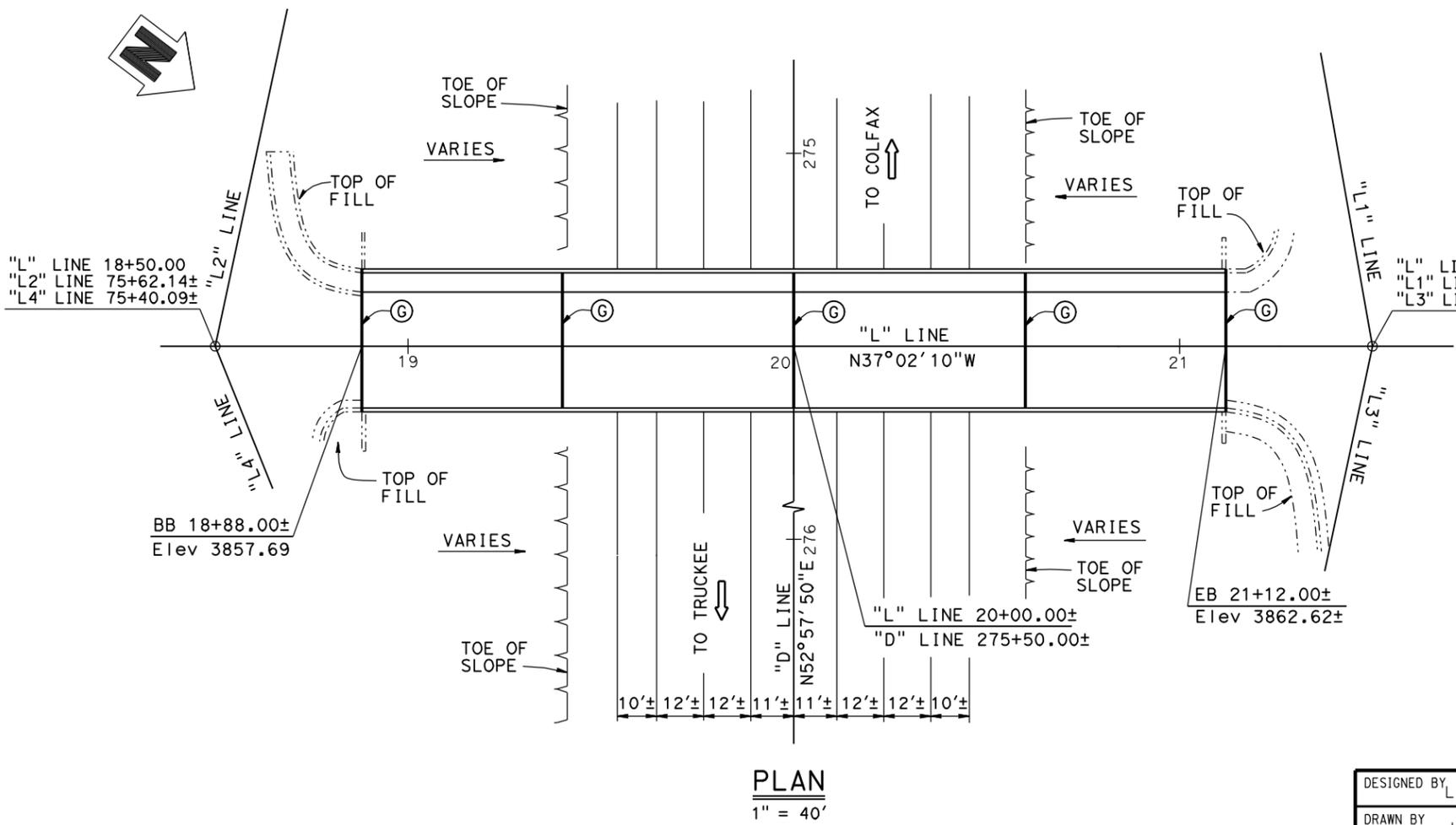
1" = 10'

LEGEND:

- Indicates Existing Structure
- Indicates New Structure
- ▨ Indicates Concrete Removal
- Indicates Joint Seal Replace

NOTES:

- (A) Replace Existing Bridge Deck
- (B) Type 26 Concrete Barrier
- (C) Type 732 Concrete Barrier
- (D) Polyester Concrete Overlay (3/4")
- (E) Column Castings (Bent 2,3,4)
- (F) Footing Retrofit with Piles
- (G) Joint Seal (TYPE B) - Replace



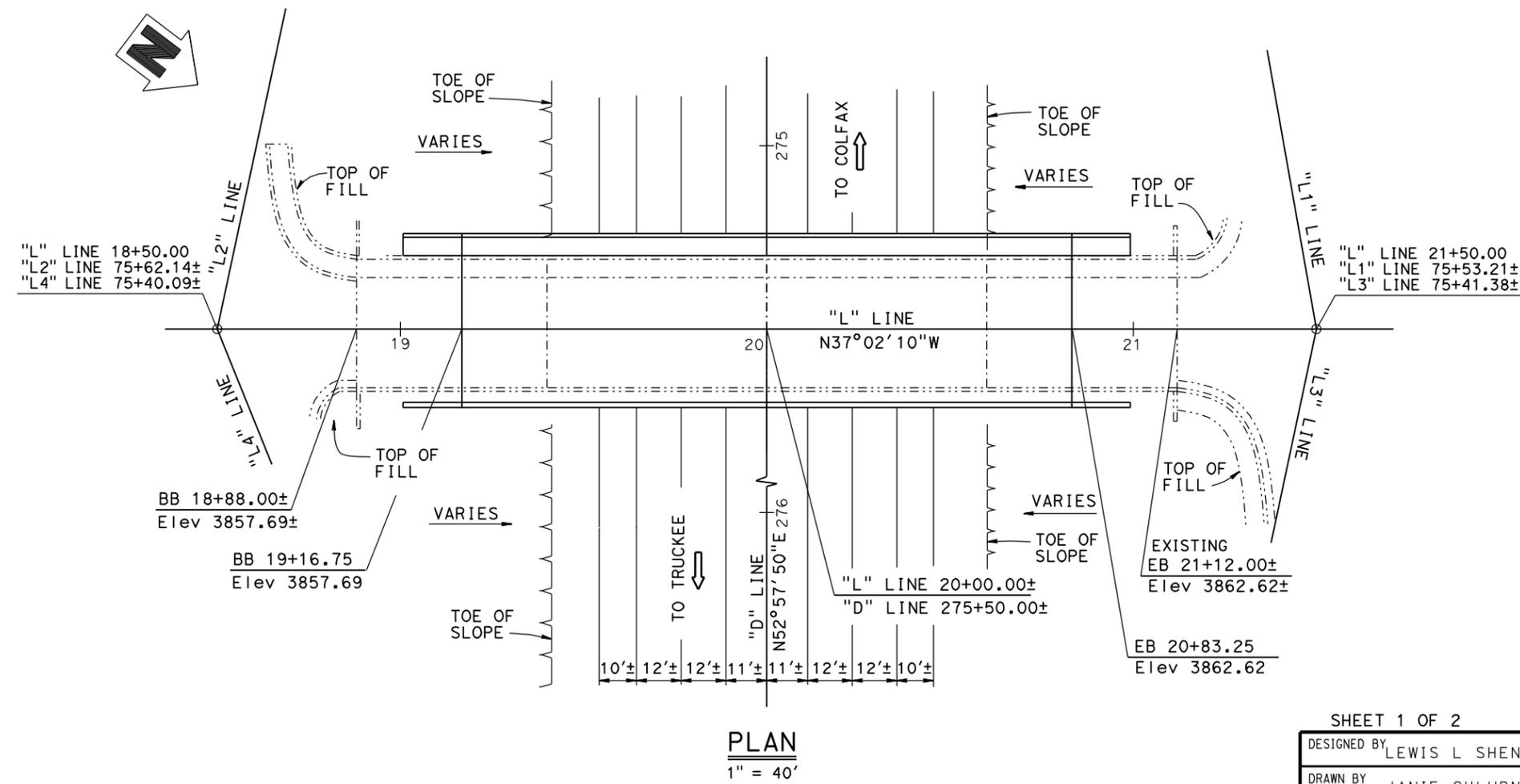
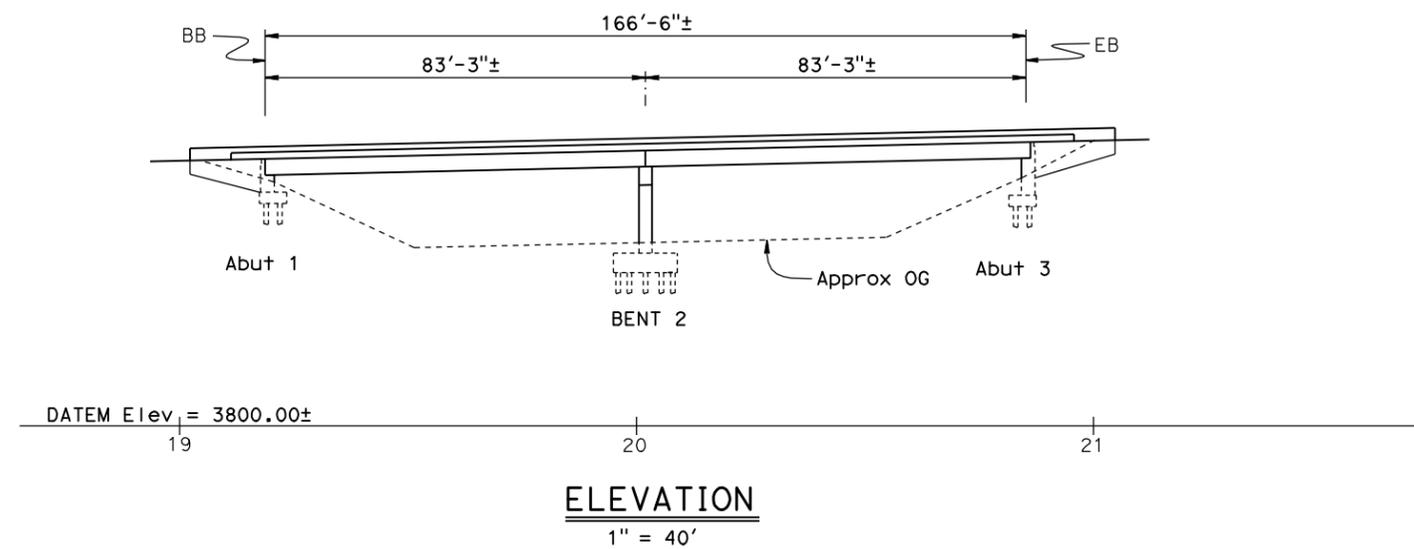
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STRUCTURE DEPTH	=
LENGTH	=
WIDTH	=
AREA	=
COST/□ INCLUDING 10% MOBILIZATION & 40% CONTINGENCY	=
TOTAL COST	= \$2,349,000

DESIGNED BY	LEWIS L SHEN	DATE	9-11
DRAWN BY	JANIE CHLUBNA	DATE	9-11
CHECKED BY	X	DATE	X
APPROVED	X	DATE	X

STRUCTURE DESIGN BRANCH
3

REHAB ALTERNATIVE	
PRE-PID STUDY	
CRYSTAL SPRINGS ROAD OC	
UNIT: 3578	BRIDGE No. 19-0112
SCALE: AS SHOWN	PROJECT No. & PHASE: 0300020615K

DIST	COUNTY	ROUTE	POST MILE
03	Placer	80	



DATE OF ESTIMATE	9-7-11 BL
BRIDGE REMOVAL	=
STRUCTURE DEPTH	=
LENGTH	=
WIDTH	=
AREA	=
COST / <input type="checkbox"/> INCLUDING 10% MOBILIZATION & 40% CONTINGENCY	=
TOTAL COST	= \$3,324,000

LEGEND:
 - - - - - Indicates Existing Structure
 _____ Indicates New Structure

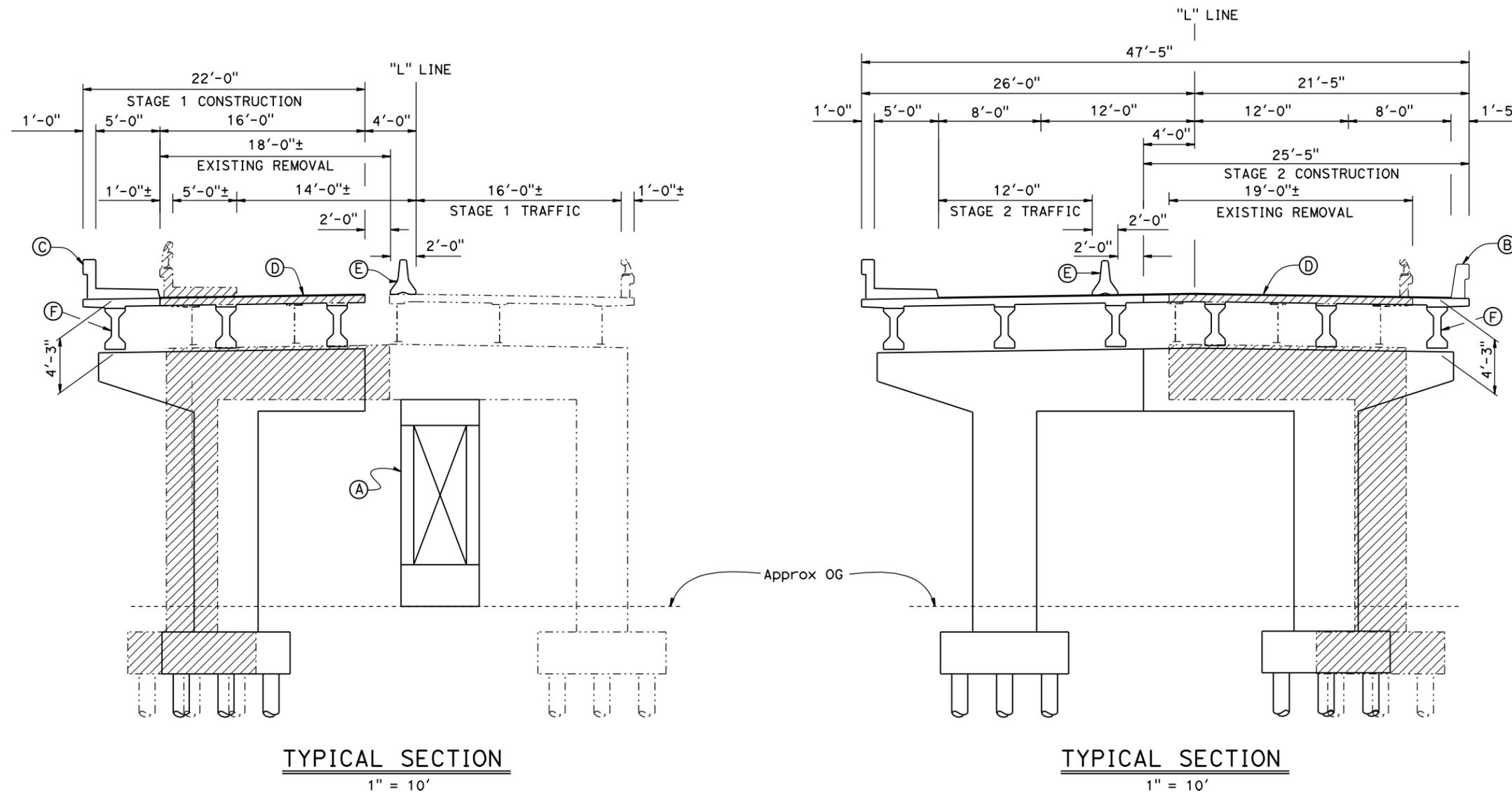
SHEET 1 OF 2

DESIGNED BY	LEWIS L SHEN	DATE	9-11
DRAWN BY	JANIE CHLUBNA	DATE	9-11
CHECKED BY	X	DATE	X
APPROVED	X	DATE	X

STRUCTURE DESIGN BRANCH
3

REPLACEMENT ALTERNATIVE	
PRE-PID STUDY	
CRYSTAL SPRINGS ROAD OC	
UNIT: 3578	BRIDGE No. 19-0112
SCALE: AS SHOWN	PROJECT No. & PHASE: 0300020615k

DIST	COUNTY	ROUTE	POST MILE
03	Pla	80	



- LEGEND:
- Indicates Existing Structure
 - Indicates New Structure
 - ▨ Indicates Concrete Removal

- NOTES:
- (A) Temporary Support
 - (B) Type 26 Concrete Barrier
 - (C) Type 732 Concrete Barrier
 - (D) Polyester Concrete Overlay (3/4")
 - (E) Temporary Railing (Type K)
 - (F) PC/PS I-Girders

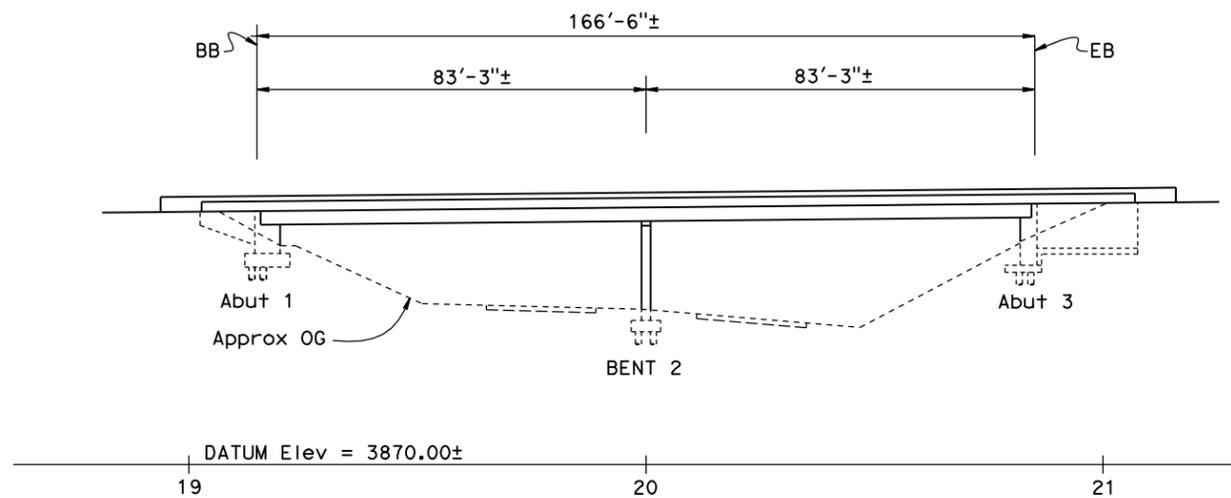
SHEET 2 OF 2

DESIGNED BY	LEWIS L SHEN	DATE	9-11
DRAWN BY	JANIE CHLUBNA	DATE	9-11
CHECKED BY	X	DATE	X
APPROVED	X	DATE	X

**STRUCTURE
DESIGN
BRANCH
3**

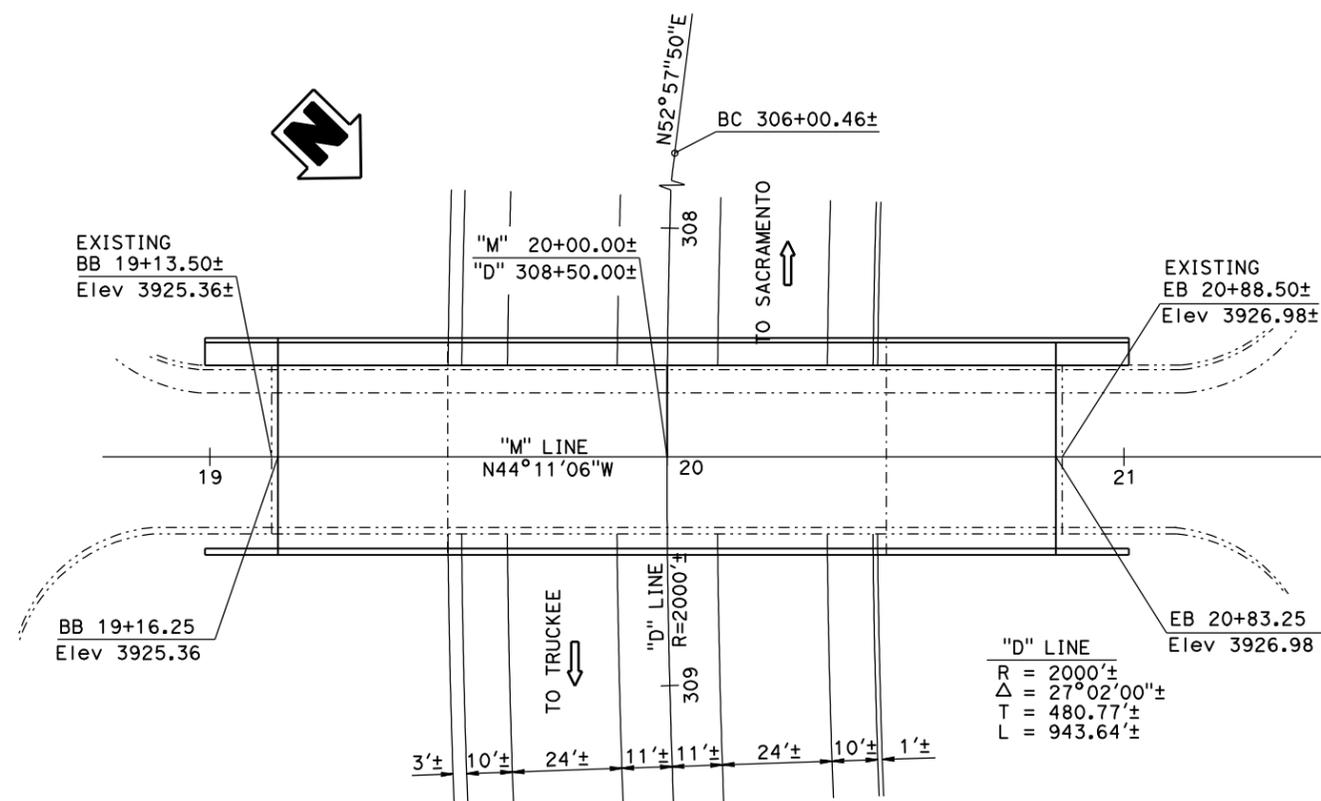
REPLACEMENT ALTERNATIVE	
PRE-PID STUDY	
CRYSTAL SPRINGS ROAD OC	
UNIT: 3578	BRIDGE No. 19-0112
SCALE: AS SHOWN	PROJECT No. & PHASE: 0300020615k

DIST	COUNTY	ROUTE	POST MILE
03	Placer	80	



ELEVATION
1" = 40'

DATE OF ESTIMATE	9-7-11 BL
BRIDGE REMOVAL	=
STRUCTURE DEPTH	=
LENGTH	=
WIDTH	=
AREA	=
COST / <input type="checkbox"/> INCLUDING 10% MOBILIZATION & 40% CONTINGENCY	=
TOTAL COST	= \$3,260,000



PLAN
1" = 40'

LEGEND:
 - - - - - Indicates Existing Structure
 ——— Indicates New Structure

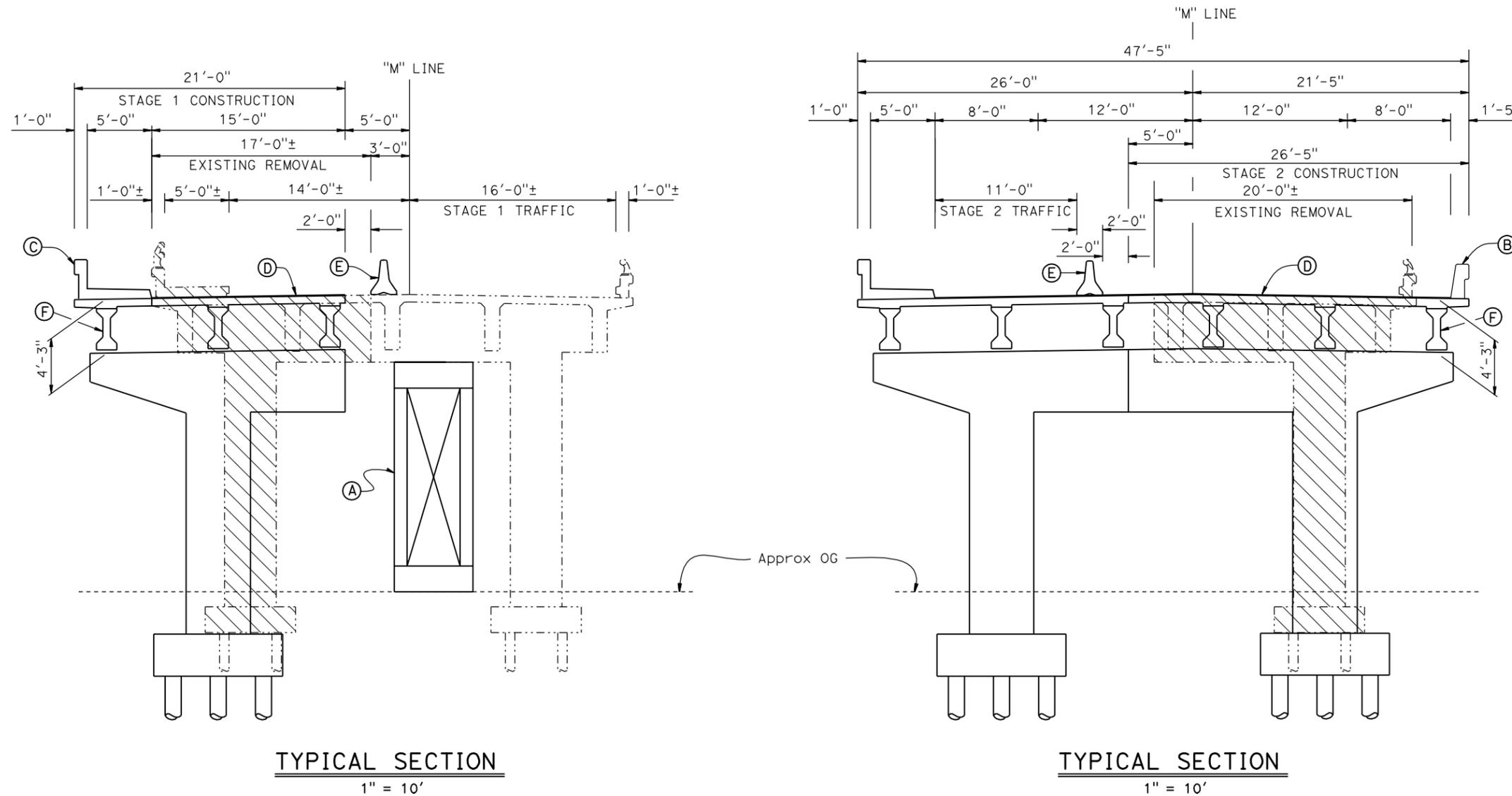
SHEET 1 OF 2

DESIGNED BY	LEWIS L SHEN	DATE	9-11
DRAWN BY	JANIE CHLUBNA	DATE	9-11
CHECKED BY	X	DATE	X
APPROVED	X	DATE	X

STRUCTURE DESIGN BRANCH
3

REPLACEMENT ALTERNATIVE	
PRE-PID STUDY	
BAXTER OC	
UNIT: 3578	BRIDGE No. 19-0113
SCALE: AS SHOWN	PROJECT No. & PHASE: 0300020615k

DIST	COUNTY	ROUTE	POST MILE
03	Pla	80	



TYPICAL SECTION
1" = 10'

TYPICAL SECTION
1" = 10'

LEGEND:

- Indicates Existing Structure
- Indicates New Structure
- ▨ Indicates Concrete Removal

NOTES:

- (A) Temporary Support
- (B) Type 26 Concrete Barrier
- (C) Type 732 Concrete Barrier
- (D) Polyester Concrete Overlay (3/4")
- (E) Temporary Railing (Type K)
- (F) PC/PS I-Girders

SHEET 2 OF 2

DESIGNED BY	LEWIS L SHEN	DATE	9-11
DRAWN BY	JANIE CHLUBNA	DATE	9-11
CHECKED BY	X	DATE	X
APPROVED	X	DATE	X

**STRUCTURE
DESIGN
BRANCH
3**

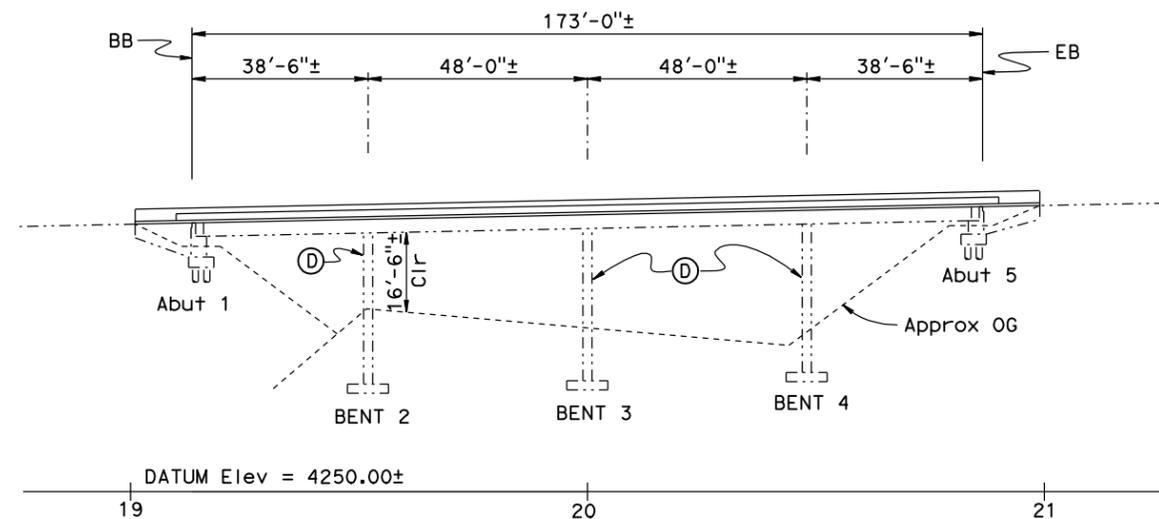
REPLACEMENT ALTERNATIVE

PRE-PID STUDY

BAXTER OC

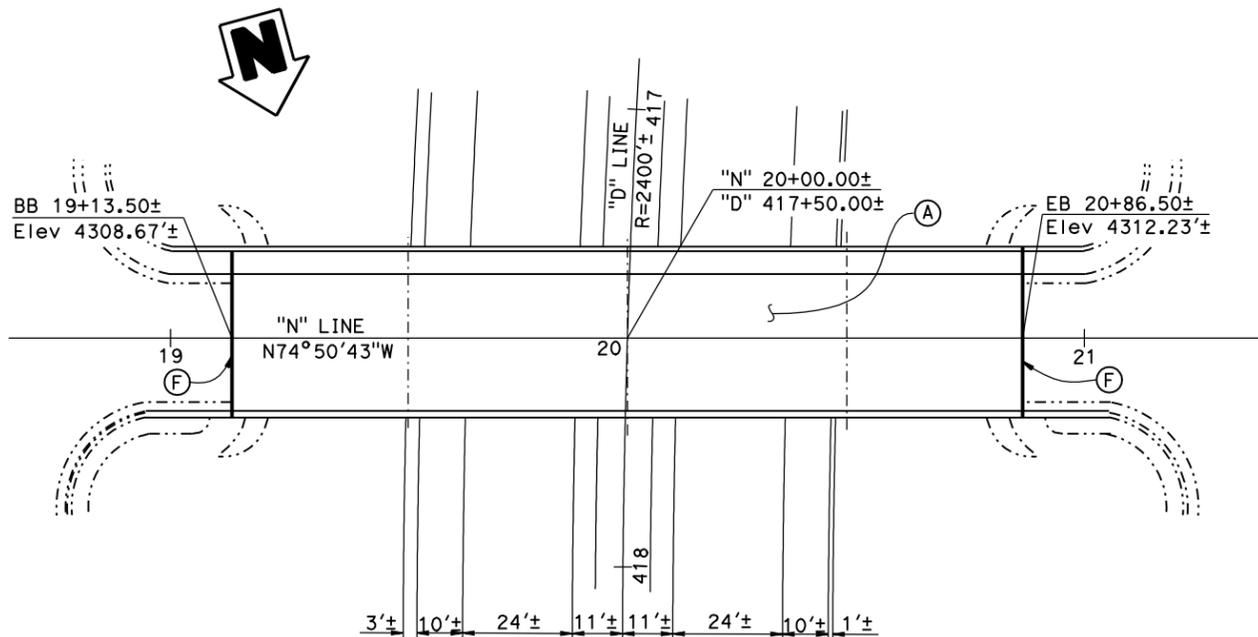
UNIT: 3578	BRIDGE No. 19-0113
SCALE: AS SHOWN	PROJECT No. & PHASE: 0300020615k

DIST	COUNTY	ROUTE	POST MILE
03	Pla	80	



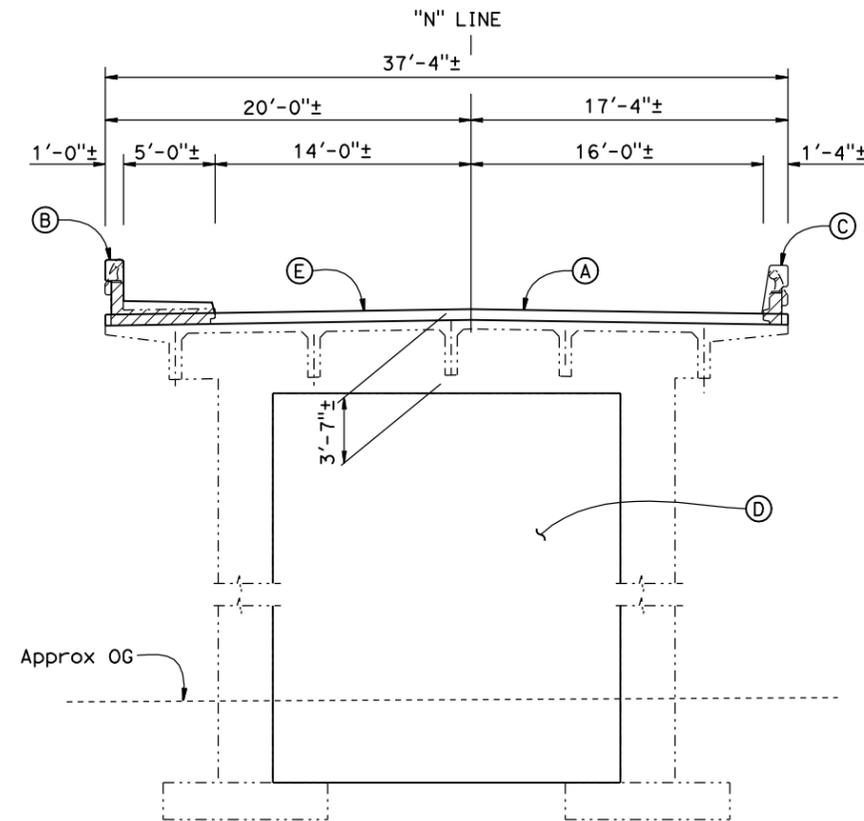
ELEVATION

1" = 40'



PLAN

1" = 40'



TYPICAL SECTION

1" = 10'

LEGEND:

- Indicates Existing Structure
- Indicates New Structure
- ▨ Indicates Concrete Removal
- Indicates Joint Seal Replace

NOTES:

- (A) New Full 7" Deck on Existing Deck
- (B) Concrete Barrier Type 26
- (C) Concrete Barrier Type 732
- (D) Infill Wall @ Bent 2, 3 & 4
- (E) Polyester Concrete Overlay (3/4")
- (F) Joint Seals (TYPE B) - Replace

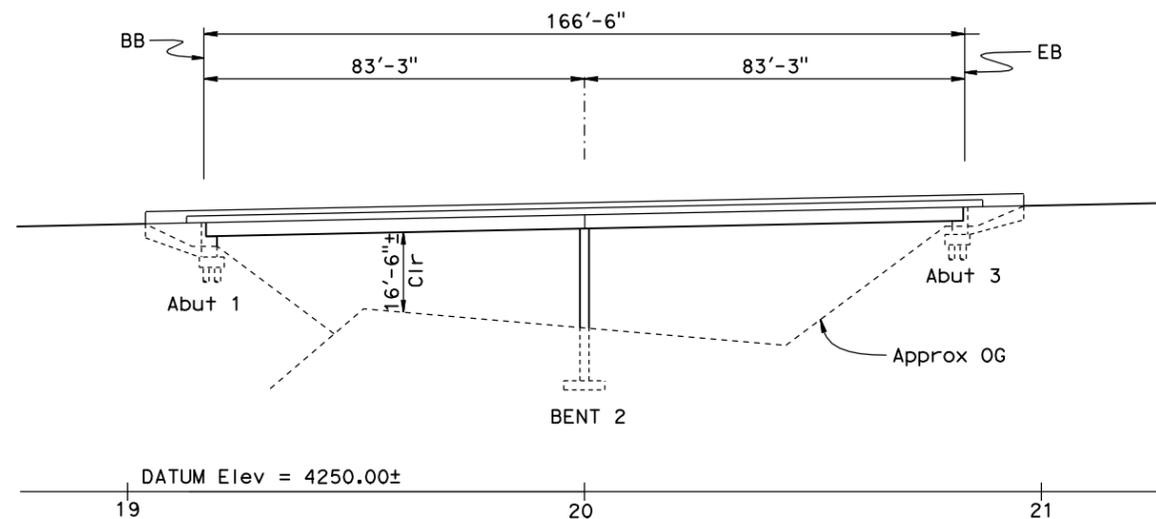
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STRUCTURE DEPTH	=
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AREA	=
COST/ <input type="checkbox"/> INCLUDING 10% MOBILIZATION & 40% CONTINGENCY	=
TOTAL COST	= 1,148,000

DESIGNED BY	LEWIS L SHEN	DATE	9-11
DRAWN BY	JANIE CHLUBNA	DATE	9-11
CHECKED BY	X	DATE	X
APPROVED	X	DATE	X

STRUCTURE DESIGN BRANCH
3

REHAB ALTERNATIVE	
PRE-PID STUDY	
DRUM FOREBAY OC	
UNIT: 3578	BRIDGE No. 19-0114
SCALE: AS SHOWN	PROJECT No. & PHASE: 0300020615k

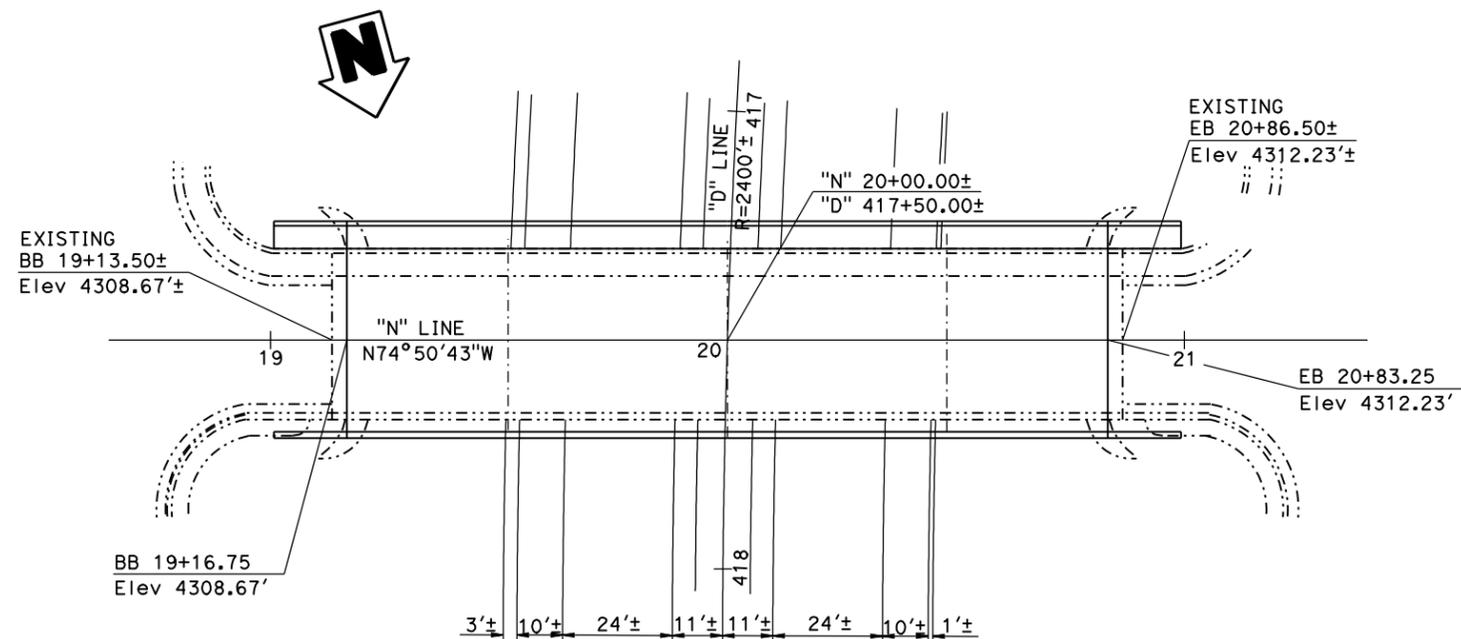
DIST	COUNTY	ROUTE	POST MILE
03	Pla	80	



ELEVATION

1" = 40'

