U.S. Department of Transportation Federal Highway Administration- California Division- Title 23 Damage Assessment Form (DAF)	DAF No. ____ - NAP - 0 1 9 - 0 Sheet # 1 of 3 ____ Federal Project # EO ER - ____ ( ) Disaster No. CA 1 4 - 1 PR ER - ____ ( )

Applicant: Napa County Public Works	County: Napa Congressional districts: 5	Incident Date (mm/dd/yyyy): 08/24/2014 Inspection: 11/19/2014
Location of Damage:	Per Site ✓ or ☐ Per Mile	Federal-aid Highway? Y for yes, if no, ineligible for ER funds: Y
Name of Road/Bridge: YOUNTVILLE CROSSROAD BRIDGE		
PM Begin: ____ PM Length: ____ (in feet) PM End: ____		Map No: 5J42 Functional Classification Type: MINOR COLLECTOR
Road/Bridge Data: Bridge No: 21C0116	Type: CONC. Prestressed	Route #: ____
Traveled Way: Width 36' Type: PCC ✓ AC ☐ Gravel ☐		Forest Hwy? Y/N: N Interstate? Y/N: N
Shoulder: Width 1.64' Type: PCC ✓ AC ☐ Gravel ☐		Existing ADT: 2,580

Description of Damage: 1/4 inch wide diagonal cracks at Abutment 1 shear key. Fascia spalling up to 1.5 inch deep at Abutment 1. Left exterior shear key at Abutment 7 has 2 spalls up to 2 inch deep due to 2014 South Napa earthquake event (Magnitude 6.0). Failed bearing pads at Abut 1. Vertical offset/settlement at deck transition (MR)

COST ESTIMATE

	Type of Repair	Description of Work	Cost Summary	
Emergency Opening (EO)	EO- AGENCY FORCES CT Work Order #(s): ____ EA(s): ____		PE	0
			CE	0
			Construction	0
	EO- CONTRACT EO EA(s): ____		PE	
			CE	
			Construction	
NOTE: Environmental documentation for EO is required. It is generally started after work has begun.			R/W	
		Subtotal Emergency Opening		$0
Permanent Restoration (PR)	PR- CONSTRUCTION FA requires an approved PIF ✓ Contract ☐ FA PR EAs ____	Remove and replace shear key at Abutment 1. Repair spalling at Abutment 7. Remove and replace AC approach at Abutment 1 & 7. Replace bearing pads at Abut. 1. Replace compression joint seals at both abutments (MR)	PE	20,466 ~~16,089~~ (MR)
			CE	30,699 ~~24,133~~ (MR)
			Construction	255,822 ~~201,107~~ (MR)
NOTE: PRIOR AUTHORIZATION (APPROVED E-76) IS REQUIRED TO PROCEED WITH PERMANENT RESTORATION R/W & CONSTRUCTION			R/W	
NOTE: Environmental clearance for permanent restoration is conducted through normal Federal-aid procedures		Subtotal Permanent Restoration		$306,987 ~~$241,328~~ (MR)

Eligible		Signature	Date			
✓ Yes	☐ No	Local Agency (If applicable): Mallika Ramachandran	9/17/15	PE Total	20,466 ~~$16,089~~	(MR)
☐ Yes	☐ No	Caltrans: [signature]	5-8-15	CE Total	30,699 ~~$24,133~~	(MR)
☐ Yes	☐ No	FHWA*: [signature]	9-17-15	R/W Total	$0	
				Construction Total	255,822 ~~$201,107~~	(MR)
			TOTAL ESTIMATE		$306,987 ~~$241,328~~	(MR)

Agency sig. Name (print): Mallika Ramachandran, P.E.
CT signature Name (print): John Brewster
FHWA Sig. Name (print): ____
DAF Prepared by (print): Yoliana Swenson, P.E., BCA

Original: Caltrans District Copies: FHWA, Division of Local Assistance(local roads), Federal Resources (state hwy), HQ Major Damage Engineer (state hwy)
*Write "N/A" in FHWA signature block if the project has no Federal ER funding or Federal ER funding delegated to the State.
FHWA Signature: REQUIRED for all Federal Funded State projects REQUIRED for any Local Agency projects with 1) any BETTERMENT, 2) more than 2 ROW takes or 3) when paving is more than 50% of the Total Estimated Cost. Reminder: This DAF must be accompanied by photos of the damage.

U.S. Department of Transportation Federal Highway Administration- California Division- Title 23 Damage Assessment Form (DAF)	DAF No. _____ - NAP - 0 1 9 - 1 Sheet # 2 of 3 Federal Project # EO ER - _____( ) Disaster No. CA 1 4 - 1 PR ER - _____( ) Agency EO Calc ☐ EO contract ☐ PR Calc X

YOUNTVILLE CROSS ROAD BRIDGE 21C0116					
Item	**Description**	**Unit**	**Quantity**	**Unit Price**	**Estimated Cost**
1	Mobilization	LS	1	$ 13,203.74	$ 13,203.74
2	SWPPP Implementation, Erosion and Sediment Control (BMP)	LS	1	$ 6,601.87	$ 6,601.87
3	Clearing, Grubbing and Misc. Demolition	LS	1	$ 13,203.74	$ 13,203.74
4	Traffic Control	LS	1	$ 6,601.87	$ 6,601.87
5	EQ Damage: Remove Concrete (Structure)	CY	12	$ 1,426.00	$ 17,112.00
6	EQ Damage: Structural Concrete (Bridge)	CY	12	$ 2,761.00	$ 33,132.00
7	EQ Damage: Bar Reinforcing Steel (Bridge)	LB	4800	$ 2.40	$ 11,520.00
8	EQ Damage: Drill & Bond Dowel (Chemical Adhesive)	EA	256	$ 123.00	$ 31,488.00
9	EQ Damage: Cold Plane Asphalt Concrete Pavement	SQYD	77	$ 68.00	$ 5,236.00
10	EQ Damage: Place Hot Mix Asphalt (Miscellaneous Area)	SQYD	77	$ 117.00	$ 9,009.00
11	EQ Damage: Replace Bearing Pads	EA	5	$ 3,187.00	$ 15,935.00
12	EQ Damage: Joint Seal Assembly (MR 2")	LF	72	$ 119.52	$ 8,605.44
13	Right of Way Analysis/Appraisal/Acquisition/TCE	LS	1	$ -	$ -
14	Environmental Process, Permitting & Fees, Environmental Mitigation, Environmental Monitoring & Reporting	LS	1	$ 33,009.36	$ 33,009.36
	Subtotal				**$ 204,658.03**
	25% Contingency (Planning Level)				$ 51,164.51
	Total Construction				**$ 255,822.54**
	PE 10% of Subtotal				$ 20,465.80
	CE 15% of Subtotal				$ 30,698.70
	Total Estimated Cost				**$ 306,987.05**
	ESTIMATED PROJECT COST				**$ 307,000.00**

Item #14 of Environmental Process, Permitting & Fees, Environmental Mitigation, Environmental Monitoring & Reporting will include:

- Environmental Process – CEQA/NEPA Process required coordination with the following agencies: CDFWL, ACOE, RWQCB, NOAA, USFWL, FEMA, SHPO, etc.
- Permitting & Fees - For permits from RWQCB and CDFWL, on an average is approximately $2,000 each, plus another approximately $2,000 for CDFWL to review Initial Study/MND (if one is required).
- Environmental Mitigation – depending on the complexity of the project and impact ranges from riparian restoration at a 3:1 ratio to habitat structures and fish passage and scour measures.
- Environmental Monitoring and Reporting: Includes construction phase monitoring and post construction monitoring which is a minimum 5 years of maintenance, monitoring and reporting.

25% of contingency is used for unforeseen expenses or unknown factors encountered during construction, which are typical with this repair type of project.

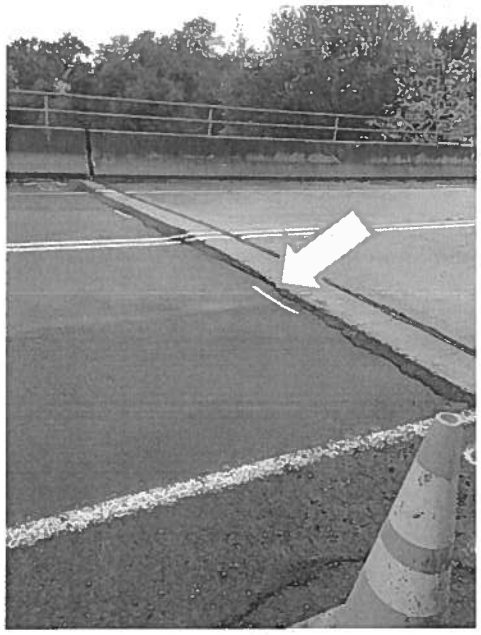
U.S. Department of Transportation Federal Highway Administration- California Division- Title 23 Damage Assessment Form (DAF)	DAF No. - [ ] - NAP - 0 1 9 - 1 Sheet # 2 of 3 Federal Project # EO ER - _____( ) Disaster No. CA 1 4 - 1 PR ER - _____( ) Agency EO Calc [ ] EO contract [ ] PR Calc [X]

Description of Work:

Item 5: Removal of unsound concrete at existing shear key at Abutment 1 and spall at Abutment 7.
Item 6-8: New concrete work for shear key at Abutment 1 and spall at Abutment 7.
Item 9-10: Repair items for AC approach at Abutment 7.
Item 11: Replacing all bearing pads, total of 5, at girders at Abutment 1.
Item 12: Replace compression joint seal at both abutments. Work for Joint seal replacement to be done right after bearing pads replacement work.

U.S. Department of Transportation Federal Highway Administration- California Division- Title 23 Damage Assessment Form (DAF)	DAF No. _____ - NAP - 0 1 9 - 1 Sheet # 3 of 3 Federal Project # EO ER - _____( ) Disaster No. CA 1 4 - 1 PR ER - _____( )

Photos, Sketches, and/or Narrative



Settlement and Temporary Asphalt Repair.

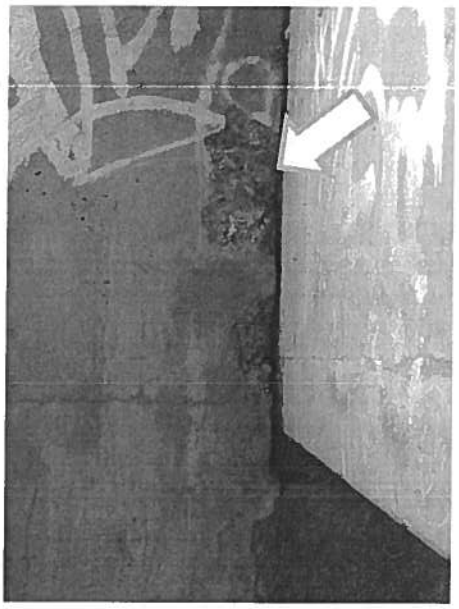
Spalling at Abutment 1

Hairline Cracking at Abutment 1

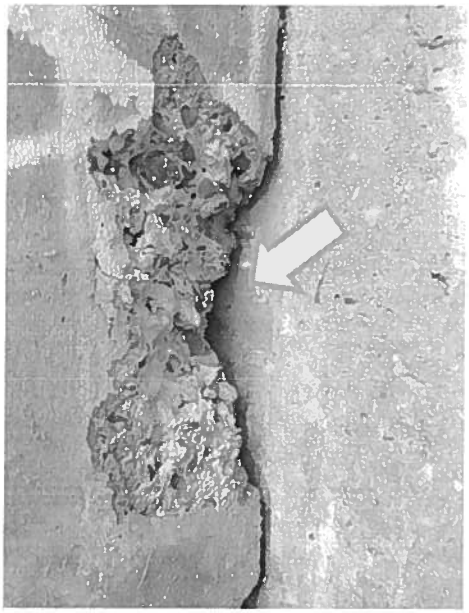
Hairline Cracking at Abutment

Spalling at Edge of Bridge Decking

U.S. Department of Transportation Federal Highway Administration- California Division- Title 23 Damage Assessment Form (DAF)	DAF No. - [ ] - NAP - 0 1 9 - 1 Sheet # 3 of 3 Federal Project # EO ER - _____( ) Disaster No. CA 1 4 - 1 PR ER - _____( )