DATE OF ESTIMATE	9-7-11 BL
BRIDGE REMOVAL	=
STRUCTURE DEPTH	=
LENGTH	=
WIDTH	=
AREA	=
COST / <input type="checkbox"/> INCLUDING 10% MOBILIZATION & 40% CONTINGENCY	=
TOTAL COST	= \$3,260,000



PLAN

1" = 40'

LEGEND:
 - - - - - Indicates Existing Structure
 _____ Indicates New Structure

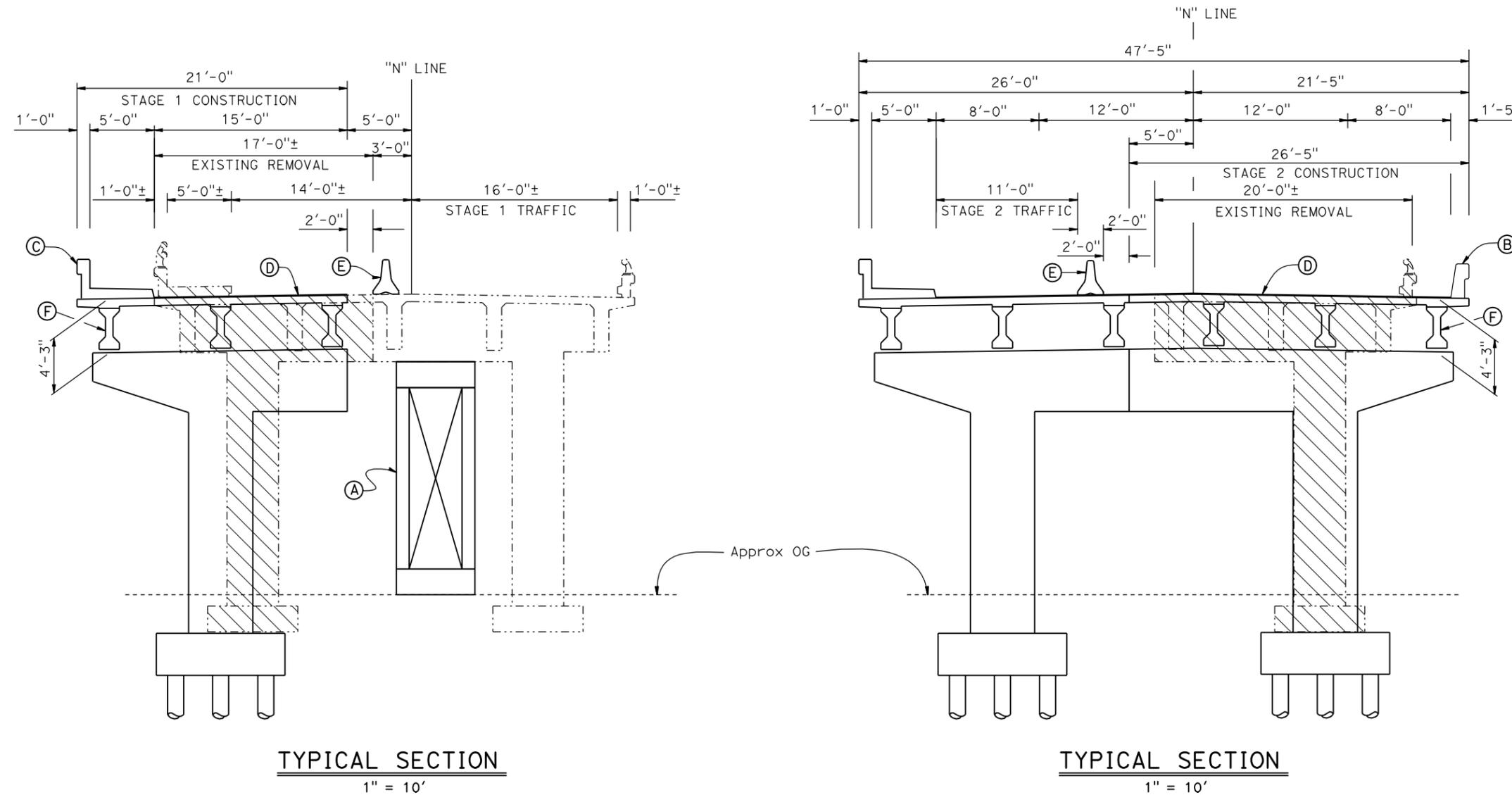
SHEET 1 OF 2

DESIGNED BY	LEWIS L SHEN	DATE	9-11
DRAWN BY	JANIE CHLUBNA	DATE	9-11
CHECKED BY	X	DATE	X
APPROVED	X	DATE	X

STRUCTURE DESIGN BRANCH
3

REPLACEMENT ALTERNATIVE	
PRE-PID STUDY	
DRUM FOREBAY OC	
UNIT: 3578	BRIDGE No. 19-0114
SCALE: AS SHOWN	PROJECT No. & PHASE: 0300020615k

DIST	COUNTY	ROUTE	POST MILE
03	Placer	80	



- LEGEND:**
- Indicates Existing Structure
 - Indicates New Structure
 - ▨ Indicates Concrete Removal

- NOTES:**
- (A) Temporary Support
 - (B) Type 26 Concrete Barrier
 - (C) Type 732 Concrete Barrier
 - (D) Polyester Concrete Overlay (3/4")
 - (E) Temporary Railing (Type K)
 - (F) PC/PS I-Girders

SHEET 2 OF 2

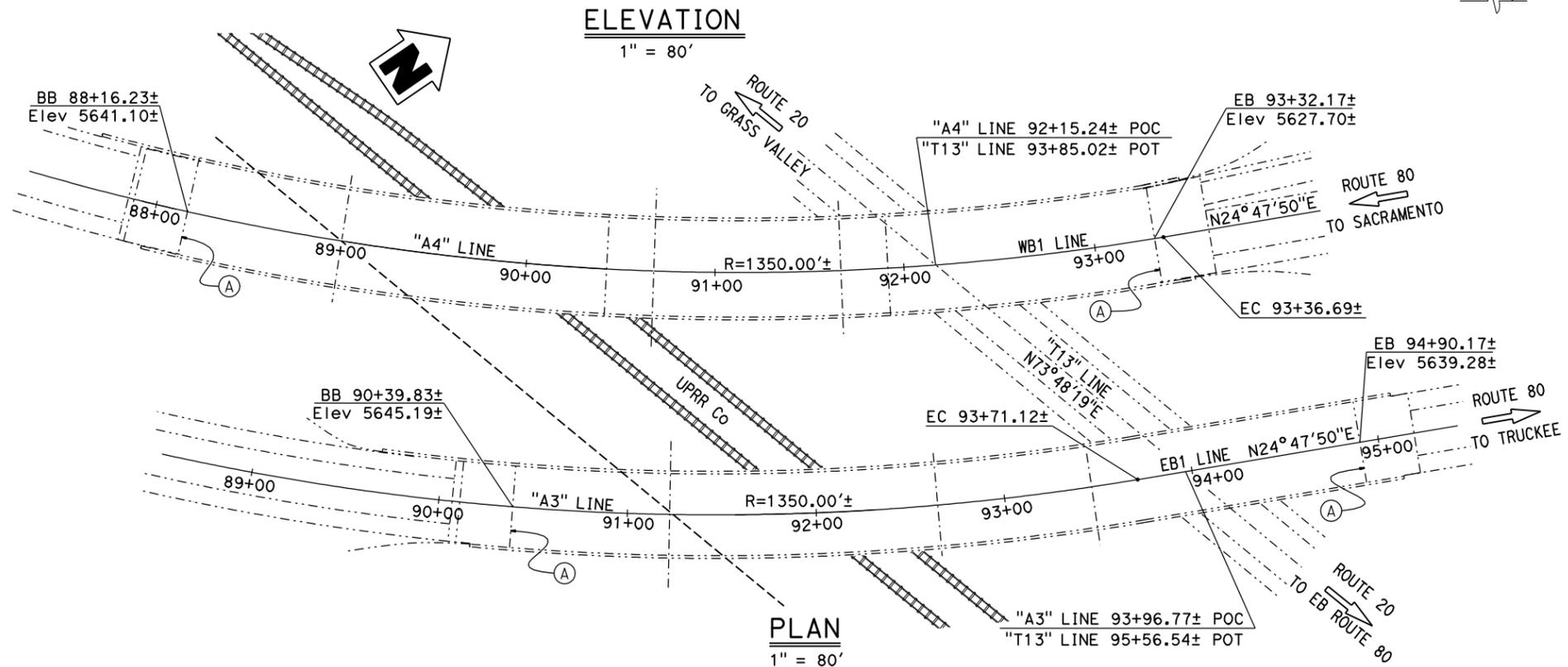
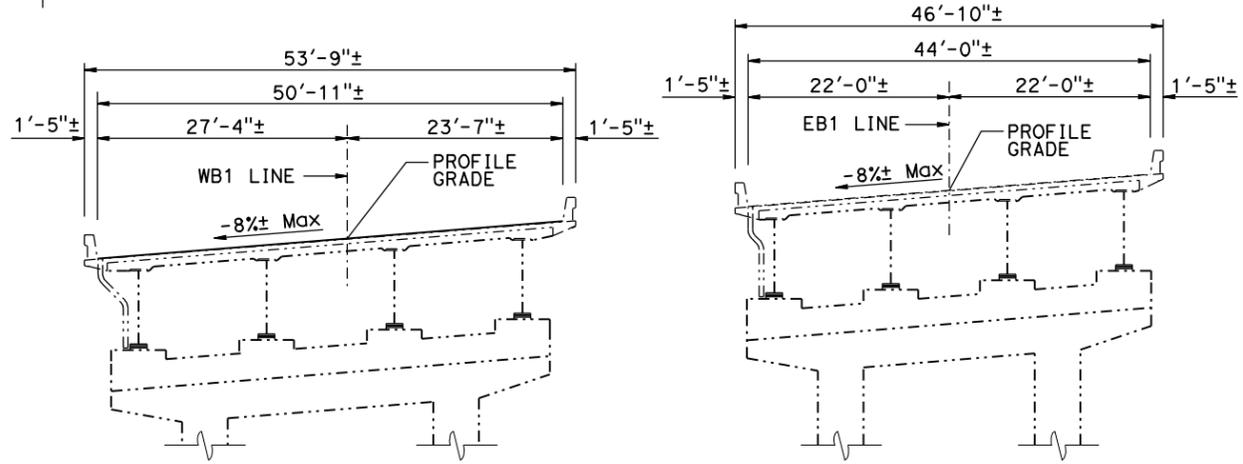
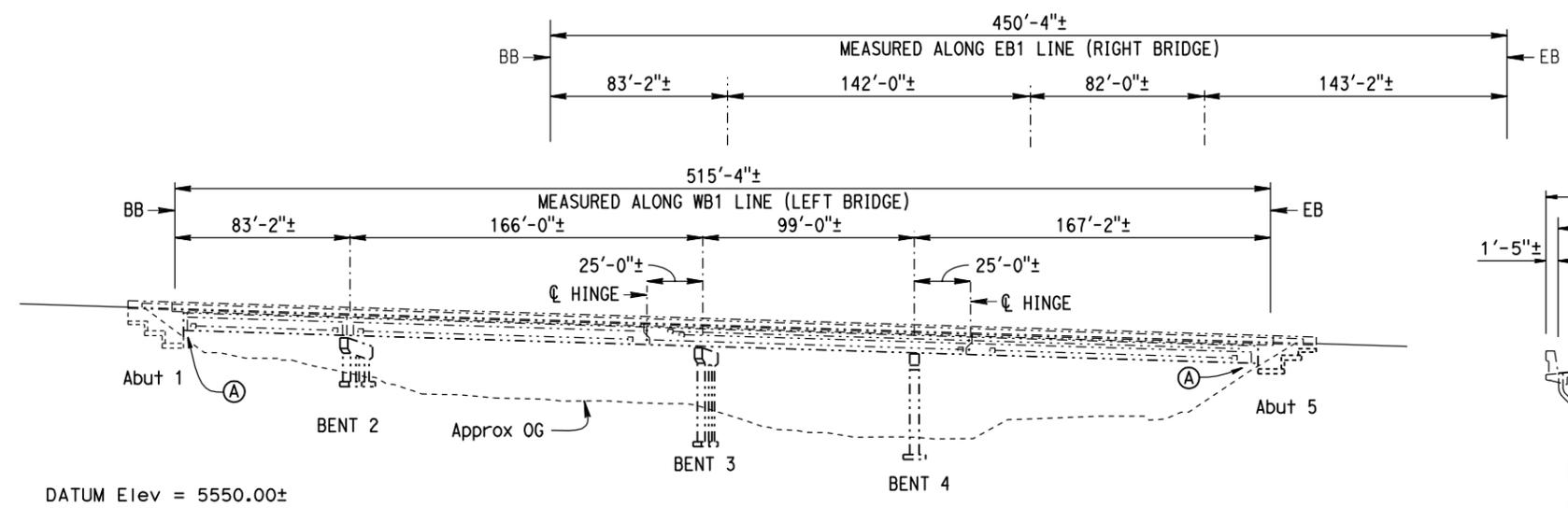
DESIGNED BY	LEWIS L SHEN	DATE	9-11
DRAWN BY	JANIE CHLUBNA	DATE	9-11
CHECKED BY	X	DATE	X
APPROVED	X	DATE	X

**STRUCTURE
DESIGN
BRANCH**

3

REPLACEMENT ALTERNATIVE	
PRE-PID STUDY	
DRUM FOREBAY OC	
UNIT: 3578	BRIDGE No. 19-0114
SCALE: AS SHOWN	PROJECT No. & PHASE: 0300020615k

DIST	COUNTY	ROUTE	POST MILE
03	Nev	80	



NOTE:
 (A) Replace Abutment Bearings

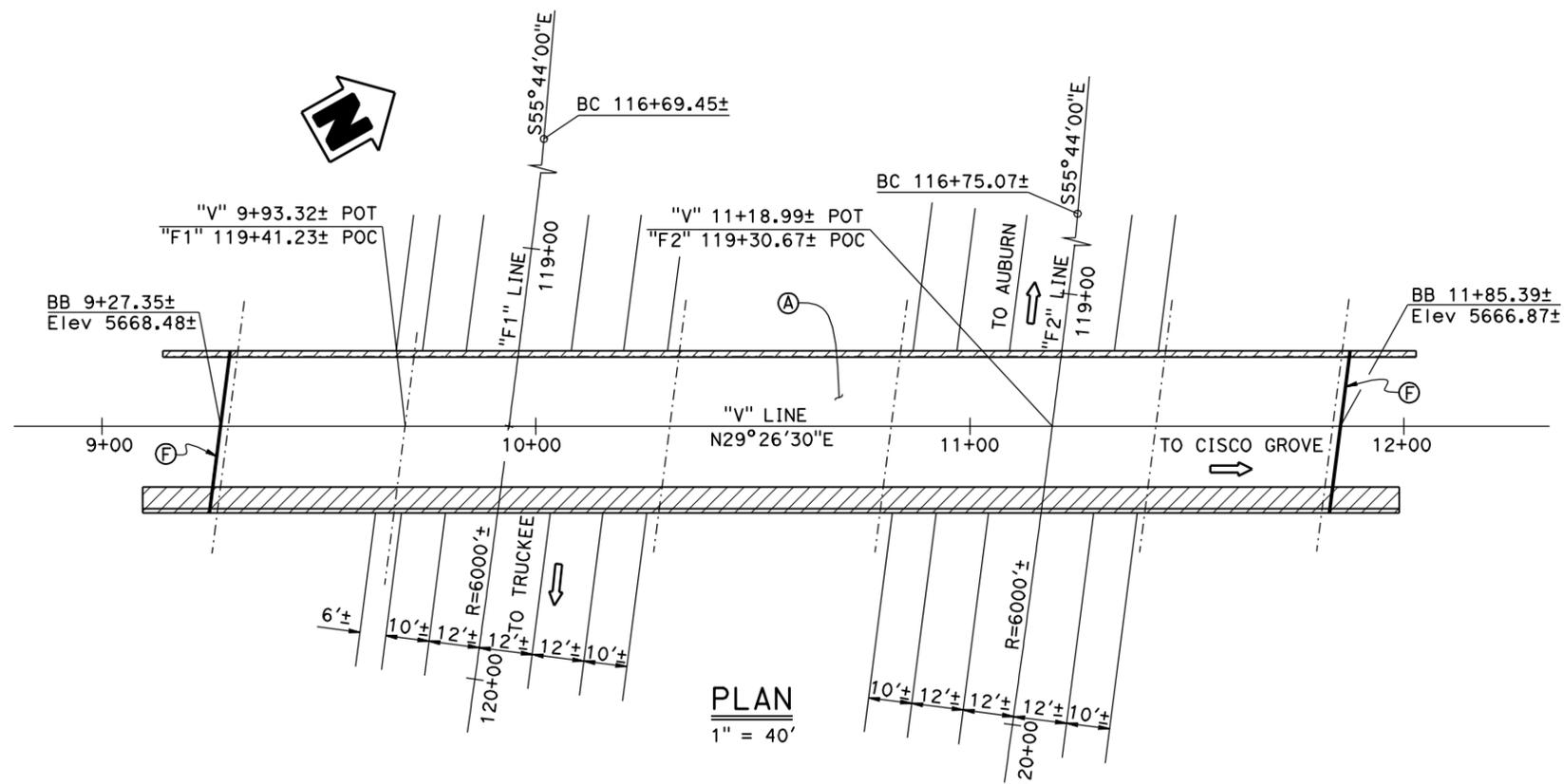
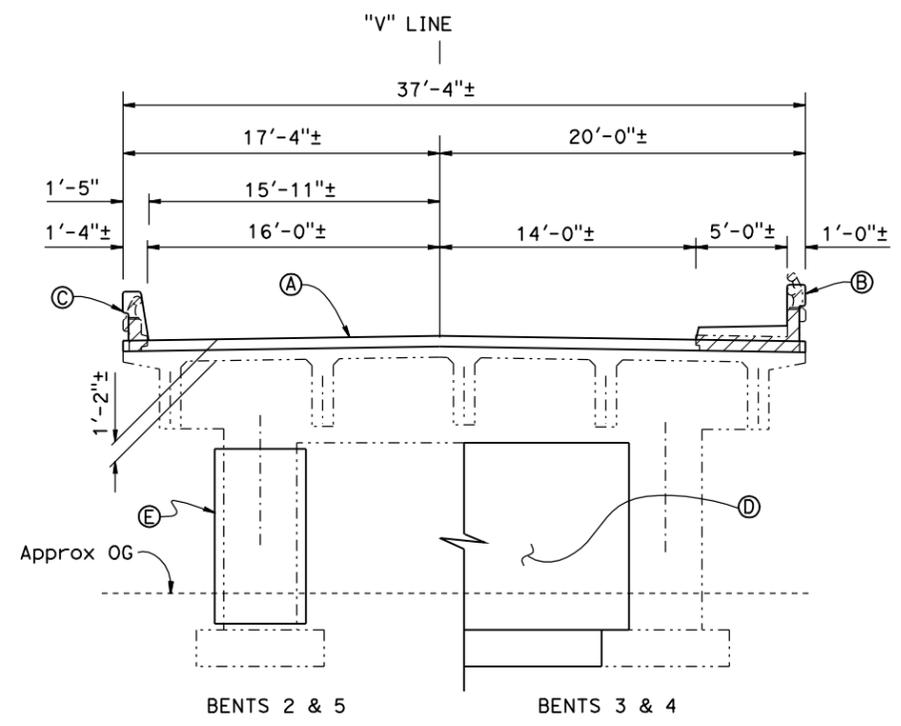
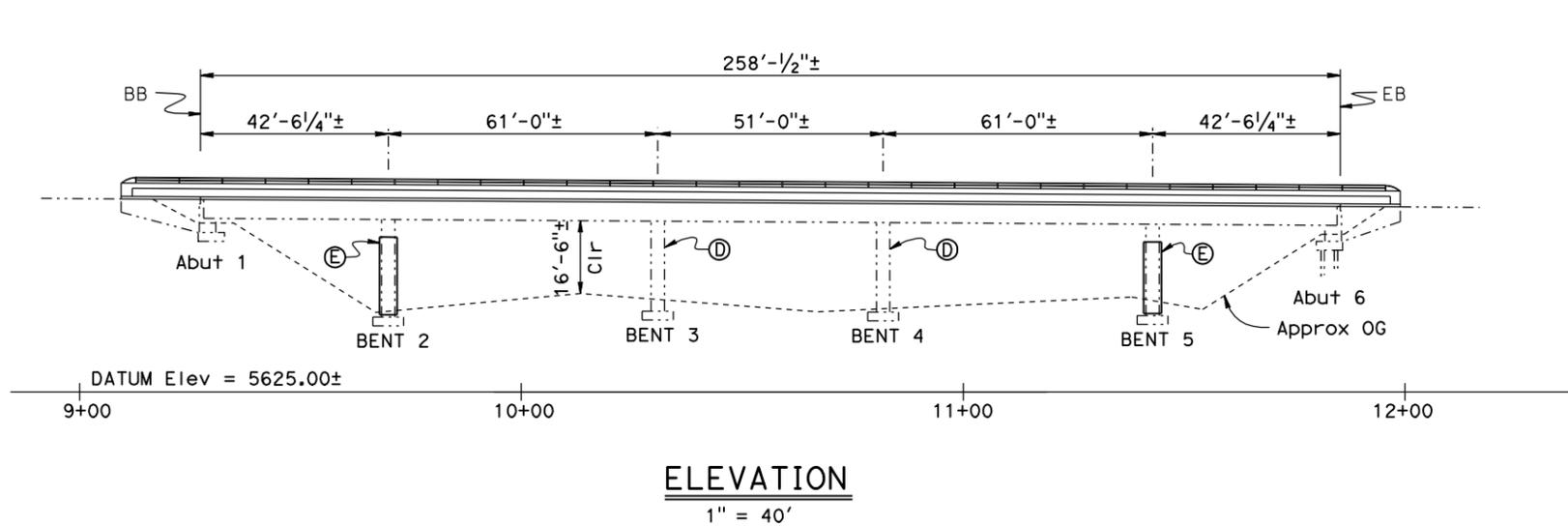
DATE OF ESTIMATE	9-7-11 BL
BRIDGE REMOVAL	=
STRUCTURE DEPTH	=
LENGTH	=
WIDTH	=
AREA	=
COST/ <input type="checkbox"/> INCLUDING 10% MOBILIZATION & 40% CONTINGENCY	=
TOTAL COST	= \$136,000

DESIGNED BY	LEWIS L SHEN	DATE	9-11
DRAWN BY	JANIE CHLUBNA	DATE	9-11
CHECKED BY	X	DATE	X
APPROVED	X	DATE	X

STRUCTURE DESIGN BRANCH
3

REHAB ALTERNATIVE	
PRE-PID STUDY	
YUBA PASS OH (LEFT/RIGHT)	
UNIT: 3578	BRIDGE No. 17-0023L/R
SCALE: AS SHOWN	PROJECT No. & PHASE: 0300020615k

DIST	COUNTY	ROUTE	POST MILE
03	Pla	80	



- LEGEND:**
- Indicates Existing Structure
 - Indicates New Structure
 - ▨ Indicates Concrete Removal
 - |— Indicates Joint Seal Replace

- NOTES:**
- (A) New Full 7" Deck on Existing Deck
 - (B) Concrete Barrier Type 26
 - (C) Concrete Barrier Type 732
 - (D) Infill Wall and Footing
 - (E) Column Casing
 - (F) Joint Seals (MR = 2") - Replace

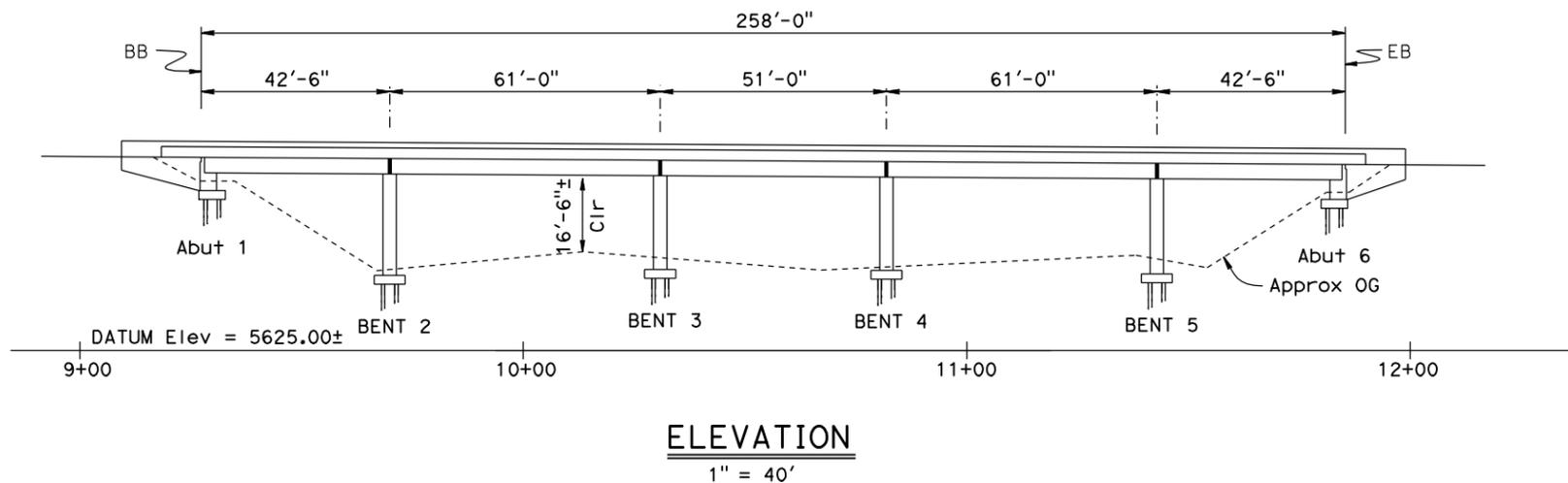
DATE OF ESTIMATE	9-7-11 BL
BRIDGE REMOVAL	=
STRUCTURE DEPTH	=
LENGTH	=
WIDTH	=
AREA	=
COST/□ INCLUDING 10% MOBILIZATION & 40% CONTINGENCY	=
TOTAL COST	= \$1,741,000

DESIGNED BY	J. AQUINO / L. SHEN	DATE	9-11
DRAWN BY	JANIE CHLUBNA	DATE	9-11
CHECKED BY	X	DATE	X
APPROVED	X	DATE	X

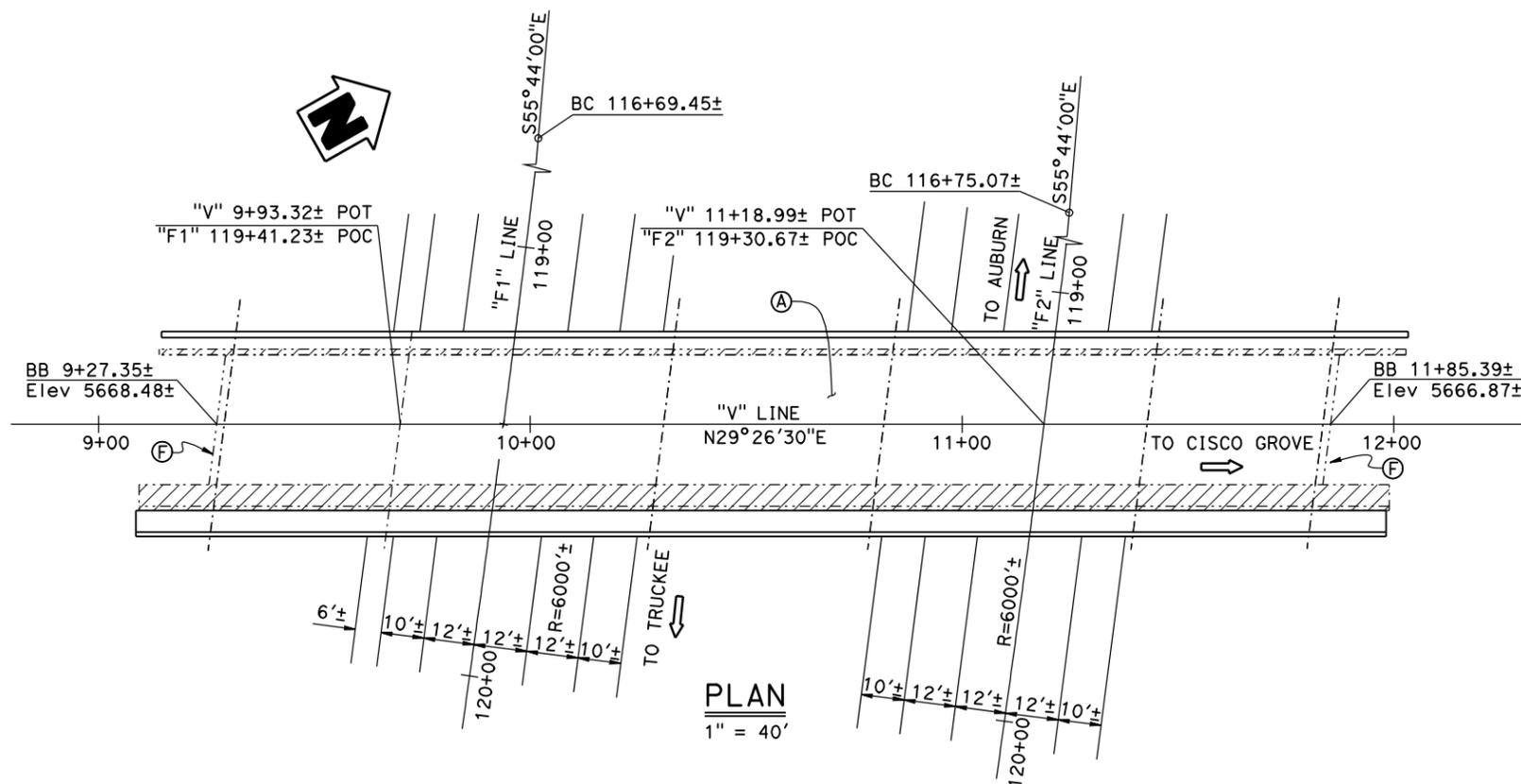
STRUCTURE DESIGN BRANCH
3

REHAB ALTERNATIVE	
PRE-PID STUDY	
CISCO OC	
UNIT: 3578	BRIDGE No. 19-0118
SCALE: AS SHOWN	PROJECT No. & PHASE: 0300020615k

DIST	COUNTY	ROUTE	POST MILE
03	Pla	80	



- LEGEND:
- Indicates Existing Structure
 - Indicates New Structure
 - ▨ Indicates Concrete Removal



DATE OF ESTIMATE	10-19-11 BL
BRIDGE REMOVAL	=
STRUCTURE DEPTH	=
LENGTH	=
WIDTH	=
AREA	=
COST/□ INCLUDING 10% MOBILIZATION & 40% CONTINGENCY	=
TOTAL COST	= \$5,039,000

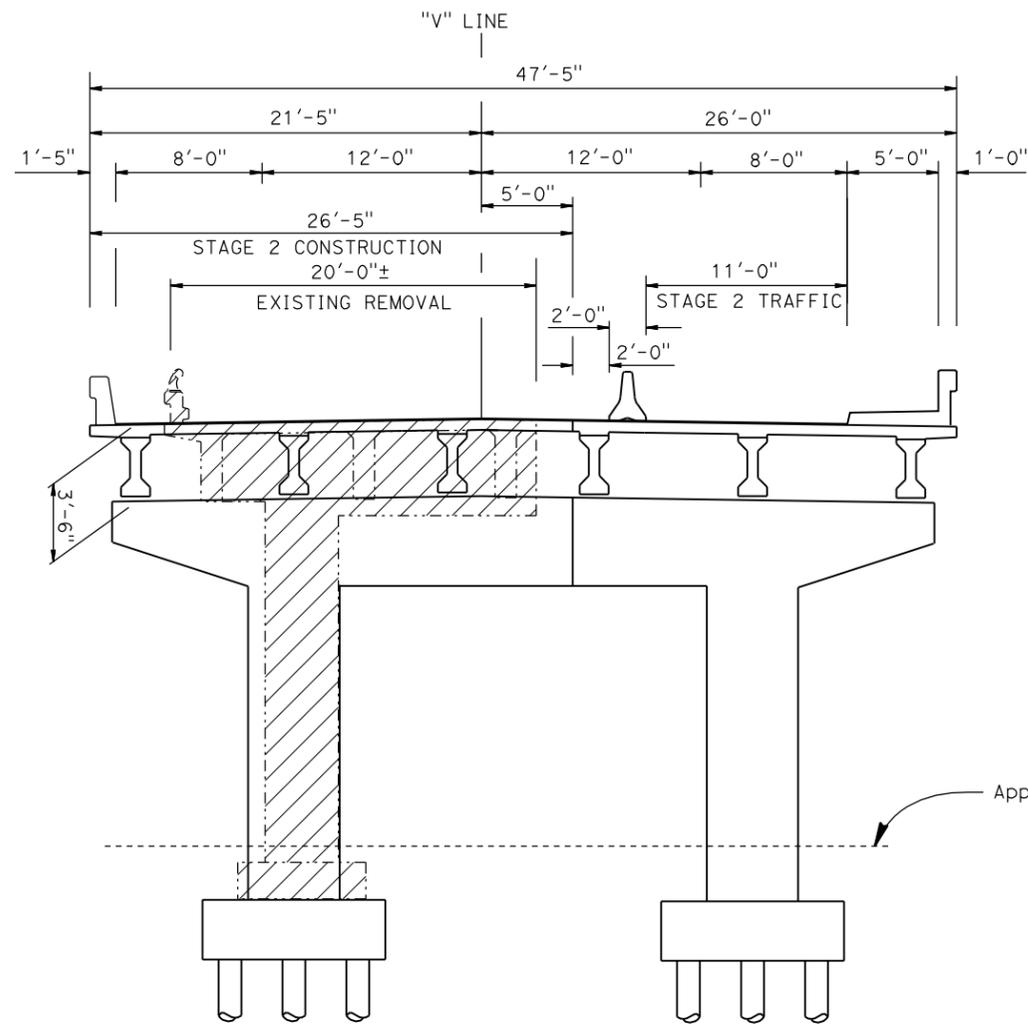
SHEET 1 OF 2

DESIGNED BY	LEWIS L SHEN	DATE	10-11
DRAWN BY	JANIE CHLUBNA	DATE	10-11
CHECKED BY	X	DATE	X
APPROVED	X	DATE	X

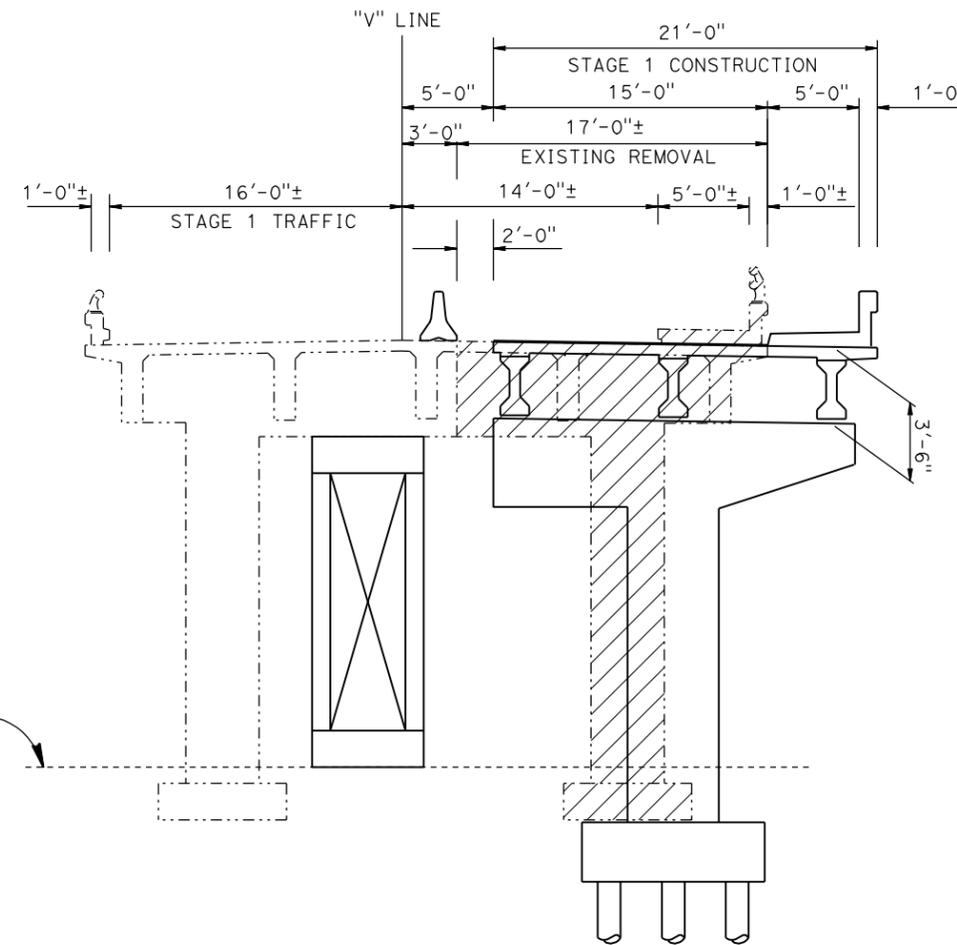
**STRUCTURE
DESIGN
BRANCH**
3

REPLACEMENT ALTERNATIVE	
PRE-PID STUDY	
CISCO OC	
UNIT: 3578	BRIDGE No. 19-0118
SCALE: AS SHOWN	PROJECT No. & PHASE: 0300020615k

DIST	COUNTY	ROUTE	POST MILE
03	Placer	80	



TYPICAL SECTION
1" = 10'



TYPICAL SECTION
1" = 10'

Approx OG

- LEGEND:**
- Indicates Existing Structure
 - Indicates New Structure
 - ▨ Indicates Concrete Removal

SHEET 2 OF 2

DESIGNED BY	LEWIS L SHEN	DATE	10-11
DRAWN BY	JANIE CHLUBNA	DATE	10-11
CHECKED BY	X	DATE	X
APPROVED	X	DATE	X

STRUCTURE DESIGN BRANCH
3

REPLACEMENT ALTERNATIVE	
PRE-PID STUDY	
CISCO OC	
UNIT: 3578	BRIDGE No. 19-0118
SCALE: AS SHOWN	PROJECT No. & PHASE: 0300020615k

ATTACHMENT E

BRIDGE INSPECTION REPORTS

*California Department of Transportation
Division of Maintenance*

Structure Maintenance and Investigations

B_{RIDGE}

I_{NSPECTION}

R_{ECORDS}

I_{NFORMATION}

S_{YSTEM}

The requested documents have been generated by BIRIS.