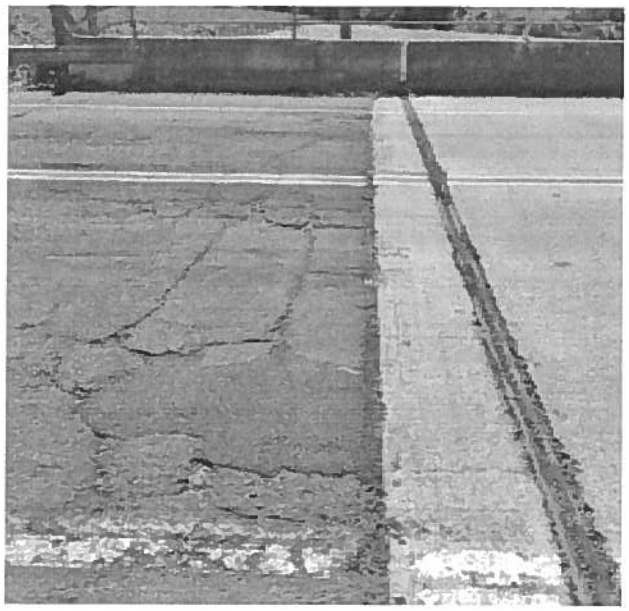


Additional Spalling at Shear Key



Closeup of Shear Key Spalling

Typical Wide Crack at AC Approach



AC Approach at Abutment 7

SUMMARY REPORT OF BRIDGE SURVEY

Structure No.: 21C0116 (Caltrans Bridge #)	Name: Napa River/ Yountville Cross Bridge
Location: 0.9 M SW Silverado Trail	Dimensions:
Type: Reinforced Concrete Bridge with Concrete Piers and Abutments Supports	Length: 6 spans @ approx. 96'/span
General Description: 6 span concrete bridge with interior concrete piers and 2 exterior concrete abutments with wingwalls.	Width: 39'-5" Roadway Width: 32'-0"
Date Constructed: 1985	Date of Other Work: NA
Date of Inspection: 11/19/2014	Date of Last Inspection: - 9/13/2014 Caltrans Inpection - 11/18/2013 Caltrans Inpection before August 2014 EQ.
Repair Work Since Last Inspection: NA	

Structure Component	Material	General Remarks
Approaches	NA	
Top Of Deck	Asphalt	Abutment 1 approach settled. Pothole at Abutment 1 approach. Transverse cracks observed.
Underside of Deck	Concrete	No damages observed
Beams Supporting Deck	Concrete	Some concrete spalls at bottom of exterior girders.
Abutment Walls	Concrete	- Vertical hairline cracks at Abutment 1 wall. - Diagonal crack and concrete spalling at Abutment 1 right exterior key. - Concrete spalls at Abutment 7 left exterior shear key. - Some concrete spall at seat girders at Abutment wall.
Wingwalls	Concrete	No damages observed
Arch	NA	

Non-Structural Items	General Remarks
Channel/Waterway Adequacy	Debris and vegetation present in streambed.
Barrier, Guardrail and Fence	No visible damage to concrete barriers.
Sidewalk	NA

Summary of Findings:

SUMMARY REPORT OF BRIDGE SURVEY

- CRACKS AND DAMAGE ON EXTERIOR SHEAR KEY AT ABUTMENT 1.
- CRACKS ON ROADWAY ABOVE.
- CONCRETE SPALLS AT ABUTMENT 7 EXTERIOR SHEAR KEY.

Recommendations and conclusions provided here are based on visual observations of existing conditions at the time of the field survey. Certain conditions may not be visible or may be affected by the passage of time.

EXHIBIT 3-O SAMPLE LOCAL FEDERAL-AID PROJECT FINANCE LETTER

DEPARTMENT OF TRANSPORTATION
DIVISION OF ACCOUNTING
LOCAL PROGRAM ACCOUNTING BRANCH

ATTN: RACHEL CARPENTER

Date: 9/1/2015
Agency: NAPA COUNTY
Fed Project No.:
Project ID.: DAF 19 YOUNTVILLE CROSS ROAD BRIDGE
PPNO.:
Bridge No : 21C0116

Work on State Highway (Y or N): N If yes, provide following:
Administered by State or Local? _____
Project Manager Name: _____
Accounting Program Code(s): _____
Coop or Contribution Agrmnt No.: _____

		"P" or "L"*	TOTAL COST OF WORK	FEDERAL PARTICIPAT. COST	100% FEDERAL FUND TYPE (1)	88.53% FEDERAL FUND TYPE (2)	STATE MATCH FUNDS	LOCAL MATCH FUNDS	OTHER FUNDS
PRELIMINARY ENGINEERING									
Preliminary Engineering: EMERGENCY OPENING		P	$0	$0	$0			$0	
Preliminary Engineering: PERMANENT RESTORATION		P	$20,466	$20,466		$18,119		$2,347	
State Furnished Preliminary Engineering									
Overhead at _____ %									
RIGHT OF WAY (R/W)									
Purchase Costs									
Relocation Assistance /Utility									
CONSTRUCTION:	**EO** / **PR**								
Contract Items	$0 / $204,658.00								
Utilities									
Supplemental Work									
Contingencies	$51,164.00								
Trainees									
Agency/State Furn. Mat.									
Contract Total:	$0	P	$0	$0	$0			$0	
	$255,822.00	P	$255,822	$255,822		$226,479		$29,343	
CONSTRUCTION ENGINEERING									
Construction Engineering: EMERGENCY OPENING		P	$0	$0	$0			$0	
Construction Engineering: PERMANENT RESTORATION		P	$30,699	$30,699		$27,178		$3,521	
State Furnished Construction Engineering									
Overhead at _____ %									
State Furnished Materials Testing									
Overhead at _____ %, Subjob _____									
Striping by Agency									
Force Account Work by Agency									
	TOTALS:	P	$306,987	$306,987	$0	$271,776		$35,211	

* "P" = Pro Rata, "L" = Lump Sum

Federal Participation: _____
Federal Appn. Code(s): _____
Federal Reimbursement Rate(s) for Progress Invoice:

PHASE	FED (1)	FED (2)
PE		
R/W		
CON	100	88.53%
CE		

Distribution: (1) Original + 4 copies-Caltrans DLAE
(2) Copy-Local Agency Project File

Certification

I certify that this Finance Letter accurately reflects the current cost estimate for all phases of the project obligated but not fully expended.

Signature : Mallika Ramachandran
Title : SUPERVISING CIVIL ENGINEER
Project location : YOUNTVILLE CROSS ROAD BRIDGE, NAPA COUNTY
Remarks :

For questions regarding finance letter, contact:
Printed Name: Mallika Ramachandran
Telephone No.: 707-259-8194

DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 21C0116
Facility Carried: YOUNTVILLE CROSS R
Location : 0.9 MI SW SILVERADO TRAI
City :
Inspection Date : 05/21/2015
Inspection Type
Routine FC Underwater Special Other
[X]

Bridge Inspection Report

STRUCTURE NAME: NAPA RIVER

CONSTRUCTION INFORMATION

Year Built : 1985
Year Widened: N/A
Length (m) : 175.3

Skew (degrees): 0
No. of Joints : 2
No. of Hinges : 0

Structure Description: Six-span PC/PS I girders (5) on reinforced concrete (RC) deck and RC pier walls with cantilever seat type abutments. All are founded on steel HP 10X57 piles.

Span Configuration :1 @ 29.3 m, 4 @ 29.2 m, 1 @ 29.3 m

SAFE LOAD CAPACITY AND RATINGS

Design Live Load: UNKNOWN
Inventory Rating: RF=1.00 =>32.4 metric tons Calculation Method: FIELD EVAL/ENG JUDGMENT
Operating Rating: RF=1.67 =>54.1 metric tons Calculation Method: FIELD EVAL/ENG JUDGMENT
Permit Rating : PG000
Posting Load : Type 3: Legal Type 3S2: Legal Type 3-3: Legal

DESCRIPTION ON STRUCTURE

Deck X-Section: 0.5 m br, 11.0 m, 0.5 m br
Total Width: 12.0 m Net Width: 11.0 m No. of Lanes: 2 Speed: 55 mph
Min. Vertical Clearance: Unimpaired Overlay Thickness: 0.0 Inches
Rail Code: 1000

Rail Type	Location	Length (ft)	Rail Modifications
Type 25	Right/Left	1150	Tubular handrail

DESCRIPTION UNDER STRUCTURE

Channel Description: Sandy clay, moderate brush.

NOTICE

The bridge inspection condition assessment used for this inspection is based on the American Association of State Highway and Transportation Officials (AASHTO) Bridge Element Inspection Manual 2013 as defined in Moving Ahead for Progress in the 21st Century (MAP-21) federal law. The new element inspection methodology may result in changes to related condition and appraisal ratings on the bridge without significant physical changes at the bridge.

The element condition information contained in this report represents the current condition of the bridge based on the most recent routine and special inspections. Some of the notes presented below may be from an inspection that occurred prior to the date noted in this report. Refer to the Scope and Access section of this inspection report for a description of which portions of the bridge were inspected on this date.

INSPECTION COMMENTARY

SCOPE AND ACCESS
This inspection was performed by walking on and about the structure. There was water in the channel at 2 feet deep by about 20 feet wide under Span 1 with no substructure elements submerged in the water. All elements were fully inspected.

MISCELLANEOUS
A close up inspection was done on the elastomeric bearing pad under Girder 5 of Abutment 1 with the help of the County of Napa which provided a 20-foot ladder for inspection.

ClibPDF - www.fastio.com

INSPECTION COMMENTARY

DECK AND ROADWAY

The fourth and tenth timber spacer blocks are missing in the metal beam guard rail (MBGR) on the right approach at Abutment 7. The first timber spacer block is missing in the MBGR on the left approach at Abutment 7 (see archived photo).

SAFE LOAD CAPACITY

The load rating for this structure is being reviewed by SM&I Ratings Branch under Work Request #4015. A Load Rating Summary Sheet will be archived when this review is complete. The current rating has been temporarily assigned in accordance with current SM&I procedures.

WATERWAY

A channel cross section was taken during this inspection. The cross section could not be compared to the previous cross section taken on 02/27/2003 because of the difference in reference. However, the cross section was compared to the data obtained during the 06/08/1993 investigation and the results show no significant changes in the channel elevation/profile.

ELEMENT INSPECTION RATINGS AND COMMENTARY

Elem. No.	Defect /Prot	Defect	Element Description	Env	Total Qty	Units	Qty in each Condition State St. 1	St. 2	St. 3	St. 4
12			Deck-RC	2	2104	sq.m	0	694	1410	0
	1090		Exposed Rebar (PS Conc./RC)	2	24		0	24	0	0
	1120		Efflorescence/Rust Staining	2	670		0	670	0	0
	1130		Cracking (RC and Other)	2	1410		0	0	1410	0

(12-1090)

There are approximately ten exposed deck rebars (transverse) in an area about 16 feet by 16 feet wide over Pier 2 of the westbound lane. The exposure is due to lack of concrete cover. Two of the bars have been removed. See Photo No. 2.