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Records for “Confidential” bridges may only be released outside the Department of Transportation upon execution of a confidentiality agreement.



DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 19 0038
Facility Carried: INTERSTATE 80
Location : 03-PLA-080-28.73
City :
Inspection Date : 04/28/2010

Bridge Inspection Report

Inspection Type
Routine FC Underwater Special Other

STRUCTURE NAME: WEIMAR OH

CONSTRUCTION INFORMATION

Year Built : 1958 Skew (degrees): 44
Year Widened: 1975 No. of Joints : 4
Length (m) : 58.5 No. of Hinges : 0

Structure Description: RC deck, with AC overlay, on simple span composite welded steel girders (4) and rolled steel girders (8) with welded cover plate on RC column (7) bents and RC open end seat abutments, all on concrete and steel piles. The original left and right structures were widened on the outside and in the median to create the present bridge.

Span Configuration : 2 @ 19.2 m, 18.0 m

LOAD CAPACITY AND RATINGS

Design Live Load: MS-18 OR HS-20
Inventory Rating: 28.5 metric tonnes Calculation Method: ALLOWABLE STRESS
Operating Rating: 45.7 metric tonnes Calculation Method: ALLOWABLE STRESS
Permit Rating : P P P P P
Posting Load : Type 3: Legal Type 3S2: Legal Type 3-3: Legal

DESCRIPTION ON STRUCTURE

Deck X-Section: 0.5 m br, 13.2 m, 0.6 m br, 13.2 m, 0.5 m br
Total Width: 28.0 m Net Width: 26.3 m No. of Lanes: 4
Rail Description: Type 25 Rail Code : 1011
Min. Vertical Clearance: Unimpaired

DESCRIPTION UNDER STRUCTURE

Channel Description:

CONDITION TEXT

HISTORY

A special investigation of this structure was completed in 1999 with the following reported.

At the time of the investigation Interstate 80 corridor carried by this structure was currently under design for complete rehabilitation from Auburn to the Nevada border. The goals of the rehabilitation were to ensure a 30-year service life and low associated maintenance costs. While the focus of that investigation was to accurately determine the condition of the deck, all structural aspects were evaluated.

The AC surfacing was removed and 60 percent of the deck was able to be chained. The eastbound lane had a metal fiber reinforced patch covering 5 percent of the ground area. Approximately 15 percent of the chained area was delaminated. The westbound lane had metal fiber reinforced patches covering 5 percent of the ground area. Approximately 25 percent of the chained area was delaminated.

Three 75-mm diameter cores were taken from the deck for chloride content determination.

The special investigation recommended that the bridge requires at least a full deck

CONDITION TEXT

replacement, which should include bridge rails.

An elementary fatigue evaluation of the steel superstructure was performed to determine the anticipated remaining service life of the rehabilitated bridge. High ADTT, high skew, staggered intermediate cross frames, past strengthening and structure age were considered in this evaluation. The results of the special evaluation indicate that the bridge is likely to be near the end of its service fatigue life. It is anticipated that the remaining economical service life would be less than 30 years.

Reported in 2008, the recommendation to replace the bridge was removed. As determined by DSM&I management, this structure should continue to be maintained rather than be scheduled for replacement.

CONDITION OF STRUCTURE

AC surfacing was applied to the bridge deck previous to the 2008 inspection. The area around the joint is beginning to deteriorate and spall. Otherwise the AC surface ing is in good condition.

Deck conditions could not be evaluated due to the AC overlay, however, can be assessed based on the findings reported in the 1999. The element level inspection numbers reflect the findings noted above. Deck replacement continues to be recommended, and appears to be programmed under 03-3E0901.

The joint seals could not be inspected due to the AC surfacing. Seepage was present under the structure and the condition of the joints is based on this.

Noted in 2008, there is a spall in the soffit in Span 3 adjacent to Girder 2 in Bay 2. The spall measures approximately 10 inches by 10 inches and has exposed bar.

Moderate cracking and efflorescence is present throughout the soffit with areas of scaling. Cracking is as close as 10 feet oc, and as long as 30 feet but non continuous. Spalling is most evident in Span 2.

Otherwise, no other significant defects were noted during this inspection and the structure remains in fair condition.

PAINT CONDITION

At the bents, freckled rust is present at the ends of the girders under the joint seals. The paint system is showing other early evidence of paint system distress, but there is no exposure of metal. Otherwise the paint system is in good condition and is functioning as intended.

STEEL INVESTIGATION

A Special investigation was preformed on 4/1/2009 and is on a 48 month cycle. A hands-on visual inspection was performed on the steel girders with staggered intermediate diaphragms and Category "E" cover plate welds on the bottom flanges in all spans with the exception of Girders 1 to 3. No fractures or cracks were found. Girders 1 and 3 were not checked due to access limitations with the UBIT.

LOAD CAPACITY

This bridge is under review by the Load Ratings Branch under Work Request No. 1534. The Load Capacity and Rating values are from calculations completed in 6/1986, and will be updated as the Load Rating is completed.

ELEMENT INSPECTION RATINGS

F#Elem	Element Description	Env	Total Units	Qty in each Condition State				
				Qty	St. 1	St. 2	St. 3	St. 4
101 13	Concrete Deck - Unprotected w/ AC Overlay	2	1640 sq.m.	0	0	0	1640	0
101 107	Painted Steel Open Girder/Beam	2	702 m.	682	20	0	0	0
101 205	Reinforced Conc Column or Pile Extension	2	14 ea.	14	0	0	0	0
101 215	Reinforced Conc Abutment	2	78 m.	78	0	0	0	0
101 225	Unpainted Steel Submerged Pile	2	1 ea.	1	0	0	0	0
101 227	Reinforced Conc Submerged Pile	2	1 ea.	1	0	0	0	0
101 234	Reinforced Conc Cap	2	56 m.	56	0	0	0	0
101 301	Pourable Joint Seal	2	107 m.	0	107	0		
101 310	Elastomeric Bearing	2	24 ea.	24	0	0	0	0
101 311	Moveable Bearing (roller, sliding, etc.)	2	32 ea.	32	0	0	0	0
101 313	Fixed Bearing	2	32 ea.	32	0	0	0	0
101 331	Reinforced Conc Bridge Railing	2	140 m.	140	0	0	0	0
101 359	Soffit of Concrete Deck or Slab	2	1 ea.	0	0	1	0	0

WORK RECOMMENDATIONS

RecDate: 02/26/2008 EstCost: \$1,767,357 Replace the bridge deck in lieu of bridge
Action : Deck-Replace StrTarget: replacement.
Work By: STRAIN DistTarget:
Status : PROGRAMMED EA: 3E0901

RecDate: 02/26/2008 EstCost: \$2,600 Patch spall in the soffit Bay 2 Span 3
Action : Super-Patch spalls StrTarget: adjacent to Girder 2.
Work By: BRIDGE CREW DistTarget:
Status : PROPOSED EA:

Inspected By : M. O'leary/A. Fernandes

Registered Civil Engineer



STRUCTURE INVENTORY AND APPRAISAL REPORT

***** IDENTIFICATION *****

(1) STATE NAME- CALIFORNIA 069
 (8) STRUCTURE NUMBER 19 0038
 (5) INVENTORY ROUTE (ON/UNDER) - ON 111000800
 (2) HIGHWAY AGENCY DISTRICT 03
 (3) COUNTY CODE 061 (4) PLACE CODE 00000
 (6) FEATURE INTERSECTED- UP RR, BNSF RY, & AMTRAK
 (7) FACILITY CARRIED- INTERSTATE 80
 (9) LOCATION- 03-PLA-080-28.73
 (11) MILEPOINT/KILOMETERPOINT 28.73
 (12) BASE HIGHWAY NETWORK- PART OF NET 1
 (13) LRS INVENTORY ROUTE & SUBROUTE 000000008002
 (16) LATITUDE 39 DEG 02 MIN 12 SEC
 (17) LONGITUDE 120 DEG 58 MIN 18 SEC
 (98) BORDER BRIDGE STATE CODE % SHARE %
 (99) BORDER BRIDGE STRUCTURE NUMBER

***** STRUCTURE TYPE AND MATERIAL *****

(43) STRUCTURE TYPE MAIN:MATERIAL- STEEL
 TYPE- STRINGER/MULTI-BEAM OR GDR CODE 302
 (44) STRUCTURE TYPE APPR:MATERIAL- OTHER/NA
 TYPE- OTHER/NA CODE 000
 (45) NUMBER OF SPANS IN MAIN UNIT 3
 (46) NUMBER OF APPROACH SPANS 0
 (107) DECK STRUCTURE TYPE- CIP CONCRETE CODE 1
 (108) WEARING SURFACE / PROTECTIVE SYSTEM:
 A) TYPE OF WEARING SURFACE- BITUMINOUS CODE 6
 B) TYPE OF MEMBRANE- PREFORMED FABR CODE 2
 C) TYPE OF DECK PROTECTION- NONE CODE 0

***** AGE AND SERVICE *****

(27) YEAR BUILT 1958
 (106) YEAR RECONSTRUCTED 1975
 (42) TYPE OF SERVICE: ON- HIGHWAY 1
 UNDER- RAILROAD 2
 (28) LANES:ON STRUCTURE 04 UNDER STRUCTURE 00
 (29) AVERAGE DAILY TRAFFIC 37500
 (30) YEAR OF ADT 1998 (109) TRUCK ADT 15 %
 (19) BYPASS, DETOUR LENGTH 13 KM

***** GEOMETRIC DATA *****

(48) LENGTH OF MAXIMUM SPAN 19.2 M
 (49) STRUCTURE LENGTH 58.5 M
 (50) CURB OR SIDEWALK: LEFT 0.0 M RIGHT 0.0 M
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 26.3 M
 (52) DECK WIDTH OUT TO OUT 28.0 M
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 26.2 M
 (33) BRIDGE MEDIAN- CLOSED NON-MOUNTABLE 3
 (34) SKEW 44 DEG (35) STRUCTURE FLARED NO
 (10) INVENTORY ROUTE MIN VERT CLEAR 99.99 M
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 13.2 M
 (53) MIN VERT CLEAR OVER BRIDGE RDWY 99.99 M
 (54) MIN VERT UNDERCLEAR REF- RAILROAD 6.99 M
 (55) MIN LAT UNDERCLEAR RT REF- RAILROAD 8.7 M
 (56) MIN LAT UNDERCLEAR LT 0.0 M

***** NAVIGATION DATA *****

(38) NAVIGATION CONTROL- NOT APPLICABLE CODE N
 (111) PIER PROTECTION- CODE
 (39) NAVIGATION VERTICAL CLEARANCE 0.0 M
 (116) VERT-LIFT BRIDGE NAV MIN VERT CLEAR M
 (40) NAVIGATION HORIZONTAL CLEARANCE 0.0 M

***** SUFFICIENCY RATING *****

SUFFICIENCY RATING = 77.5
 STATUS STRUCTURALLY DEFICIENT
 HEALTH INDEX 85.3
 PAINT CONDITION INDEX = 99.3

***** CLASSIFICATION *****

(112) NBIS BRIDGE LENGTH- YES Y
 (104) HIGHWAY SYSTEM- ROUTE ON NHS 1
 (26) FUNCTIONAL CLASS- INTSTAT PRIN ART RURAL 01
 (100) DEFENSE HIGHWAY- STRAHNET 1
 (101) PARALLEL STRUCTURE- NONE EXISTS N
 (102) DIRECTION OF TRAFFIC- 2 WAY 2
 (103) TEMPORARY STRUCTURE-
 (105) FED.LANDS HWY- NOT APPLICABLE 0
 (110) DESIGNATED NATIONAL NETWORK - PART OF NET 1
 (20) TOLL- ON FREE ROAD 3
 (21) MAINTAIN- STATE HIGHWAY AGENCY 01
 (22) OWNER- STATE HIGHWAY AGENCY 01
 (37) HISTORICAL SIGNIFICANCE- NOT ELIGIBLE 5

***** CONDITION *****

(58) DECK 2
 (59) SUPERSTRUCTURE 6
 (60) SUBSTRUCTURE 7
 (61) CHANNEL & CHANNEL PROTECTION N
 (62) CULVERTS N

***** LOAD RATING AND POSTING *****

(31) DESIGN LOAD- MS-18 OR HS-20 5
 (63) OPERATING RATING METHOD- ALLOWABLE STRESS 2
 (64) OPERATING RATING- 45.7
 (65) INVENTORY RATING METHOD- ALLOWABLE STRESS 2
 (66) INVENTORY RATING- 28.5
 (70) BRIDGE POSTING- EQUAL TO OR ABOVE LEGAL LOADS 5
 (41) STRUCTURE OPEN, POSTED OR CLOSED- A
 DESCRIPTION- OPEN, NO RESTRICTION

***** APPRAISAL *****

(67) STRUCTURAL EVALUATION 6
 (68) DECK GEOMETRY 9
 (69) UNDERCLEARANCES, VERTICAL & HORIZONTAL 7
 (71) WATER ADEQUACY N
 (72) APPROACH ROADWAY ALIGNMENT 8
 (36) TRAFFIC SAFETY FEATURES 1011
 (113) SCOUR CRITICAL BRIDGES N

***** PROPOSED IMPROVEMENTS *****

(75) TYPE OF WORK- SUP/SUB REHAB CODE 35
 (76) LENGTH OF STRUCTURE IMPROVEMENT 58.5 M
 (94) BRIDGE IMPROVEMENT COST \$1,641,000
 (95) ROADWAY IMPROVEMENT COST \$328,200
 (96) TOTAL PROJECT COST \$2,756,880
 (97) YEAR OF IMPROVEMENT COST ESTIMATE 2010
 (114) FUTURE ADT 48120
 (115) YEAR OF FUTURE ADT 2029

***** INSPECTIONS *****

(90) INSPECTION DATE 04/10 (91) FREQUENCY 24 MO
 (92) CRITICAL FEATURE INSPECTION: (93) CFI DATE
 A) FRACTURE CRIT DETAIL- NO MO A)
 B) UNDERWATER INSP- NO MO B)
 C) OTHER SPECIAL INSP- NO 48 MO C) 04/09



DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 19 0091
Facility Carried: INTERSTATE 80
Location : 03-PLA-080-36.86
City :
Inspection Date : 06/30/2011

Bridge Inspection Report

Inspection Type
Routine FC Underwater Special Other

STRUCTURE NAME: CAPE HORN UC

CONSTRUCTION INFORMATION

Year Built : 1958 Skew (degrees): 0
Year Widened: N/A No. of Joints : 2
Length (m) : 27.1 No. of Hinges : 0

Structure Description: Continuous RC slab with RC (2+2) column bents on spread footings.
Open end strutted abutments; Abutment 1 on spread footings and
Abutment 4 on concrete piles.

Span Configuration : 7.62 m, 11.0 m, 8.2 m

LOAD CAPACITY AND RATINGS

Design Live Load: MS-18 OR HS-20
Inventory Rating: 37.6 metric tonnes Calculation Method: LOAD FACTOR
Operating Rating: 62.5 metric tonnes Calculation Method: LOAD FACTOR
Permit Rating : P P P P P
Posting Load : Type 3: Legal Type 3S2: Legal Type 3-3: Legal

DESCRIPTION ON STRUCTURE

Deck X-Section: 0.25 m br, 0.5 m cu, 18.4 m, 0.5 m cu, 0.25 m br
Total Width: 19.9 m Net Width: 18.4 m No. of Lanes: 4
Rail Description: Lt: Type 25, Med: Type 50, Rt: Type 25 Rail Code : 1111
Min. Vertical Clearance: Unimpaired

DESCRIPTION UNDER STRUCTURE

Facility Name	Func Class	Lanes	Horiz Clr (m)	Vert Clr (m)
County Road/ Cape Horn	09	2	9.20	5.03

Channel Description:

CONDITION TEXT

HISTORY

During a deck rehabilitation project that was completed in 2009, the westbound and eastbound lanes were chain sounded with approximately 65% and 50% of the deck containing delaminations respectively. The rehabilitation consisted of removing AC, removing and patching delaminated concrete, methacrylate treatment and a polyester overlay.

A modern concrete barrier was added to replace the concrete ballaster, on both sides of the bridge. The work recommendation has not been removed

CONDITION OF STRUCTURE

The routine inspection conducted September 1, 2010, revealed significant damage and distress to Abutment 4. Cracks initiating from the Abutment ends were suspected to extend into the abutment and continue for the full length across the abutment backwall.

Following that inspection, eight cores were extracted from the Abutment 4 backwall by the District 3 bridge crew. The cores were taken at both the top of the abutment backwall and the bottom (near the grade line). The cores indicated a vertical crack across the

CONDITION TEXT

entire abutment. The crack is located approximately 10-12 inches back from the face of the abutment and has essentially split the the abutment backwall in two pieces transversely.

Currently there have been no signs of settlement or movement as a result of the damage. The slab shows no indication of distress at the interface of Abutment 4 at this time; however, continued monitoring of the abutment will continue during routine inspections and the project for rehabilitation and replacement has been initiated already.

Similar distress at Abutment 1 was noted and previous spalls have been patched as of August 2010.

The deck (which was previously rehabilitated) is again beginning to fail at several locations where previous patches were placed.

Otherwise, there have been no significant changes to this structure since the previous investigation and it remains in fair condition.

LOAD CAPACITY

A Rating Summary was completed based on load rating calculations performed by SMI. This Summary does not include a check of that analysis. This Rating Summary has verified that the physical conditions used in the above referenced analysis have not changed, and the results of that rating are summarized.

MISCELLANEOUS

Replacement of this structure was previously recommended based on the condition of the deck during the 1999 investigation. Continued structure maintenance was chosen instead of structure replacement. The change was made during a peer review between maintenance investigators and maintenance managers. Managers decided that structure replacement was not necessary on several structures along Interstate 80 that were previously recommended for replacement and determined that the lifespan of these structures could be extended with continued maintenance or various alternatives to replacement (such as deck on deck and polyester overlay).

In light of the recently discovered distress and damage to this structure another peer review was conducted between maintenance investigators and managers. Based on the findings listed above the new plan for this structure is to replace the superstructure and damaged abutment as programming bridge replacement is not an option until the project costs are determined.

The consensus at the peer review is that the structure will likely be replaced as the costs are broken down in the project initiation phase. Replacement is determined to be the best engineering and most cost effective alternative for this bridge (see attached PEER REVIEW FACT SHEET dated October 7, 2010, for details of the most recent peer review).

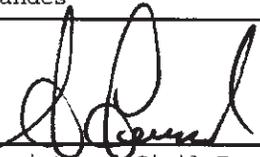
<u>ELEMENT INSPECTION RATINGS</u>										
Elem No.	Element Description	Env	Total		Qty in each Condition State					
			Qty	Units	St. 1	St. 2	St. 3	St. 4	St. 5	
48	Concrete Slab - Protected w/ Rigid Overlay	2	501	sq.m.	501	0	0	0	0	0
205	Reinforced Conc Column or Pile Extension	2	8	ea.	8	0	0	0	0	0

Elem No.	Element Description	Env	Total		Qty in each Condition State				
			Qty	Units	St. 1	St. 2	St. 3	St. 4	St. 5
215	Reinforced Conc Abutment	2	40	m.	20	0	20	0	0
227	Reinforced Conc Submerged Pile	2	1	ea.	1	0	0	0	0
302	Compression Joint Seal	2	40	m.	40	0	0	0	0
321	Reinforced Conc Approach Slab w/ or w/o AC Ovly	2	8	ea.	8	0	0	0	0
331	Reinforced Conc Bridge Railing	2	73	m.	73	0	0	0	0
358	Deck Cracking	2	1	ea.	1	0	0	0	0

WORK RECOMMENDATIONS

RecDate: 10/15/2010 EstCost: \$350,000 Replace Abutment 4.
 Action : Sub-Replace StrTarget: 8 YEARS
 Work By: STRAIN DistTarget:
 Status : INITIATED EA: 2F570

RecDate: 10/15/2010 EstCost: \$1,000,000 Replace the superstructure.
 Action : Super-Replace StrTarget: 8 YEARS
 Work By: STRAIN DistTarget:
 Status : INITIATED EA: 2F570

Inspected By : A.Fernandes


 Anthony Fernandes (Registered Civil Engineer)



STRUCTURE INVENTORY AND APPRAISAL REPORT

***** IDENTIFICATION *****

(1) STATE NAME- CALIFORNIA 069
 (8) STRUCTURE NUMBER 19 0091
 (5) INVENTORY ROUTE (ON/UNDER) - ON 111000800
 (2) HIGHWAY AGENCY DISTRICT 03
 (3) COUNTY CODE 061 (4) PLACE CODE 00000
 (6) FEATURE INTERSECTED- CAPE HORN ROAD
 (7) FACILITY CARRIED- INTERSTATE 80
 (9) LOCATION- 03-PLA-080-36.86
 (11) MILEPOINT/KILOMETERPOINT 36.86
 (12) BASE HIGHWAY NETWORK- PART OF NET 1
 (13) LRS INVENTORY ROUTE & SUBROUTE 000000008002
 (16) LATITUDE 39 DEG 08 MIN 18 SEC
 (17) LONGITUDE 120 DEG 55 MIN 06 SEC
 (98) BORDER BRIDGE STATE CODE % SHARE %
 (99) BORDER BRIDGE STRUCTURE NUMBER

***** STRUCTURE TYPE AND MATERIAL *****

(43) STRUCTURE TYPE MAIN:MATERIAL- CONCRETE CONT
 TYPE- SLAB CODE 201
 (44) STRUCTURE TYPE APPR:MATERIAL- OTHER/NA
 TYPE- OTHER/NA CODE 000
 (45) NUMBER OF SPANS IN MAIN UNIT 3
 (46) NUMBER OF APPROACH SPANS 0
 (107) DECK STRUCTURE TYPE- CIP CONCRETE CODE 1
 (108) WEARING SURFACE / PROTECTIVE SYSTEM:
 A) TYPE OF WEARING SURFACE- OTHER CODE 9
 B) TYPE OF MEMBRANE- OTHER CODE 9
 C) TYPE OF DECK PROTECTION- NONE CODE 0

***** AGE AND SERVICE *****

(27) YEAR BUILT 1958
 (106) YEAR RECONSTRUCTED 0000
 (42) TYPE OF SERVICE: ON- HIGHWAY 1
 UNDER- HIGHWAY W/NO PEDESTF 1
 (28) LANES:ON STRUCTURE 04 UNDER STRUCTURE 02
 (29) AVERAGE DAILY TRAFFIC 29000
 (30) YEAR OF ADT 2004 (109) TRUCK ADT 13 %
 (19) BYPASS, DETOUR LENGTH 13 KM

***** GEOMETRIC DATA *****

(48) LENGTH OF MAXIMUM SPAN 11.0 M
 (49) STRUCTURE LENGTH 27.1 M
 (50) CURB OR SIDEWALK: LEFT 0.5 M RIGHT 0.5 M
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 18.4 M
 (52) DECK WIDTH OUT TO OUT 19.9 M
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 18.6 M
 (33) BRIDGE MEDIAN- CLOSED NON-MOUNTABLE 3
 (34) SKEW 0 DEG (35) STRUCTURE FLARED NO
 (10) INVENTORY ROUTE MIN VERT CLEAR 99.99 M
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 18.4 M
 (53) MIN VERT CLEAR OVER BRIDGE RDWY 99.99 M
 (54) MIN VERT UNDERCLEAR REF- HIGHWAY 5.03 M
 (55) MIN LAT UNDERCLEAR RT REF- HIGHWAY 1.4 M
 (56) MIN LAT UNDERCLEAR LT 0.0 M

***** NAVIGATION DATA *****

(38) NAVIGATION CONTROL- NOT APPLICABLE CODE N
 (111) PIER PROTECTION- CODE
 (39) NAVIGATION VERTICAL CLEARANCE 0.0 M
 (116) VERT-LIFT BRIDGE NAV MIN VERT CLEAR M
 (40) NAVIGATION HORIZONTAL CLEARANCE 0.0 M

SUFFICIENCY RATING = 81.0
 STATUS
 HEALTH INDEX 88.3
 PAINT CONDITION INDEX = N/A

***** CLASSIFICATION *****

CODE
 (112) NBIS BRIDGE LENGTH- YES Y
 (104) HIGHWAY SYSTEM- ROUTE ON NHS 1
 (26) FUNCTIONAL CLASS- INTSTAT PRIN ART RURAL 01
 (100) DEFENSE HIGHWAY- STRAHNET 1
 (101) PARALLEL STRUCTURE- NONE EXISTS N
 (102) DIRECTION OF TRAFFIC- 2 WAY 2
 (103) TEMPORARY STRUCTURE-
 (105) FED.LANDS HWY- NOT APPLICABLE 0
 (110) DESIGNATED NATIONAL NETWORK - PART OF NET 1
 (20) TOLL- ON FREE ROAD 3
 (21) MAINTAIN- STATE HIGHWAY AGENCY 01
 (22) OWNER- STATE HIGHWAY AGENCY 01
 (37) HISTORICAL SIGNIFICANCE- NOT ELIGIBLE 5

***** CONDITION *****

CODE
 (58) DECK 7
 (59) SUPERSTRUCTURE 7
 (60) SUBSTRUCTURE 6
 (61) CHANNEL & CHANNEL PROTECTION N
 (62) CULVERTS N

***** LOAD RATING AND POSTING *****

CODE
 (31) DESIGN LOAD- MS-18 OR HS-20 5
 (63) OPERATING RATING METHOD- LOAD FACTOR 1
 (64) OPERATING RATING- 62.5
 (65) INVENTORY RATING METHOD- LOAD FACTOR 1
 (66) INVENTORY RATING- 37.6
 (70) BRIDGE POSTING- EQUAL TO OR ABOVE LEGAL LOADS 5
 (41) STRUCTURE OPEN, POSTED OR CLOSED- A
 DESCRIPTION- OPEN, NO RESTRICTION

***** APPRAISAL *****

CODE
 (67) STRUCTURAL EVALUATION 6
 (68) DECK GEOMETRY 4
 (69) UNDERCLEARANCES, VERTICAL & HORIZONTAL 4
 (71) WATER ADEQUACY N
 (72) APPROACH ROADWAY ALIGNMENT 7
 (36) TRAFFIC SAFETY FEATURES 1111
 (113) SCOUR CRITICAL BRIDGES N

***** PROPOSED IMPROVEMENTS *****

CODE
 (75) TYPE OF WORK-
 (76) LENGTH OF STRUCTURE IMPROVEMENT M
 (94) BRIDGE IMPROVEMENT COST
 (95) ROADWAY IMPROVEMENT COST
 (96) TOTAL PROJECT COST
 (97) YEAR OF IMPROVEMENT COST ESTIMATE
 (114) FUTURE ADT 48944
 (115) YEAR OF FUTURE ADT 2029

***** INSPECTIONS *****

(90) INSPECTION DATE 06/11 (91) FREQUENCY 24 MO
 (92) CRITICAL FEATURE INSPECTION: (93) CFI DATE
 A) FRACTURE CRIT DETAIL- NO MO A)
 B) UNDERWATER INSP- NO MO B)
 C) OTHER SPECIAL INSP- NO MO C)



DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 19 0112
Facility Carried: CRYSTAL SPRINGS RO
Location : 03-PLA-080-46.31
City :
Inspection Date : 06/30/2011

Bridge Inspection Report

Inspection Type
Routine FC Underwater Special Other

STRUCTURE NAME: CRYSTAL SPRINGS ROAD OC

CONSTRUCTION INFORMATION

Year Built : 1964 Skew (degrees): 0
Year Widened: N/A No. of Joints : 5
Length (m) : 68.3 No. of Hinges : 0

Structure Description: Composite welded steel (5) girder spans with open end seat abutments and RC (2) column bents all on RC piles.

Span Configuration : 15.2m, 2@18.3m, 15.2m

LOAD CAPACITY AND RATINGS

Design Live Load: MS-18 OR HS-20
Inventory Rating: 32.6 metric tonnes Calculation Method: LOAD FACTOR
Operating Rating: 53.5 metric tonnes Calculation Method: LOAD FACTOR
Permit Rating : PPPPP
Posting Load : Type 3: Legal Type 3S2: Legal Type 3-3: Legal

DESCRIPTION ON STRUCTURE

Deck X-Section: 0.25m br, 9.1m, 1.5m sw, 0.25m br
Total Width: 11.3 m Net Width: 9.1 m No. of Lanes: 2
Rail Description: Type 5 & 1 Rail Code : 1000
Min. Vertical Clearance: Unimpaired

DESCRIPTION UNDER STRUCTURE

Facility Name	Func Class	Lanes	Horiz Clr (m)	Vert Clr (m)
INTERSTATE 80	01	4	17.10	5.00

Channel Description:

CONDITION TEXT

CONDITION OF STRUCTURE

The RC barrier rail is broken away along the right side near Abutment 5.

The RC curb on bridge left has heavy freeze thaw damage.

As previously reported, there is a spall in Span 1 Bay 3 measuring approximately 1-m x 0.5-m with exposed reinforcing steel. The deck reinforcement at that location exhibits significant section loss. Span 3 Bay 3 exhibits a similar spall (1-m x 1.5-m) with exposed bar and likely section loss.

As previously reported, the soffit in Span 3 Bay 3 exhibits two spalls measuring approximately 0.5-m x 0.3-m and 1-m x 0.6-m respectively. Reinforcing steel is exposed and areas of impending spalls are present throughout in that span (see work recommendations). The roadway for Interstate 80 travels beneath Span 3.

As previously reported, the soffit in Span 4 near Bent 3 exhibits a 600 X 600 mm spall with 100 mm of exposed reinforcing bar. There is a similar 300 X 300 spall in Span 1. This distress has been previously noted and remains unchanged since the last inspection.

Printed on: Tuesday 07/12/2011 03:39 PM

19 0112/AAAH/21358

CONDITION TEXT

All bearings at Abutment 5 are rotated approximately 20 degrees out of vertical towards Abutment 5. This condition has been previously noted and no change was observed during this inspection.

As previously reported the Abutment 1 back wall exhibits a large horizontal crack starting at the right side and continuing the entire width of the element. The cause of the crack at Abutment 1 is unknown; however, it appears to be the result of movement of the superstructure at the pedestals supporting Girders 4 and 5. The grout pads at those pedestals are not level indicating that they failed as the girders moved during regular expansion and contraction. When the superstructure moved, part of the RC diaphragm at the Abutment 1 end of the span engaged the backwall of the the abutment causing the top of the wall to rotate and subsequently crack. The distress has remained stable since the previous inspection (see archived photos).

Abutment 5 has a similar large crack extending its length. These cracks were previously reported and appear to have remained stable since the previous inspection.

There are large horizontally oriented cracks at each of the wing walls at the abutments. The worst distress is located at Abutment 5 right. There is a large horizontal crack extending the full width of the wing wall. The crack extends diagonally up the curtain wall and becomes a spalled section with a sheared reinforcing bar at the top of the curtain wall. This distress appears to have remained stable since the previous inspection but should continue to be monitored during subsequent inspections.

Otherwise, this structure is in fair condition with no other significant defects noted at this time.

LOAD CAPACITY

The load ratings for this structure are currently under review. This structure currently has an assigned rating.

MISCELLANEOUS

Replacement of this structure was previously recommended based on the condition of the deck during the 1999 investigation. Continued structure maintenance has been chosen instead of structure replacement. The change was made during a peer review between maintenance investigators and maintenance managers. Managers decided that structure replacement was not necessary on several structures along Interstate 80 that were previously recommended for replacement and determined that the lifespan of these structures could be extended with continued maintenance or various alternatives to replacement (such as deck on deck and polyester overlay).

ELEMENT INSPECTION RATINGS

Elem No.	Element Description	Env	Total		Qty in each Condition State				
			Qty	Units	St. 1	St. 2	St. 3	St. 4	St. 5
13	Concrete Deck - Unprotected w/ AC Overlay	3	770	sq.m.	0	0	770	0	0
107	Painted Steel Open Girder/Beam	2	341	m.	323	0	18	0	0
205	Reinforced Conc Column or Pile Extension	2	6	ea.	6	0	0	0	0
215	Reinforced Conc Abutment	2	24	m.	0	0	24	0	0
227	Reinforced Conc Submerged Pile	2	1	ea.	1	0	0	0	0

Elem No.	Element Description	Env	Total		Qty in each Condition State				
			Qty	Units	St. 1	St. 2	St. 3	St. 4	St. 5
234	Reinforced Conc Cap	2	36	m.	36	0	0	0	0
301	Pourable Joint Seal	3	20	m.	20	0	0	0	0
311	Moveable Bearing (roller, sliding, etc.)	2	20	ea.	0	20	0	0	0
313	Fixed Bearing	2	20	ea.	0	20	0	0	0
333	Other Bridge Railing	3	137	m.	135	0	2	0	0
359	Soffit of Concrete Deck or Slab	2	1	ea.	0	0	0	1	0

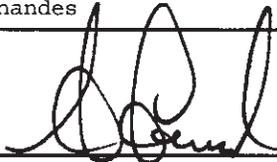
WORK RECOMMENDATIONS

RecDate: 06/08/2010 EstCost: \$7,800 Remove unsound concrete along the soffit
 Action : Super-Patch spalls StrTarget: 6 MONTHS in all bays as necessary. Pay particular
 Work By: BRIDGE CREW DistTarget: attention to Spans 2 and 3 over I-80
 Status : INITIATED EA: 2F570 traffic lanes.

RecDate: 11/28/2007 EstCost: \$907,060 Replace the bridge deck.
 Action : Deck-Replace StrTarget: 2 YEARS
 Work By: STRAIN DistTarget:
 Status : INITIATED EA: 2F570

RecDate: 07/01/2001 EstCost: \$385,000 Non-ductile columns. Priority 4. Final
 Action : Seismic-Retrofit StrTarget: 2 YEARS Score 0.24.
 Work By: STRAIN DistTarget:
 Status : INITIATED EA: 2F570

Inspected By : A.Fernandes



Anthony Fernandes (Registered Civil Engineer)



STRUCTURE INVENTORY AND APPRAISAL REPORT

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***** IDENTIFICATION *****
(1) STATE NAME- CALIFORNIA 069
(8) STRUCTURE NUMBER 19 0112
(5) INVENTORY ROUTE (ON/UNDER)- UNDER 211000800
(2) HIGHWAY AGENCY DISTRICT 03
(3) COUNTY CODE 061 (4) PLACE CODE 00000
(6) FEATURE INTERSECTED- ROUTE 80
(7) FACILITY CARRIED- CRYSTAL SPRINGS RO
(9) LOCATION- 03-PLA-080-46.31
(11) MILEPOINT/KILOMETERPOINT 46.31
(12) BASE HIGHWAY NETWORK- PART OF NET 1
(13) LRS INVENTORY ROUTE & SUBROUTE 000000008001
(16) LATITUDE 39 DEG 12 MIN 36 SEC
(17) LONGITUDE 120 DEG 47 MIN 06 SEC
(98) BORDER BRIDGE STATE CODE % SHARE %
(99) BORDER BRIDGE STRUCTURE NUMBER

***** STRUCTURE TYPE AND MATERIAL *****
(43) STRUCTURE TYPE MAIN:MATERIAL- STEEL
TYPE- STRINGER/MULTI-BEAM OR GDR CODE 302
(44) STRUCTURE TYPE APPR:MATERIAL- OTHER/NA
TYPE- OTHER/NA CODE 000
(45) NUMBER OF SPANS IN MAIN UNIT 4
(46) NUMBER OF APPROACH SPANS 0
(107) DECK STRUCTURE TYPE- CIP CONCRETE CODE 1
(108) WEARING SURFACE / PROTECTIVE SYSTEM:
A) TYPE OF WEARING SURFACE- BITUMINOUS CODE 6
B) TYPE OF MEMBRANE- NONE CODE 0
C) TYPE OF DECK PROTECTION- NONE CODE 0

***** AGE AND SERVICE *****
(27) YEAR BUILT 1964
(106) YEAR RECONSTRUCTED 0000
(42) TYPE OF SERVICE: ON- HIGHWAY-PEDESTRIAN 5
UNDER- HIGHWAY W/WO PEDESTF 1
(28) LANES:ON STRUCTURE 02 UNDER STRUCTURE 04
(29) AVERAGE DAILY TRAFFIC 29000
(30) YEAR OF ADT 2008 (109) TRUCK ADT 16 %
(19) BYPASS, DETOUR LENGTH 0 KM

***** GEOMETRIC DATA *****
(48) LENGTH OF MAXIMUM SPAN 18.3 M
(49) STRUCTURE LENGTH 68.3 M
(50) CURB OR SIDEWALK: LEFT 0.0 M RIGHT 1.5 M
(51) BRIDGE ROADWAY WIDTH CURB TO CURB 9.1 M
(52) DECK WIDTH OUT TO OUT 11.3 M
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 9.1 M
(33) BRIDGE MEDIAN- NO MEDIAN 0
(34) SKEW 0 DEG (35) STRUCTURE FLARED NO
(10) INVENTORY ROUTE MIN VERT CLEAR 5.00 M
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR 17.1 M
(53) MIN VERT CLEAR OVER BRIDGE RDWY 99.99 M
(54) MIN VERT UNDERCLEAR REF- HIGHWAY 5.00 M
(55) MIN LAT UNDERCLEAR RT REF- HIGHWAY 7.3 M
(56) MIN LAT UNDERCLEAR LT 2.6 M

***** NAVIGATION DATA *****
(38) NAVIGATION CONTROL- NOT APPLICABLE CODE N
(111) PIER PROTECTION- CODE
(39) NAVIGATION VERTICAL CLEARANCE 0.0 M
(116) VERT-LIFT BRIDGE NAV MIN VERT CLEAR M
(40) NAVIGATION HORIZONTAL CLEARANCE 0.0 M
    
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***** SUFFICIENCY RATING = 80.9
STATUS STRUCTURALLY DEFICIENT
HEALTH INDEX 79.5
PAINT CONDITION INDEX = 97.4

***** CLASSIFICATION ***** CODE
(112) NBIS BRIDGE LENGTH- YES Y
(104) HIGHWAY SYSTEM- ROUTE ON NHS 1
(26) FUNCTIONAL CLASS- INTSTAT PRIN ART RURAL 01
(100) DEFENSE HIGHWAY- STRAHNET 1
(101) PARALLEL STRUCTURE- NONE EXISTS N
(102) DIRECTION OF TRAFFIC- 2 WAY 2
(103) TEMPORARY STRUCTURE-
(105) FED.LANDS HWY- NOT APPLICABLE 0
(110) DESIGNATED NATIONAL NETWORK - PART OF NET 1
(20) TOLL- ON FREE ROAD 3
(21) MAINTAIN- STATE HIGHWAY AGENCY 01
(22) OWNER- STATE HIGHWAY AGENCY 01
(37) HISTORICAL SIGNIFICANCE- NOT ELIGIBLE 5

***** CONDITION ***** CODE
(58) DECK 2
(59) SUPERSTRUCTURE 6
(60) SUBSTRUCTURE 5
(61) CHANNEL & CHANNEL PROTECTION N
(62) CULVERTS N

***** LOAD RATING AND POSTING ***** CODE
(31) DESIGN LOAD- MS-18 OR HS-20 5
(63) OPERATING RATING METHOD- LOAD FACTOR 1
(64) OPERATING RATING- 53.5
(65) INVENTORY RATING METHOD- LOAD FACTOR 1
(66) INVENTORY RATING- 32.6
(70) BRIDGE POSTING- EQUAL TO OR ABOVE LEGAL LOADS 5
(41) STRUCTURE OPEN, POSTED OR CLOSED- A
DESCRIPTION- OPEN, NO RESTRICTION

***** APPRAISAL ***** CODE
(67) STRUCTURAL EVALUATION 5
(68) DECK GEOMETRY 6
(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL 5
(71) WATER ADEQUACY N
(72) APPROACH ROADWAY ALIGNMENT 6
(36) TRAFFIC SAFETY FEATURES 1000
(113) SCOUR CRITICAL BRIDGES N

***** PROPOSED IMPROVEMENTS *****
(75) TYPE OF WORK- CODE
(76) LENGTH OF STRUCTURE IMPROVEMENT M
(94) BRIDGE IMPROVEMENT COST
(95) ROADWAY IMPROVEMENT COST
(96) TOTAL PROJECT COST
(97) YEAR OF IMPROVEMENT COST ESTIMATE
(114) FUTURE ADT 35300
(115) YEAR OF FUTURE ADT 2029

***** INSPECTIONS *****
(90) INSPECTION DATE 06/11 (91) FREQUENCY 24 MO
(92) CRITICAL FEATURE INSPECTION: (93) CFI DATE
A) FRACTURE CRIT DETAIL- NO MO A)
B) UNDERWATER INSP- NO MO B)
C) OTHER SPECIAL INSP- NO MC C)
    
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DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 19 0113
Facility Carried: BAXTER OC
Location : 03-PLA-080-46.94
City :
Inspection Date : 06/30/2011

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: BAXTER OC

CONSTRUCTION INFORMATION

Year Built : 1961	Skew (degrees): 0
Year Widened: N/A	No. of Joints : 2
Length (m) : 52.7	No. of Hinges : 0

Structure Description: Continuous RC (5) girder spans with RC (2) column bents, bent 2 on spread footings, bents 3 & 4 on concrete piles. RC cantilever abutment no. 1 on spread footings; RC open end seat abutment no. 5 on concrete piles. (Abutments & bents numbered from N to S, opposite to plans.)