(12-1120)

The soffit has transverse cracking with efflorescence in Spans 2, 3, and 4 with the majority near the center of the span. The cracks are up to 7 feet long with space ranging from 2 feet to 10 feet on center. There are also transverse soffit cracks with efflorescence on the left and right side of the overhang next to each pier. See Photo No. 5.

(12-1130)

The concrete deck has 1/16 inch wide diagonal, transverse, and longitudinal cracks spaced over 12 inches on center. The transverse cracks are located mainly above the bents.

109			Girder/Beam-PS Conc.	2	876	m	876	0	0	0

(109)

There were no significant defects noted.

210			Pier Wall-RC	2	55	m	53	2	0	0
	6000		Scour	2	2		0	2	0	0

(210)

There were no significant defects noted.

There are graffiti markings on the face of the pier walls.

(210-6000)

There is an erosion hole on the left side of Pier 2 approximately 6 feet in diameter by 3 feet deep.

215			Abutment-RC	2	24	m	19	0	5	0

ClibPDF - www.fastio.com

ELEMENT INSPECTION RATINGS AND COMMENTARY

Elem No.	Defect /Prot	Defect	Element Description	Env	Total Qty	Units	Qty in each St. 1	St. 2	Condition St. 3	State St. 4
	1080		Delamination/Spall/Patched Area	2	2		0	0	2	0
	1130		Cracking (RC and Other)	2	3		0	0	3	0

(215)
There are graffiti markings on the face of the abutments.

The Abutment 7 footing is continuously exposed to a maximum depth of 24 inches. This condition, however, does not appear to be due to scour. There is 1/4 ton rip rap in front of the footing. See Photo No. 6.

(215-1080)
The right exterior shear key at Abutment 1 has a 1/4 inch wide diagonal crack creating a delaminated area approximately 2 feet by 2 feet wide. This condition was found after the earthquake inspection completed on 09/13/2014. See archived photos.

There is a spall approximately 9 inches by 4 inches by 2 inches on the left exterior shear key at Abutment 7. This condition was found after the earthquake inspection completed on 09/13/2014. See archived photo.

(215-1130)
Abutment 1 has three 1/16 inch wide full-height vertical cracks near Girders 3 and 4.

225			Pile-Steel	2	1	ea.	1	0	0	0

(225)
The pile element is included to indicate the presence of piles on this structure. The piles were not exposed for visual inspection. No indication of pile distress was noted in any substructure element.

256			Slope Protection	2	3	ea.	3	0	0	0

(256)
There were no significant defects noted.

302			Joint-Compression Seal	2	23	m	0	23	0	0
	2310		Leakage (Joints)	2	12		0	12	0	0
	2360		Adjacent Deck or Header (Joints)	2	11		0	11	0	0

(302)
There are edge spalls and 1/16 inch wide longitudinal cracks spaced over 2 feet on center along the entire length of the compression joint seal concrete header at the abutments (see archived photo). The joints are slightly impacted with dirt and debris. The leakage underneath indicates that the seals are no longer watertight. The neoprene gland at Abutment 1 has a split about 4 inches long.

(302-2310)
The face of both Abutments 1 and 7 has indication of moisture leakage from the joint seals above. The joint seals are no longer watertight. The neoprene gland at Abutment 1 has a split about 4 inches long.

(302-2360)
There are edge spalls and 1/16 inch wide longitudinal cracks spaced over 2 feet on center along the entire length of the compression joint seal concrete header at the abutments (see archived photo). The joints are also slightly impacted with dirt and debris. See Photo No. 1.

310			Bearing-Elastomeric	2	6	each	5	0	0	1
	2230		Bulging/Split/Tear (Bearings)	2	1		0	0	0	1

(310)
All five the elastomeric bearing pads under the girders of Abutment 7 are visible for inspection. There were no significant defects noted in those bearing pads.

ClibPDF - www.fastio.com

ELEMENT INSPECTION RATINGS AND COMMENTARY

Elem No.	Defect /Prot	Defect	Element Description	Env	Total Qty	Units	Qty in each Condition State St. 1	St. 2	St. 3	St. 4
			The elastomeric bearing pad under Girder 5 of Abutment 1 was inspected up close with the help of a 20-foot ladder provided by the County of Napa. The styrofoam was knocked off and the bearing pad was inspected with a flashlight.							
			(310-2230) The elastomeric pad under Girder 5 of Abutment 1 has failed and there is excessive bulging and tearing along the exterior portion that can be seen along the side that is parallel to the face of Abutment 1. See Photos No. 3 and 4.							
312			**Bearing-Enclosed**	2	4	each	0	0	0	4
	2220		**Alignment (Bearings)**	2	4		0	0	0	4
			(312-2220) There is a 1.5 inch vertical offset between the transition of the bridge deck and the AC approach pavement at Abutment 1. This offset is consistent from left to right and therefore it was concluded that all of the elastomeric bearing pads along Abutment 1 has failed with similar condition seen under Girder 5 of Abutment 1. See Photo No. 1.							
331			**Railing-RC**	2	351	m	351	0	0	0
			(331) There were no significant defects noted.							