Span Configuration : 11.0m, 2@14.6m, 11.0m

LOAD CAPACITY AND RATINGS

Design Live Load: MS-18 OR HS-20		
Inventory Rating: 40.2 metric tonnes	Calculation Method: LOAD FACTOR	
Operating Rating: 67.1 metric tonnes	Calculation Method: LOAD FACTOR	
Permit Rating : P P P P P		
Posting Load : Type 3: <u>Legal</u>	Type 3S2: <u>Legal</u>	Type 3-3: <u>Legal</u>

DESCRIPTION ON STRUCTURE

Deck X-Section: 0.6m cu, 8.5m, 1.6m sw		
Total Width: 10.6 m	Net Width: 8.5 m	No. of Lanes: 2
Rail Description: steel ballaster		Rail Code : 0000
Min. Vertical Clearance: Unimpaired		

DESCRIPTION UNDER STRUCTURE

Facility Name	Func Class	Lanes	Horiz Clr (m)	Vert Clr (m)
INTERSTATE 80	01	4	13.90	5.25

Channel Description:

CONDITION TEXT

HISTORY

This structure has a history of deck/soffit distress. Records indicate the distress dates back as far as 1966. Deck repairs were initiated in 1968 consisting of removal of all delaminated concrete on the top of the deck, patching existing spalls with epoxy concrete, treating the entire deck surface with an epoxy seal. Asphalt concrete was then added to the deck surface. Deck restoration was recommended in 1989. Cores of the deck and soffit were recommended in 1991 and by 1992 bridge reports indicate that high levels of chloride were present in the core samples (no actual numbers were reported). EA-377801 was initiated, most likely by the recommendation in 1989, but was postponed in 1992 according to the bridge report from that date. According to our records no deck rehabilitation work has been completed since 1968.

Replacement of this structure was previously recommended based on the condition of the deck during the 1999 investigation. Continued structure maintenance has been chosen instead of structure replacement.

CONDITION TEXT

The change was made during a peer review between maintenance investigators and maintenance managers. Managers decided that structure replacement was not necessary on several structures along Interstate 80 that were previously recommended for replacement and determined that the lifespan of these structures could be extended with continued maintenance or various alternatives to replacement (such as deck on deck and polyester overlay).

ACCESS LIMITATIONS

Traffic constraints prevented the verification of clearances below this structure.

CONDITION OF STRUCTURE

As previously reported the RC curb on bridge right is suffering from heavy freeze thaw damage. Exposed reinforcing steel persists.

The Abutment 1 joint seal and header exhibits a 1-m x 0.4-m spall at the left wheel line on the northbound lane. A similar spall exists at the other joint header with exposed reinforcement.

The AC overlay on this structure prevents a complete deck inspection. The overall condition of the soffit/deck has deteriorated since the previous inspection and will continue to deteriorate at an advanced rate within this environment.

There is a moderate amount of efflorescence throughout the soffit, particularly near Abutment 5, where leaching and scaling were noted. This condition has been previously reported and appears to have advanced since the last inspection. It should be noted that similar design structures along this route have exhibited significant soffit and deck distress.

The Abutment 1 concrete backwall exhibits an unsound area approximately 4-m square near the center of the abutment. This area has deteriorated since the 2007 inspection.

There is a horizontal moderate size (<3-mm) running along the top of the Abutment 1 face for a length of approximately 5-m. This condition has been previously reported and has remained stable since the last routine inspection.

The Abutment 5 diaphragm exhibits moderate efflorescence with light cracking at the center portion of the abutment.

No other changes were noted during this investigation, and the structure remains in fair condition.

<u>ELEMENT INSPECTION RATINGS</u>									
Elem No.	Element Description	Env	Total		Qty in each Condition State				
			Qty	Units	St. 1	St. 2	St. 3	St. 4	St. 5
14	Concrete Deck - Protected w/ AC Overlay	3	560	sq.m.	0	560	0	0	0
110	Reinforced Conc Open Girder/Beam	2	264	m.	239	25	0	0	0
205	Reinforced Conc Column or Pile	2	6	ea.	6	0	0	0	0

STRUCTURE INVENTORY AND APPRAISAL REPORT

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***** IDENTIFICATION *****
(1) STATE NAME- CALIFORNIA                069
(8) STRUCTURE NUMBER                      19 0113
(5) INVENTORY ROUTE (ON/UNDER)- UNDER 211000800
(2) HIGHWAY AGENCY DISTRICT              03
(3) COUNTY CODE 061 (4) PLACE CODE 00000
(6) FEATURE INTERSECTED- ROUTE 80
(7) FACILITY CARRIED- BAXTER OC
(9) LOCATION- 03-PLA-080-46.94
(11) MILEPOINT/KILOMETERPOINT 46.94
(12) BASE HIGHWAY NETWORK- PART OF NET 1
(13) LRS INVENTORY ROUTE & SUBROUTE 00000008001
(16) LATITUDE 39 DEG 12 MIN 54 SEC
(17) LONGITUDE 120 DEG 46 MIN 30 SEC
(98) BORDER BRIDGE STATE CODE % SHARE %
(99) BORDER BRIDGE STRUCTURE NUMBER

***** STRUCTURE TYPE AND MATERIAL *****
(43) STRUCTURE TYPE MAIN:MATERIAL- CONCRETE CONT
      TYPE- TEE BEAM CODE 204
(44) STRUCTURE TYPE APPR:MATERIAL- OTHER/NA
      TYPE- OTHER/NA CODE 000
(45) NUMBER OF SPANS IN MAIN UNIT 4
(46) NUMBER OF APPROACH SPANS 0
(107) DECK STRUCTURE TYPE- CIP CONCRETE CODE 1
(108) WEARING SURFACE / PROTECTIVE SYSTEM:
      A) TYPE OF WEARING SURFACE- BITUMINOUS CODE 6
      B) TYPE OF MEMBRANE- EPOXY CODE 3
      C) TYPE OF DECK PROTECTION- NONE CODE 0

***** AGE AND SERVICE *****
(27) YEAR BUILT 1961
(106) YEAR RECONSTRUCTED 0000
(42) TYPE OF SERVICE: ON- HIGHWAY-PEDESTRIAN 5
      UNDER- HIGHWAY W/NO PEDESTF 1
(28) LANES:ON STRUCTURE 02 UNDER STRUCTURE 04
(29) AVERAGE DAILY TRAFFIC 26500
(30) YEAR OF ADT 2002 (109) TRUCK ADT 16 %
(19) BYPASS, DETOUR LENGTH 0 KM

***** GEOMETRIC DATA *****
(48) LENGTH OF MAXIMUM SPAN 14.6 M
(49) STRUCTURE LENGTH 52.7 M
(50) CURB OR SIDEWALK: LEFT 0.6 M RIGHT 1.6 M
(51) BRIDGE ROADWAY WIDTH CURB TO CURB 8.5 M
(52) DECK WIDTH OUT TO OUT 10.6 M
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 8.5 M
(33) BRIDGE MEDIAN- NO MEDIAN 0
(34) SKEW 0 DEG (35) STRUCTURE FLARED NO
(10) INVENTORY ROUTE MIN VERT CLEAR 5.25 M
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR 13.9 M
(53) MIN VERT CLEAR OVER BRIDGE RDWY 99.99 M
(54) MIN VERT UNDERCLEAR REF- HIGHWAY 5.25 M
(55) MIN LAT UNDERCLEAR RT REF- HIGHWAY 3.6 M
(56) MIN LAT UNDERCLEAR LT 2.4 M

***** NAVIGATION DATA *****
(38) NAVIGATION CONTROL- NOT APPLICABLE CODE N
(111) PIER PROTECTION- CODE
(39) NAVIGATION VERTICAL CLEARANCE 0.0 M
(116) VERT-LIFT BRIDGE NAV MIN VERT CLEAR M
(40) NAVIGATION HORIZONTAL CLEARANCE 0.0 M

***** SUFFICIENCY RATING = 89.8
STATUS STRUCTURALLY DEFICIENT
HEALTH INDEX 92.2
PAINT CONDITION INDEX = N/A

***** CLASSIFICATION ***** CODE
(112) NBIS BRIDGE LENGTH- YES Y
(104) HIGHWAY SYSTEM- ROUTE ON NHS 1
(26) FUNCTIONAL CLASS- INTSTAT PRIN ART RURAL 01
(100) DEFENSE HIGHWAY- STRAHNET 1
(101) PARALLEL STRUCTURE- NONE EXISTS N
(102) DIRECTION OF TRAFFIC- 2 WAY 2
(103) TEMPORARY STRUCTURE-
(105) FED.LANDS HWY- NOT APPLICABLE 0
(110) DESIGNATED NATIONAL NETWORK - PART OF NET 1
(20) TOLL- ON FREE ROAD 3
(21) MAINTAIN- STATE HIGHWAY AGENCY 01
(22) OWNER- STATE HIGHWAY AGENCY 01
(37) HISTORICAL SIGNIFICANCE- NOT ELIGIBLE 5

***** CONDITION ***** CODE
(58) DECK 3
(59) SUPERSTRUCTURE 6
(60) SUBSTRUCTURE 7
(61) CHANNEL & CHANNEL PROTECTION N
(62) CULVERTS N

***** LOAD RATING AND POSTING ***** CODE
(31) DESIGN LOAD- MS-18 OR HS-20 5
(63) OPERATING RATING METHOD- LOAD FACTOR 1
(64) OPERATING RATING- 67.1
(65) INVENTORY RATING METHOD- LOAD FACTOR 1
(66) INVENTORY RATING- 40.2
(70) BRIDGE POSTING- EQUAL TO OR ABOVE LEGAL LOADS 5
(41) STRUCTURE OPEN, POSTED OR CLOSED- A
      DESCRIPTION- OPEN, NO RESTRICTION

***** APPRAISAL ***** CODE
(67) STRUCTURAL EVALUATION 6
(68) DECK GEOMETRY 5
(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL 5
(71) WATER ADEQUACY N
(72) APPROACH ROADWAY ALIGNMENT 6
(36) TRAFFIC SAFETY FEATURES 0000
(113) SCOUR CRITICAL BRIDGES N

***** PROPOSED IMPROVEMENTS *****
(75) TYPE OF WORK- CODE
(76) LENGTH OF STRUCTURE IMPROVEMENT M
(94) BRIDGE IMPROVEMENT COST
(95) ROADWAY IMPROVEMENT COST
(96) TOTAL PROJECT COST
(97) YEAR OF IMPROVEMENT COST ESTIMATE
(114) FUTURE ADT 35300
(115) YEAR OF FUTURE ADT 2029

***** INSPECTIONS *****
(90) INSPECTION DATE 06/11 (91) FREQUENCY 24 MO
(92) CRITICAL FEATURE INSPECTION: (93) CFI DATE
      A) FRACTURE CRIT DETAIL- NO MO A)
      B) UNDERWATER INSP- NO MO B)
      C) OTHER SPECIAL INSP NO MO C)

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DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 19 0114
Facility Carried: DRUM FOREBAY OC
Location : 03-PLA-080-49
City :
Inspection Date : 06/30/2011

Bridge Inspection Report

Inspection Type

Routine FC Underwater Special Other

STRUCTURE NAME: DRUM FOREBAY OC

CONSTRUCTION INFORMATION

Year Built : 1960 Skew (degrees): 0
Year Widened: N/A No. of Joints : 2
Length (m) : 52.7 No. of Hinges : 0

Structure Description: Continuous RC (5) T-girder spans with RC (2) column bents on spread footings. RC open end seat abutments on concrete piles.

Span Configuration : 11.5m, 2@14.6m, 16.6m

LOAD CAPACITY AND RATINGS

Design Live Load: MS-18 OR HS-20
Inventory Rating: 40.8 metric tonnes Calculation Method: LOAD FACTOR
Operating Rating: 69 metric tonnes Calculation Method: LOAD FACTOR
Permit Rating : P P P P P
Posting Load : Type 3: Legal Type 3S2: Legal Type 3-3: Legal

DESCRIPTION ON STRUCTURE

Deck X-Section: .1m, 9.1m, 1.5m sw
Total Width: 11.4 m Net Width: 9.1 m No. of Lanes: 2
Rail Description: Type 1 & 5 (5' sidewalk) Rail Code : 0000
Min. Vertical Clearance: Unimpaired

DESCRIPTION UNDER STRUCTURE

Facility Name	Func Class	Lanes	Horiz Clr (m)	Vert Clr (m)
INTERSTATE 80	01	4	13.20	5.28

Channel Description:

CONDITION TEXT

HISTORY

This structure has a history of deck/soffit distress. Records indicate the distress dates back as far as 1970. Cores of the deck were recommended in 1991 and by 1992 results of those cores showed levels of chloride at 10 pounds per cubic yard at 1-2 inches depth. The high chloride levels prompted a recommendation for deck replacement/rehabilitation in 1993. The recommendation was subsequently dropped from the priority list and the rehabilitation was postponed in 1995.

Replacement of this structure was previously recommended based on the condition of the deck during the 1999 investigation. Continued structure maintenance has been chosen instead of structure replacement. The change was made during a peer review between maintenance investigators and maintenance managers. Managers decided that structure replacement was not necessary on several structures along Interstate 80 that were previously recommended for replacement and determined that the lifespan of these structures could be extended with continued maintenance or various alternatives to replacement (such as deck on deck and/or polyester overlay).

As of June 8, 2010, discussions regarding the maintenance of this structure continue. A new peer review is still pending and the decisions of management are not available at

CONDITION TEXT

this time. Recommendations for this structure will not be updated or changed until those discussions and decisions are complete.

CONDITION OF STRUCTURE

Freeze thaw distress continues to be prevalent throughout the curb and sidewalk.

The deck is acting as the top flange of the girders based on the T-beam design. The girders are thus downgraded in the element condition table of this report because of the condition of the deck.

The condition of the soffit is indicative of advanced deterioration of the deck including the reinforcing steel. Efflorescence with staining and leaching is present throughout most of the structure. Delaminations are prevalent in areas that could be accessed and are likely present throughout the soffit based on the history of this structure. The overall condition of the soffit/deck has significantly deteriorated since the 2007 inspection and will continue to deteriorate at an advanced rate within this environment.

There is a 1-m x 1-m spall (see archived photos) with exposed reinforcement in Span 4 Bay 2 that is indicative of the condition of the entire soffit. Section loss in the exposed reinforcement could not be determined but is estimated between 5%-15% based on what could be visually inspected. Delamination is prevalent around the spall and based on a visual inspection of the rest of the soffit, the entire deck is likely deteriorated. Cracks and similar distress is evident throughout.

There are light to medium size horizontal cracks (<3-mm) in Girder 3 near Abutment 5. The cracks vary in length from short to approximately 0.8-m and have remained stable since the previous inspection. These cracks should continue to be monitored during subsequent inspections.

There is a medium size crack in the end diaphragm at Abutment 5 between Girders 3 and 4 (see archived photo). Similar cracks are present at the Abutment 1 end diaphragm between Girders 2 and 3. Delamination is prevalent along the end diaphragms where the cracks are present.

The pedestal at Girder 3 at Abutment 1 exhibits cracks in the cover concrete both vertically and horizontally. The cracks vary in size and length but are generally around 2-3 mm in width and approximately 0.3-m long (see work recommendations).

Otherwise, no other defects were noted and the structure remains in satisfactory condition.

ELEMENT INSPECTION RATINGS

Elem No.	Element Description	Env	Total Qty Units	Qty in each Condition State				
				St. 1	St. 2	St. 3	St. 4	St. 5
14	Concrete Deck - Protected w/ AC Overlay	3	600 sq.m.	0	0	0	600	0
110	Reinforced Conc Open Girder/Beam	2	264 m.	0	0	264	0	0
205	Reinforced Conc Column or Pile Extension	2	6 ea.	6	0	0	0	0
215	Reinforced Conc Abutment	2	20 m.	20	0	0	0	0
227	Reinforced Conc Submerged Pile	2	1 ea.	1	0	0	0	0
234	Reinforced Conc Cap	2	30 m.	0	30	0	0	0
301	Pourable Joint Seal	3	18 m.	0	0	18	0	0

Elem No.	Element Description	Env	Total		Qty in each Condition State				
			Qty	Units	St. 1	St. 2	St. 3	St. 4	St. 5
311	Moveable Bearing (roller, sliding, etc.)	2	10	ea.	10	0	0	0	0
333	Other Bridge Railing	3	117	m.	117	0	0	0	0
359	Soffit of Concrete Deck or Slab	2	1	ea.	0	0	0	0	1

WORK RECOMMENDATIONS

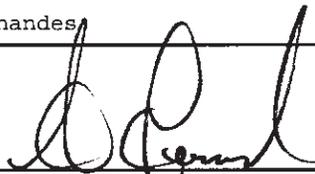
RecDate: 06/30/2011 EstCost: \$500 Repair cracked pedestal below Girder 3 at
Action : Sub-Misc. StrTarget: 2 YEARS Abutment 1.
Work By: BRIDGE CREW DistTarget:
Status : PROPOSED EA:

RecDate: 07/01/2001 EstCost: \$1,980 REPLACE TYPE A JOINT SEALS.
Action : Joints-Replace StrTarget: 2 YEARS
Work By: MAINT. CONTRACT DistTarget:
Status : INITIATED EA: 2F570

RecDate: 07/01/1984 EstCost: \$479,200 The original recommendation made in 1984
Action : Deck-Rehab StrTarget: 2 YEARS has been modified to placement of a deck
Work By: MAINT. CONTRACT DistTarget: on deck with a polyester overlay. The
Status : INITIATED EA: 2F570 change was made as a result of a peer
Investigation.

RecDate: 02/10/1984 EstCost: \$211,560 F1-00 / F2-6 / F3-5 / Rail Type-TYPE 5
Action : Railing-Upgrade StrTarget: 2 YEARS
Work By: STRAIN DistTarget:
Status : INITIATED EA: 2F570

Inspected By : A. Fernandes



Anthony Fernandes (Registered Civil Engineer)



STRUCTURE INVENTORY AND APPRAISAL REPORT

***** IDENTIFICATION *****

(1) STATE NAME- CALIFORNIA 069
 (8) STRUCTURE NUMBER 19 0114
 (5) INVENTORY ROUTE (ON/UNDER)- UNDER 211000800
 (2) HIGHWAY AGENCY DISTRICT 03
 (3) COUNTY CODE 061 (4) PLACE CODE 00000
 (6) FEATURE INTERSECTED- ROUTE 80
 (7) FACILITY CARRIED- DRUM FOREBAY OC
 (9) LOCATION- 03-PLA-080-49
 (11) MILEPOINT/KILOMETERPOINT 49
 (12) BASE HIGHWAY NETWORK- PART OF NET 1
 (13) LRS INVENTORY ROUTE & SUBROUTE 00000008001
 (16) LATITUDE 39 DEG 14 MIN 12 SEC
 (17) LONGITUDE 120 DEG 45 MIN 06 SEC
 (98) BORDER BRIDGE STATE CODE % SHARE %
 (99) BORDER BRIDGE STRUCTURE NUMBER

***** STRUCTURE TYPE AND MATERIAL *****

(43) STRUCTURE TYPE MAIN:MATERIAL- CONCRETE CONT
 TYPE- TEE BEAM CODE 204
 (44) STRUCTURE TYPE APPR:MATERIAL- OTHER/NA
 TYPE- OTHER/NA CODE 000
 (45) NUMBER OF SPANS IN MAIN UNIT 4
 (46) NUMBER OF APPROACH SPANS 0
 (107) DECK STRUCTURE TYPE- CIP CONCRETE CODE 1
 (108) WEARING SURFACE / PROTECTIVE SYSTEM:
 A) TYPE OF WEARING SURFACE- BITUMINOUS CODE 6
 B) TYPE OF MEMBRANE- NONE CODE 0
 C) TYPE OF DECK PROTECTION- EPOXY CT REINF CODE 1

***** AGE AND SERVICE *****

(27) YEAR BUILT 1960
 (106) YEAR RECONSTRUCTED 0000
 (42) TYPE OF SERVICE: ON- HIGHWAY-PEDESTRIAN 5
 UNDER- HIGHWAY W/NO PEDESTF 1
 (28) LANES:ON STRUCTURE 02 UNDER STRUCTURE 04
 (29) AVERAGE DAILY TRAFFIC 26500
 (30) YEAR OF ADT 2004 (109) TRUCK ADT 15 %
 (19) BYPASS, DETOUR LENGTH 0 KM

***** GEOMETRIC DATA *****

(48) LENGTH OF MAXIMUM SPAN 14.6 M
 (49) STRUCTURE LENGTH 52.7 M
 (50) CURB OR SIDEWALK: LEFT 0.1 M RIGHT 1.5 M
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 9.1 M
 (52) DECK WIDTH OUT TO OUT 11.4 M
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 5.5 M
 (33) BRIDGE MEDIAN- NO MEDIAN 0
 (34) SKEW 0 DEG (35) STRUCTURE FLARED NO
 (10) INVENTORY ROUTE MIN VERT CLEAR 5.28 M
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 13.2 M
 (53) MIN VERT CLEAR OVER BRIDGE RDWY 99.99 M
 (54) MIN VERT UNDERCLEAR REF- HIGHWAY 5.28 M
 (55) MIN LAT UNDERCLEAR RT REF- HIGHWAY 3.5 M
 (56) MIN LAT UNDERCLEAR LT 2.4 M

***** NAVIGATION DATA *****

(38) NAVIGATION CONTROL- NOT APPLICABLE CODE N
 (111) PIER PROTECTION- CODE
 (39) NAVIGATION VERTICAL CLEARANCE 0.0 M
 (116) VERT-LIFT BRIDGE NAV MIN VERT CLEAR M
 (40) NAVIGATION HORIZONTAL CLEARANCE 0.0 M

***** SUFFICIENCY RATING *****

SUFFICIENCY RATING = 49.5
 STATUS STRUCTURALLY DEFICIENT
 HEALTH INDEX 53.5
 PAINT CONDITION INDEX = N/A

***** CLASSIFICATION ***** CODE

(112) NBIS BRIDGE LENGTH- YES Y
 (104) HIGHWAY SYSTEM- ROUTE ON NHS 1
 (26) FUNCTIONAL CLASS- INTSTAT PRIN ART RURAL 01
 (100) DEFENSE HIGHWAY- STRAHNET 1
 (101) PARALLEL STRUCTURE- NONE EXISTS N
 (102) DIRECTION OF TRAFFIC- 2 WAY 2
 (103) TEMPORARY STRUCTURE-
 (105) FED.LANDS HWY- NOT APPLICABLE 0
 (110) DESIGNATED NATIONAL NETWORK - PART OF NET 1
 (20) TOLL- ON FREE ROAD 3
 (21) MAINTAIN- STATE HIGHWAY AGENCY 01
 (22) OWNER- STATE HIGHWAY AGENCY 01
 (37) HISTORICAL SIGNIFICANCE- NOT ELIGIBLE 5

***** CONDITION ***** CODE

(58) DECK 1
 (59) SUPERSTRUCTURE 3
 (60) SUBSTRUCTURE 7
 (61) CHANNEL & CHANNEL PROTECTION N
 (62) CULVERTS N

***** LOAD RATING AND POSTING ***** CODE

(31) DESIGN LOAD- MS-18 OR HS-20 5
 (63) OPERATING RATING METHOD- LOAD FACTOR 1
 (64) OPERATING RATING- 69
 (65) INVENTORY RATING METHOD- LOAD FACTOR 1
 (66) INVENTORY RATING- 40.8
 (70) BRIDGE POSTING- EQUAL TO OR ABOVE LEGAL LOADS 5
 (41) STRUCTURE OPEN, POSTED OR CLOSED- A
 DESCRIPTION- OPEN, NO RESTRICTION

***** APPRAISAL ***** CODE

(67) STRUCTURAL EVALUATION 3
 (68) DECK GEOMETRY 6
 (69) UNDERCLEARANCES, VERTICAL & HORIZONTAL 5
 (71) WATER ADEQUACY N
 (72) APPROACH ROADWAY ALIGNMENT 6
 (36) TRAFFIC SAFETY FEATURES 0000
 (113) SCOUR CRITICAL BRIDGES N

***** PROPOSED IMPROVEMENTS *****

(75) TYPE OF WORK- REPLACE FOR DEFICIENC CODE 31
 (76) LENGTH OF STRUCTURE IMPROVEMENT 52.7 M
 (94) BRIDGE IMPROVEMENT COST \$1,377,700
 (95) ROADWAY IMPROVEMENT COST \$275,540
 (96) TOTAL PROJECT COST \$2,314,536
 (97) YEAR OF IMPROVEMENT COST ESTIMATE 2010
 (114) FUTURE ADT 32000
 (115) YEAR OF FUTURE ADT 2029

***** INSPECTIONS *****

(90) INSPECTION DATE 06/11 (91) FREQUENCY 24 MO
 (92) CRITICAL FEATURE INSPECTION: (93) CFI DATE
 A) FRACTURE CRIT DETAIL- NO MO A)
 B) UNDERWATER INSP- NO MO B)
 C) OTHER SPECIAL INSP- NO MO C)



DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 17 0023L
Facility Carried: I 80 WB
Location : 03-NEV-080-R59.44
City :
Inspection Date : 08/18/2010

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: YUBA PASS SOH

CONSTRUCTION INFORMATION

Year Built : 1963	Skew (degrees): 0
Year Widened: N/A	No. of Joints : 5
Length (m) : 157	No. of Hinges : 2

Structure Description: RC deck on simple span and continuous composite welded steel girders (4) on RC cantilever abutments and RC column (2) bents, all on spread footings. The girders were strengthened with bolted cover plates and post-tensioning tendons in 1986 as part of the deck-on-deck overlay constructed that is 4 to 7 inches thick with a 2.5" clearance to the epoxy coated rebar.

Span Configuration : 1 @ 24.69 m, 1 @ 50.6 m, 1 @ 30.18 m, 1 @ 50.29 m

LOAD CAPACITY AND RATINGS

Design Live Load: MS-18+MOD OR HS-20+MOD	
Inventory Rating: 32.4 metric tonnes	Calculation Method: NO RATING ANALYSIS
Operating Rating: 54.1 metric tonnes	Calculation Method: NO RATING ANALYSIS
Permit Rating : P P P P P	
Posting Load : Type 3: <u>Legal</u>	Type 3S2: <u>Legal</u> Type 3-3: <u>Legal</u>

DESCRIPTION ON STRUCTURE

Deck X-Section: 0.53 m br, 15.34 m, 0.53 m br		
Total Width: 16.4 m	Net Width: 15.3 m	No. of Lanes: 2
Rail Description: Type 25		Rail Code : 1111
Min. Vertical Clearance: Unimpaired		

DESCRIPTION UNDER STRUCTURE

Facility Name	Func Class	Lanes	Horiz Clr (m)	Vert Clr (m)
SR 20	06	2	12.70	7.82

Channel Description: This structure is not over water.

CONDITION TEXT

HISTORY

The original bridge deck began to show signs of distress in 1964 with light to medium transverse cracks in the bridge deck as well as in the soffit. The bridge deck continued to deteriorate with numerous spalls forming on the deck surface as well as leaching and scaling occurring in the soffit. A deck seal and AC overlay was placed under Contract No. 03-149414 in 1970. The bridge deck continued to delaminate and the leaching and scaling on the soffit progressed, especially in Spans 2 through 4. The AC overlay was completely removed from the bridge deck in 1983 and a work recommendation was created to patch any deck spalls until a deck rehabilitation could be performed.

The deck rehabilitation work was completed in 1986 under Contract No. 03-221704, which consisted of removing the top 2 inches of the original deck and placing a 4 to 6 inch thick concrete deck overlay with epoxy coated reinforcing steel and a 2.5 inch clearance. The existing bridge deck was also strengthened with prestressing tendons. By 1991 the new concrete deck was becoming abraded in Lane 2. It was documented in 1998 that Lane 2 and

CONDITION TEXT

the adjacent shoulder was chained and no delaminations were detected. However, in 1999 approximately 5% of the deck in Lane 2 and the adjacent shoulder was found to be delaminated and cores were taken to test for chloride levels. The average chloride concentration of the five samples tested from the concrete deck overlay was the following:

0" to 1"= 23.6 lbs/cu.yd
1" to 2"= 13.5 lbs/cu.yd
2" to 3"= 2.2 lbs/cu.yd

It was documented in 2000 that transverse cracks were present in the concrete deck overlay, which were moderate in size and density. In addition, several small spalls with exposed reinforcing steel had formed by 2002.

Replacement was recommended for this structure in 2002 as part of the District initiated Delta Project in the late 1990's to rehabilitate Interstate 80 from Auburn to the Nevada border. The goals of this project were to ensure a 30-year service life and low associated maintenance costs for the bridges along this interstate corridor.

The 8/22/06 Bridge Inspection Report stated that the transverse cracks in the concrete deck overlay are severe in density with a crack spacing as close as 6 inches on center. Numerous deck spalls were also present in Spans 2 and 3 in both lanes with exposed reinforcement.

In 2006, the Office of Structure Maintenance and Investigations was notified that the Delta Corridor Rehabilitation Project is no longer supported and all expenditure authorizations for bridge replacements are now inactive. As such, the bridge replacement proposed in 2002 was rescinded and was replaced with work recommendations to preserve and maintain the current bridge.

As part of this bridge maintenance and preservation strategy, a F.A.S.T anti-icing system was installed in the deck and was completed on 1/8/2008 under Contract No. 03-0E3604. In addition, it has been awarded under Contract No. 03-2C8601 to remove and replace the top 4 to 6 inches of the deck overlay and place a 1 inch thick polyester concrete overlay. The anti-icing spray disks and anti-icing pavement sensors would also be replaced along with new joint seals with snowplow deflectors, new deck drains and new Type 732 bridge rails. Also included are new approach slabs with a 1 inch polyester concrete overlay and new earthquake restrainers.

REVISIONS

Replacement of the elastomeric bearing pads at the abutments were not included within Contract No. 03-2C6801 as suggested in the revised 8/17/2004 Deck Replacement work recommendation. A separate work recommendation has been added to the outstanding work recommendations for this work to be completed in the future.

NBI Item 63 "Method Used to Determine Operating Rating" has been changed from Load Factor to No Rating Analysis Performed.

NBI Item 64 "Operating Rating" has been corrected from 53.5 to 54.1 metric tonnes.

NBI Item 65 "Method Used to Determine Inventory Rating" has been changed from Load Factor to No Rating Analysis Performed.

CONDITION TEXT

CONDITION OF STRUCTURE

The concrete bridge rails have significant deterioration exposing large aggregate with the majority of the deterioration occurring on the roadside face. The bridge rails are programmed to be replaced as part of the deck rehabilitation that is currently being awarded under Contract No. 03-2C6801.

The metal rail of the left approach metal beam guard rail near Abutment 5 is damaged and should be replaced. However, the timber posts appear to be functional. The condition does not appear to have changed significantly since the last routine inspection on 8/7/2008. Repairs to the metal beam guard rails were completed under Contract No. 03-2C6801.

Each of the five compression joint seals on this bridge deck have areas that are torn or have failed in compression. In addition, the joint seal at the Span 2 hinge is completely missing. Replacement of the joint seals are currently included in the awarded deck rehabilitation under Contract No. 03-2C6801.

The bare concrete deck overlay that was placed in 1986 is worn exposing large aggregate and a few locations have exposed reinforcement. Transverse cracks are present throughout that are severe in density with a spacing as close as 6 inches on center. There are also numerous areas on the deck within both lanes that have been previously patched as well as spalls with exposed reinforcement ranging in size from 6 inches in diameter to 0.45 m wide by 0.45 m long (1.5 ft x 1.5 ft). These spalls are mainly located within Spans 2 and 3.

The full length of Lane 2 as well as the adjacent shoulder was chain sounded on 8/22/2006 to determine the amount of delaminations in the concrete deck overlay. A total of 36.5 sq.m (393 sq.ft) in Lane 2 was determined to be unsound, which is 1.5% of the total deck area. In addition, the majority of the spalls had up to 1 sq.m (11 sq.ft) of delaminated concrete surrounding the spalls. If it is assumed that Lane 1 is in a similar condition, the total area of delaminated concrete is approximately 3% of the total deck area.

The bottom of the overhangs have transverse cracks throughout with light efflorescence and are spaced as close as 2 feet on center.

The soffit of the original bridge deck also has transverse cracks throughout each bay which have light to moderate efflorescence. These transverse cracks are spaced as close as 2.5 feet on center. There is also large areas of scaling that have been summarized by span as the following:

SPAN	LOCATION	CONDITION
1	Bay 2	Large areas of scaling between the 1/4 and 3/4 point span points
1	Bay 3	Scaling adjacent to Girder 2 along the entire length of span
2	All Bays	Large scaled areas with severe density pattern cracks
4	All Bays	Large areas of scaling between Bent 4 and midspan, worst case seen in Bay 2

The left Abutment 1 wingwall has a 1 foot by 1 foot incipient spall with and is located approximately 10 feet below the bottom of the bridge rail along the construction joint. There is no repair required at this time. This wingwall also has full height vertical cracks that are up to 1/16 inches wide and are spaced as close as 8 feet on center.

The majority of the elastomeric bearing pads at the abutment are deformed and the layers have separated with the Abutment 1 pads in the worst condition, refer to Photos 8 through 10. It is recommended that the abutment bearings be replaced.

CONDITION TEXT

The face of Abutment 1 has full height vertical cracks with no efflorescence that are spaced as close as 10 feet on center and up to 1/16 inches wide.

The shotcrete patches on the bent columns and caps have pattern and random cracks that are light in size and severe in density. These patches were completed in 1994 under Contract No. 03-777604, which also included a cathodic protective system on the Bent 4 columns and bent cap.

PAINT CONDITION

The bottom flange of each girder has small areas of freckled rust on both edges.

A smaller area of peeling paint is also located in the interior side of Girder 1 near Abutment 1 that is approximately 0.28 sq.m (3 sq.ft).

A significant amount of paint is peeling from the interior sides of Girders 3 and 4 near Abutment 1 as well as the adjacent cross frames. The peeling paint has exposed the primer and is located in Bay 3 mainly between the first and second cross frames from Abutment 1 with a total area of 14 sq.m (154 sq.ft). Refer to Photo 11. This condition does not appear to have changed significantly since the last routine inspection.

RECOMMENDATIONS

Until a deck rehabilitation takes place under Contract No. 03-2C8601, any deck spalls that form should be chipped out below the top mat of reinforcing steel and patched by the Bridge Crew.

LOAD CAPACITY

An assigned rating performed by SM&I after this structure was reconstructed and strengthened in 1986 as listed in the Revised Original Bridge Report dated 6/3/1987. The 1986 Re-deck and strengthening was designed in Load factor Design and As-built plans indicate a design live load of HS20-44 and Alternative and Permit, but did not include an allowance for a future wearing surface.

MISCELLANEOUS

There does not appear to be any changes to the road surfacing on Highway 20 and lane lines under this structure in Span 4. The minimum vertical clearance was measured as 25'-8" (7.82 meters) and has not changed when compared to the most recent Clearance Diagram on file dated July 1974.

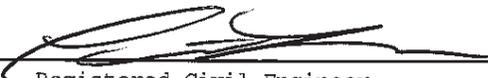
<u>ELEMENT INSPECTION RATINGS</u>									
F#Elem	Element Description	Env	Total	Units	Qty in each Condition State				
			Qty		St. 1	St. 2	St. 3	St. 4	St. 5
101 26	Concrete Deck - Protected w/ Coated Bars	4	2574	sq.m.	0	0	2574	0	0
101 107	Painted Steel Open Girder/Beam	3	627	m.	621	6	0	0	0
101 161	Painted Steel Pin and/or Pin and Hanger Assembly	4	8	ea.	7	0	1	0	0

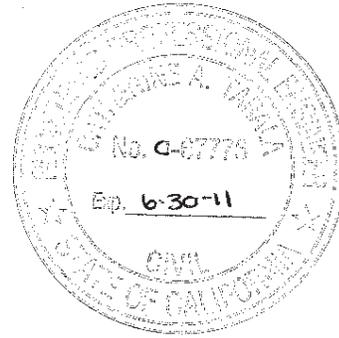
<u>ELEMENT INSPECTION RATINGS</u>									
F#Elem	Element Description	Env	Total Units	Qty in each Condition State					
				Qty	St. 1	St. 2	St. 3	St. 4	St. 5
101 26	Concrete Deck - Protected w/ Coated Bars	4	2574 sq.m.		0	0	2574	0	0
101 107	Painted Steel Open Girder/Beam	3	627 m.		621	6	0	0	0
101 161	Painted Steel Pin and/or Pin and Hanger Assembly	4	8 ea.		7	0	1	0	0
101 205	Reinforced Conc Column or Pile Extension	3	6 ea.		0	6	0	0	
101 215	Reinforced Conc Abutment	3	32 m.		24	8	0	0	
101 234	Reinforced Conc Cap	3	63 m.		0	63	0	0	
101 302	Compression Joint Seal	4	79 m.		0	0	79		
101 310	Elastomeric Bearing	3	20 ea.		0	20	0	0	0
101 313	Fixed Bearing	2	12 ea.		12	0	0	0	0
101 331	Reinforced Conc Bridge Railing	4	313 m.		0	313	0	0	0
101 358	Deck Cracking	4	1 ea.		0	0	0	1	
101 359	Soffit of Concrete Deck or Slab	4	1 ea.		0	1	0	0	0

WORK RECOMMENDATIONS

RecDate: 04/15/2009	EstCost: \$3,000	The bolts and nuts at the pin caps should be removed with a torch and replaced with 16 stainless steel 2" diameter, 12.5" long bolts and 32 stainless steel 2" diameter nuts with 3.125" hex heads (with set screws inserted into the nuts).
Action : Super-Misc.	StrTarget: 2 YEARS	
Work By: BRIDGE CREW	DistTarget:	
Status : PROPOSED	EA:	
RecDate: 08/07/2008	EstCost: \$2,600	Replace the metal rails of the left approach metal beam guard rail at Abutment 5.
Action : Railing-Misc.	StrTarget: 2 YEARS	
Work By: DISTRICT	DistTarget:	
Status : AWARDED	EA: 2C8601	
RecDate: 02/28/2007	EstCost:	Replace the approach slabs.
Action : Appr. Slab-Replace	StrTarget: 2 YEARS	
Work By: DISTRICT	DistTarget:	
Status : AWARDED	EA: 2C8601	
RecDate: 08/22/2006	EstCost: \$69,120	Replace the deformed elastomeric bearing pads at the abutments.
Action : Bearings-Replace	StrTarget: 2 YEARS	Note: this was initially stated under the 8/17/2004 Deck Replace work recommendation, but was not included in that work. (CAT 8/18/2010)
Work By: MAINT. CONTRACT	DistTarget:	
Status : PROPOSED	EA:	
RecDate: 08/22/2006	EstCost: \$10,000	If the deck cannot be replaced within the next two years, replace the compression joint seal at the hinge in Spans 2 and 4.
Action : Joints-Replace	StrTarget: 2 YEARS	Estimated Cost: \$300/m x 16.5 m/joint x 2 joints = \$9,900 Say \$10,000
Work By: MAINT. CONTRACT	DistTarget:	Ambient Temp = 75 degF, Gaps - Span 2 Hinge = 70 mm, Span 4 Hinge = 75 mm
Status : AWARDED	EA: 2C8601	
RecDate: 08/17/2004	EstCost: \$2,410,000	Complete deck and bridge rail replacement. (Replacement of bearings were not included as suggested in 2006)
Action : Deck-Replace	StrTarget: 2 YEARS	2006 Cost Estimate: 2410 sq.m x \$1000/sq.m = \$2,410,000
Work By: STRAIN	DistTarget:	
Status : AWARDED	EA: 2C8601	

Inspected By : Catherine A. Tarala


Registered Civil Engineer



STRUCTURE INVENTORY AND APPRAISAL REPORT

***** IDENTIFICATION *****

(1) STATE NAME- CALIFORNIA 069
 (8) STRUCTURE NUMBER 17 0023L
 (5) INVENTORY ROUTE (ON/UNDER) - ON 111000800
 (2) HIGHWAY AGENCY DISTRICT 03
 (3) COUNTY CODE 057 (4) PLACE CODE 00000
 (6) FEATURE INTERSECTED- SR 20,UP RR,BNSF,AMTRAK
 (7) FACILITY CARRIED- I 80 WB
 (9) LOCATION- 03-NEV-080-R59.44
 (11) MILEPOINT/KILOMETERPOINT 59.44
 (12) BASE HIGHWAY NETWORK- PART OF NET 1
 (13) LRS INVENTORY ROUTE & SUBROUTE 00000008002
 (16) LATITUDE 39 DEG 19 MIN 18 SEC
 (17) LONGITUDE 120 DEG 36 MIN 00 SEC
 (98) BORDER BRIDGE STATE CODE % SHARE %
 (99) BORDER BRIDGE STRUCTURE NUMBER

***** STRUCTURE TYPE AND MATERIAL *****

(43) STRUCTURE TYPE MAIN:MATERIAL- STEEL
 TYPE- STRINGER/MULTI-BEAM OR GDR CODE 302
 (44) STRUCTURE TYPE APPR:MATERIAL- OTHER/NA
 TYPE- OTHER/NA CODE 000
 (45) NUMBER OF SPANS IN MAIN UNIT 4
 (46) NUMBER OF APPROACH SPANS 0
 (107) DECK STRUCTURE TYPE- CIP CONCRETE CODE 1
 (108) WEARING SURFACE / PROTECTIVE SYSTEM:
 A) TYPE OF WEARING SURFACE- CONCRETE CODE 1
 B) TYPE OF MEMBRANE- NONE CODE 0
 C) TYPE OF DECK PROTECTION- EPOXY CT REINF CODE 1

***** AGE AND SERVICE *****

(27) YEAR BUILT 1963
 (106) YEAR RECONSTRUCTED 0000
 (42) TYPE OF SERVICE: ON- HIGHWAY 1
 UNDER- HIGHWAY-RAILROAD 4
 (28) LANES:ON STRUCTURE 02 UNDER STRUCTURE 02
 (29) AVERAGE DAILY TRAFFIC 14250
 (30) YEAR OF ADT 1998 (109) TRUCK ADT 16 %
 (19) BYPASS, DETOUR LENGTH 199 KM

***** GEOMETRIC DATA *****

(48) LENGTH OF MAXIMUM SPAN 50.3 M
 (49) STRUCTURE LENGTH 157.0 M
 (50) CURB OR SIDEWALK: LEFT 0.0 M RIGHT 0.0 M
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 15.3 M
 (52) DECK WIDTH OUT TO OUT 16.4 M
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 15.2 M
 (33) BRIDGE MEDIAN- NO MEDIAN 0
 (34) SKEW 0 DEG (35) STRUCTURE FLARED NO
 (10) INVENTORY ROUTE MIN VERT CLEAR 99.99 M
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 15.3 M
 (53) MIN VERT CLEAR OVER BRIDGE RDWY 99.99 M
 (54) MIN VERT UNDERCLEAR REF- HIGHWAY 7.82 M
 (55) MIN LAT UNDERCLEAR RT REF- HIGHWAY 3.2 M
 (56) MIN LAT UNDERCLEAR LT 0.0 M

***** NAVIGATION DATA *****

(38) NAVIGATION CONTROL- NOT APPLICABLE CODE N
 (111) PIER PROTECTION- CODE
 (39) NAVIGATION VERTICAL CLEARANCE 0.0 M
 (116) VERT-LIFT BRIDGE NAV MIN VERT CLEAR M
 (40) NAVIGATION HORIZONTAL CLEARANCE 0.0 M

***** SUFFICIENCY RATING *****

SUFFICIENCY RATING = 74.0
 STATUS STRUCTURALLY DEFICIENT
 HEALTH INDEX 75.8
 PAINT CONDITION INDEX = 99.7

***** CLASSIFICATION *****

(112) NBIS BRIDGE LENGTH- YES Y
 (104) HIGHWAY SYSTEM- ROUTE ON NHS 1
 (26) FUNCTIONAL CLASS- INTSTAT PRIN ART RURAL 01
 (100) DEFENSE HIGHWAY- STRAHNET 1
 (101) PARALLEL STRUCTURE- LEFT STRUCTURE L
 (102) DIRECTION OF TRAFFIC- 1 WAY 1
 (103) TEMPORARY STRUCTURE-
 (105) FED.LANDS HWY- NOT APPLICABLE 0
 (110) DESIGNATED NATIONAL NETWORK - PART OF NET 1
 (20) TOLL- ON FREE ROAD 3
 (21) MAINTAIN- STATE HIGHWAY AGENCY 01
 (22) OWNER- STATE HIGHWAY AGENCY 01
 (37) HISTORICAL SIGNIFICANCE- NOT ELIGIBLE 5

***** CONDITION *****

(58) DECK 2
 (59) SUPERSTRUCTURE 6
 (60) SUBSTRUCTURE 6
 (61) CHANNEL & CHANNEL PROTECTION N
 (62) CULVERTS N

***** LOAD RATING AND POSTING *****

(31) DESIGN LOAD- MS-18+MOD OR HS-20+MOD 6
 (63) OPERATING RATING METHOD- NO RATING ANALYSIS 5
 (64) OPERATING RATING- 54.1
 (65) INVENTORY RATING METHOD- NO RATING ANALYSIS 5
 (66) INVENTORY RATING- 32.4
 (70) BRIDGE POSTING- EQUAL TO OR ABOVE LEGAL LOADS 5
 (41) STRUCTURE OPEN, POSTED OR CLOSED- A
 DESCRIPTION- OPEN, NO RESTRICTION

***** APPRAISAL *****

(67) STRUCTURAL EVALUATION 6
 (68) DECK GEOMETRY 9
 (69) UNDERCLEARANCES, VERTICAL & HORIZONTAL 5
 (71) WATER ADEQUACY N
 (72) APPROACH ROADWAY ALIGNMENT 8
 (36) TRAFFIC SAFETY FEATURES 1111
 (113) SCOUR CRITICAL BRIDGES N

***** PROPOSED IMPROVEMENTS *****

(75) TYPE OF WORK- SUP/SUB REHAB CODE 35
 (76) LENGTH OF STRUCTURE IMPROVEMENT 157 M
 (94) BRIDGE IMPROVEMENT COST \$2,574,000
 (95) ROADWAY IMPROVEMENT COST \$514,800
 (96) TOTAL PROJECT COST \$4,324,320
 (97) YEAR OF IMPROVEMENT COST ESTIMATE 2010
 (114) FUTURE ADT 18845
 (115) YEAR OF FUTURE ADT 2028

***** INSPECTIONS *****

(90) INSPECTION DATE 08/10 (91) FREQUENCY 24 MO
 (92) CRITICAL FEATURE INSPECTION: (93) CFI DATE
 A) FRACTURE CRIT DETAIL- NO MO A)
 B) UNDERWATER INSP- NO MO B)
 C) OTHER SPECIAL INSP- NO 48 MO C) 04/09



Photo No. 1
Spall with Exposed Rebar in Span 3



Photo No. 2
Abutment 1 Compression Joint Seal



Photo No. 3
Bent 2 Compression Joint Seal



Photo No. 4
Span 2 Hinge Compression Joint Seal - Missing



Photo No. 5
Span 4 Hinge Compression Joint Seal



Photo No. 6
Abutment 5 Compression Joint Seal



Photo No. 7
Span 2 Soffit - Pattern Cracks within Large Areas of Scaling





Photo No. 9
Abutment 1 Girder 2 Bearing Pad Damage



Photo No. 10
Abutment 1 Girder 3 Bearing Pad Damage



Photo No. 11
Peeling Paint on Girders 3 and 4 near Abutment 1



DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 17 0023R
Facility Carried: I 80 EB
Location : 03-NEV-080-R59.44
City :
Inspection Date : 08/18/2010

Bridge Inspection Report

Inspection Type
Routine FC Underwater Special Other

STRUCTURE NAME: YUBA PASS SOH

CONSTRUCTION INFORMATION

Year Built : 1963 Skew (degrees): 0
Year Widened: N/A No. of Joints : 5
Length (m) : 137.2 No. of Hinges : 0

Structure Description: Welded steel girders (4); simple spans partially composite on RC (2) column bents and RC cantilever abutments. Spans 2 and 4 strengthened with prestressing tendons in 1986 as part of the deck-on-deck overaly constructed that is 4 to 7 inches thick with a 2.5" clearance to the epoxy coated rebar.

Span Configuration : 1 @ 24.69 m, 1 @ 43.28 m, 1 @ 24.99 m, 1 @ 42.98 m

LOAD CAPACITY AND RATINGS

Design Live Load: MS-18+MOD OR HS-20+MOD
Inventory Rating: 32.4 metric tonnes Calculation Method: NO RATING ANALYSIS
Operating Rating: 54.1 metric tonnes Calculation Method: NO RATING ANALYSIS
Permit Rating : P P P P P
Posting Load : Type 3: Legal Type 3S2: Legal Type 3-3: Legal

DESCRIPTION ON STRUCTURE

Deck X-Section: 0.53 m br, 13.0 m, 0.53 m br
Total Width: 14.2 m Net Width: 13.0 m No. of Lanes: 2
Rail Description: Type 25 Rail Code : 1111
Min. Vertical Clearance: Unimpaired

DESCRIPTION UNDER STRUCTURE

Facility Name	Func Class	Lanes	Horiz Clr (m)	Vert Clr (m)
SR 20	06	2	15.50	6.88

Channel Description: This structure is not over a waterway.

CONDITION TEXT

HISTORY

The original bridge deck began to show signs of distress in 1964 with light transverse cracks in the bridge deck as well as in the soffit. The bridge deck continued to deteriorate with numerous spalls forming on the deck surface as well as leaching and scaling occurring in the soffit. A deck seal and AC overlay was placed under Contract No. 03-149414 in 1970. Over the years potholes formed and were patched in the AC overlay with the majority of the work being done in Lane 2. Some of the AC overlay was removed in 1980 in preparation of new AC blanket. It was observed at this time that areas of the AC was no longer bonded to the seal. The AC overlay was completely removed from the bridge deck in 1983 and a work recommendation was created to patch any deck spalls until a deck rehabilitation could be performed.

The deck rehabilitation work was completed in 1986 under Contract No. 03-221704, which consisted of removing the top 2 inches of the original deck and placing a 4 to 6 inch thick concrete deck overlay with epoxy coated reinforcing steel and a 2.5 inch clearance. The existing bridge deck was also strengthened with prestressing tendons. By 1989 the new

CONDITION TEXT

concrete deck was becoming abraded along the right shoulder in Span 1 and there was transverse cracks throughout that were spaced 0.3 to 0.6 meters (1 to 2 feet) on center. The deck became heavily abraded along the right shoulder especially near the abutments and by 1996 the deck near the abutments in Lane 2 was scaled exposing reinforcing steel. It was documented in 1998 that Lane 2 and the adjacent shoulder was chained and 2% of this area was delaminated. Lane 2 and the adjacent shoulder was chain sounded again in 1999 and approximately 15% of the deck chained was found to be delaminated. Cores were taken to test for chloride levels. The average chloride concentration of the five samples tested from the concrete deck overlay was the following:

0" to 1"= 16.3 lbs/cu.yd
 1" to 2"= 11.6 lbs/cu.yd
 2" to 3"= 3.12 lbs/cu.yd

It was documented in 2000 that transverse cracks were present in the concrete deck overlay that were moderate in size and density. Some of the larger cracks had been sealed, but there were now locations with exposed reinforcing steel. The deck continued to deteriorate and by 2002 several spalls with exposed reinforcing steel had formed with the majority of the spalls concentrated in Span 4 Lane 2.

Replacement was recommended for this structure in 2002 as part of the District initiated Delta Project in the late 1990's to rehabilitate Interstate 80 from Auburn to the Nevada border. The goals of this project were to ensure a 30-year service life and low associated maintenance costs for the bridges along this interstate corridor.

The 8/22/2006 Bridge Inspection Report stated that the transverse cracks in the concrete deck overlay are severe in density with a crack spacing as close as 6 inches on center. Numerous deck spalls were also present in Spans 1, 2 and 4 with exposed reinforcement.

In 2006, Structure Maintenance and Investigations was notified that the Delta Corridor Rehabilitation Project is no longer supported and all expenditure authorizations for bridge replacements are now inactive. As such, the bridge replacement proposed in 2002 was rescinded and was replaced with work recommendations to preserve and maintain the current bridge.

As part of this bridge maintenance and preservation strategy, a F.A.S.T anti-icing system was installed in the deck and was completed on 1/8/2008 under Contract No. 03-0E3604. In addition, it has been awarded under Contract No. 03-2C8601 to remove and replace the top 4 to 6 inches of the deck overlay and place a 1 inch thick polyester concrete overlay. The anti-icing spray disks and anti-icing pavement sensors would also be replaced along with new joint seals with snowplow deflectors, new deck drains and new Type 732 bridge rails. Also included are new approach slabs with a 1 inch polyester concrete overlay and new earthquake restrainers.

REVISIONS

Replacement of the elastomeric bearing pads at the abutments were not included within Contract No. 03-2C6801 as suggested in the revised 8/17/2004 Deck Replacement work recommendation. A separate work recommendation has been added to the outstanding work recommendations for this work to be completed in the future.

NBI Item 54B "Minimum Vertical Underclearance" has been updated from 6.93 to 6.88 meters.

NBI Item 63 "Method Used to Determine Operating Rating" has been changed from Load Factor to No Rating Analysis Performed.

NBI Item 64 "Operating Rating" has been corrected from 53.5 to 54.1 metric tonnes.

CONDITION TEXT

NBI Item 65 "Method Used to Determine Inventory Rating" has been changed from Load Factor to No Rating Analysis Performed.

CONDITION OF STRUCTURE

The concrete bridge rails have significant deterioration exposing large aggregate with the majority of the deterioration occurring on the roadside face. The bridge rails are programmed to be replaced as part of the deck rehabilitation that is currently being awarded under Contract No. 03-2C6801.

All five of the compression joint seals are deteriorating with areas of the seals that are torn, failing in compression and even missing. In addition, there are deck spalls with exposed reinforcement on the edge of the Bent 2 joint opening within Lane 2 as well as spalls in the approach slab next to the Abutment 5 joint opening. Refer to Photos 1 through 5. Replacement of the joint seals are currently included in the awarded deck rehabilitation under Contract No. 03-2C6801.

The bare concrete deck overlay is worn exposing large aggregate and transverse cracks as present throughout that are severe in density with a spacing as close as 6 inches on center. There are numerous areas on the deck overlay that have been previously patched within both lanes as well as spalls with exposed reinforcement. These spalls and patches are mainly located throughout Span 4 Lane 2 between the 1/4 and 3/4 span points as well as a few areas within both lanes of Spans 1 and 2. Refer to Photos 6 and 7.

The soffit of the original bridge deck also has transverse cracks throughout each span which have light to moderate efflorescence and are spaced as close as 2.5 feet on center. There is also areas of light scaling around some of these transverse cracks. A larger area that is scaling is located within Span 4 Bay 2 at the 1/3 point span that extends up to full bay width and up to 8 feet long.

The left Abutment 1 wingwall has two horizontal cracks with light efflorescence that are up to 1/8 inches wide. There are also rust stains located on the wingwall and near the exterior edge of the Abutment 1 face. These cracks do not appear to have changed significantly since the last routine inspection.

The elastomeric bearing pads at Abutment 1 are deformed and bulging in Girders 1 and Girder 4, but are not split. The Abutment 5 bearing pads are also deformed and the layers are beginning to separate under each girder. Refer to Photos 8 through 15. It is recommended that the abutment bearings be replaced.

The shotcrete patches on the bent columns and caps have pattern and random cracks that are light in size and severe in density with a crack spacing of 6 inches on center. These patches were completed in 1994 under Contract No. 03-777604, which also included a cathodic protective system on the Bent 4 columns and bent cap. Refer to Photo 16 for Bent 2.

Numerous trees are growing under the structure in Span 1. There is a 8/7/2008 outstanding work recommendation to remove or trim these trees.

PAINT CONDITION

The paint system is failing on the southerly exterior side of Girder 4 in Spans 1 and 4. The finish coat are peeling along the top surface of the bottom flange exposing the primer coat. Refer to Photos 17 and 18 for Span 4 Girder 4. Otherwise, the paint system on the girders is in fairly good condition.

CONDITION TEXT

The painted top bearing plate below Girders 1 and 2 at Abutment 5 have areas of surface rust with minimal section loss. The bottom flange of these girders also has light surface rust.

RECOMMENDATIONS

Until a deck rehabilitation takes place under Contract No. 03-2C8601, any deck spalls that form should be chipped out below the top mat of reinforcing steel and patched by the Bridge Crew.

LOAD CAPACITY

An assigned rating performed by SM&I after this structure was reconstructed and strengthened in 1986 as listed in the Revised Original Bridge Report dated 6/3/1987. The 1986 Re-deck and strengthening was designed in Load factor Design and As-built plans indicate a design live load of HS20-44 and Alternative and Permit, but did not include an allowance for a future wearing surface.

MISCELLANEOUS

Changes have been made to Highway 20 under Span 4 extending the roadway AC pavement to the Abutment 5 embankment retaining wall. The minimum vertical clearance was measured as 22'-7" (6.88 meters). Revisions have been made to the 8/22/2006 Clearance Diagram and has been attached to this report.

STEEL INVESTIGATIONS

This structure qualifies for an in-depth Steel investigation because it possesses the following fracture critical or fatigue prone details :

Plate Girder with Category E Welds

Fracture Critical: No

Inspection Freq.: 48

Next Inspection: 05/25/2003

<u>ELEMENT INSPECTION RATINGS</u>									
F#Elem	Element Description	Env	Total Units	Qty in each Condition State					
		-	Qty	St. 1	St. 2	St. 3	St. 4	St. 5	
101 26	Concrete Deck - Protected w/ Coated Bars	4	1950 sq.m.	0	0	0	1950	0	
101 107	Painted Steel Open Girder/Beam	3	549 m.	481	68	0	0	0	
101 161	Painted Steel Pin and/or Pin and Hanger Assembly	2	8 ea.	8	0	0	0	0	
101 205	Reinforced Conc Column or Pile Extension	3	6 ea.	0	6	0	0		
101 215	Reinforced Conc Abutment	3	27 m.	0	27	0	0		
101 234	Reinforced Conc Cap	3	40 m.	0	40	0	0		
101 302	Compression Joint Seal	4	77 m.	0	0	77			
101 310	Elastomeric Bearing	2	20 ea.	0	20	0	0	0	
101 313	Fixed Bearing	2	12 ea.	12	0	0	0	0	
101 331	Reinforced Conc Bridge Railing	4	262 m.	0	262	0	0		
101 358	Deck Cracking	4	1 ea.	0	0	0	1		
101 359	Soffit of Concrete Deck or Slab	4	1 ea.	0	1	0	0	0	

STRUCTURE INVENTORY AND APPRAISAL REPORT

***** IDENTIFICATION *****

(1) STATE NAME- CALIFORNIA 069
 (8) STRUCTURE NUMBER 17 0023R
 (5) INVENTORY ROUTE(ON/UNDER)- ON 111000800
 (2) HIGHWAY AGENCY DISTRICT 03
 (3) COUNTY CODE 057 (4) PLACE CODE 00000
 (6) FEATURE INTERSECTED- SR 20,UP RR,BNSF,AMTRAK
 (7) FACILITY CARRIED- I 80 EB
 (9) LOCATION- 03-NEV-080-R59.44
 (11) MILEPOINT/KILOMETERPOINT 59.44
 (12) BASE HIGHWAY NETWORK- PART OF NET 1
 (13) LRS INVENTORY ROUTE & SUBROUTE 000000008002
 (16) LATITUDE 39 DEG 19 MIN 18 SEC
 (17) LONGITUDE 120 DEG 36 MIN 00 SEC
 (98) BORDER BRIDGE STATE CODE % SHARE %
 (99) BORDER BRIDGE STRUCTURE NUMBER

***** STRUCTURE TYPE AND MATERIAL *****

(43) STRUCTURE TYPE MAIN:MATERIAL- STEEL
 TYPE- STRINGER/MULTI-BEAM OR GDR CODE 302
 (44) STRUCTURE TYPE APPR:MATERIAL- OTHER/NA
 TYPE- OTHER/NA CODE 000
 (45) NUMBER OF SPANS IN MAIN UNIT 4
 (46) NUMBER OF APPROACH SPANS 0
 (107) DECK STRUCTURE TYPE- CIP CONCRETE CODE 1
 (108) WEARING SURFACE / PROTECTIVE SYSTEM:
 A) TYPE OF WEARING SURFACE- CONCRETE CODE 1
 B) TYPE OF MEMBRANE- NONE CODE 0
 C) TYPE OF DECK PROTECTION- EPOXY CT REINF CODE 1

***** AGE AND SERVICE *****

(27) YEAR BUILT 1963
 (106) YEAR RECONSTRUCTED 0000
 (42) TYPE OF SERVICE: ON- HIGHWAY 1
 UNDER- HIGHWAY-RAILROAD 4
 (28) LANES:ON STRUCTURE 02 UNDER STRUCTURE 02
 (29) AVERAGE DAILY TRAFFIC 14250
 (30) YEAR OF ADT 1998 (109) TRUCK ADT 16 %
 (19) BYPASS, DETOUR LENGTH 199 KM

***** GEOMETRIC DATA *****

(48) LENGTH OF MAXIMUM SPAN 43.0 M
 (49) STRUCTURE LENGTH 137.2 M
 (50) CURB OR SIDEWALK: LEFT 0.0 M RIGHT 0.0 M
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 13.0 M
 (52) DECK WIDTH OUT TO OUT 14.2 M
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 12.8 M
 (33) BRIDGE MEDIAN- NO MEDIAN 0
 (34) SKEW 0 DEG (35) STRUCTURE FLARED NO
 (10) INVENTORY ROUTE MIN VERT CLEAR 99.99 M
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 13.0 M
 (53) MIN VERT CLEAR OVER BRIDGE RDWY 99.99 M
 (54) MIN VERT UNDERCLEAR REF- HIGHWAY 6.93 M
 (55) MIN LAT UNDERCLEAR RT REF- HIGHWAY 3.7 M
 (56) MIN LAT UNDERCLEAR LT 0.0 M

***** NAVIGATION DATA *****

(38) NAVIGATION CONTROL- NOT APPLICABLE CODE N
 (111) PIER PROTECTION- CODE
 (39) NAVIGATION VERTICAL CLEARANCE 0.0 M
 (116) VERT-LIFT BRIDGE NAV MIN VERT CLEAR M
 (40) NAVIGATION HORIZONTAL CLEARANCE 0.0 M

***** SUFFICIENCY RATING *****

SUFFICIENCY RATING = 75.0
 STATUS STRUCTURALLY DEFICIENT
 HEALTH INDEX 66.8
 PAINT CONDITION INDEX = 97.0

***** CLASSIFICATION ***** CODE

(112) NBIS BRIDGE LENGTH- YES Y
 (104) HIGHWAY SYSTEM- ROUTE ON NHS 1
 (26) FUNCTIONAL CLASS- INTSTAT PRIN ART RURAL 01
 (100) DEFENSE HIGHWAY- STRAHNET 1
 (101) PARALLEL STRUCTURE- RIGHT STRUCTURE R
 (102) DIRECTION OF TRAFFIC- 1 WAY 1
 (103) TEMPORARY STRUCTURE-
 (105) FED.LANDS HWY- NOT APPLICABLE 0
 (110) DESIGNATED NATIONAL NETWORK - PART OF NET 1
 (20) TOLL- ON FREE ROAD 3
 (21) MAINTAIN- STATE HIGHWAY AGENCY 01
 (22) OWNER- STATE HIGHWAY AGENCY 01
 (37) HISTORICAL SIGNIFICANCE- NOT ELIGIBLE 5

***** CONDITION ***** CODE

(58) DECK 1
 (59) SUPERSTRUCTURE 7
 (60) SUBSTRUCTURE 6
 (61) CHANNEL & CHANNEL PROTECTION N
 (62) CULVERTS N

***** LOAD RATING AND POSTING ***** CODE

(31) DESIGN LOAD- MS-18+MOD OR HS-20+MOD 6
 (63) OPERATING RATING METHOD- NO RATING ANALYSIS 5
 (64) OPERATING RATING- 54.1
 (65) INVENTORY RATING METHOD- NO RATING ANALYSIS 5
 (66) INVENTORY RATING- 32.4
 (70) BRIDGE POSTING- EQUAL TO OR ABOVE LEGAL LOADS 5
 (41) STRUCTURE OPEN, POSTED OR CLOSED- A
 DESCRIPTION- OPEN, NO RESTRICTION

***** APPRAISAL ***** CODE

(67) STRUCTURAL EVALUATION 6
 (68) DECK GEOMETRY 9
 (69) UNDERCLEARANCES, VERTICAL & HORIZONTAL 6
 (71) WATER ADEQUACY N
 (72) APPROACH ROADWAY ALIGNMENT 8
 (36) TRAFFIC SAFETY FEATURES 1111
 (113) SCOUR CRITICAL BRIDGES N

***** PROPOSED IMPROVEMENTS *****

(75) TYPE OF WORK- SUP/SUB REHAB CODE 35
 (76) LENGTH OF STRUCTURE IMPROVEMENT 137.2 M
 (94) BRIDGE IMPROVEMENT COST \$1,952,000
 (95) ROADWAY IMPROVEMENT COST \$390,400
 (96) TOTAL PROJECT COST \$3,279,360
 (97) YEAR OF IMPROVEMENT COST ESTIMATE 2010
 (114) FUTURE ADT 18845
 (115) YEAR OF FUTURE ADT 2028

***** INSPECTIONS *****

(90) INSPECTION DATE 08/10 (91) FREQUENCY 24 MO
 (92) CRITICAL FEATURE INSPECTION: (93) CFI DATE
 A) FRACTURE CRIT DETAIL- NO MO A)
 B) UNDERWATER INSP- NO MO B)
 C) OTHER SPECIAL INSP- NO 48 MO C) 05/99



Photo No. 1
Abutment 1 Compression Joint Seal



Photo No. 2
Bent 2 Compression Joint Seal

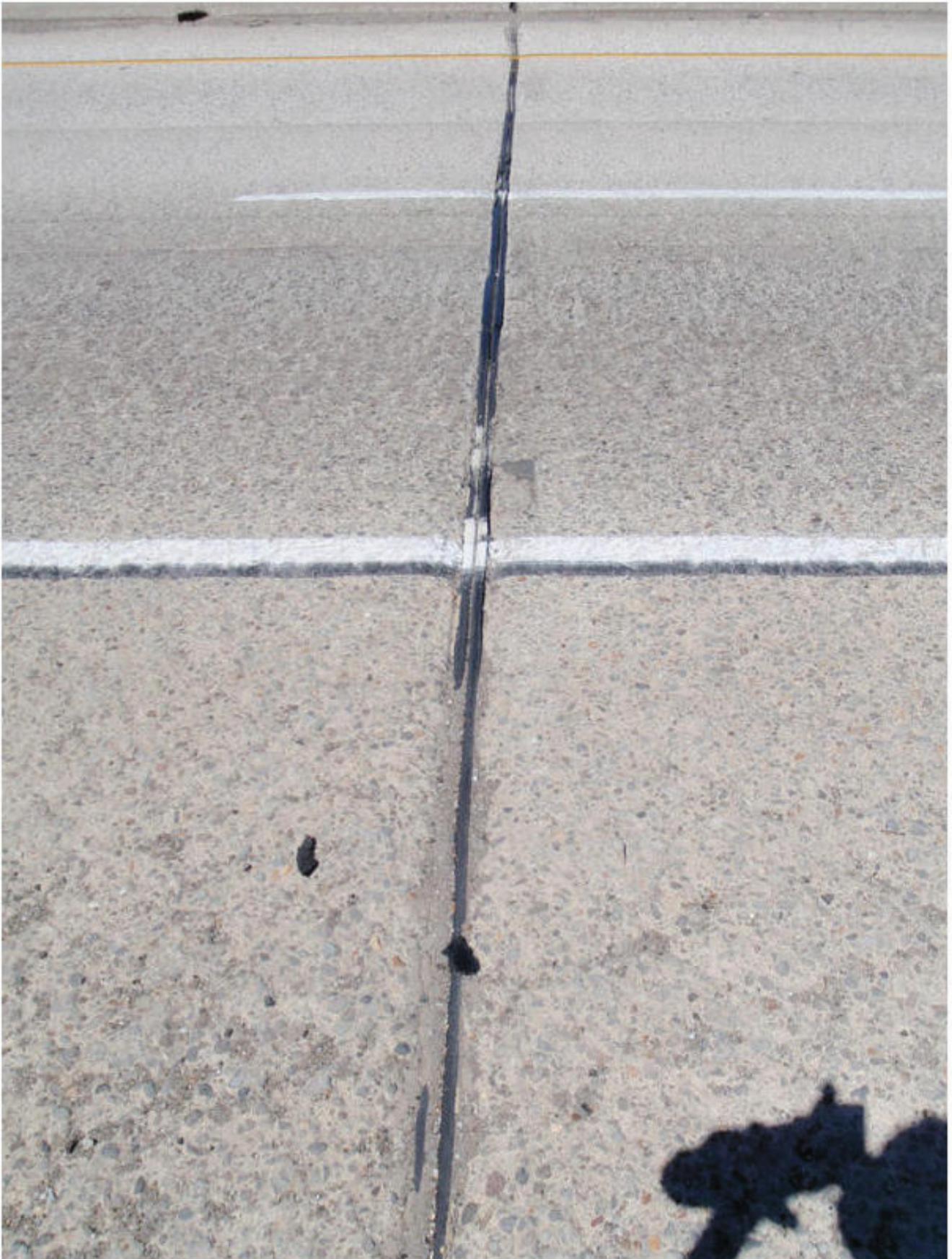


Photo No. 3
Bent 3 Compression Joint Seal

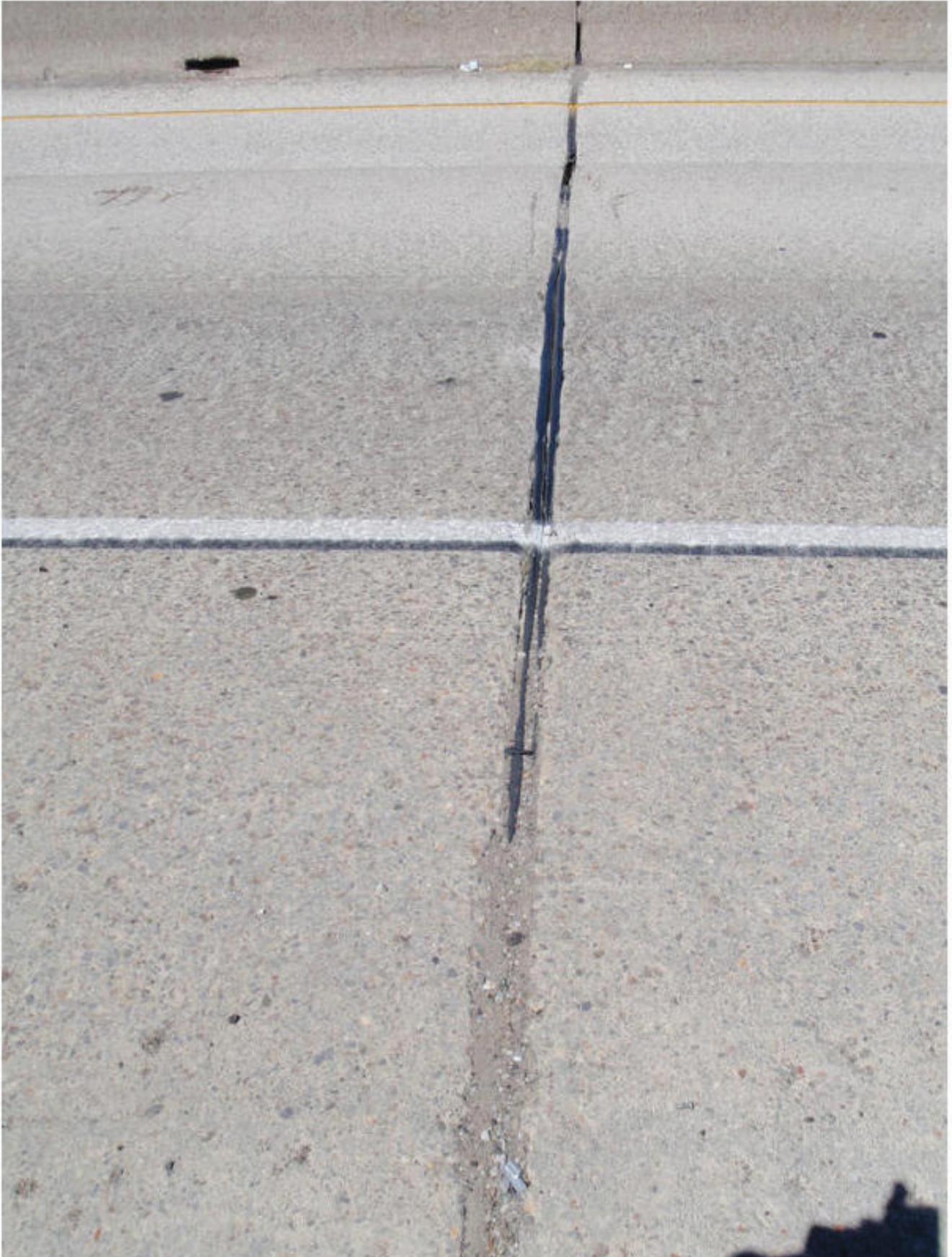


Photo No. 4
Bent 4 Compression Joint Seal



Photo No. 5
Abutment 5 Compression Joint Seal



Photo No. 6
Worn Deck with Numerous Spalls and Patches - Span 4



Photo No. 7
Worn Deck with Numerous Spalls and Patches - Span 4



Photo No. 8
Abutment 1 Girder 1 Bulging Elastomeric Bearing



Photo No. 9
Abutment 1 Girder 2 Elastomeric Bearing

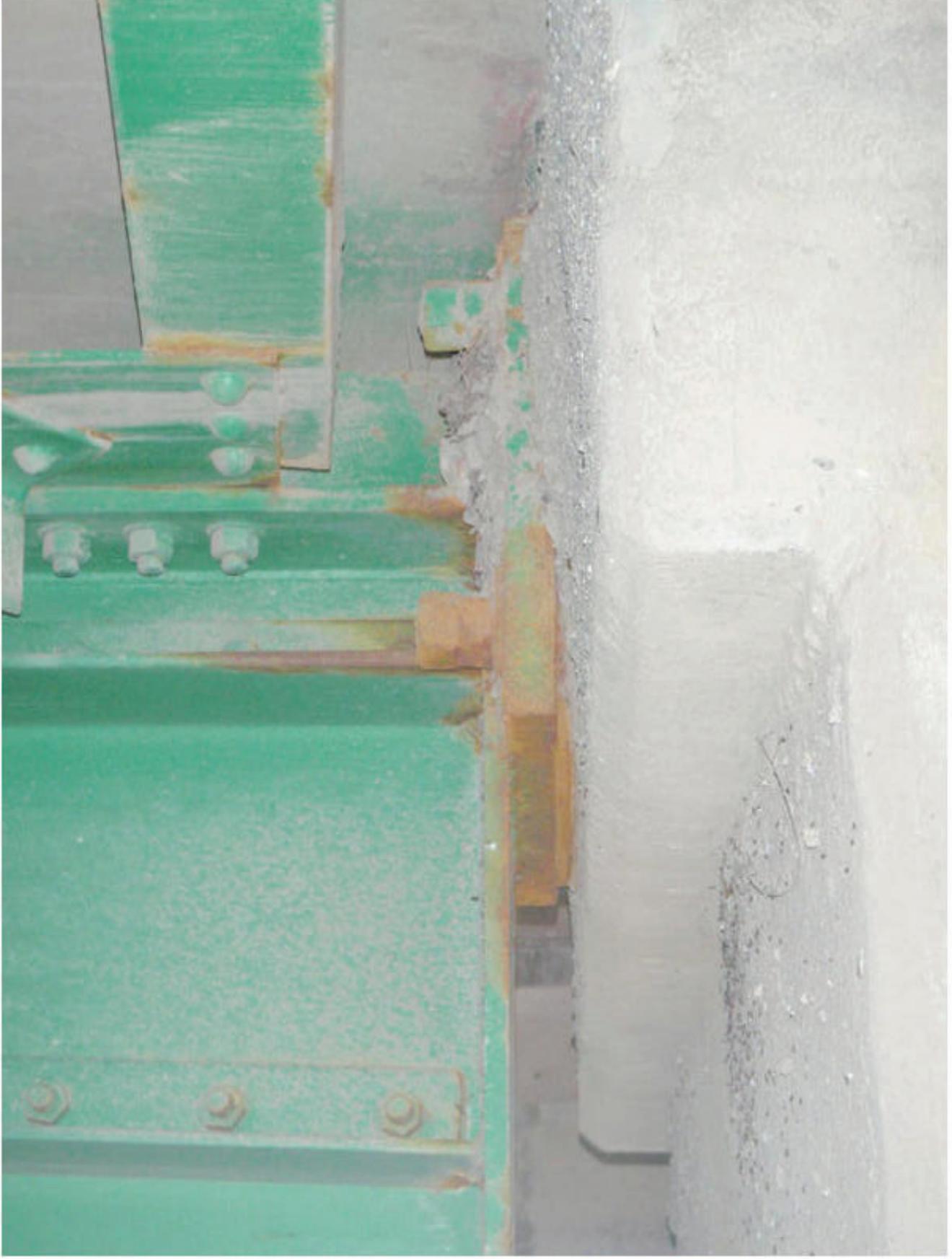


Photo No. 10
Abutment 1 Girder 3 Elastomeric Bearing



Photo No. 11
Abutment 1 Girder 4 Bulging Elastomeric Bearing











Photo No. 16
Bent 2 Looking at Left Column - Cracks in Shotcrete Patches





Photo No. 18
Span 4 Girder 4 - Failing Paint on Exterior Side



DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 19 0118
Facility Carried: CISCO OC
Location : 03-PLA-080-R63.52
City :
Inspection Date : 06/16/2010

Bridge Inspection Report

Inspection Type
Routine FC Underwater Special Other

STRUCTURE NAME: CISCO OC

CONSTRUCTION INFORMATION

Year Built : 1963 Skew (degrees): 5
Year Widened: N/A No. of Joints : 2
Length (m) : 78.6 No. of Hinges : 0

Structure Description: Continuous RC (5) girder spans on RC (2) column bents and RC open end seat abutments. Abutment 1 on steel piles, all others on spread footing.