WORK RECOMMENDATIONS

RecDate: 05/21/2015 Action : Deck-Patch spalls Work By: LOCAL AGENCY Status : PROPOSED	EstCost: StrTarget: 2 YEARS DistTarget: EA:	Saw-cut, remove unsound concrete, protect the exposed rebar, and patch the deck spalls over the westbound lane of Pier 2 approximately 16 feet by 16 feet wide.
RecDate: 05/21/2015 Action : Bearings-Replace Work By: LOCAL AGENCY Status : PROPOSED	EstCost: StrTarget: 6 MONTHS DistTarget: EA:	Replace the elastomeric bearing pads under the girders of Abutment 1.
RecDate: 09/13/2014 Action : Sub-Replace Work By: LOCAL AGENCY Status : PROPOSED	EstCost: StrTarget: 2 YEARS DistTarget: EA:	Replace the Abutment 1 right shear key and patched the spalls on the Abutment 7 left shear key.
RecDate: 09/13/2014 Action : Appr. Roadway-Repair Work By: LOCAL AGENCY Status : PROPOSED	EstCost: StrTarget: 2 YEARS DistTarget: EA:	Overlay the Abutment 1 AC approach pavement and repair the pothole.
RecDate: 12/04/2001 Action : Railing-Repair Work By: LOCAL AGENCY Status : PROPOSED	EstCost: StrTarget: 2 YEARS DistTarget: EA:	Replace the missing timber spacer blocks in the metal beam guard rail (MBGR) on the approaches at Abutment 7.
RecDate: 09/06/2000 Action : Joints-Replace Work By: LOCAL AGENCY Status : PROPOSED	EstCost: StrTarget: 2 YEARS DistTarget: EA:	Replace the compression joint seals at the abutments. The joint opening was measured to be 3.25 inches and 3.75 inches wide at 60 degrees F at Abutment 1 and 7 respectively on 05/21/2015.

ClibPDF - www.fastio.com

CHANNEL X-SECTION

Side : Upstream

X-Section Date: 05/21/2015

Measured From : Top of concrete rail (left)

Location	Horiz (m)	Vert (m)	Comments
Abutment 1	0.00	7.40	Face of abutment.
	6.00	9.90	Edge of water.
	9.30	10.60	Thalweg.
Pier 2	29.30	6.30	Centerline.
Pier 3	58.50	5.30	Centerline.
Pier 4	87.70	6.10	Centerline.
Pier 5	116.90	5.80	Centerline.
Pier 6	146.10	6.70	Centerline.
Abutment 7	173.80	3.75	Top of RSP.

Team Leader : Mentol Sun

Report Author : Mentol Sun

Inspected By : M.Sun/RP.Jorgensen

Mentol Sun 7/15/15

Mentol Sun (Registered Civil Engineer) (Date)

REGISTERED PROFESSIONAL ENGINEER
Mentol
Sun
No. 65562
09/30/2015
CIVIL
STATE OF CALIFORNIA

ClibPDF - www.fastio.com

STRUCTURE INVENTORY AND APPRAISAL REPORT

********** IDENTIFICATION **********

(1) STATE NAME- CALIFORNIA 069
(8) STRUCTURE NUMBER 21C0116
(5) INVENTORY ROUTE(ON/UNDER)- ON 140000000
(2) HIGHWAY AGENCY DISTRICT 04
(3) COUNTY CODE 055 (4) PLACE CODE 00000
(6) FEATURE INTERSECTED- NAPA RIVER
(7) FACILITY CARRIED- YOUNTVILLE CROSS R
(9) LOCATION- 0.9 MI SW SILVERADO TRAIL
(11) MILEPOINT/KILOMETERPOINT 0
(12) BASE HIGHWAY NETWORK- NOT ON NET 0
(13) LRS INVENTORY ROUTE & SUBROUTE
(16) LATITUDE 38 DEG 25 MIN 05.23 SEC
(17) LONGITUDE 122 DEG 21 MIN 06.76 SEC
(98) BORDER BRIDGE STATE CODE % SHARE %
(99) BORDER BRIDGE STRUCTURE NUMBER

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

(43) STRUCTURE TYPE MAIN:MATERIAL- PRSTR CONC CONT
TYPE- STRINGER/MULTI-BEAM OR GDR CODE 602
(44) STRUCTURE TYPE APPR:MATERIAL- OTHER/NA
TYPE- OTHER/NA CODE 000
(45) NUMBER OF SPANS IN MAIN UNIT 6
(46) NUMBER OF APPROACH SPANS 0
(107) DECK STRUCTURE TYPE- CIP CONCRETE CODE 1
(108) WEARING SURFACE / PROTECTIVE SYSTEM:
A) TYPE OF WEARING SURFACE- NONE CODE 0
B) TYPE OF MEMBRANE- NONE CODE 0
C) TYPE OF DECK PROTECTION- NONE CODE 0

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

(27) YEAR BUILT 1985
(106) YEAR RECONSTRUCTED 0000
(42) TYPE OF SERVICE: ON- HIGHWAY 1
UNDER- WATERWAY 5
(28) LANES:ON STRUCTURE 02 UNDER STRUCTURE 00
(29) AVERAGE DAILY TRAFFIC 2580
(30) YEAR OF ADT 2005 (109) TRUCK ADT 10 %
(19) BYPASS, DETOUR LENGTH 14 KM

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

(48) LENGTH OF MAXIMUM SPAN 29.3 M
(49) STRUCTURE LENGTH 175.3 M
(50) CURB OR SIDEWALK: LEFT 0.0 M RIGHT 0.0 M
(51) BRIDGE ROADWAY WIDTH CURB TO CURB 11.0 M
(52) DECK WIDTH OUT TO OUT 12.0 M
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 9.8 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 11.0 M
(53) MIN VERT CLEAR OVER BRIDGE RDWY 99.99 M
(54) MIN VERT UNDERCLEAR REF- NOT H/RR 0.00 M
(55) MIN LAT UNDERCLEAR RT REF- NOT H/RR 0.0 M
(56) MIN LAT UNDERCLEAR LT 0.0 M

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

(38) NAVIGATION CONTROL- NO CONTROL CODE 0
(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 = 92.2
STATUS STRUCTURALLY DEFICIENT
HEALTH INDEX 69.3
PAINT CONDITION INDEX = N/A

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

(112) NBIS BRIDGE LENGTH- YES Y
(104) HIGHWAY SYSTEM- NOT ON NHS 0
(26) FUNCTIONAL CLASS- LOCAL RURAL 09
(100) DEFENSE HIGHWAY- NOT STRAHNET 0
(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 - NOT ON NET 0
(20) TOLL- ON FREE ROAD 3
(21) MAINTAIN- COUNTY HIGHWAY AGENCY 02
(22) OWNER- COUNTY HIGHWAY AGENCY 02
(37) HISTORICAL SIGNIFICANCE- NOT ELIGIBLE 5

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

(58) DECK 4
(59) SUPERSTRUCTURE 8
(60) SUBSTRUCTURE 7
(61) CHANNEL & CHANNEL PROTECTION 7
(62) CULVERTS N

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

(31) DESIGN LOAD- UNKNOWN 0
(63) OPERATING RATING METHOD- FIELD EVAL/ENG JUD 0
(64) OPERATING RATING- 54.1
(65) INVENTORY RATING METHOD- FIELD EVAL/ENG JUD 0
(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 7
(68) DECK GEOMETRY 5
(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL N
(71) WATER ADEQUACY 8
(72) APPROACH ROADWAY ALIGNMENT 8
(36) TRAFFIC SAFETY FEATURES 1000
(113) SCOUR CRITICAL BRIDGES 5

********** 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 3935
(115) YEAR OF FUTURE ADT 2035

********** INSPECTIONS **********

(90) INSPECTION DATE 05/15 (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) 09/00

ClibPDF - www.fastio.com

21C0116 NAPA RIVER 0.9 MI SW SILVERADO TRAIL 05/21/2015 [AAAL]
124 - PHOTO-Joint-Damage/Deterioration

Photo No. 1
JOINT: Compression joint seal at Abutment 1 with offset, cracks, and debris.

21C0116 NAPA RIVER 0.9 MI SW SILVERADO TRAIL
102 - PHOTO-Deck-Damage/Deterioration

05/21/2015 [AAAL]

Photo No. 2
DECK: Exposed rebar on bridge deck above Pier 2.

21C0116 NAPA RIVER 0.9 MI SW SILVERADO TRAIL 05/21/2015 [AAAL]
124 - PHOTO-Joint-Damage/Deterioration

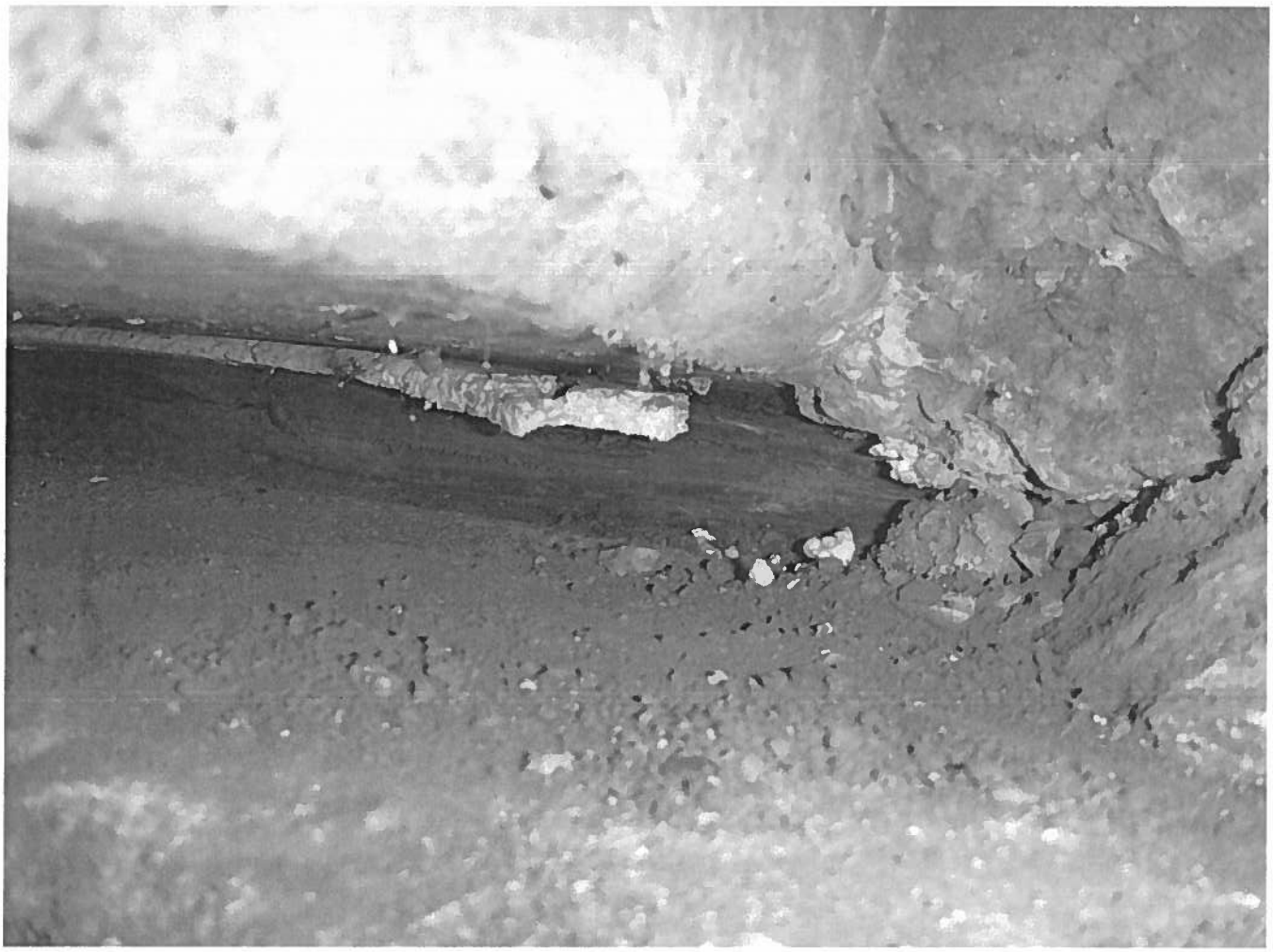


Photo No. 3
JOINT: Elastomeric bearing pad under Girder 5 of Abutment 1 failure.