Span Configuration : 12.19 m, 18.59 m, 15.54 m, 18.59 m, 12.19 m

LOAD CAPACITY AND RATINGS

Design Live Load: MS-18 OR HS-20
Inventory Rating: 37.6 metric tonnes Calculation Method: LOAD FACTOR
Operating Rating: 62.2 metric tonnes Calculation Method: LOAD FACTOR
Permit Rating : P P P P P
Posting Load : Type 3: Legal Type 3S2: Legal Type 3-3: Legal

DESCRIPTION ON STRUCTURE

Deck X-Section: 0.3 m br, 1.5 m sw, 9.1 m, 0.4 m br
Total Width: 11.4 m Net Width: 9.1 m No. of Lanes: 2
Rail Description: Type 5 & 1 Rail Code : 1000
Min. Vertical Clearance: Unimpaired

DESCRIPTION UNDER STRUCTURE

Facility Name	Func Class	Lanes	Horiz Clr (m)	Vert Clr (m)
INTERSTATE 80	01	4	18.70	4.85

Channel Description: N/A

CONDITION TEXT

CONDITION OF STRUCTURE

The pourable joints seals at the abutments have failed.

There are large transverse and longitudinal cracks in the AC overlay.

There are several exposed reinforcement bars along the bridge rail face and several small spalls in the sidewalk and rail along the bridge due to low cover and years of freeze thaw action.

There is efflorescence with rust staining, pattern cracking, and scaling of the soffit in scattered areas indicative of deck deterioration. The extent of the deck distress could not be determined due to the presence of AC on the deck surface. This structure type, however, has a history of deck distress in this environment and along this route.

There is a shallow spall approximately 150 mm x 200 mm at the west exterior girder near Bent 3, with no exposed reinforcing steel.

Printed on: Tuesday 07/20/2010 01:53 PM

19 0118/AAAG/18833

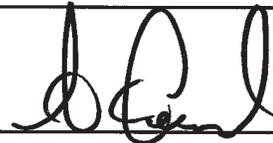
ELEMENT INSPECTION RATINGS									
F#Elem	Element Description	Env	Total	Units	Qty in each Condition State				
					St. 1	St. 2	St. 3	St. 4	St. 5
101 14	Concrete Deck - Protected w/ AC Overlay	4	890	sq.m.	0	890	0	0	0
101 110	Reinforced Conc Open Girder/Beam	2	393	m.	393	0	0	0	0
101 205	Reinforced Conc Column or Pile Extension	2	8	ea.	8	0	0	0	0
101 215	Reinforced Conc Abutment	2	23	m.	23	0	0	0	0
101 225	Unpainted Steel Submerged Pile	2	1	ea.	1	0	0	0	0
101 234	Reinforced Conc Cap	2	44	m.	44	0	0	0	0
101 301	Pourable Joint Seal	4	18	m.	0	0	18	0	0
101 311	Moveable Bearing (roller, sliding, etc.)	2	10	ea.	10	0	0	0	0
101 333	Other Bridge Railing	4	175	m.	0	175	0	0	0
101 359	Soffit of Concrete Deck or Slab	2	1	ea.	0	0	1	0	0

WORK RECOMMENDATIONS

RecDate: 07/01/2002 EstCost: \$99,000 DECK RESTORATION JOB DONE IN 1971 WITH
 Action : Deck-Rehab StrTarget: 2 YEARS COAL TAR DECK SEAL TO EXTEND SERVICE
 Work By: STRAIN DistTarget: LIFE. CONTINUED DECK DETERIORATION IS
 Status : CONCEPTUAL EA: 3112A1 ANTICIPATED. REHABILITATE BRIDGE DECK.

RecDate: 07/01/2002 EstCost: \$11,000 Replace joint seals. Joint measurements
 Action : Joints-Replace StrTarget: 2 YEARS are 1.75 inches at 40 degrees F.
 Work By: STRAIN DistTarget:
 Status : CONCEPTUAL EA: 3112A1

Inspected By : A.Fernandes



Registered Civil Engineer



STRUCTURE INVENTORY AND APPRAISAL REPORT

***** IDENTIFICATION *****

(1) STATE NAME- CALIFORNIA 069
 (8) STRUCTURE NUMBER 19 0118
 (5) INVENTORY ROUTE (ON/UNDER)- UNDER 211000800
 (2) HIGHWAY AGENCY DISTRICT 03
 (3) COUNTY CODE 061 (4) PLACE CODE 00000
 (6) FEATURE INTERSECTED- ROUTE 80
 (7) FACILITY CARRIED- CISCO OC
 (9) LOCATION- 03-PLA-080-R63.52
 (11) MILEPOINT/KILOMETERPOINT 63.52
 (12) BASE HIGHWAY NETWORK- PART OF NET 1
 (13) LRS INVENTORY ROUTE & SUBROUTE 0000000080
 (16) LATITUDE 39 DEG 18 MIN 36 SEC
 (17) LONGITUDE 120 DEG 32 MIN 36 SEC
 (98) BORDER BRIDGE STATE CODE % SHARE %
 (99) BORDER BRIDGE STRUCTURE NUMBER

***** STRUCTURE TYPE AND MATERIAL *****

(43) STRUCTURE TYPE MAIN:MATERIAL- CONCRETE CONT
 TYPE- TEE BEAM CODE 204
 (44) STRUCTURE TYPE APPR:MATERIAL- OTHER/NA
 TYPE- OTHER/NA CODE 000
 (45) NUMBER OF SPANS IN MAIN UNIT 5
 (46) NUMBER OF APPROACH SPANS 0
 (107) DECK STRUCTURE TYPE- CIP CONCRETE CODE 1
 (108) WEARING SURFACE / PROTECTIVE SYSTEM:
 A) TYPE OF WEARING SURFACE- BITUMINOUS CODE 6
 B) TYPE OF MEMBRANE- NONE CODE 0
 C) TYPE OF DECK PROTECTION- OTHER CODE 9

***** AGE AND SERVICE *****

(27) YEAR BUILT 1963
 (106) YEAR RECONSTRUCTED 0000
 (42) TYPE OF SERVICE: ON- HIGHWAY-PEDESTRIAN 5
 UNDER- HIGHWAY W/NO PEDESTF 1
 (28) LANES:ON STRUCTURE 02 UNDER STRUCTURE 04
 (29) AVERAGE DAILY TRAFFIC 29500
 (30) YEAR OF ADT 2000 (109) TRUCK ADT 10 %
 (19) BYPASS, DETOUR LENGTH 0 KM

***** GEOMETRIC DATA *****

(48) LENGTH OF MAXIMUM SPAN 18.6 M
 (49) STRUCTURE LENGTH 78.6 M
 (50) CURB OR SIDEWALK: LEFT 1.5 M RIGHT 0.1 M
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 9.1 M
 (52) DECK WIDTH OUT TO OUT 11.4 M
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 9.1 M
 (33) BRIDGE MEDIAN- NO MEDIAN 0
 (34) SKEW 5 DEG (35) STRUCTURE FLARED NO
 (10) INVENTORY ROUTE MIN VERT CLEAR 4.85 M
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 18.7 M
 (53) MIN VERT CLEAR OVER BRIDGE RDWY 99.99 M
 (54) MIN VERT UNDERCLEAR REF- HIGHWAY 4.85 M
 (55) MIN LAT UNDERCLEAR RT REF- HIGHWAY 3.1 M
 (56) MIN LAT UNDERCLEAR LT 8.1 M

***** NAVIGATION DATA *****

(38) NAVIGATION CONTROL- NOT APPLICABLE CODE N
 (111) PIER PROTECTION- CODE
 (39) NAVIGATION VERTICAL CLEARANCE 0.0 M
 (116) VERT-LIFT BRIDGE NAV MIN VERT CLEAR M
 (40) NAVIGATION HORIZONTAL CLEARANCE 0.0 M

***** SUFFICIENCY RATING *****

SUFFICIENCY RATING = 92.8
 STATUS STRUCTURALLY DEFICIENT
 HEALTH INDEX 91.4
 PAINT CONDITION INDEX = N/A

***** CLASSIFICATION *****

(112) NBIS BRIDGE LENGTH- YES Y
 (104) HIGHWAY SYSTEM- ROUTE ON NHS 1
 (26) FUNCTIONAL CLASS- INTSTAT PRIN ART RURAL 01
 (100) DEFENSE HIGHWAY- STRAHNET 1
 (101) PARALLEL STRUCTURE- NONE EXISTS N
 (102) DIRECTION OF TRAFFIC- 2 WAY 2
 (103) TEMPORARY STRUCTURE-
 (105) FED.LANDS HWY- NOT APPLICABLE 0
 (110) DESIGNATED NATIONAL NETWORK - PART OF NET 1
 (20) TOLL- ON FREE ROAD 3
 (21) MAINTAIN- STATE HIGHWAY AGENCY 01
 (22) OWNER- STATE HIGHWAY AGENCY 01
 (37) HISTORICAL SIGNIFICANCE- NOT ELIGIBLE 5

***** CONDITION *****

(58) DECK 4
 (59) SUPERSTRUCTURE 7
 (60) SUBSTRUCTURE 7
 (61) CHANNEL & CHANNEL PROTECTION N
 (62) CULVERTS N

***** LOAD RATING AND POSTING *****

(31) DESIGN LOAD- MS-18 OR HS-20 5
 (63) OPERATING RATING METHOD- LOAD FACTOR 1
 (64) OPERATING RATING- 62.2
 (65) INVENTORY RATING METHOD- LOAD FACTOR 1
 (66) INVENTORY RATING- 37.6
 (70) BRIDGE POSTING- EQUAL TO OR ABOVE LEGAL LOADS 5
 (41) STRUCTURE OPEN, POSTED OR CLOSED- A
 DESCRIPTION- OPEN, NO RESTRICTION

***** APPRAISAL *****

(67) STRUCTURAL EVALUATION 7
 (68) DECK GEOMETRY 6
 (69) UNDERCLEARANCES, VERTICAL & HORIZONTAL 4
 (71) WATER ADEQUACY N
 (72) APPROACH ROADWAY ALIGNMENT 6
 (36) TRAFFIC SAFETY FEATURES 1000
 (113) SCOUR CRITICAL BRIDGES N

***** PROPOSED IMPROVEMENTS *****

(75) TYPE OF WORK- CODE
 (76) LENGTH OF STRUCTURE IMPROVEMENT M
 (94) BRIDGE IMPROVEMENT COST
 (95) ROADWAY IMPROVEMENT COST
 (96) TOTAL PROJECT COST
 (97) YEAR OF IMPROVEMENT COST ESTIMATE
 (114) FUTURE ADT 39700
 (115) YEAR OF FUTURE ADT 2029

***** INSPECTIONS *****

(90) INSPECTION DATE 06/10 (91) FREQUENCY 24 MO
 (92) CRITICAL FEATURE INSPECTION: (93) CFI DATE
 A) FRACTURE CRIT DETAIL- NO MO A)
 B) UNDERWATER INSP- NO MO B)
 C) OTHER SPECIAL INSP- NO MO C)

ATTACHMENT F

COST ESTIMATES

PROJECT SCOPE SUMMARY REPORT
COST ESTIMATE SUMMARY

DIST-CO-RTE: 03-Nev, Pla-80
PM: 28.73
EA: 03-2F570K
Program Code: 20.XX.201.110
Bridge Rehabilitation

PROJECT DESCRIPTION

Limits: Weimar OH (Bridge No. 19-0038) on Route 80 at PM 28.73.

Proposed Improvement: Bridge rehabilitation.

Alternative:

SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	\$ 2,000,000
TOTAL STRUCTURE ITEMS	\$ 2,610,000
SUBTOTAL CONSTRUCTION COSTS	\$ 4,610,000
TOTAL RIGHT OF WAY ITEMS	\$ 50,000
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$ 4,660,000

Reviewed by District Program Manager

David Lamb

Approved by Project Manager

Samuel Jordan

Phone No. (530) 741-4417

Date _____

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

I. ROADWAY ITEMS

Section 1: Earthwork

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Roadway Excavation				\$ -
Rock Excavation				\$ -
Ditch Excavation				\$ -
Imported Borrow				\$ -
Clearing & Grubbing	1	LS	\$ 4,000	\$ 4,000
Develop Water Supply				\$ -
Stepped Slopes				\$ -
Contour Grading				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Earthwork (Section 1):	\$4,000
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Section 2: Pavement Structural Section

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Hot Mix Asphalt (Type A)	200	TON	\$ 250	\$ 50,000
Minor Hot Mix Asphalt				\$ -
Class 2 Aggregate Base				\$ -
Minor Concrete (Backfill)				\$ -
Imported Material (Shoulder Backing)				\$ -
Cold Plane AC Pavement	1500	SQYD	\$ 20	\$ 30,000
Place HMA (Miscellaneous Area)				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Structural Section (Section 2):	\$80,000
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Section 3: Drainage

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Remove Culvert		EA		\$ -
Remove Headwalls		EA		\$ -
Minor Concrete (Minor Structure)		CY		\$ -
24" Alternative Pipe Culvert		LF		\$ -
30" Alternative Pipe Culvert		LF		\$ -
36" Alternative Pipe Culvert		LF		\$ -
RSP (Light, Method B)		CY		\$ -
RSP (1/4T, Method B)		CY		\$ -
Concreted-RSP		CY		\$ -
RSP Fabric		SQYD		\$ -
				\$ -
				\$ -

Subtotal Drainage (Section 3):	\$0
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PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

Section 4: Specialty Items

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Retaining Walls				\$ -
Noise Barriers				\$ -
Hazardous Waste Inv/Mitigation Work				\$ -
Prepare Water Pollution Control Plan	1	LS	\$ 2,000	\$ 2,000
Construction Site Management	1	LS	\$ 25,000	\$ 25,000
Erosion Control (Blanket)				\$ -
Temporary Fiber Roll				\$ -
Temporary Silt Fence				\$ -
Temporary Construction Entrance				\$ -
Street Sweeping				\$ -
Temporary Concrete Washout				\$ -
RE Office	1	LS	\$ 50,000	\$ 50,000
Environmental Compliance	1	LS	\$ 2,000	\$ 2,000
Construction BMPs	1	LS	\$ 65,000	\$ 65,000
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Specialty Items (Section 4):	\$144,000
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Section 5: Traffic Items

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Lighting		LS		\$ -
Traffic Delineation Items	1	LS	\$ 7,500	\$ 7,500
Traffic Signals				\$ -
Overhead Sign Structures				\$ -
Roadside Signs				\$ -
Traffic Control System	1	LS	\$ 250,000	\$ 250,000
Transportation Management Plan	1	LS	\$ 1,000	\$ 1,000
Temporary Detection System				\$ -
Staging	1	LS	\$ 400,000	\$ 400,000
Portable CMS	1	LS	\$ 40,000	\$ 40,000
Construction Area Signs	1	LS	\$ 10,000	\$ 10,000
COZEEP	1	LS	\$ 90,000	\$ 90,000
ADA Curb Ramps				\$ -
MBGR Work	1	LS	\$ 10,000	\$ 10,000
Railroad Flagging	1	LS	\$ 220,000	\$ 220,000

Subtotal Traffic Items (Section 5):	\$1,028,500
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PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

Section 6: Planting & Irrigation

	Quantity	Unit	Unit Price	Item Cost
Highway Planting				\$ -
Replacement Planting				\$ -
Irrigation Modification				\$ -
Relocate Existing Irrigation				\$ -
Irrigation Crossovers				\$ -
Traffic Control System				\$ -
				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Planting & Irrig Items (Section 6):	\$0
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Section 7: Roadside Management

	Quantity	Unit	Unit Price	Item Cost
Vegetation Control Treatments				\$ -
Gore Area Pavement				\$ -
Miscellaneous Paving				\$ -
Off-freeway Access gates				\$ -
Maintenance Vehicle Pullouts				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Roadside Mgmt Items (Section 7):	\$0
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TOTAL SECTIONS 1 thru 7:	\$1,256,500
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PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

Section 8: Minor Items

		Item Cost
Subtotal of Sections 1 thru 7:	\$ 1,256,500	
Factor:	10%	
(Subtotal of Sections 1 thru 7) X (Factor) =		\$ 125,650
Total Minor Items (Section 8):		\$125,650

Section 9: Roadway Mobilization

		Item Cost
Subtotal of Sections 1 thru 8:	\$ 1,382,150	
Factor:	10%	
(Subtotal of Sections 1 thru 8) X (Factor) =		\$ 138,215
Total Roadway Mobilization (Section 9):		\$138,215

Section 10: Roadway Additions

		Item Cost
Supplemental Work		
Subtotal of Sections 1 thru 8:	\$ 1,382,150	
Factor:	10%	
(Subtotal of Sections 1 thru 8) X (Factor) =		\$ 138,215
Contingencies		
Subtotal of Sections 1 thru 8:	\$ 1,382,150	
Factor:	25%	
(Subtotal of Sections 1 thru 8) X (Factor) =		\$ 345,538
Total Roadway Additions (Section 10):		\$483,753

TOTAL ROADWAY ITEMS (Total Sections 1 thru 10):	\$2,004,118
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USE:	\$2,000,000
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Estimate Prepared By: Sarju Patel Date: 10/26/11
Phone No. (530) 741-4430

Estimate Checked By: Robert Polgar Date: 10/26/11
Phone No. (530) 741-4225

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

II. STRUCTURES ITEMS

	<u>No. 1</u>	STRUCTURES <u>No. 2</u>	<u>No. 3</u>
Bridge Name Weimar OH (Bridge No. 19-0038)			
Structure Type			
Width (out to out) - (m)			
Total Length - (m)			
Total Area (square meters)			
Footing Type (Pile/Spread)			
Cost per square meter (incl. 10% mobilization & 20% contingency)			
Total Cost for Structure	\$ 0	\$ 2,611,000	
		Subtotal Structure Items:	\$2,611,000
Railroad Related Costs:	\$ -	\$ -	\$ -
		Subtotal Railroad Items:	\$0
		TOTAL STRUCTURE ITEMS:	\$2,611,000
		USE:	\$2,610,000

COMMENTS:

Structure No. 1
Estimate Prepared By: _____ Date: _____

Structure No. 2
Estimate Prepared By: Lewis Shen Date: 09/09/11
Phone No. (916) 227-8234

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

II. RIGHT OF WAY ITEMS

	ESCALATED VALUE
A. Acquisition, including excess lands, damages to remainder(s) and Goodwill	\$38,042
B. Mitigation Acquisition & Credits	\$5,371
C. Project Development Permit Fees	\$0
D. Utility Relocation (State share)	\$11,935
E. Relocation Assistance	\$0
F. Clearance/Demolition	\$0
G. Title and Escrow Fees	\$0

TOTAL RIGHT OF WAY ITEMS:	\$55,348
(Escalated Value)	

USE:	\$50,000
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Anticipated Date of Right of Way Certification:
(Date to which Values are Escalated)

H. Construction Contract Work

Brief Description of Work:

Right of Way Branch Cost Estimate for Work* \$ -

* This dollar amount is to be included in the Roadway and/or Structures Items of Work, as appropriate. Do not include in Right of Way items.

COMMENTS:

Estimate Prepared By: Maria Mendoza
Phone No. (530) 741-4417

Date: 10/20/11

PROJECT SCOPE SUMMARY REPORT

COST ESTIMATE SUMMARY

DIST-CO-RTE: 03-Nev, Pla-80
PM: 36.86
EA: 03-2F570K
Program Code: 20.XX.201.110
Bridge Rehabilitation

PROJECT DESCRIPTION

Limits: Cape Horn UC (Bridge No. 19-0091) on Route 80 at PM 36.86.

Proposed Improvement: Bridge replacement.

Alternative:

SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	\$ 4,770,000
TOTAL STRUCTURE ITEMS	\$ 3,240,000
SUBTOTAL CONSTRUCTION COSTS	\$ 8,010,000
TOTAL RIGHT OF WAY ITEMS	\$ 40,000
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$ 8,050,000

Reviewed by District Program Manager

David Lamb

Approved by Project Manager

Samuel Jordan
Phone No. (530) 741-4417

Date _____

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

I. ROADWAY ITEMS

Section 1: Earthwork

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Roadway Excavation	2700	CY	150	\$ 405,000
Rock Excavation				\$ -
Ditch Excavation				\$ -
Imported Borrow	2800	CY	\$ 125	\$ 350,000
Clearing & Grubbing	1	LS	\$ 80,000	\$ 80,000
Develop Water Supply				\$ -
Stepped Slopes				\$ -
Contour Grading				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Earthwork (Section 1):	\$835,000
--	------------------

Section 2: Pavement Structural Section

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Hot Mix Asphalt (Type A)	800	TON	\$ 250	\$ 200,000
Minor Hot Mix Asphalt				\$ -
Class 2 Aggregate Base	675	CY	\$ 175	\$ 118,125
Minor Concrete (Backfill)				\$ -
Imported Material (Shoulder Backing)				\$ -
Cold Plane AC Pavement	1700	SQYD	\$ 20	\$ 34,000
Place HMA (Miscellaneous Area)				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Structural Section (Section 2):	\$352,125
---	------------------

Section 3: Drainage

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Remove Culvert		EA		\$ -
Remove Headwalls		EA		\$ -
Minor Concrete (Minor Structure)		CY		\$ -
24" Alternative Pipe Culvert		LF		\$ -
30" Alternative Pipe Culvert		LF		\$ -
36" Alternative Pipe Culvert		LF		\$ -
RSP (Light, Method B)		CY		\$ -
RSP (1/4T, Method B)		CY		\$ -
Concreted-RSP		CY		\$ -
RSP Fabric		SQYD		\$ -
Drainage Work	1	LS	\$ 10,000	\$ 10,000
				\$ -

Subtotal Drainage (Section 3):	\$10,000
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PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

Section 4: Specialty Items

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Retaining Walls	1	LS	\$ 400,000	\$ 400,000
Noise Barriers				\$ -
Hazardous Waste Inv/Mitigation Work				\$ -
Prepare Water Pollution Control Plan	1	LS	\$ 2,000	\$ 2,000
Construction Site Management	1	LS	\$ 60,000	\$ 60,000
Erosion Control (Blanket)				\$ -
Temporary Fiber Roll				\$ -
Temporary Silt Fence				\$ -
Temporary Construction Entrance				\$ -
Street Sweeping				\$ -
Temporary Concrete Washout				\$ -
RE Office	1	LS	\$ 50,000	\$ 50,000
Environmental Compliance	1	LS	\$ 2,000	\$ 2,000
Construction BMPs	1	LS	\$ 90,000	\$ 90,000
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Specialty Items (Section 4):	\$604,000
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Section 5: Traffic Items

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Lighting				\$ -
Traffic Delineation Items	1	LS	\$ 15,000	\$ 15,000
Traffic Signals				\$ -
Overhead Sign Structures				\$ -
Roadside Signs				\$ -
Traffic Control System	1	LS	\$ 300,000	\$ 300,000
Transportation Management Plan	1	LS	\$ 1,000	\$ 1,000
Temporary Detection System				\$ -
Staging	1	LS	\$ 600,000	\$ 600,000
Portable CMS	1	LS	\$ 40,000	\$ 40,000
Construction Area Signs	1	LS	\$ 15,000	\$ 15,000
COZEEP	1	LS	\$ 200,000	\$ 200,000
ADA Curb Ramps				\$ -
				\$ -
				\$ -

Subtotal Traffic Items (Section 5):	\$1,171,000
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PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

Section 6: Planting & Irrigation

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Highway Planting				\$ -
Replacement Planting	1	LS	\$ 20,000	\$ 20,000
Irrigation Modification				\$ -
Relocate Existing Irrigation				\$ -
Irrigation Crossovers				\$ -
Traffic Control System				\$ -
				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Planting & Irrig Items (Section 6):	\$20,000
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Section 7: Roadside Management

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Vegetation Control Treatments				\$ -
Gore Area Pavement				\$ -
Miscellaneous Paving				\$ -
Off-freeway Access gates				\$ -
Maintenance Vehicle Pullouts				\$ -
				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Roadside Mgmt Items (Section 7):	\$0
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TOTAL SECTIONS 1 thru 7:	\$2,992,125
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PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

Section 8: Minor Items

		<u>Item Cost</u>
Subtotal of Sections 1 thru 7:	\$ 2,992,125	
Factor:	10%	
(Subtotal of Sections 1 thru 7) X (Factor) =		\$ 299,213
Total Minor Items (Section 8):		\$299,213

Section 9: Roadway Mobilization

		<u>Item Cost</u>
Subtotal of Sections 1 thru 8:	\$ 3,291,338	
Factor:	10%	
(Subtotal of Sections 1 thru 8) X (Factor) =		\$ 329,134
Total Roadway Mobilization (Section 9):		\$329,134

Section 10: Roadway Additions

		<u>Item Cost</u>
Supplemental Work		
Subtotal of Sections 1 thru 8:	\$ 3,291,338	
Factor:	10%	
(Subtotal of Sections 1 thru 8) X (Factor) =		\$ 329,134
Contingencies		
Subtotal of Sections 1 thru 8:	\$ 3,291,338	
Factor:	25%	
(Subtotal of Sections 1 thru 8) X (Factor) =		\$ 822,834
Total Roadway Additions (Section 10):		\$1,151,968

TOTAL ROADWAY ITEMS (Total Sections 1 thru 10):	\$4,772,439
--	--------------------

USE:	\$4,770,000
-------------	--------------------

Estimate Prepared By: Sarju Patel Date: 10/26/11
Phone No. (530) 741-4430

Estimate Checked By: Robert Polgar Date: 10/26/11
Phone No. (530) 741-4225

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

II. STRUCTURES ITEMS

	<u>No. 1</u>	STRUCTURES <u>No. 2</u>	<u>No. 3</u>
Bridge Name Cape Horn UC (Bridge No. 19-0091)			
Structure Type			
Width (out to out) - (m)			
Total Length - (m)			
Total Area (square meters)			
Footing Type (Pile/Spread)			
Cost per square meter (incl. 10% mobilization & 20% contingency)			
Total Cost for Structure	\$ 0	\$3,238,000	
		Subtotal Structure Items:	\$3,238,000
Railroad Related Costs:	\$ -	\$ -	\$ -
		Subtotal Railroad Items:	\$0
		TOTAL STRUCTURE ITEMS:	\$3,238,000
		USE:	\$3,240,000

COMMENTS:

Structure No. 1
Estimate Prepared By: _____ Date: _____

Structure No. 2
Estimate Prepared By: Lewis Shen Date: 09/09/11
Phone No. (916) 227-8234

PROJECT SCOPE SUMMARY REPORT

COST ESTIMATE SUMMARY

DIST-CO-RTE: 03-Nev, Pla-80
PM: 46.31
EA: 03-2F570K
Program Code: 20.XX.201.110
Bridge Rehabilitation

PROJECT DESCRIPTION

Limits: Crystal Springs Rd OC (Bridge No. 19-0112) on Route 80 at PM 46.31.

Proposed Improvement: Bridge replacement.

Alternative:

SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	\$ 1,310,000
TOTAL STRUCTURE ITEMS	\$ 3,320,000
SUBTOTAL CONSTRUCTION COSTS	\$ 4,630,000
TOTAL RIGHT OF WAY ITEMS	\$ 20,000
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$ 4,650,000

Reviewed by District Program Manager

David Lamb

Approved by Project Manager

Samuel Jordan

Phone No. (530) 741-4417

Date

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

I. ROADWAY ITEMS

Section 1: Earthwork

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Roadway Excavation	75	CY	150	\$ 11,250
Rock Excavation				\$ -
Ditch Excavation				\$ -
Imported Borrow	100	CY	\$ 125	\$ 12,500
Clearing & Grubbing	1	LS	\$ 25,000	\$ 25,000
Develop Water Supply				\$ -
Stepped Slopes				\$ -
Contour Grading				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Earthwork (Section 1):	\$48,750
--	-----------------

Section 2: Pavement Structural Section

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Hot Mix Asphalt (Type A)	125	TON	\$ 250	\$ 31,250
Minor Hot Mix Asphalt				\$ -
Class 2 Aggregate Base	50	CY	\$ 175	\$ 8,750
Minor Concrete (Backfill)				\$ -
Imported Material (Shoulder Backing)				\$ -
Cold Plane AC Pavement	500	SQYD	\$ 20	\$ 10,000
Place HMA (Miscellaneous Area)				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Structural Section (Section 2):	\$50,000
---	-----------------

Section 3: Drainage

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Remove Culvert		EA		\$ -
Remove Headwalls		EA		\$ -
Minor Concrete (Minor Structure)		CY		\$ -
24" Alternative Pipe Culvert		LF		\$ -
30" Alternative Pipe Culvert		LF		\$ -
36" Alternative Pipe Culvert		LF		\$ -
RSP (Light, Method B)		CY		\$ -
RSP (1/4T, Method B)		CY		\$ -
Concreted-RSP		CY		\$ -
RSP Fabric		SQYD		\$ -
				\$ -
				\$ -

Subtotal Drainage (Section 3):	\$0
---------------------------------------	------------

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

Section 4: Specialty Items

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Retaining Walls				\$ -
Noise Barriers				\$ -
Hazardous Waste Inv/Mitigation Work				\$ -
Prepare Water Pollution Control Plan	1	LS	\$ 2,000	\$ 2,000
Construction Site Management	1	LS	\$ 40,000	\$ 40,000
Erosion Control (Blanket)				\$ -
Temporary Fiber Roll				\$ -
Temporary Silt Fence				\$ -
Temporary Construction Entrance				\$ -
Street Sweeping				\$ -
Temporary Concrete Washout				\$ -
RE Office	1	LS	\$ 50,000	\$ 50,000
Environmental Compliance	1	LS	\$ 2,000	\$ 2,000
Construction BMPs	1	LS	\$ 65,000	\$ 65,000
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Specialty Items (Section 4):	\$159,000
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Section 5: Traffic Items

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Lighting	1	LS	\$ 75,000	\$ 75,000
Traffic Delineation Items	1	LS	\$ 7,500	\$ 7,500
Traffic Signals				\$ -
Overhead Sign Structures				\$ -
Roadside Signs				\$ -
Traffic Control System	1	LS	\$ 150,000	\$ 150,000
Transportation Management Plan	1	LS	\$ 1,000	\$ 1,000
Temporary Detection System				\$ -
Staging	1	LS	\$ 250,000	\$ 250,000
Portable CMS	1	LS	\$ 10,000	\$ 10,000
Construction Area Signs	1	LS	\$ 15,000	\$ 15,000
COZEEP	1	LS	\$ 10,000	\$ 10,000
ADA Curb Ramps	2	EA	\$ 20,000	\$ 40,000
				\$ -
				\$ -

Subtotal Traffic Items (Section 5):	\$558,500
--	------------------

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

Section 6: Planting & Irrigation

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Highway Planting				\$ -
Replacement Planting	1	LS	\$ 3,000	\$ 3,000
Irrigation Modification				\$ -
Relocate Existing Irrigation				\$ -
Irrigation Crossovers				\$ -
Traffic Control System				\$ -
				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Planting & Irrig Items (Section 6):	\$3,000
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Section 7: Roadside Management

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Vegetation Control Treatments				\$ -
Gore Area Pavement				\$ -
Miscellaneous Paving				\$ -
Off-freeway Access gates				\$ -
Maintenance Vehicle Pullouts				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Roadside Mgmt Items (Section 7):	\$0
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TOTAL SECTIONS 1 thru 7:	\$819,250
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PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

Section 8: Minor Items

		<u>Item Cost</u>
Subtotal of Sections 1 thru 7:	\$ 819,250	
Factor:	10%	
(Subtotal of Sections 1 thru 7) X (Factor) =		\$ 81,925
Total Minor Items (Section 8):		\$81,925

Section 9: Roadway Mobilization

		<u>Item Cost</u>
Subtotal of Sections 1 thru 8:	\$ 901,175	
Factor:	10%	
(Subtotal of Sections 1 thru 8) X (Factor) =		\$ 90,118
Total Roadway Mobilization (Section 9):		\$90,118

Section 10: Roadway Additions

		<u>Item Cost</u>
Supplemental Work		
Subtotal of Sections 1 thru 8:	\$ 901,175	
Factor:	10%	
(Subtotal of Sections 1 thru 8) X (Factor) =		\$ 90,118
Contingencies		
Subtotal of Sections 1 thru 8:	\$ 901,175	
Factor:	25%	
(Subtotal of Sections 1 thru 8) X (Factor) =		\$ 225,294
Total Roadway Additions (Section 10):		\$315,411

TOTAL ROADWAY ITEMS (Total Sections 1 thru 10):	\$1,306,704
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USE:	\$1,310,000
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Estimate Prepared By: Sarju Patel Date: 10/26/11
Phone No. (530) 741-4430

Estimate Checked By: Robert Polgar Date: 10/26/11
Phone No. (530) 741-4225

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

II. STRUCTURES ITEMS

	<u>No. 1</u>	STRUCTURES <u>No. 2</u>	<u>No. 3</u>
Bridge Name Crystal Springs Rd OC (Bridge No. 19-0112)			
Structure Type			
Width (out to out) - (m)			
Total Length - (m)			
Total Area (square meters)			
Footing Type (Pile/Spread)			
Cost per square meter (incl. 10% mobilization & 20% contingency)			
Total Cost for Structure	\$ 0	\$ 3,324,000	
		Subtotal Structure Items:	\$3,324,000
Railroad Related Costs:	\$ -	\$ -	\$ -
		Subtotal Railroad Items:	\$0
		TOTAL STRUCTURE ITEMS:	\$3,324,000
		USE:	\$3,320,000

COMMENTS:

Structure No. 1
Estimate Prepared By: _____ Date: _____

Structure No. 2
Estimate Prepared By: Lewis Shen Date: 09/09/11
Phone No. (916) 227-8234

PROJECT SCOPE SUMMARY REPORT

COST ESTIMATE SUMMARY

DIST-CO-RTE: 03-Nev, Pla-80
PM: 46.94
EA: 03-2F570K
Program Code: 20.XX.201.110
Bridge Rehabilitation

PROJECT DESCRIPTION

Limits: Baxter OC (Bridge No. 19-0113) on Route 80 at PM 46.94.

Proposed Improvement: Bridge replacement.

Alternative:

SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	\$ 1,310,000
TOTAL STRUCTURE ITEMS	\$ 3,260,000
SUBTOTAL CONSTRUCTION COSTS	\$ 4,570,000
TOTAL RIGHT OF WAY ITEMS	\$ 20,000
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$ 4,590,000

Reviewed by District Program Manager

David Lamb

Approved by Project Manager

Samuel Jordan

Phone No. (530) 741-4417

Date

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

I. ROADWAY ITEMS

Section 1: Earthwork

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Roadway Excavation	75	CY	150	\$ 11,250
Rock Excavation				\$ -
Ditch Excavation				\$ -
Imported Borrow	100	CY	\$ 125	\$ 12,500
Clearing & Grubbing	1	LS	\$ 25,000	\$ 25,000
Develop Water Supply				\$ -
Stepped Slopes				\$ -
Contour Grading				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Earthwork (Section 1):	\$48,750
--	-----------------

Section 2: Pavement Structural Section

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Hot Mix Asphalt (Type A)	125	TON	\$ 250	\$ 31,250
Minor Hot Mix Asphalt				\$ -
Class 2 Aggregate Base	50	CY	\$ 175	\$ 8,750
Minor Concrete (Backfill)				\$ -
Imported Material (Shoulder Backing)				\$ -
Cold Plane AC Pavement	500	SQYD	\$ 20	\$ 10,000
Place HMA (Miscellaneous Area)				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Structural Section (Section 2):	\$50,000
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Section 3: Drainage

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Remove Culvert		EA		\$ -
Remove Headwalls		EA		\$ -
Minor Concrete (Minor Structure)		CY		\$ -
24" Alternative Pipe Culvert		LF		\$ -
30" Alternative Pipe Culvert		LF		\$ -
36" Alternative Pipe Culvert		LF		\$ -
RSP (Light, Method B)		CY		\$ -
RSP (1/4T, Method B)		CY		\$ -
Concreted-RSP		CY		\$ -
RSP Fabric		SQYD		\$ -
				\$ -
				\$ -

Subtotal Drainage (Section 3):	\$0
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PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

Section 4: Specialty Items

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Retaining Walls				\$ -
Noise Barriers				\$ -
Hazardous Waste Inv/Mitigation Work				\$ -
Prepare Water Pollution Control Plan	1	LS	\$ 2,000	\$ 2,000
Construction Site Management	1	LS	\$ 40,000	\$ 40,000
Erosion Control (Blanket)				\$ -
Temporary Fiber Roll				\$ -
Temporary Silt Fence				\$ -
Temporary Construction Entrance				\$ -
Street Sweeping				\$ -
Temporary Concrete Washout				\$ -
RE Office	1	LS	\$ 50,000	\$ 50,000
Environmental Compliance	1	LS	\$ 2,000	\$ 2,000
Construction BMPs	1	LS	\$ 65,000	\$ 65,000
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Specialty Items (Section 4):	\$159,000
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Section 5: Traffic Items

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Lighting	1	LS	\$ 75,000	\$ 75,000
Traffic Delineation Items	1	LS	\$ 7,500	\$ 7,500
Traffic Signals				\$ -
Overhead Sign Structures				\$ -
Roadside Signs				\$ -
Traffic Control System	1	LS	\$ 150,000	\$ 150,000
Transportation Management Plan	1	LS	\$ 1,000	\$ 1,000
Temporary Detection System				\$ -
Staging	1	LS	\$ 250,000	\$ 250,000
Portable CMS	1	LS	\$ 10,000	\$ 10,000
Construction Area Signs	1	LS	\$ 15,000	\$ 15,000
COZEEP	1	LS	\$ 10,000	\$ 10,000
ADA Curb Ramps	2	EA	\$ 20,000	\$ 40,000
				\$ -
				\$ -

Subtotal Traffic Items (Section 5):	\$558,500
--	------------------

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

Section 6: Planting & Irrigation

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Highway Planting				\$ -
Replacement Planting	1	LS	\$ 3,000	\$ 3,000
Irrigation Modification				\$ -
Relocate Existing Irrigation				\$ -
Irrigation Crossovers				\$ -
Traffic Control System				\$ -
				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Planting & Irrig Items (Section 6):	\$3,000
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Section 7: Roadside Management

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Vegetation Control Treatments				\$ -
Gore Area Pavement				\$ -
Miscellaneous Paving				\$ -
Off-freeway Access gates				\$ -
Maintenance Vehicle Pullouts				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Roadside Mgmt Items (Section 7):	\$0
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TOTAL SECTIONS 1 thru 7:	\$819,250
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PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

Section 8: Minor Items

		Item Cost
Subtotal of Sections 1 thru 7:	\$ 819,250	
Factor:	10%	
(Subtotal of Sections 1 thru 7) X (Factor) =		\$ 81,925
Total Minor Items (Section 8):		\$81,925

Section 9: Roadway Mobilization

		Item Cost
Subtotal of Sections 1 thru 8:	\$ 901,175	
Factor:	10%	
(Subtotal of Sections 1 thru 8) X (Factor) =		\$ 90,118
Total Roadway Mobilization (Section 9):		\$90,118

Section 10: Roadway Additions

		Item Cost
Supplemental Work		
Subtotal of Sections 1 thru 8:	\$ 901,175	
Factor:	10%	
(Subtotal of Sections 1 thru 8) X (Factor) =		\$ 90,118
Contingencies		
Subtotal of Sections 1 thru 8:	\$ 901,175	
Factor:	25%	
(Subtotal of Sections 1 thru 8) X (Factor) =		\$ 225,294
Total Roadway Additions (Section 10):		\$315,411

TOTAL ROADWAY ITEMS (Total Sections 1 thru 10):	\$1,306,704
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USE:	\$1,310,000
-------------	--------------------

Estimate Prepared By: Sarju Patel Date: 10/26/11
Phone No. (530) 741-4430

Estimate Checked By: Robert Polgar Date: 10/26/11
Phone No. (530) 741-4225

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

II. STRUCTURES ITEMS

	<u>No. 1</u>	STRUCTURES <u>No. 2</u>	<u>No. 3</u>
Bridge Name Baxter OC (Bridge No. 19-0113)			
Structure Type			
Width (out to out) - (m)			
Total Length - (m)			
Total Area (square meters)			
Footing Type (Pile/Spread)			
Cost per square meter (incl. 10% mobilization & 20% contingency)			
Total Cost for Structure	\$ 0	\$ 3,260,000	
		Subtotal Structure Items:	\$3,260,000
Railroad Related Costs:	\$ -	\$ -	\$ -
		Subtotal Railroad Items:	\$0
		TOTAL STRUCTURE ITEMS:	\$3,260,000
		USE:	\$3,260,000

COMMENTS:

Structure No. 1
Estimate Prepared By: _____ Date: _____

Structure No. 2
Estimate Prepared By: Lewis Shen Date: 09/09/11
Phone No. (916) 227-8234

PROJECT SCOPE SUMMARY REPORT

COST ESTIMATE SUMMARY

DIST-CO-RTE: 03-Nev, Pla-80
PM: 49.00
EA: 03-2F570K
Program Code: 20.XX.201.110
Bridge Rehabilitation

PROJECT DESCRIPTION

Limits: Drum Forebay OC (Bridge No. 19-0114) on Route 80 at PM 49.00.

Proposed Improvement: Bridge replacement.

Alternative:

SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	\$ 1,310,000
TOTAL STRUCTURE ITEMS	\$ 3,260,000
SUBTOTAL CONSTRUCTION COSTS	\$ 4,570,000
TOTAL RIGHT OF WAY ITEMS	\$ 20,000
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$ 4,590,000

Reviewed by District Program Manager

David Lamb

Approved by Project Manager

Samuel Jordan
Phone No. (530) 741-4417

Date _____

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

I. ROADWAY ITEMS

Section 1: Earthwork

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Roadway Excavation	75	CY	150	\$ 11,250
Rock Excavation				\$ -
Ditch Excavation				\$ -
Imported Borrow	100	CY	\$ 125	\$ 12,500
Clearing & Grubbing	1	LS	\$ 25,000	\$ 25,000
Develop Water Supply				\$ -
Stepped Slopes				\$ -
Contour Grading				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Earthwork (Section 1):	\$48,750
--	-----------------

Section 2: Pavement Structural Section

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Hot Mix Asphalt (Type A)	125	TON	\$ 250	\$ 31,250
Minor Hot Mix Asphalt				\$ -
Class 2 Aggregate Base	50	CY	\$ 175	\$ 8,750
Minor Concrete (Backfill)				\$ -
Imported Material (Shoulder Backing)				\$ -
Cold Plane AC Pavement	500	SQYD	\$ 20	\$ 10,000
Place HMA (Miscellaneous Area)				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Structural Section (Section 2):	\$50,000
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Section 3: Drainage

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Remove Culvert		EA		\$ -
Remove Headwalls		EA		\$ -
Minor Concrete (Minor Structure)		CY		\$ -
24" Alternative Pipe Culvert		LF		\$ -
30" Alternative Pipe Culvert		LF		\$ -
36" Alternative Pipe Culvert		LF		\$ -
RSP (Light, Method B)		CY		\$ -
RSP (1/4T, Method B)		CY		\$ -
Concreted-RSP		CY		\$ -
RSP Fabric		SQYD		\$ -
				\$ -
				\$ -

Subtotal Drainage (Section 3):	\$0
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PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

Section 4: Specialty Items

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Retaining Walls				\$ -
Noise Barriers				\$ -
Hazardous Waste Inv/Mitigation Work				\$ -
Prepare Water Pollution Control Plan	1	LS	\$ 2,000	\$ 2,000
Construction Site Management	1	LS	\$ 40,000	\$ 40,000
Erosion Control (Blanket)				\$ -
Temporary Fiber Roll				\$ -
Temporary Silt Fence				\$ -
Temporary Construction Entrance				\$ -
Street Sweeping				\$ -
Temporary Concrete Washout				\$ -
RE Office	1	LS	\$ 50,000	\$ 50,000
Environmental Compliance	1	LS	\$ 2,000	\$ 2,000
Construction BMPs	1	LS	\$ 65,000	\$ 65,000
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Specialty Items (Section 4):	\$159,000
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Section 5: Traffic Items

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Lighting	1	LS	\$ 75,000	\$ 75,000
Traffic Delineation Items	1	LS	\$ 7,500	\$ 7,500
Traffic Signals				\$ -
Overhead Sign Structures				\$ -
Roadside Signs				\$ -
Traffic Control System	1	LS	\$ 150,000	\$ 150,000
Transportation Management Plan	1	LS	\$ 1,000	\$ 1,000
Temporary Detection System				\$ -
Staging	1	LS	\$ 250,000	\$ 250,000
Portable CMS	1	LS	\$ 10,000	\$ 10,000
Construction Area Signs	1	LS	\$ 15,000	\$ 15,000
COZEEP	1	LS	\$ 10,000	\$ 10,000
ADA Curb Ramps	2	EA	\$ 20,000	\$ 40,000
				\$ -
				\$ -

Subtotal Traffic Items (Section 5):	\$558,500
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PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

Section 6: Planting & Irrigation

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Highway Planting				\$ -
Replacement Planting	1	LS	\$ 3,000	\$ 3,000
Irrigation Modification				\$ -
Relocate Existing Irrigation				\$ -
Irrigation Crossovers				\$ -
Traffic Control System				\$ -
				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Planting & Irrig Items (Section 6):	\$3,000
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Section 7: Roadside Management

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Vegetation Control Treatments				\$ -
Gore Area Pavement				\$ -
Miscellaneous Paving				\$ -
Off-freeway Access gates				\$ -
Maintenance Vehicle Pullouts				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Roadside Mgmt Items (Section 7):	\$0
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TOTAL SECTIONS 1 thru 7:	\$819,250
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PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

Section 8: Minor Items

		Item Cost
Subtotal of Sections 1 thru 7:	\$ 819,250	
Factor:	10%	
(Subtotal of Sections 1 thru 7) X (Factor) =		\$ 81,925
Total Minor Items (Section 8):		\$81,925

Section 9: Roadway Mobilization

		Item Cost
Subtotal of Sections 1 thru 8:	\$ 901,175	
Factor:	10%	
(Subtotal of Sections 1 thru 8) X (Factor) =		\$ 90,118
Total Roadway Mobilization (Section 9):		\$90,118

Section 10: Roadway Additions

		Item Cost
Supplemental Work		
Subtotal of Sections 1 thru 8:	\$ 901,175	
Factor:	10%	
(Subtotal of Sections 1 thru 8) X (Factor) =		\$ 90,118
Contingencies		
Subtotal of Sections 1 thru 8:	\$ 901,175	
Factor:	25%	
(Subtotal of Sections 1 thru 8) X (Factor) =		\$ 225,294
Total Roadway Additions (Section 10):		\$315,411

TOTAL ROADWAY ITEMS (Total Sections 1 thru 10):	\$1,306,704
--	--------------------

USE:	\$1,310,000
-------------	--------------------

Estimate Prepared By: Sarju Patel Date: 10/26/11
Phone No. (530) 741-4430

Estimate Checked By: Robert Polgar Date: 10/26/11
Phone No. (530) 741-4225

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

II. STRUCTURES ITEMS

	<u>No. 1</u>	STRUCTURES <u>No. 2</u>	<u>No. 3</u>
Bridge Name			
Drum Forebay OC (Bridge No. 19-0114)			
Structure Type			
Width (out to out) - (m)			
Total Length - (m)			
Total Area (square meters)			
Footing Type (Pile/Spread)			
Cost per square meter (incl. 10% mobilization & 20% contingency)			
Total Cost for Structure	\$ 0	\$ 3,260,000	
		Subtotal Structure Items:	\$3,260,000
Railroad Related Costs:	\$ -	\$ -	\$ -
		Subtotal Railroad Items:	\$0
		TOTAL STRUCTURE ITEMS:	\$3,260,000
		USE:	\$3,260,000

COMMENTS:

Structure No. 1
Estimate Prepared By: _____ Date: _____

Structure No. 2
Estimate Prepared By: Lewis Shen Date: 09/09/11
Phone No. (916) 227-8234

PROJECT SCOPE SUMMARY REPORT

COST ESTIMATE SUMMARY

DIST-CO-RTE: 03-Nev, Pla-80
PM: R59.44
EA: 03-2F570K
Program Code: 20.XX.201.110
Bridge Rehabilitation

PROJECT DESCRIPTION

Limits: Yuba Pass SOH (Bridge No. 17-0023L/R) on Route 80 at PM R59.44.

Proposed Improvement: Bridge rehabilitation.

Alternative:

SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	\$	110,000
TOTAL STRUCTURE ITEMS	\$	140,000
SUBTOTAL CONSTRUCTION COSTS	\$	250,000
TOTAL RIGHT OF WAY ITEMS	\$	40,000
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$	290,000

Reviewed by District Program Manager

David Lamb

Approved by Project Manager

Samuel Jordan

Phone No. (530) 741-4417

Date

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

I. ROADWAY ITEMS

Section 1: Earthwork

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Roadway Excavation				\$ -
Rock Excavation				\$ -
Ditch Excavation				\$ -
Imported Borrow				\$ -
Clearing & Grubbing	1	LS	\$ 7,000	\$ 7,000
Develop Water Supply				\$ -
Stepped Slopes				\$ -
Contour Grading				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Earthwork (Section 1):	\$7,000
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Section 2: Pavement Structural Section

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Hot Mix Asphalt (Type A)				\$ -
Minor Hot Mix Asphalt				\$ -
Class 2 Aggregate Base				\$ -
Minor Concrete (Backfill)				\$ -
Imported Material (Shoulder Backing)				\$ -
Cold Plane AC Pavement				\$ -
Place HMA (Miscellaneous Area)				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Structural Section (Section 2):	\$0
--	-----

Section 3: Drainage

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Remove Culvert		EA		\$ -
Remove Headwalls		EA		\$ -
Minor Concrete (Minor Structure)		CY		\$ -
24" Alternative Pipe Culvert		LF		\$ -
30" Alternative Pipe Culvert		LF		\$ -
36" Alternative Pipe Culvert		LF		\$ -
RSP (Light, Method B)		CY		\$ -
RSP (1/4T, Method B)		CY		\$ -
Concreted-RSP		CY		\$ -
RSP Fabric		SQYD		\$ -
				\$ -
				\$ -

Subtotal Drainage (Section 3):	\$0
--------------------------------	-----

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

Section 4: Specialty Items

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Retaining Walls				\$ -
Noise Barriers				\$ -
Hazardous Waste Inv/Mitigation Work				\$ -
Prepare Water Pollution Control Plan	1	LS	\$ 2,000	\$ 2,000
Construction Site Management	1	LS	\$ 5,000	\$ 5,000
Erosion Control (Blanket)				\$ -
Temporary Fiber Roll				\$ -
Temporary Silt Fence				\$ -
Temporary Construction Entrance				\$ -
Street Sweeping				\$ -
Temporary Concrete Washout				\$ -
RE Office	1	LS	\$ 4,000	\$ 4,000
Environmental Compliance	1	LS	\$ 2,000	\$ 2,000
Construction BMPs	1	LS	\$ 5,000	\$ 5,000
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Specialty Items (Section 4):	\$18,000
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Section 5: Traffic Items

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Lighting				\$ -
Traffic Delineation Items				\$ -
Traffic Signals				\$ -
Overhead Sign Structures				\$ -
Roadside Signs				\$ -
Traffic Control System	1	LS	\$ 20,000	\$ 20,000
Transportation Management Plan	1	LS	\$ 1,000	\$ 1,000
Temporary Detection System				\$ -
Staging				\$ -
Portable CMS	1	LS	\$ 10,000	\$ 10,000
Construction Area Signs	1	LS	\$ 4,000	\$ 4,000
COZEEP	1	LS	\$ 5,000	\$ 5,000
				\$ -
				\$ -
				\$ -

Subtotal Traffic Items (Section 5):	\$40,000
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PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

Section 6: Planting & Irrigation

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Highway Planting				\$ -
Replacement Planting	1	LS	\$ 1,000	\$ 1,000
Irrigation Modification				\$ -
Relocate Existing Irrigation				\$ -
Irrigation Crossovers				\$ -
Traffic Control System				\$ -
				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Planting & Irrig Items (Section 6):	\$1,000
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Section 7: Roadside Management

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Vegetation Control Treatments				\$ -
Gore Area Pavement				\$ -
Miscellaneous Paving				\$ -
Off-freeway Access gates				\$ -
Maintenance Vehicle Pullouts				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Roadside Mgmt Items (Section 7):	\$0
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TOTAL SECTIONS 1 thru 7:	\$66,000
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PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

Section 8: Minor Items

		<u>Item Cost</u>
Subtotal of Sections 1 thru 7:	\$ 66,000	
Factor:	10%	
(Subtotal of Sections 1 thru 7) X (Factor) =		\$ 6,600
Total Minor Items (Section 8):		\$6,600

Section 9: Roadway Mobilization

		<u>Item Cost</u>
Subtotal of Sections 1 thru 8:	\$ 72,600	
Factor:	10%	
(Subtotal of Sections 1 thru 8) X (Factor) =		\$ 7,260
Total Roadway Mobilization (Section 9):		\$7,260

Section 10: Roadway Additions

		<u>Item Cost</u>
Supplemental Work		
Subtotal of Sections 1 thru 8:	\$ 72,600	
Factor:	10%	
(Subtotal of Sections 1 thru 8) X (Factor) =		\$ 7,260
Contingencies		
Subtotal of Sections 1 thru 8:	\$ 72,600	
Factor:	25%	
(Subtotal of Sections 1 thru 8) X (Factor) =		\$ 18,150
Total Roadway Additions (Section 10):		\$25,410

TOTAL ROADWAY ITEMS (Total Sections 1 thru 10):	\$105,270
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USE:	\$110,000
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Estimate Prepared By: Sarju Patel Date: 10/26/11
Phone No. (530) 741-4430

Estimate Checked By: Robert Polgar Date: 10/26/11
Phone No. (530) 741-4225

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

II. STRUCTURES ITEMS

	<u>No. 1</u>	STRUCTURES <u>No. 2</u>	<u>No. 3</u>
Bridge Name Yuba Pass SOH (Bridge No. 17-0023L/R)			
Structure Type			
Width (out to out) - (m)			
Total Length - (m)			
Total Area (square meters)			
Footing Type (Pile/Spread)			
Cost per square meter (incl. 10% mobilization & 20% contingency)			
Total Cost for Structure	\$ 0	\$ 136,000	
		Subtotal Structure Items:	\$136,000
Railroad Related Costs:	\$ -	\$ -	\$ -
		Subtotal Railroad Items:	\$0
		TOTAL STRUCTURE ITEMS:	\$136,000
		USE:	\$140,000

COMMENTS:

Structure No. 1
Estimate Prepared By: _____ Date: _____

Structure No. 2
Estimate Prepared By: Lewis Shen Date: 09/09/11
Phone No. (916) 227-8234

PROJECT SCOPE SUMMARY REPORT

COST ESTIMATE SUMMARY

DIST-CO-RTE: 03-Nev, Pla-80
PM: R63.52
EA: 03-2F570K
Program Code: 20.XX.201.110
Bridge Rehabilitation

PROJECT DESCRIPTION

Limits: Cisco OC (Bridge No. 19-0118) on Route 80 at PM R63.52.

Proposed Improvement: Bridge replacement.

Alternative:

SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	\$ 1,310,000
TOTAL STRUCTURE ITEMS	\$ 5,040,000
SUBTOTAL CONSTRUCTION COSTS	\$ 6,350,000
TOTAL RIGHT OF WAY ITEMS	\$ 20,000
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$ 6,370,000

Reviewed by District Program Manager

David Lamb

Approved by Project Manager

Samuel Jordan

Phone No. (530) 741-4417

Date _____

PROJECT SCOPE SUMMARY REPORT

COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
 PM: Var
 EA: 03-2F570K

I. ROADWAY ITEMS

Section 1: Earthwork

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Roadway Excavation	75	CY	\$ 150	\$ 11,250
Rock Excavation				\$ -
Ditch Excavation				\$ -
Imported Borrow	100	CY	\$ 125	\$ 12,500
Clearing & Grubbing	1	LS	\$ 25,000	\$ 25,000
Develop Water Supply				\$ -
Stepped Slopes				\$ -
Contour Grading				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Earthwork (Section 1):	\$48,750
--	-----------------

Section 2: Pavement Structural Section

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Hot Mix Asphalt (Type A)	125	TON	\$ 250	\$ 31,250
Minor Hot Mix Asphalt				\$ -
Class 2 Aggregate Base	50	CY	\$ 175	\$ 8,750
Minor Concrete (Backfill)				\$ -
Imported Material (Shoulder Backing)				\$ -
Cold Plane AC Pavement	500	SQYD	\$ 20	\$ 10,000
Place HMA (Miscellaneous Area)				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Structural Section (Section 2):	\$50,000
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Section 3: Drainage

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Remove Culvert		EA		\$ -
Remove Headwalls		EA		\$ -
Minor Concrete (Minor Structure)		CY		\$ -
24" Alternative Pipe Culvert		LF		\$ -
30" Alternative Pipe Culvert		LF		\$ -
36" Alternative Pipe Culvert		LF		\$ -
RSP (Light, Method B)		CY		\$ -
RSP (1/4T, Method B)		CY		\$ -
Concreted-RSP		CY		\$ -
RSP Fabric		SQYD		\$ -
				\$ -
				\$ -

Subtotal Drainage (Section 3):	\$0
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PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

Section 4: Specialty Items

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Retaining Walls				\$ -
Noise Barriers				\$ -
Hazardous Waste Inv/Mitigation Work				\$ -
Prepare Water Pollution Control Plan	1	LS	\$ 2,000	\$ 2,000
Construction Site Management	1	LS	\$ 40,000	\$ 40,000
Erosion Control (Blanket)				\$ -
Temporary Fiber Roll				\$ -
Temporary Silt Fence				\$ -
Temporary Construction Entrance				\$ -
Street Sweeping				\$ -
Temporary Concrete Washout				\$ -
RE Office	1	LS	\$ 50,000	\$ 50,000
Environmental Compliance	1	LS	\$ 2,000	\$ 2,000
Construction BMPs	1	LS	\$ 65,000	\$ 65,000
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Specialty Items (Section 4):	\$159,000
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Section 5: Traffic Items

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Lighting	1	LS	\$ 75,000	\$ 75,000
Traffic Delineation Items	1	LS	\$ 7,500	\$ 7,500
Traffic Signals				\$ -
Overhead Sign Structures				\$ -
Roadside Signs				\$ -
Traffic Control System	1	LS	\$ 150,000	\$ 150,000
Transportation Management Plan	1	LS	\$ 1,000	\$ 1,000
Temporary Detection System				\$ -
Staging	1	LS	\$ 250,000	\$ 250,000
Portable CMS	1	LS	\$ 10,000	\$ 10,000
Construction Area Signs	1	LS	\$ 15,000	\$ 15,000
COZEEP	1	LS	\$ 10,000	\$ 10,000
ADA Curb Ramps	2	EA	\$ 20,000	\$ 40,000
				\$ -
				\$ -

Subtotal Traffic Items (Section 5):	\$558,500
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PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

Section 6: Planting & Irrigation

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Highway Planting				\$ -
Replacement Planting	1	LS	\$ 3,000	\$ 3,000
Irrigation Modification				\$ -
Relocate Existing Irrigation				\$ -
Irrigation Crossovers				\$ -
Traffic Control System				\$ -
				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Planting & Irrig Items (Section 6):	\$3,000
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Section 7: Roadside Management

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>
Vegetation Control Treatments				\$ -
Gore Area Pavement				\$ -
Miscellaneous Paving				\$ -
Off-freeway Access gates				\$ -
Maintenance Vehicle Pullouts				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -

Subtotal Roadside Mgmt Items (Section 7):	\$0
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TOTAL SECTIONS 1 thru 7:	\$819,250
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PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

Section 8: Minor Items

		<u>Item Cost</u>
Subtotal of Sections 1 thru 7:	\$ 819,250	
Factor:	10%	
(Subtotal of Sections 1 thru 7) X (Factor) =		\$ 81,925
Total Minor Items (Section 8):		\$81,925

Section 9: Roadway Mobilization

		<u>Item Cost</u>
Subtotal of Sections 1 thru 8:	\$ 901,175	
Factor:	10%	
(Subtotal of Sections 1 thru 8) X (Factor) =		\$ 90,118
Total Roadway Mobilization (Section 9):		\$90,118

Section 10: Roadway Additions

		<u>Item Cost</u>
Supplemental Work		
Subtotal of Sections 1 thru 8:	\$ 901,175	
Factor:	10%	
(Subtotal of Sections 1 thru 8) X (Factor) =		\$ 90,118
Contingencies		
Subtotal of Sections 1 thru 8:	\$ 901,175	
Factor:	25%	
(Subtotal of Sections 1 thru 8) X (Factor) =		\$ 225,294
Total Roadway Additions (Section 10):		\$315,411

TOTAL ROADWAY ITEMS (Total Sections 1 thru 10):	\$1,306,704
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USE:	\$1,310,000
-------------	--------------------

Estimate Prepared By: Sarju Patel Date: 10/26/11
Phone No. (530) 741-4430

Estimate Checked By: Robert Polgar Date: 10/26/11
Phone No. (530) 741-4225

PROJECT SCOPE SUMMARY REPORT COST ESTIMATE

DIST-CO-RTE: 03-Nev, Pla-80
PM: Var
EA: 03-2F570K

II. STRUCTURES ITEMS

	<u>No. 1</u>	STRUCTURES <u>No. 2</u>	<u>No. 3</u>
Bridge Name Cisco OC (Bridge No. 19-0118)			
Structure Type			
Width (out to out) - (m)			
Total Length - (m)			
Total Area (square meters)			
Footing Type (Pile/Spread)			
Cost per square meter (incl. 10% mobilization & 20% contingency)			
Total Cost for Structure	\$ 0	\$ 5,039,000	
		Subtotal Structure Items:	\$5,039,000
Railroad Related Costs:	\$ -	\$ -	\$ -
		Subtotal Railroad Items:	\$0
		TOTAL STRUCTURE ITEMS:	\$5,039,000
		USE:	\$5,040,000

COMMENTS:

Structure No. 1
Estimate Prepared By: _____ Date: _____

Structure No. 2
Estimate Prepared By: Lewis Shen Date: 10/25/11
Phone No. (916) 227-8234

ATTACHMENT G

PROGRAMMING SHEET

PROGRAMMING SHEET - 2011/2012

EA: 03-2F570
 Proj Name: PLA 80 Bridge Rehab

Project Manager: Sam Jordan
 Co-Rte-PM: PLA-080- 000.2/ 063.5

Date: 11/21/2011
 Type: SHOPP

PROJECT SCHEDULE

MILESTONE		DATE (STATUS)
Begin Environmental Document	M020	08/01/2012 (T)
Begin Project Report	M040	07/01/2012 (T)
Circulate Environmental Document (DED)	M120	08/01/2013 (T)
Project Approval & Environmental Document (PA&ED)	M200	12/01/2013 (T)
District Submits Bridge Site Data to Structures	M221	05/01/2014 (T)
Right of Way Maps	M224	05/01/2014 (T)
Regular Right of Way	M225	06/01/2014 (T)
District Plans, Specifications & Estimates to DOE	M377	10/01/2015 (T)
Draft Structures Plans, Specifications & Estimates	M378	08/01/2015 (T)
District Plans, Specifications & Estimates (PS&E)	M380	01/01/2016 (T)
Right of Way Certification	M410	03/01/2016 (T)
Ready to List (RTL)	M460	04/01/2016 (T)
Headquarters Advertise (HQ AD)	M480	07/01/2016 (T)
Approve Construction Contract	M500	10/01/2016 (T)
Contract Acceptance (CCA)	M600	10/01/2020 (T)
End Project	M800	10/01/2022 (T)

ESTIMATE	DATE	AMOUNT
ROADWAY	10/27/11	\$ 12120
BRIDGE	10/27/11	\$ 20870
Subtotal Const		\$ 32990
RIGHT OF WAY	09/15/11	\$ 210
MITIGATION		\$ 0
Subtotal RW		\$ 210
GRAND TOTAL		\$ 33200

EXISTING PROGRAMMING	
PAED	\$
PS&E	\$
RW - Sup	\$
RW - Cap	\$
Const - Sup	\$
Const - Cap	\$

*Does not apply to RW Capital + Not Escalated ++ Only Escalated to 1 year into Future

PROJECT COSTS BY SB45 CATEGORY

CAPITAL COST ESTIMATE (Escalation Factor)	Prior Yrs+	11/12+	12/13 (3.5%)	13/14 (3.5%)	14/15 (3.5%)	15/16 (3.5%)	Future++ (3.5%)	Total	
Right of Way					210			\$ 210	
Construction						37856		\$ 37,857	
CAPITAL COSTS TOTAL								\$ 38,067	
SUPPORT COSTS (Escalation Factor)			(1.5%)	(1.5%)	(1.5%)	(1.5%)	(1.5%)		Sup/Cap
PAED	17	694	1039	183				\$ 1,933	5.08%
PS&E				902	2484	1472	37	\$ 4,895	12.86%
Right of Way				56	120	88	117	\$ 381	1.00%
Construction							5208	\$ 5,208	13.68%
SUPPORT COSTS TOTAL								\$12,417	32.62%
TOTAL PROJECT COSTS								\$ 50,484	

PROJECT SUPPORT IN PYS

	Prior Yrs	11/12	12/13	13/14	14/15	15/16	Future	Total	PY %
Environmental	0.01	0.51	0.76	0.24	0.12	0.19	0.41	2.24	2.92%
Design	0.00	1.78	2.67	4.56	3.80	2.74	1.39	16.94	22.11%
Engineering Services	0.00	0.22	0.32	0.16	0.45	0.51	0.63	2.29	2.99%
Surveys	0.01	1.15	1.72	0.71	0.73	1.35	9.29	14.96	19.53%
Right of Way	0.00	0.04	0.06	0.19	0.26	0.39	0.26	1.20	1.57%
Traffic	0.00	0.33	0.49	0.48	1.26	0.67	0.41	3.64	4.75%
Construction	0.00	0.01	0.01	0.07	0.05	0.07	3.93	4.14	5.40%
Project Management	0.07	0.14	0.15	0.14	0.15	0.19	0.24	1.08	1.41%
District Units*	0.01	0.42	0.63	0.20	0.09	0.16	0.32	1.83	2.39%
Subtotal Dist/Region Resources	0.10	4.60	6.81	6.75	6.91	6.27	16.88	48.32	63.07%
59-DES Project Development	0.01	0.16	0.24	0.34	8.14	2.40	1.73	13.02	17.00%
59-DES Structures Foundation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
59-Office Engineer	0.00	0.00	0.00	0.00	0.00	0.38	0.08	0.46	0.60%
59-DES Project Management	0.01	0.02	0.02	0.07	0.10	0.10	0.11	0.43	0.56%
59-DES Construction	0.00	0.01	0.01	0.00	0.05	0.08	14.23	14.38	18.77%
59-DES Other Units**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
Subtotal DES Resources	0.02	0.19	0.27	0.41	8.29	2.96	16.15	28.29	36.93%
TOTAL PYS	0.12	4.79	7.08	7.16	15.20	9.23	33.03	76.61	

*Admin, Plng, Maintenance

**DES Admin, DES Plng, DES Maintenance

HRS/PYS = 1758

Comments:

ATTACHMENT H

ANTICIPATED ENVIRONMENTAL DETERMINATION/DOCUMENT

Mini-Preliminary Environmental Analysis Report
Revised October 26, 2011

Project Information

District 03 County PLA/NEV Route 80 Post Mile 28.73, 36.86, 46.31, 46.94, 49.00, R59.44 EA 03-2F570

Project Title: PLA 80 Bridge Rehab

Project Manager Samuel Jordan Phone # 530-740-4920

Project Engineer Sarju Patel Phone # 530-741-4430

Environmental Branch Chief Tammy Massengale Phone # 530-741-4041

Project Description

Purpose and Need: The Bridge Inspection Reports and STRAIN Reports recommend replacing the following bridges: Cisco Overcrossing Br. No. 19-0118, Cape Horn Undercrossing Br. No. 19-0091, Crystal Springs Road Overcrossing Br. No. 19-0112, Baxter Overcrossing Br. No. 19-0113 and Drum Forebay Overcrossing Br. No. 19-0114. In addition, three bridges, Weimar Overhead Br. No. 19-0038, Yuba Pass 80/20 Separation and Overhead Br. No. 17-0023 and are in need of rehabilitation.

Description of work: This project proposes to replace five bridges and modify their roadway approaches. The bearing pads and bridge abutments will be replaced on Yuba Pass Separation and Overhead. In addition, the Weimar Overhead bridge deck will be replaced and the roadway approaches will be modified. The work will consist of road widening, bridge work, road cut/fill, detours, grinding, access roads, staging areas, drainage/culverts, railroad, ramp closure, temporary easements, utility relocation, ground disturbance, vegetation removal, tree removal, pile driving and night work.

Anticipated Environmental Approval

CEQA

Initial Study with a Negative Declaration

NEPA

Categorical Exclusion

Summary Statement

In order to identify environmental issues, constraints, costs and resource needs, a mini-PEAR (Preliminary Environmental Analysis Report) was prepared for the project. Potential construction staging areas and disposal/borrow sites will need to be identified in the PA&ED phase for environmental review. All technical reviews were completed using data searches. It is important to note that all technical studies will be deferred to the Capital phases of the project.

It is anticipated an Initial Study with a Negative Declaration and a Categorical Exclusion will apply to this project. Based on existing workload and available resources, it is anticipated to take 18 months to complete the environmental process. If possible, Environmental Planning would like to receive the ESR no later than February of a given year in order to complete spring surveys.

Special Considerations

Biology: Specific field surveys will be required to determine the presence and extent of water features that fall under the jurisdiction of the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB) and the California Department of Fish and Game (CDFG). Specific field surveys should be conducted to determine the presence of habitat for migratory birds and bats and listed plant and wildlife species in the project area. Additionally, the project has the potential to impact the federally listed valley elderberry longhorn beetle (VELB).

Archaeology: The background research revealed that some of the areas have been previously surveyed for cultural resources. The railroad passes under the Weimar Overhead and the Yuba Pass Separation and Overhead. The cultural resource sensitivity for the area varies from low to high sensitivity for prehistoric, historic and architectural cultural resources. Many cultural resources are known to exist within the general areas of the project. The bridges within the project area are all Category 5, not eligible for the National Register of Historic Places, Historic Caltrans Bridge Inventory.

Hazardous Waste: An ISA was completed for this project. The following contaminants were identified: Asbestos Containing Materials (ACM), Aerially Deposited Lead (ADL), lead and chromium contained in the yellow traffic striping and lead based paint. A Site Investigation is required.

Water Quality: A water quality assessment will be prepared for this project.

Air Quality: This project is exempt from all air quality conformity analysis requirements per Table 2 of 40 Code of Federal Regulations (CFR) §93.126, subsection "Safety" ("Reconstructing Bridges"). A memo to file will be prepared during PA&ED.

Noise: This project is considered a Type III project and no Traffic Noise Analysis is required. A memo to file will be prepared during PA&ED.

Visual Resources: Due to the limited time constraints a visual preliminary assessment was not requested.

Community Impacts: The community impacts will need to be addressed to determine how closure of the bridges will affect the local residents. A current project in the Weimar Crossing area has raised a lot of concern by the residents.

Disclaimer

This report is not an environmental document. Due to resource constraints, only minimal information was obtained from specialists. The above recommendations are based on the project description provided in this report. The discussion and conclusions provided by this mini-PEAR are approximate and are based on an in-house review of records to estimate the potential for probable effects. The purpose of 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 re-evaluation of this report.

Prepared by:



Tammy Massengale, Chief, Office of Environmental Support

Date: 10/26/11

Reviewed by:



Samuel Jordan, Project Manager

Date: 10/26/11

PEAR Environmental Commitments Cost Estimate

Dist.-Co.-Rte.-KP/PM: 03 PLA/NEV 80 28.73, 36.86, 46.31, 46.94, 49.00, R59.44 EA: 03-2F570

Project Description: This project proposes to replace five bridges and modify their roadway approaches. The bearing pads and bridge abutments will be replaced on Yuba Pass Separation and Overhead. In addition, the Weimar Overhead bridge deck will be replaced and the roadway approaches will be modified. The work will consist of road widening, bridge work, road cut/fill, detours, grinding, access roads, staging areas, drainage/culverts, railroad, ramp closure, temporary easements, utility relocation, ground disturbance, vegetation removal, tree removal, pile driving and night work.

Person completing form/District Office: Tammy Massengale, North Region Office of Environmental Support

Project Manager: Samuel Jordan Phone number: 530-740-4920

	Compensation/ Mitigation	Permit & Agreement
Fish & Game 1600 Agreement		
Coastal Development Permit		
State Lands Agreement		
Section 401 RWQCB Permit		
COE 404 Permit- Nationwide		
COE 404 Permit- Individual		
COE Section 10 Permit		
COE Section 9 Permit		
Other: VELB	\$ 50,000	
Oak Compensation		
Special landscaping		
Archaeological		
Biological		
Historical		
Scenic resources		
Wetland/riparian		
TOTAL (Enter zeros if no cost)	\$ 50,000	

ATTACHMENT B - Resources by WBS Code

EA: 03-2F570

Description: PLA 80 Bridge Rehab

WBS Task Activity Code	Senior/ Coord	Biology	Cultural	Haz Waste	Socio- Economic	Storm Water	Noise/Air	Sup Svcs	Const. Liaison	Total
Assigned Unit	183	183	183	349	183	349	349	183	183	
Project Management										
100.10.05 – PA&ED Init. & Plng.						12				12
100.10.10 – PA&ED Exec. & Ctrl.	11	11	11					40		73
100.10.15 – PA&ED Closeout										-
100.10.20 – PA&ED Project Shelving										-
100.10.25 – PA&ED Project Unshelving										-
100.10.30 – PA&ED Update Admin Record										-
100.10.35 – PA&ED Cooperative Agreement										-
100.10.99 – PA&ED Other Proj. Mgmt. Products										-
100.15.05 – PS&E Init. & Plng.						12				12
100.15.10 – PS&E Exec. & Ctrl.	10	20	6					40		76
100.15.15 – PS&E Closeout										-
100.15.20 – PS&E Project Shelving										-
100.15.25 – PS&E Project Unshelving										-
100.15.30 – PS&E Update Admin Record										-
100.15.35 – PS&E Cooperative Agreement										-
100.15.99 – PS&E Other Proj. Mgmt. Products										-
100.20.05 – Const. Init. & Plng.						12				12
100.20.10 – Const. Exec. & Ctrl.	10	20	15					20		65
100.20.15 – Const. Closeout										-
100.20.20 – Const. Project Shelving										-
100.20.25 – Const. Project Unshelving										-
100.20.30 – Const. Update Admin Record										-
100.20.35 – Const. Cooperative Agreement										-
100.20.99 – Const. Other Proj. Mgmt. Products										-
100.25.05 – RW Init. & Plng.										-
100.25.10 – RW Exec. & Ctrl.										-
100.25.15 – RW Closeout										-
100.25.20 – RW Project Shelving										-
100.25.25 – RW Project Unshelving										-
100.25.30 – RW Update Admin Record										-
100.25.35 – RW Cooperative Agreement										-
100.25.50 – RW Ex. Coop. Agree. Relinquish										-
100.25.99 – RW Other Proj. Mgmt. Products										-
Total Project Management	31	51	32	-	-	36	-	100	-	250
Preliminary Engineering Studies and Draft Project Report										
160.05.05 – Approved PID Review	3					4				7
160.05.10 – Geotechnical Information Review										-
160.05.20 – Traffic Data & Forecasts Review										-
160.05.30 – Project Scope Review										-
160.05.99 – Other Updated Project Info Products										-
160.10.20 – Value Analysis										-
160.10.25 – Hydraulics/Hydrology Study										-
160.10.30 – Hwy Planting Design Concepts										-
160.10.40 – Updated Right of Way Data Sheets										-
160.10.99 – Other Engineering Studies										-
160.15.20 – Draft Project Report										-
160.15.25 – Draft PR Circ., Review & Approval	5					4				9
160.30.05 – Maps for ESR	5									5
160.30.10 – Surveys & Mapping for ESR	5									5
160.30.15 – Prop. Access Rights - Env/Eng Studies	5									5
160.40 – NEPA Delegation	5							2		7
Total Pre. Eng. Studies & Draft PR	28	-	-	-	-	8	-	2	-	38
Environmental Studies and Draft Environmental Document - Task Management Activities										
165.05.05 – Project Information Review	3	40			4					47
165.05.10 – Pub & Agency Scoping Process	8									8
165.05.15 – Alternatives for Further Study	4									4
165.05.99 – Other Env Scoping Alt ID in PID	20									20
165.10.15 – CIA, Land Use & Growth Studies					100					100
165.10.20 – VIA & Scenic Resource Evaluation										-
165.10.25 – Noise Study							8			8
165.10.30 – Air Quality Study							8			8

EA: 03-2F570

Description: PLA 80 Bridge Rehab

WBS Task Activity Code	Senior/Coord	Biology	Cultural	Haz Waste	Socio-Economic	Storm Water	Noise/Air	Sup Svcs	Const. Liaison	Total
Assigned Unit	183	183	183	349	183	349	349	183	183	
165.10.35 – Water Quality Studies						150				150
165.10.40 – Energy Studies										-
165.10.45 – Summary Geotech Report										-
165.10.50 – Hazardous Waste PSI				180						180
165.10.55 – Draft RW Relocation Impact Doc.										-
165.10.60 – Loc. Hyd. & Floodplain Stdy Rpts.										-
165.10.65 – Paleontology Study										-
165.10.70 – Wild and Scenic Rivers Coordination										-
165.10.75 – Environmental Commitments Record										-
165.10.99 – Other Environmental Studies										-
165.15.05 – Biological Assessment		60								60
165.15.10 – Wetlands Study		43								43
165.15.15 – Resource Agcy Permit Related Coord		43								43
165.15.20 – NES Report		113								113
165.15.99 – Other Biological Studies		40								40
165.20.05 – Archaeological Survey										-
165.20.05.05 – APE/Study Area Map(s)			8							8
165.20.05.10 – Native American Consultation			16							16
165.20.05.15 – Records & Literature Search			16							16
165.20.05.20 – Field Survey			120							120
165.20.05.25 – ASR			160							160
165.20.05.99 – Other Archy Survey Products			40							40
165.20.10 – Extended Phase I Archy Studies										-
165.20.10.05 – Native American Consultation										-
165.20.10.10 – Extended Phase I Proposal										-
165.20.10.15 – Extended Phase I Field Inv.										-
165.20.10.20 – Extended Phase I Mat. Analysis										-
165.20.10.25 – Extended Phase I Report										-
165.20.10.99 – Other Ext Phase I Archy Prod										-
165.20.15 – Phase II Archy Studies										-
165.20.15.05 – Native American Consultation										-
165.20.15.10 – Phase II Proposal										-
165.20.15.15 – Phase II Field Investigation										-
165.20.15.20 – Phase II Materials Analysis										-
165.20.15.25 – Phase II Report										-
165.20.15.99 – Other Ext Phase II Archy Study										-
165.20.20 – Hist & Architect Resource Studies										-
165.20.20.05 – Prelim APE/SAM for Arch.										-
165.20.20.10 – HRER - Archaeology			80							80
165.20.20.15 – HRER - Architecture			80							80
165.20.20.20 – Bridge Evaluation										-
165.20.20.99 – Other Hist and Arch Resource Prod			40							40
165.20.25 – Cultural Res. Comp. Cons. Docs.										-
165.20.25.05 – Final APE/Study Area Maps			16							16
165.20.25.10 – PRC 5024.5 Consultation			40							40
165.20.25.15 – HPSR/HRCR			120							120
165.20.25.20 – Finding of Effect (FOE)										-
165.20.25.25 – Archy Data Rec. Pln./Treat. Pln										-
165.20.25.30 – MOA										-
165.20.25.99 – Other CR Compliance Consult Prod			8							8
165.25.05 – DED Analysis	241									241
165.25.10 – Section 4(f) Evaluation										-
165.25.15 – CE/CE Determination	9									9
165.25.20 – Env. Quality Ctrl. & Other Reviews	6	30	8					30		74
165.25.25 – Approval to Circulate Resolution	3									3
165.25.30 – Environmental Coordination	255									255
165.25.99 – Other Draft ED Products										-
165.30 – NEPA Delegation	20		2							22
Total Environmental Studies & DED	569	369	754	180	104	150	16	30	-	2,172
Permits, Agreements, and Route Adoptions during PA&ED Component - Task Management Activities										
170.05 – Required Permits										-
170.10.05 – USACE Permit (404)										-
170.10.10 – US Forest Service Permit(s)										-
170.10.15 – US Coast Guard Permit										-
170.10.20 – DFG 1600 Agreement(s)										-
170.10.25 – Coastal Zone Development Permit										-
170.10.30 – Local Agency Concurrence/Permit										-