Photo No. 4
JOINT: Elastomeric bearing pad under Girder 5 of Abutment 1 failure.

Photo No. 5
SUPERSTRUCTURE: Typical transverse cracks with efflorescence on soffit.

21C0116 NAPA RIVER 0.9 MI SW SILVERADO TRAIL
117 - PHOTO-Sub-Misc.

05/21/2015 [AAAL]

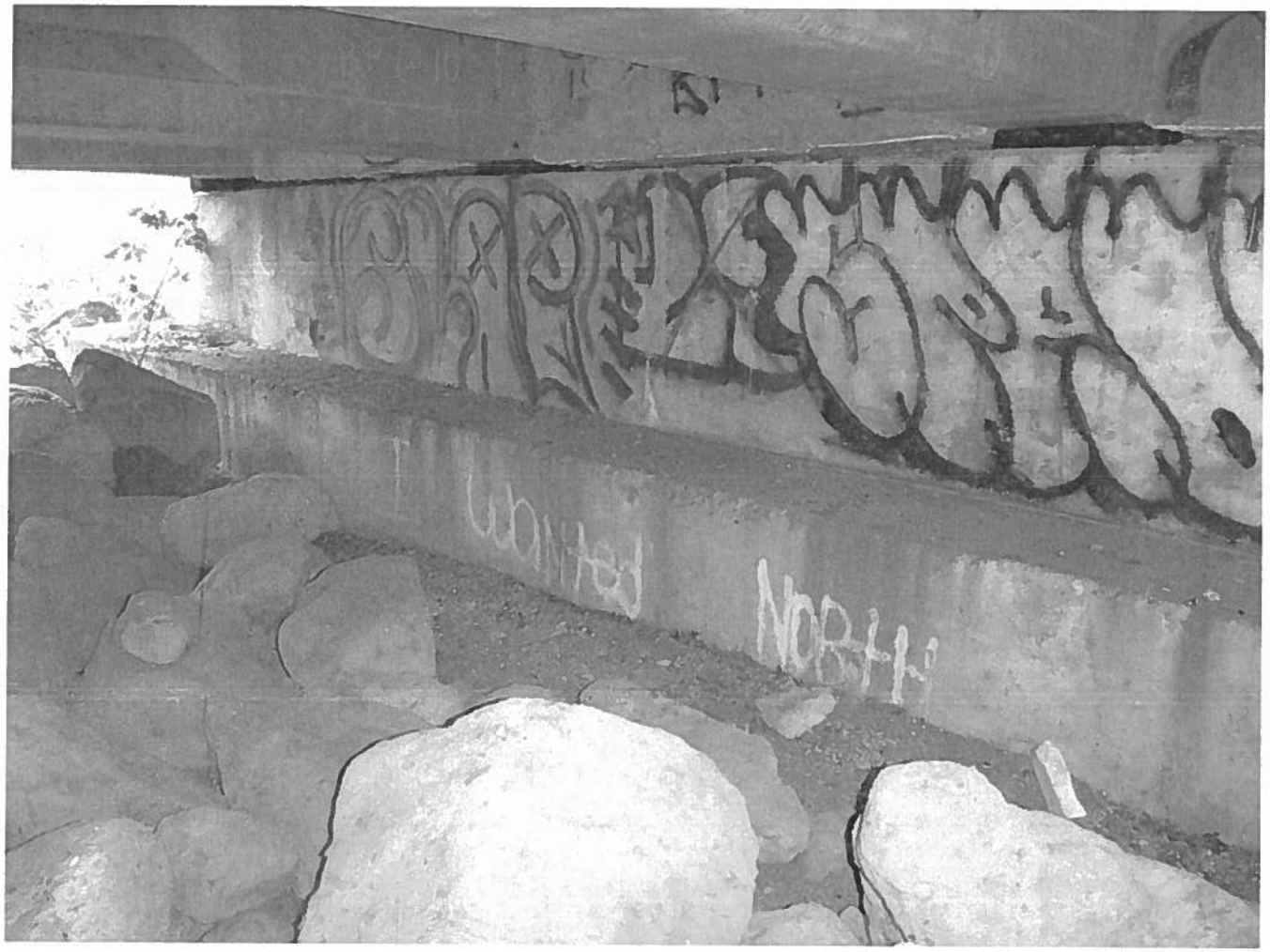


Photo No. 6
SUBSTRUCTURE: Footing exposure at Abutment 7 with rip rap in front.

Department of Public Works

1195 Third Street, Suite 101
Napa, CA 94559-3092
www.countyofnapa.org/publicworks

Main: (707) 253-4351
FAX: (707) 253-4627

Steven Lederer
Director of Public Works

A Tradition of Stewardship
A Commitment to Service

September 10, 2015

Rachel Carpenter
Local Assistance Engineer
Caltrans Office of Local Assistance
111 Grand Avenue
Oakland, CA 94623-0660

Re: Napa County 2014 Earthquake Damage Assessment Form 19: Yountville Crossroad Bridge (21C0116)

Dear Ms. Carpenter

Damage Assessment Form #19 for the Yountville Crossroad Bridge (Bridge No. 21C0116) has been amended to include additional estimated costs for the replacement of a damaged bearing pad at the westernmost abutment, otherwise referred to as Abutment 1.

Representatives from the Caltrans structural inspection unit from Sacramento performed detailed inspection of the bridge and determined that the failed bearing was the result earthquake.

Please see the attached amendment to DAF #19 and Bridge Inspection Report.

If you have any further questions, please contact me 707-259-8194, or at mallika.ramachandran@countyofnapa.org.

Sincerely,

Steven E. Lederer
Director of Public Works

Mallika Ramachandran

Mallika Ramachandran, P.E.
Supervising Civil Engineer
Napa County Department of Public Works

Enclosure