EA: 03-2F570

Description: PLA 80 Bridge Rehab

WBS Task Activity Code	Senior/Coord	Biology	Cultural	Haz Waste	Socio-Economic	Storm Water	Noise/Air	Sup Svcs	Const. Liaison	Total
Assigned Unit	183	183	183	349	183	349	349	183	183	
170.10.40 – Waste Discharge (NPDES) Permit(s)										-
170.10.45 – USFWS Approval										-
170.10.50 – RWQCB 401 Permit										-
170.10.60 – Environmental Commitments Record			4							4
170.10.95 – Other Permits										-
170.45 – MOU from TERO										-
170.10.55 – NEPA Delegation										-
Total Permits, Agreements & Route Adoptions	-	-	4	-	-	-	-	-	-	4
Draft Environmental Document Circulation and Preferred Project Alternative Identification - Task Management Activities										
175.05.05 – Master Dist & Inv Lists	18									18
175.05.10 – Notices Regarding Hearing & DED	29		8							37
175.05.15 – DED Publication & Circulation										-
175.05.20 – Federal Consistency Det. (Coastal)										-
175.05.99 – Other DED Circulation Products										-
175.10.05 – Need for Public Hearing Det.										-
175.10.10 – Public Hearing Logistics										-
175.10.15 – Displays for Public Hearing										-
175.10.20 – 2 nd Not. Pub. Hear. & Avail. of DED										-
175.10.25 – Map Display & Pub. Hearing Plan										-
175.10.30 – Display Public Hearing Maps										-
175.10.35 – Public Hearing	3									3
175.10.40 – Record of Public Hearing										-
175.10.99 – Other Public Hearing Products										-
175.15 – Public Comment Res. & Corr.	23									23
175.20 – Project Preferred Alternative										-
175.25 – NEPA Delegation										-
Total DED & Preferred Proj. Alt. Identification	73	-	8	-	-	-	-	-	-	81
Project Report and Final Environmental Document										
180.05.05 – Updated Draft Project Report	6									6
180.05.10 – Approved Project Report	14					4				18
180.05.15 – Updated Storm Water Data Report										-
180.05.99 – Other Final Project Report Products										-
180.10.05 – Approved FED	15									15
180.10.05.05 – Draft FED Review	20		8					15		43
180.10.05.10 – Revised Draft FED										-
180.10.05.15 – Section 4(f) Evaluation										-
180.10.05.20 – Findings										-
180.10.05.25 – Statement of Overriding Consid.										-
180.10.05.30 – CEQA Certification										-
180.10.05.35 – FHWA Approval										-
180.10.05.40 – Section 106 Cons. & MOA										-
180.10.05.45 – Section 7 Consult			43							43
180.10.05.50 – Final Section 4(f) Statement										-
180.10.05.55 – Floodplain Only PAF										-
180.10.05.60 – Wetlands Only PAF			20							20
180.10.05.65 – Section 404 Compliance			22							22
180.10.05.70 – Mitigation Measures										-
180.10.10 – Public Dist of FED, Resp to Comments	14									14
180.10.99 – Other FED Products			10							10
180.15.05 – ROD (NEPA)										-
180.15.10 – NOD (CEQA)										-
180.15.20 – Environmental Commitments Record	6		4							10
180.15.99 – Other Completed ED Products										-
180.20 – NEPA Delegation	10									10
Total PR & FED	85	95	12	-	-	4	-	15	-	211
Base Maps and Plan Sheets during PS&E Development										
185.05.05 – Project Concept Review						2				2
185.05.10 – Updated Project Information										-
185.05.99 – Other Updated Project Info Products										-
185.15 – Perform Preliminary Design										-
Total Base Maps and Plan Sheets during PS&E	-	-	-	-	-	2	-	-	-	2
Right of Way Property Management and Excess Land										
195.40.20 – Property Maint. & Rehab (Rentable)										-
195.40.25 – Prop. Maint. & Rehab (Non-Rentable)										-

EA: 03-2F570

Description: PLA 80 Bridge Rehab

WBS Task Activity Code	Senior/Coord	Biology	Cultural	Haz Waste	Socio-Economic	Storm Water	Noise/Air	Sup Svcs	Const. Liaison	Total
Assigned Unit	183	183	183	349	183	349	349	183	183	
195.40.30 – HW & Hazardous Materials										-
195.40.35 – Transfer of Prop to Clearance Status										-
195.40.99 – Other Property Mgmt Products										-
195.45.05 – Excess Lands Inventory										-
195.45.20 – Property Disposal up to \$15K										-
195.45.25 – Property Disposal from \$15K to \$500K										-
195.45.30 – Property Disposal over \$500K										-
195.45.99 – Other Excess Land Products										-
Total Base RW Property Mgmt and Excess Land	-	-	-	-	-	-	-	-	-	-
Utility Coordination										
200.15 – Approved Utility Relocation Plan										-
200.20 – Utility Relocation Package										-
Total Utility Coordination	-	-	-	-	-	-	-	-	-	-
Permits, Agreements & Route Adoptions during PS&E Component - Task Management Activities										
205.05 – Required Permits										-
205.10.05 – USACE Permit (404)										-
205.10.10 – US Forest Service Permit(s)										-
205.10.15 – US Coast Guard Permit										-
205.10.20 – DFG 1600 Agreement(s)										-
205.10.25 – Coastal Zone Development Permit										-
205.10.30 – Local Agency Concurrence/Permit										-
205.10.40 – Waste Discharge (NPDES) Permit(s)						28				28
205.10.45 – USFWS Approval		33								33
205.10.50 – RWQCB 401 Permit						8				8
205.10.60 – Updated ECR	6		4							10
205.10.95 – Other Permits										-
205.20.05 – Draft Freeway Agreement										-
205.20.10 – Draft Freeway Agreement Review										-
205.20.15 – Final Freeway Agreement										-
205.20.20 – Executed Freeway Agreement										-
205.25 – Agreement for Material Sites										-
205.40.99 – Other Route Adoption Products										-
205.45 – MOU from TERO										-
205.55 – NEPA Delegation			9							9
Total Agreements & Route Adoptions	6	33	13	-	-	36	-	-	-	88
Right of Way Interests for Project Right of Way Certification										
225.55.20 – Right of Way Clearance										-
Total RW Interests for Project RW Certification	-	-	-	-	-	-	-	-	-	-
Draft PS&E										
230.05.45 – Noise Barrier Plans										-
230.05.65 – Water Pollution Control Plans						2				2
230.10.05 – Highway Planting Plans										-
230.10.15 – Plant List										-
230.30 – Draft Drainage Plans						2				2
230.35.10 – Highway Planting Specifications										-
230.35.35 – Water Pollution Control Specs						4				4
230.35.40 – Erosion Control Specifications						2				2
230.35.99 – Other Draft Specification Products										-
230.40.10 - Calc Hwy Planting Quantities & Est.										-
230.40.40 - Calc Erosion Ctrl Quantities & Est.						6				6
230.60.05 – Updated Storm Water Data Report						8				8
230.60.10 – Other PS&E Reviews & Update PR	6	2	4	4		2			8	26
230.99 – Other Draft PS&E Products										-
Total Draft PS&E	6	2	4	4	-	26	-	-	8	50
Environmental Impact Mitigation and Hazardous Waste Clean-up - Task Management Activities										
235.05.05 – Historical Structures Mitigation										-
235.05.10 – Archaeological & Cultural Mitigation			160							160
235.05.15 – Biological Mitigation		27								27
235.05.20 – Environmental Mitigation R/W Work		27								27
235.05.25 – Paleontology Mitigation										-
235.05.99 – Other Env. Mitigation Products										-
235.10.05 – Right or Permit for HW Site Inv.										-
235.10.10 – HW Sites Survey										-

EA: 03-2F570

Description: PLA 80 Bridge Rehab

WBS Task Activity Code	Senior/Coord	Biology	Cultural	Haz Waste	Socio-Economic	Storm Water	Noise/Air	Sup Svcs	Const. Liaison	Total
Assigned Unit	183	183	183	349	183	349	349	183	183	
235.10.15 – Detailed HW Site Investigation										-
235.15 – HW Management Plan										-
235.20 – HW PS&E										-
235.25 – HW Clean-up										-
235.30 – Certificate of Sufficiency										-
235.35 – Long Term Mitigation Monitoring										-
235.40 – Updated Environmental Commit. (ECR)	6									6
235.45 – NEPA Delegation			4							4
Total Env. Impact Mitigation & HW Clean-up	6	54	164	-	-	-	-	-	-	224
Post Right of Way Certification Work										
245.55.20 – Right of Way Clearance										-
Total Post RW Clearance Work	-	-	-	-	-	-	-	-	-	-
Final District PS&E Package										
255.05 – Circ. & Rev. Draft Dist PS&E	8	3	8	4		9			8	40
255.10.10 - Update Highway Planting PS&E		4								
255.10.25 - Updated Technical Reports		3	160							163
255.15 – Environmental Reevaluation	9					1				10
255.20.05 – Rev. Plans for Drafting Stds. Comp										-
255.40 – Resident Engineer's Pending File	5									5
255.45 – NEPA Delegation	5									5
Total Final District PS&E Package	27	10	168	4	-	10	-	-	8	223
Contract Bid Documents "Ready to List"										
260.15.05 - Verify PS&E is Complete						8				
260.75 - Env Cert at RTL	8									8
Total Contract Bid Documents "RTL"	8	-	-	-	-	8	-	-	-	16
Construction Engineering and General Contract Administration										
270.15.50 – Miscellaneous Stakes										-
270.20.05 – Resident Engineer File Review			8							8
270.20.10 – Proj. Plans, Spec. Prov. & Est. Rev.			16			2				18
270.20.45 – Cont. WPCP Review						2				2
270.20.50 – Technical Support		43				36			150	229
270.25.15 – Pre-Construction Meeting		3	8							11
270.30.10 – Inspection of Const. Work for Comp.						40				40
270.55 – Final Inspection & Acceptance Recom.										-
270.70 – Updated ECR			4							4
270.75 – Resource Agency Permit Ren. & Ext.									60	60
270.80 – Long Term Env Mit/Mont during Const										-
Total Const Engineering & Gen. Contract Admin.	-	46	36	-	-	80	-	-	210	372
Construction Contract Change Orders										
285.05.05 – Need for CCO Determination									24	24
285.10.15 – "Other" Functional Support		8				2				10
Total Construction CCOs	-	8	-	-	-	2	-	-	24	34
Construction Contract Claims										
290.35 – Technical Support						2			24	26
Total Construction Contract Claims	-	-	-	-	-	2	-	-	24	26
Contract Acceptance, Final Construction Estimate and Final Report										
295.35 – Certificate of Environmental Compliance	6	6							8	20
295.40 – Long Term Env Mit/Mont after CCA										-
Total Final Construction	6	6	-	-	-	-	-	-	8	20
Total Project Hours	845	674	1,195	188	104	364	16	147	282	3,811

ATTACHMENT I

INITIAL SITE ASSESSMENT

Memorandum

To: Tammy Massengale, Chief
NR Office of Environmental Support

Date: September 13, 2011

File: 03-Pla/Nev-80
PM: VAR
Bridge Rehab

EA: 03-2F570
EFIS: 0300020615

From: Jason Lee
Office of Environmental Engineering Office – South (OEES)



Subject: Initial Site Assessment (ISA)

Per your request, OEES has performed an ISA for the above referenced project. The project will rehabilitate and/or replace various structures along SR 80 in Nevada and Placer Counties. The affected bridges are as follows: Weimar OH (19-0038), Cape Horn UC (19-0091), Crystal Springs Road OC (19-0112), Baxter OC (19-0113), Drum Forebay OC (19-0114), Cisco OC (19-0118), and Yuba Pass Separation and OH(17-0023L/R). No new right of way will be required. All work will take place within existing R/W. Excess soil will be generated.

The following resource was reviewed: Bridge Inspection Records Information System (BIRIS)

Based on BIRIS and the nature of the project, the following hazardous material was identified in the bridge:

1. Aerially Deposited Lead (ADL)

ADL exists within our r/w due to historical use of leaded gasoline. If soil-disturbing activities are planned, the project is required to conduct a preliminary site investigation (PSI).

2. Thermoplastic and/or paint striping removal

If thermoplastic and/or paint striping is to be removed as an independent action, then use SSP 14-001 - Remove Yellow Traffic Stripe and Pavement Marking (Hazardous Waste). Use SSP 15-305 if yellow or white paint will be removed while grinding the entire pavement surface.

3. Asbestos Containing Materials (ACM)

ACM are present at railings, on a shim plate, under a shim plate, and at girders. Without testing, Asbestos is assumed to be present in the bridges. As such, an asbestos survey of the bridges will be required. Please include 180 hours under WBS 165.10 and \$24,500 in the project budget to cover our time and the consultants cost to complete the asbestos and ADL site investigation. Once requested, it will take from 3 to 6 months to complete the investigation and final report. As part of the Clean Air Act, and the "National Emission Standards for Hazardous Air Pollutants" (NESHAP), for bridge demolitions, even without asbestos, the contractor will need to notify the Air district. A special provision shall be added to the contract to address NESHAP notification.

4. Lead Based Paint

This project is required to include the Standard Special Provision 15-025, Existing Paint Systems.

Thank you for your effort and time. If there are any significant changes to the proposed project, please contact OEES as soon as possible so the impact of the changes and further action, if any, can be assessed. If you have any questions, please call me at (530) 741-4494.

cc: File
Sarju Patel – Project Engineer

ATTACHMENT J

RIGHT OF WAY DATA SHEET

Memorandum

*Flex your power!
Be energy efficient!*

To: Robert Polgar
Senior Design
Department of Transportation, District 3

Date: September 16, 2011
E.A. 2F570
PN: 0300020615
File: 03-NEV 80 PM
.0/.2, PLA-80-PM
Bridge Rehabilitation

Attention Sarju Patel
Project Engineer

From: JOHN BALLANTYNE
Acting Division Chief
North Region Right of Way
Marysville

Subject: Current Estimated Right of Way Costs

We have completed an estimate of the right of way costs for the above referenced project based on information received from you on August 30, 2011 .

Right of Way requests a minimum of 30 months lead time in order to complete the certification in a timely manner.

Attachments:
Right of Way Data Sheet

cc. Samuel Jordan

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY DATA SHEET



Date: September 16, 2011
E.A. 2F570
PN: 0300020615
File: 03-NEV 80 PM .0/.2, PLA-80-PM .2/63.5

1. Right of Way Cost Estimate:

	Current Value Future Use	Escalation Rate	Escalated Value
A. Total Acquisition Cost	\$76,250	5%	\$91,001
B. Mitigation acquisition & credits	\$50,000	5%	\$59,672
C. Project Development Permit Fees	\$0		\$0
Subtotal	\$126,250		\$150,673
D. Utility Relocation (State Share) (Owner's share: \$60,000)	\$50,000	5%	\$59,672
E. Relocation Assistance (RAP)	\$0		\$0
F. Clearance/Demolition	\$0		\$0
G. Title & Escrow	\$0		\$0
H. Total Estimated Right of Way Cost	\$176,250	Rounded	\$210,000
I. Construction Contract Work	\$0		

2. Current Date of Right of Way Certification May 1, 2015

3. Parcel Data:

Type	Dual/Appr	Utilities	RR Involvements
X 0		U4 - 1 2	None
A 0		- 2 0	C&M Agrmt 2
B 1		- 3 0	Svc Contract 4
C 0	0	- 4 0	Easements 1
D 0	0	U5 - 7 0	Rights of Entry 1
		- 8 0	Clauses
Total 1		- 9 2	
Areas:			Misc. R/W Work
R/W: N/A			RAP Displ N/A
Excess: N/A	No. Excess Pcls: 0		Clear/Demo N/A
Mitigation: N/A			Const Permits N/A
			Condemnation 0
			USA Involvement NO

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY DATA SHEET

4. Are there any major items of construction contract work?

Yes _____ No X

None have been identified at this time.

5. Provide a general description of the right of way and excess lands required (zoning, use, major improvements, critical or sensitive parcels, etc.)

Mitigation and Environmental fees are included in this estimate as well as railroad Right of Entry and Preliminary Engineering Service Contract costs. Right of Way may also need to acquire a temporary construction easement from the railroad.

6. Are any properties acquired for this project expected to be rented, leased, or sold?

Yes _____ No X

7. Is there an effect on assessed valuation?

No X

Yes _____ Not Significant _____

8. Are utility facilities or rights of way affected?

Yes X No _____

The Project Engineer has stated utility relocation work is required but specific needs are not available. Potholing money will be included in this estimate.

9. Are railroad facilities or rights of way affected?

Yes X No _____

UPRR will require: Right of Entries, Preliminary Engineering Service Contracts, Engineering Service Contracts Flagging, Two C&M Agreements (24 to 30 month lead time required) and a possible TCE.

10. Were any previously unidentified sites with hazardous waste and/or material found?

Yes _____ None Evident X

11. Are RAP displacements required?

Yes _____ No X

No. of single family	<u> </u>	No. of business/nonprofit	<u> </u>
No. of multi-family	<u> </u>	No. of farms	<u> </u>

Based on Draft/Final Relocation Impact Statement/Study dated N/A it is anticipated that sufficient replacement housing (will/will not) be available without Last Resort Housing.

12. Are there material borrow and/or disposal sites required?

Yes _____ No X

13. Are there potential relinquishments and/or abandonments?

Yes _____ No X

14. Are there any existing and/or potential airspace sites?

Yes _____ No X

15. Indicate the anticipated Right of Way schedule and lead time requirements.

Right of Way requests a minimum of 30 months lead time in order to complete the certification in a timely manner.

16. Is it anticipated that Caltrans will perform all Right of Way work?

Yes X No _____

ATTACHMENT K

SCOPING TEAM FIELD REVIEW ATTENDANCE ROSTER

SCOPING TEAM FIELD REVIEW ATTENDANCE ROSTER: 07/26/11 & 07/27/11

Robert Polgar - District Design, Senior

Sarju Patel - District Design, Project Engineer

ATTACHMENT L

SHOPP PERFORMANCE OUTPUT

SHOPP PERFORMANCE OUTPUT WORKSHEET

Bridge Projects	Item Estimate \$	SHOPP Performance Outputs
STRUCTURES ITEMS		
Bridge Deck Rehabilitation	1	# Bridges
Seismic Upgrade	6	# Bridges
Scour	N/A	# Bridges
Bridge Widening	N/A	# Bridges
Bridge Replacement	5	# Bridges
Vertical Clearance	2	# Bridges
Rail Upgrade	2540	LF of rail
Joint Seals		
Hinge Repair		
SUBTOTAL COST	\$20,870,000	Includes contingency
20% CONTINGENCY		
ROADWAY ITEMS		
PCC Pavement (___Depth)	N/A	# distressed lane miles
PCC Pavement (___Depth)	N/A	# distressed lane miles
Asphalt Concrete	X	# distressed lane miles
Approach/Departure Slabs-Repair	N/A	
Approach/Departure Slabs-Replace	1	
Ramps OC/UC approaches	4	Locations
SUBTOTAL COST	Not Available	See Project Subtotal
20% CONTINGENCY		
DRAINAGE ITEMS		
Large Drainage Facilities	N/A	# of culverts
Storm Drains	N/A	# of culverts
Pumping Plants	N/A	# of pumping plants
SUBTOTAL COST	Not Available	See Project Subtotal
20% CONTINGENCY		

SHOPP PERFORMANCE OUTPUT WORKSHEET

SPECIALTY ITEMS		
Retaining Walls	2	At one location
Highway Planting	N/A	Acres
Replacement Planting	0.3	Acres (7 Locations)
Irrigation Modification	N/A	
Relocate Private Irrigation Facilities	N/A	
Erosion Control	7	Locations
Slope Protection	7	Locations
Water Pollution Control	7	Locations
Hazardous Waste Mitigation Work	N/A	
Environmental Mitigation	7	Locations
Resident Engineer Office Space	7	Locations
SUBTOTAL COST	Not Available	See Project Subtotal
20% CONTINGENCY		
TRAFFIC ITEMS		
Lighting	4	Locations
Traffic Delineation Items	7	Locations
Traffic Signals	N/A	
Overhead Sign Structures	3	Locations
Roadside Signs	N/A	
Traffic Control Systems	7	Locations
Transportation Management Plan	7	Locations
SUBTOTAL COST	Not Available	See Project Subtotal
20% CONTINGENCY		
PROJECT SUBTOTAL COST	\$33,200,000	Includes contingency
20% CONTINGENCY		
OTHER COSTS:		
Utility Relocation (State share)	\$60,000	
Clearance/Demolition	N/A	
SUBTOTAL COST	\$60,000	

ATTACHMENT M

LANDSCAPE ARCHITECTURE ASSESSMENT SHEET



TO: Sarju Patel FROM: Christine Ottaway Unit/Senior TE Name: 0381/T. Chris Johnson Project Manager: Samuel Jordan	CO: PLA & NEV DISTRICT: 03 DATE: 09/15/11 EA: 03-2F570	RTE: 80	KP:	PM: Var
PROJECT SEPARATION: <input checked="" type="checkbox"/> Landscape as part of roadway work EA <input type="checkbox"/> Landscape under separate EA (Follow-up)		PROJECT: Bridge Repair TYPE: Bridge Maintenance PROJECT MILESTONE:PID		

PROJECT DESCRIPTION:

The purpose of this project is to replace the bridge for Weimar Overhead, Cape Horn Undercrossing, Crystal Springs Road Overcrossing, Baxter Overcrossing and Drum Forebay Overcrossing and modify roadway approaches to conform to the new bridges. In addition, the project will replace bearing pads at the bridge abutments of Yuba Pass Separation and Overhead, rehabilitate the bridge deck of Cisco Overcrossing and modify roadway approaches to conform to the new bridge deck.

AREA (SF) FOR REVEGETATION: AREA (SF) FOR EROSION CONTROL: PLANT COUNT FOR MITIGATION PLANTING:	<hr/> <hr/> <u>None known</u>
LANDSCAPE FREEWAY STATUS: HIGHWAY PLANTING IS: SCENIC HIGHWAY STATUS: REVEGETATION REQUIRED?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Warranted <input type="checkbox"/> Officially Designated <input type="checkbox"/> Permit Required
	<input type="checkbox"/> No <input checked="" type="checkbox"/> Not Warranted <input type="checkbox"/> Eligible <input checked="" type="checkbox"/> Offset of Visual Impact
	<input checked="" type="checkbox"/> Not Designated <input type="checkbox"/> Other (Forest Service, BLM, etc.)
BIOLOGIST CONTACT: DATE OF CONTACT:	

ADJACENCY TO BILLBOARDS: <input type="checkbox"/> Project area is adjacent to outdoor advertising. <input checked="" type="checkbox"/> Project area is not adjacent to outdoor advertising.

WATER AND POWER AVAILABILITY: None

DESIGN FOR MAINTENANCE SAFETY: None.

CONTEXT SENSITIVITY: <input checked="" type="checkbox"/> It is determined that the project will involve consideration of highway aesthetics and will require further evaluations pertaining to specific roadside enhancements. <input type="checkbox"/> No foreseen issues with highway aesthetics	<input type="checkbox"/> Other _____
---	--------------------------------------

COOPERATIVE MAINTENANCE AGREEMENTS:

Project may involve additional tasks indicated	<input type="checkbox"/> Visual Simulation <input checked="" type="checkbox"/> Highway Planting <input checked="" type="checkbox"/> Contour Grading	<input checked="" type="checkbox"/> Erosion Control <input checked="" type="checkbox"/> Field Visit <input checked="" type="checkbox"/> Cost Estimate	<input checked="" type="checkbox"/> SWPPP/NPDES <input type="checkbox"/> Context Sensitive Solutions/Aesthetics <input type="checkbox"/> Landscape Evaluation
--	---	---	---



COST INFORMATION:

- Highway Planting / Revegetation
- Soil Amending / Compost Incorporation
- Erosion Control
- Slope Protection
- Aesthetic Treatment (RSP Staining)

\$ 40,000
\$ 10,000
\$ 50,000
\$ 10,000
\$ 10,000
TOTAL \$ 120,000

RELATED INFORMATION:

Disturbed soil area and vegetation removal for this project have been estimated

Most of the construction locations are adjacent to existing maintenance yards or features. The erosion control estimate above is based on the assumption that no additional staging areas will be needed, and that existing staging areas will not need erosion control

Please notify Landscape Architecture so that this document and estimate can be adjusted when more information is available about the project.

- Landscape Architecture Resource Estimate: See attached workplan.

Christine Ottaway

DATE: 9/15/11

CONCURRED BY:

Samuel Jordan
(Project Manager)

DATE: 9-16-11

APPROVED
BY:

DATE:

9-16-2011

T. Chris Johnson

(Landscape Architecture or Engineering Services Branch Chief)

Comments:

Recommendations:

It is determined that a minimum level of highway-related landscape architecture is required for this project.

It is determined that a minimum level of highway-related landscape architecture is required for this project.

No further action is required.

COOPERATIVE MAINTENANCE AND REPAIRS

Erosion Control

Field Visit

Cost Estimate

Highway Planting

Contour Grading

Resources by WBS Code (Landscape Architecture - Unit 03-340, EFIS 0381)

WBS Activity	03-2F570K Bridge Repair	Unit 03-340 (EFIS 0381) Hrs needed
100	PROJECT MANAGEMENT	
100.05	Project Management - PID component	
100.10	Project Management - PA & ED Component	20
100.15	Project Management - PS&E Component	20
100.20	Project Management - Construction Component	20
150	PROJECT INITIATION DOCUMENT (PID)	
150.20.15	Perform Landscape/Aesthetic Analysis	
150.25.20	Circulate, Review, & Approve PID	
160	PERFORM PRELIMINARY ENGINEERING STUDIES & PREPARE PROJECT REPORT	
160.05	Review and Update Project Information	20
160.10.30	Develop Highway Planting Design Concepts (includes mitigation, replacement and new planting, LAAS)	
160.15.05	Prepare Cost Estimate for Alternatives	40
160.15.25	Circulate, Review, & Approve Draft Project Report	10
165	PERFORM ENVIRONMENTAL STUDIES & PREPARE DRAFT ENVIRONMENTAL DOCUMENT (DED)	
165.05.05	Review Project Information	10
165.15.05	Perform Biological Assessment	
165.10.20	Perform Visual Impact Analysis	
175	CIRCULATE DED & SELECT PREFERRED PROJECT ALTERNATIVE	
175.10.15	Prepare Displays for Public Viewing	
175.10.35	Hold Public Hearing	
185	PREPARE BASE MAPS and PLAN SHEETS	
185.05.10	Update Project Information (update of Landscape scope and costs for PE when requested)	30
185.15	Perform Preliminary Design	
205	OBTAIN PERMITS, AGREEMENTS & ROUTE ADOPTIONS	
205.10	Obtain Permits (includes preparation of attachments by Landscape to assist Enviro in obtaining permits)	
230	PREPARE DRAFT PS&E	
230.05.35	Prepare Contour Grading Plans	
230.05.45	Prepare Noise Barrier Plans	
230.05.50	Prepare Retaining Wall Plans	
230.10	Prepare Draft Highway Planting Plans	100
230.35.10	Develop Highway Planting Specs	50
230.35.40	Develop Erosion Control Specs	100
230.40.10	Calculate Highway Planting Quantities and Estimate	
230.40.40	Calculate Erosion Control Quantities and Estimate	80
230.60	Review and Update Project Information for PS&E Package (Constructability Review and Storm Water Data Report Review)	20
235	MITIGATE ENVIRONMENTAL IMPACTS & CLEAN-UP HAZARDOUS WASTE	
235.05.15	Perform Biological Mitigation (problem with this is that we can only charge to this during phase 1 of EA)	
235.35	Perform Long Term Mitigation Monitoring	
255	CIRCULATE, REVIEW & PREPARE FINAL DISTRICT PS&E PACKAGE	
255.10.10	Update Highway Planting PS&E	40
260	CONTRACT BID DOCUMENTS "READY TO LIST"	
260.70	Draft Contract Comment Resonse (DR)	20
270	PERFORM CONSTRUCTION ENGINEERING & GENERAL CONTRACT ADMINISTRATION	
270.20.50	Provide Technical Support	50
270.25	Perform Construction Contract Administration Work (initiate Reveg Interagency Agreements)	
270.35.10	Perform Plant Inspection for Quality Assurance	
270.60	Administer Plant Establishment	
285	PREPARE and ADMINISTER CONTRACT CHANGE ORDERS	
285.10	Provide Functional Support	50
295	ACCEPT CONTRACT, PREPARE FINAL CONSTRUCTION ESTIMATE, AND PREPARE FINAL REPORT	
295.35.05	Revegetation Field Work	
295.35.10	Revegetation Monitoring	
295.35.15	Revegetation Close-Out (Final Report)	
	Total Hours	680

ATTACHMENT N

TRAFFIC MANAGEMENT PLAN DATA SHEET

Memorandum

To: Sarju Patel, PE
Design South S3

Date: October 7, 2011

EA: 03-2F570K
Pla, Nev-80-PM VAR
Bridge Rehab/Replacement

From: Sam Batakji
TMP Coordinator

Subject: Transportation Management Plan (TMP) Data Sheet

Background

- This project is on I-80, a multi-lane freeway, located in both Placer and Nevada Counties with an average daily peak-hour volume (both directions combined) of 3,800 vph and AADT of 29,000 vpd within the project limits. This route functions as a primary transportation corridor through the Sierra Nevada and consists of low to steep grades with many curves. The work proposes to rehabilitate 7 structures at various locations including bridge replacement, bearing replacement, deck rehab and railings upgrade.
- The structures involved are as follows:
 1. Weimar Overhead (Br # 19-0038).
 2. Cape Horn UC (Br # 19-0091)
 3. Crystal Springs Road OC (Br # 19-0112)
 4. Baxter OC (Br # 19-0113)
 5. Drum Forebay OC (Br # 19-0114)
 6. Yuba Pass OH- 80/20 Sep (Br # 17-0023L/R)
 7. Cisco Grove OC (Br # 19-0118)

Recommendation

- To maintain traffic on I-80 in both Placer and Nevada Counties at all overcrossings (OC) and undercrossings (UC), one lane in each direction of travel must remain open at all times. No lane closures will be allowed during peak hours on weekdays.
- Lane closures on I-80 will be performed in accordance with Standard Plan Sheet T10, "Traffic Control System for Lane Closure on Freeways and Expressways".

- No lane closures, shoulder closures, or other traffic restrictions will be allowed on Friday afternoons, Saturdays, Sundays, Special Days, designated legal holidays and the day preceding designated legal holidays; and when construction operations are not actively in progress.
- For bridge replacement, it is recommended that half width stage construction be utilized during construction along with k-rail.
- When k-rail is used as a separation barrier between the work zone and the traveled way, there is no closure time restriction.
- Work will be performed at one location at a time within the closure limits.
- When an OC is closed at one location, the other OC(s) must remain open.
- A full closure on any OC(s) will require an encroachment permit from the local agencies.
- Ramps adjacent to the closed OC may be closed one at a time.
- When a ramp is closed, public traffic shall be detoured to the preceding ramp or next ramp and detour must be available and in place. Coordinating with adjacent projects within, or nearby the project limits will be required to avoid conflicts.
- Coordinating with the operation of the existing Union Pacific Railroad (RR) within the project limits will be required, if construction activities impact the facility.
- Portable changeable message signs (PCMS) will be required in the direction of traffic for each lane, shoulder or ramp closure. PCMS(s) must be placed 7 calendar days prior to any lane, shoulder or ramp closures.
- Detailed lane closure charts will be developed for the final TMP prior to P&E.

Cost

- For estimating purposes, use \$3,500 per working day to estimate the costs that are required for the Traffic Management Plan (TMP) items. These items include Traffic Control System, Portable Changeable Message Signs, Maintain Traffic, and TMP-Public Information.
- COZEEP is estimated at \$1,000.00 per working day and \$2,000.00 per working night whenever CHP involvement is needed.
- If there is a change in the scope of the project or the order of work (schedule), please advise the TMP unit, as this may affect the TMP estimate.

P & E Requirement

To complete a TMP for this project, please provide the following to the Office of Traffic Management Planning at least three months prior to P&E: project description, title sheet, typical

cross sections, layout sheets, construction cost estimates, number of working days, project schedule, and a contact person.

Needed Resources

TMP office will need the following resources to complete our work:

Activity 160	120 hours
Activity 230	300 hours
Activity 255	80 hours
Activity 265	40 hours
Activity 270	80 hours
Activity 285	40 hours

Attachments: TMP Data Sheet Checklist

D-3 TRANSPORTATION MANAGEMENT PLAN CHECKLIST

District / EA: 03-2F570K
 Date Prepared: October 7, 2011
 Prepared By: Sam Batakji

Co.Rte.-PM Pla, Nev-80-PM Var
 Location: Var

Stage of Project (X box) PID PSR PR PS&E

Description: Bridge Rehab/Replacement

REQUIRED	RECOMMENDED	NOT APPLICABLE	BEEES Item No.	COMMENTS	UNIT COST	REQUIRED IN SPEC.
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1.0 Public Information Strategies

- 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 Project Telephone Hotline
- 1.7 Internet, E-Mail
- 1.8 Local cable TV and News
- 1.9 Notification to Impacted groups
(i.e. bicycle users, pedestrians with disabilities, others)
- 1.10 Project Web Page
- 1.11 Caltrans Public Information Office
- 1.12 Consultant Public Information Office
- 1.13 Other items

	<input checked="" type="checkbox"/>			Per recommendation of PIO		
		<input checked="" type="checkbox"/>				
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
		<input checked="" type="checkbox"/>				
		<input checked="" type="checkbox"/>	066063			
		<input checked="" type="checkbox"/>				
		<input checked="" type="checkbox"/>				
		<input checked="" type="checkbox"/>				
	<input checked="" type="checkbox"/>					
		<input checked="" type="checkbox"/>				
		<input checked="" type="checkbox"/>	066063			
		<input checked="" type="checkbox"/>				
		<input checked="" type="checkbox"/>				

2.0 Traveler Information Strategies

- 2.1 Changeable Message Signs (permanent)
- 2.2 Changeable Message Signs (portable)
- 2.3 Special Construction Signs
- 2.4 Traveler Information Systems (CHIN/Internet)
- 2.5 Highway Advisory Radio "HAR" (fixed or mobile)
- 2.6 Radar Speed Sign
- 2.7 Traffic Management Team
- 2.8 Revised Transit Schedules/ Maps
- 2.9 Bicycle community information
- 2.10 Other item

	<input checked="" type="checkbox"/>			If available within the project limits		
<input checked="" type="checkbox"/>			128650			<input checked="" type="checkbox"/>
		<input checked="" type="checkbox"/>	120690			
		<input checked="" type="checkbox"/>	861985			
		<input checked="" type="checkbox"/>	860520			
		<input checked="" type="checkbox"/>	066064			
		<input checked="" type="checkbox"/>				
		<input checked="" type="checkbox"/>				
		<input checked="" type="checkbox"/>				
		<input checked="" type="checkbox"/>				

3.0 Incident Management

- 3.1 COZEEP
- 3.2 Freeway Service Patrol (tow truck service patrol)
- 3.3 Traffic Surveillance Stations (loops or CCTV)
- 3.4 Transportation Management Center
- 3.5 Traffic Control Inspector (Caltrans)
- 3.6 Traffic Management Team
- 3.7 On-site Traffic Advisor (contractor)
- 3.8 Other Items

<input checked="" type="checkbox"/>			066062	\$1000/day & \$2000/night		
		<input checked="" type="checkbox"/>	066065			
		<input checked="" type="checkbox"/>	066876			
	<input checked="" type="checkbox"/>					
	<input checked="" type="checkbox"/>					
		<input checked="" type="checkbox"/>				
		<input checked="" type="checkbox"/>				
		<input checked="" type="checkbox"/>				

4.0 Construction Strategies

- 4.1 Delay damage clause
- 4.2 Night work
- 4.3 Weekend Work
- 4.4 Extended Weekend Closures
- 4.5 Planned Lane Closures
- 4.6 Planned Ramp/Connector Closures
- 4.7 Total Facility Closure
- 4.8 Project Phasing
- 4.9 Truck Traffic Restrictions
- 4.10 Reduced Lane Widths

	<input checked="" type="checkbox"/>					
<input checked="" type="checkbox"/>				Per Lane Closure Charts		<input checked="" type="checkbox"/>
		<input checked="" type="checkbox"/>		No work requiring closures on weekend		
		<input checked="" type="checkbox"/>				
<input checked="" type="checkbox"/>				Per Lane Closure Charts		<input checked="" type="checkbox"/>
		<input checked="" type="checkbox"/>				
		<input checked="" type="checkbox"/>				
		<input checked="" type="checkbox"/>				
		<input checked="" type="checkbox"/>				
		<input checked="" type="checkbox"/>				

4.0 Construction Strategies (Continued)

- 4.11 Temporary K-Rail
- 4.12 Temporary Traffic Screens
- 4.13 Reduced Speed Zones
- 4.14 Traffic Control Improvements
- 4.15 Contingency Plans
 - 4.15.1 Material Plant on standby
 - 4.15.2 Extra Critical Equipment on site
 - 4.15.3 Material Testing Plan
 - 4.15.4 Alternate Material on site
(In case of failure or major delays)
 - 4.15.5 Emergency Detour Plan
 - 4.15.6 Emergency Notification Plan
 - 4.15.7 Weather Conditions Plan
 - 4.15.8 Delay Timing and Documentation Plan
 - 4.15.9 Late Closure Reopening Notification
- 4.16 Signal timing modification
- 4.17 Coordination with adjacent construction
- 4.18 Double Fine Zone (signs)
- 4.19 Right of Way Delay
- 4.20 Other Items

REQUIRED	RECOMMENDED	NOT APPLICABLE	BEEES Item No.	COMMENTS	UNIT COST	REQUIRED IN SPEC.
	X		129000			
	X		129150	If K-Rail is utilized		
		X				
		X				
X						X
		X				
	X			During erection and removal of falsework		
		X				
		X				
	X					
	X					
	X					
		X				
	X					
X				Check NR Construction Reports		X
	X					
		X	066022			
		X				

5.0 Demand Management

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

		X				
		X				
		X				
		X				
		X				
		X	066069			
		X	066066			
		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
- 6.6 Encroachment Permit from City/County

		X				
X				Overcrossings (OC)		
		X				
	X			Per Lane Closure Charts		
		X				
X				For the Overcrossings (OC)		

7.0 Other Strategies

- 7.1 Application of new technology
- 7.2 Other Items

		X				
		X				

Comments:
