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

Applicant	County	Incident Date (mm/dd/yyyy)	Inspection
Napa County Public Works	Napa Congressional districts 5	08/24/2014	09/24/2014

Location of Damage: Per Site [✓] or [ ] Per Mile

Name of Road/Bridge: CUTTINGS WHARF ROAD

PM Begin: 1.75 PM Length: 31.00 (in feet)

PM End: 1.75

Federal-aid Highway? Y for yes, if no, ineligible for ER funds: Y

Map No: 5K22

Functional Classification Type: MINOR COLLECTOR

Route #

Road/Bridge Data: Bridge No Type: culvert

	Width	Type: PCC	AC	Gravel
Traveled Way:	24'	[ ]	[✓]	[ ]
Shoulder:	6' & 1'	[ ]	[✓]	[ ]

Forest Hwy? Y/N: N Interstate? Y/N: N

Existing ADT: 2,111

Description of Damage: Collapsed concrete weir wall and delaminated headwall at culvert inlet due to 2014 South Napa earthquake event (Magnitude 6.0).

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	Replace collapsed weir wall and pressure grout delaminated head wall. Repair cracks at roadway surface.	PE	3,584
			CE	5,375
			Construction	44,794
	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**		$53,753

Eligible		Signature	Date		
[✓] Yes	[ ] No	Local Agency (if applicable):	4/13/2015	PE Total	$3,584
[ ] Yes	[ ] No	Caltrans:	5-8-15	CE Total	$5,375
[ ] Yes	[ ] No	FHWA*:		R/W Total	$0
				Construction Total	$44,794
			TOTAL ESTIMATE		**$53,753**

Agency sig. Name (print): FOR 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][4] [0] Sheet # 2 of 3 Federal Project # EO ER - _____( ) Disaster No. CA [1][4] - [1] PR ER - _____( ) Agency EO Calc [X] EO contract [ ] PR Calc [X]

ITEM #24 FROM BRIDGES & CULVERTS SPREADSHEETS					
CUTTINGS WHARF RD MP 1.7 (REF: DISTRICT 1, STRUCTURE 14); DAF 14					
CULVERT REPAIR					
Item	**Description**	**Unit**	**Quantity**	**Unit Price**	**Estimated Cost**
1	Mobilization	LS	1	$ 2,311.94	$ 2,311.94
2	SWPPP Implementation, Erosion and Sediment Control (BMP)	LS	1	$ 1,155.97	$ 1,155.97
3	Clearing, Grubbing and Misc. Demolition	LS	1	$ 2,311.94	$ 2,311.94
4	Traffic Control	LS	1	$ 1,155.97	$ 1,155.97
5	Cold Plane Asphalt Concrete	SQYD	69	$ 68.00	$ 4,692.00
6	Remove Concrete	CY	2	$ 530.00	$ 1,060.00
7	Structural Concrete	CY	2	$ 1,197.00	$ 2,394.00
8	Bar Reinforcing Steel	LB	182	$ 2.20	$ 400.40
9	Pressure Grout Cracks at Headwall	Days	5	$ 1,300.00	$ 6,500.00
10	Place Hot Mix Asphalt (Misc. Area)	SQYD	69	$ 117.00	$ 8,073.00
11	Right of Way Analysis/Appraisal/Acquisition/TCE	LS	1	$ -	$ -
12	Environmental Process, Permitting & Fees, Environmental Mitigation, Environmental Monitoring & Reporting	LS	1	$ 5,779.85	$ 5,779.85
	Subtotal				**$ 35,835.07**
	25% Contingency (Planning Level)				$ 8,958.77
	Total Construction Cost				**$ 44,793.84**
	PE 10% of Total Construction				$ 3,583.51
	CE 15% of Total Construction				$ 5,375.26
	Total Estimated Cost				**$ 53,752.61**
				ESTIMATED PROJECT COST	**$ 53,800.00**

Justifications/comments

PE cost is 10% of Construction subtotal, due the nature of project and repair scheme. Engineering drawings showing the new design of concrete weir wall will be required. Due to the Environmental items and permitting requirements (see paragraph below), more preparation and coordination work will be required as well. All this work will require additional consultant and local agency time compared to a typical projects.

CE cost is 15% of Total Construction Cost.

Item #11 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 4 - 0 Sheet # 3 of 3 Federal Project # EO ER - _____( ) Disaster No. CA 1 4 - 1 PR ER - _____( )

Photos, Sketches, and/or Narrative

Collapsed wall in front of culvert inlet

Culvert inlet with headwall

Culvert outlet with headwall, and severe corrosion inside the CMP

Cracks and movement in stones of inlet headwall

Cracks in pavement above culvert

Cracks in pavement above culvert

(3)

List - I 2010 - 2011

Location	M.P.M.	SIZE	approx. Length	Type of PIPE RCP, CAP, CSP	Type of Headwalls INLET	OUTLET	condition of PIPE	work needed/comments
Milton Rd.-1125		12"	32'	RCP	cmt./rock	cmt./rock	good	W. end shifting. sink hole 6' from W. end
Milton Rd.-40' N. of 1125 mail	box	12"	30'	CSP	0	0	bad	rusted out. ½ full of dirt
Milton Rd.-120' S. of chevrons		15" or 18"	40'	CAP	0	0	good	both ends partly bent
Milton Rd.-50' S. of chevrons		18"	38'	CAP	0	0		outlet ½ silted. ditch.
Milton Rd.-150' N. of 1105 (Page	Milton gate)	18"?	40'	RCP	0	0	good	4" water line runs through.
Bayview Ave.-end		18"	110'	CSP	cement	grate/di	good	same side
Bayview Ave.-1170		18"	72'	CSP	grate/di	grate	good	same side (goes under driveway)
Bayview Ave.-1170		18"?	36'	CSP?	grate	grate/di		(crosses)
Bayview Ave.-	00.25	12"	28'	CSP	asphalt	asphalt	fair	2 water lines (2" & 3") go through.
Bayview Ave.-Las Amigos		12" (?) 12"?/15"	(2) 34'	~~cmt~~-CSP/csp	asphalt/0	0	Poor	~~cmt~~ inlet ¾ blocked. outlet ¾ rusty
McKinnon Rd.-4108		20" by 28"	20'	(squash) CSP	0	0	good	
McKinnon Rd.-(00.23)		24"?	30	CSP	cmt./brick	rock?		both ends under water.
Los Carneros-Cuttings Wharf		15"	42'	rcp	cmt./rock	rock/0	good	outlet ⅓ silted. inlet wall ½ collapsed
Los Carneros-30' E. of 1734		12"	22'	rcp	cmt./rock	cmt./rock	good	outlet a little silted. outlet wall resting
Los Carneros-1708 (corner)		12"	36'	CSP	0	rock	good	
Los Carneros-1559 (1 of 7 mail	boxes)		45'	(box?) don't know	~~cmt~~ cement	cement		outlet headwall fell (bad. pipe out)
Los Carneros-1126		18"	35'	CAP	asphalt/0	rock & cmt./0	good	
Los Carneros-1017 (near Hwy)		12"	30'	CSP	0	0	fair	Top inlet a little bent. some dirt in inlet
Cuttings Wharf Rd.-Wharf			200'		grate	flood gate		0' from Rd. to river (same side) gate is open
Cuttings Wharf Rd.-end Rd.		12"	28'	CSP	Brick/cmt.	grate	fair	rusty
Cuttings Wharf Rd.-2252 (intersection)	yield sign	30"	40'	rcp	cmt./block	cmt./0	good	~~inlet~~ headwall needs work. ~~[illegible]~~
Cuttings Wharf Rd.-150' S. of 01.00		18"	55'	rcp	0	0	good	3" water line runs through.
Cuttings Wharf Rd.-2035 (M ranch)		15"	40'	rcp	0	rock	good	~~clean inlet~~ debris in inlet
DAF 14 → Cuttings Wharf Rd.-Middle Ave.	01.75	60"	32'	CSP	rock/cmt.	rock/cmt.	bad	bottom half of culvert [illegible]
Cuttings Wharf Rd.-200' S. of 1155		30"/24" by?	42'	abs/cmt. (box)	rock	cmt./rock	bad	box very badly eroded out (Cedar [illegible])
Middle Ave.-(00.08)		12"	24'	rcp	asphalt/0	0	good	outlet silted 5"
Middle Ave.-Cuttings Wharf		12"	40'	rcp	0	asphalt/0	good	inlet ⅓, & outlet ¾ silted.
South Ave.-100' E. of end		12"	18'	rcp	0	0	fair	N. end 8' broke off
South Ave.-(00.10)		12"	20'	CSP	0	0		inlet ¾ smashed. outlet smashed [illegible]
South Ave.-1690		12"	30'	CSP	0	rock	good	
Withers Rd.-100' E. of 4139		36" by 36"	20'	cement (arch)	cement	cement	fair	box ~~[illegible]~~ eroded, but intact
Withers Rd.-170' E. of Los Carneros		24" by 24"	20'	cement (box)	cement	cement	fair	outlet eroding

tell about culvert on Cuttings Wharf at Middle Ave.
tell about badly eroded box N. of Middle.

"INLET WALL SHIFTING, HALF SILTED."

Damage Assessment and Recommendations Report
Cutting Wharf Culvert
03/02/15

Damage Assessment

Existing culvert consists of 60" wide by 30" tall elliptical corrugated metal pipe (CMP) with stone masonry headwall. Concrete weir wall is observed at the front of the culvert inlet side.

Cracks, missing mortars between stone masonry and delaminated grout are observed at the existing stone masonry headwalls. Existing concrete weir wall is partially collapsed with missing section.

Roadway surface above the culvert has some transverse cracks.

Recommendations

Culvert repair includes applying pressure grout at the cracks and delaminated mortars between stone masonry. Existing damaged weir wall will be replaced with concrete wall at the missing section.

Cracks at roadway surface will be repaired by cold plane asphalt removal and adding hot asphalt mix at the repair area.

Please note that the repair solution and cost estimate is based on the assumption that the existing structure meets all current codes, standards and regulations, which are highly unlikely. In the preliminary engineering phase hydraulics, geotechnical, unforeseen site conditions, archeology/historic significance, and other studies, and State and Federal permitting regulations and requirements may show that the proposed repair solution do not meet current code, standards and regulations and the repair strategy will have to be modified to meet current codes, standards and regulations leading to higher repair costs.

PREPARED BY: YOLIANA SWENSON, P.E
BKF/Biggs Cardosa Associates, Inc.

REVIEWED BY: MALLIKA RAMACHANDRAN, P.E., SUPERVISING CIVIL ENGINEER
COUNTY OF NAPA

INITIAL SUMMARY REPORT OF STRUCTURE

LOCATION

County Napa County Division Public Works District 1 / Item #14

On Route Cuttings Wharf Road at Milepost 1.7 or Miles From

TYPE OF CULVERT	BARRELS	Date of Inspection
Shape Elliptical Material CMP Coating N/A	Size 60" wide x 30" tall Number 1	9/24/14

CONDITION

Channel & Channel Protection	Remarks
Channel Scour	
Embankment Erosion	
Drift	
Silt	
Vegetation	

Culvert & Retaining Walls	Remarks
Barrel	No damage observed.
Headwall	Mortar has delaminated from stones at culvert inlet.
Wingwall	None observed.
Settlement	None observed.
Adequacy of Cover	N/A

Roadway	Remarks
Shoulders	N/A
Embankment	No damage observed.
Pavement	Crack in pavement

Miscellaneous Comments

Damage to the stone-masonry headwall and concrete weir wall at culvert inlet was observed.

Concrete weir wall located in front of the existing headwall, inlet side, is partially collapsed with missing section.

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

DEPARTMENT OF TRANSPORTATION
DIVISION OF ACCOUNTING
LOCAL PROGRAM ACCOUNTING BRANCH

ATTN: RACHEL CARPENTER

Date: 4/13/2015
Agency: NAPA COUNTY
Fed Project No.:
Project ID.: DAF 14 CUTTINGS WHARF MPM 1.7
PPNO.:
Bridge No :

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	$3,584	$3,584		$3,172		$411	
State Furnished Preliminary Engineering								
Overhead at ____ %								
RIGHT OF WAY (R/W)								
Purchase Costs								
Relocation Assistance /Utility								
CONSTRUCTION: EO / PR								
Contract Items: EO $0, PR $35,835.07								
Utilities								
Supplemental Work								
Contingencies: PR $8,958.77								
Trainees								
Agency/State Furn. Mat.								
Contract Total: EO $0, PR $44,793.84	P	$0	$0	$0			$0	
	P	$44,794	$44,794		$39,656		$5,138	
CONSTRUCTION ENGINEERING								
Construction Engineering: EMERGENCY OPENING	P	$0	$0	$0			$0	
Construction Engineering: PERMANENT RESTORATION	P	$5,375	$5,375		$4,759		$617	
State Furnished Construction Engineering								
Overhead at ____ %								
State Furnished Materials Testing								
Overhead at ____ %, Subjob ____								
Striping by Agency								
Force Account Work by Agency								
TOTALS:	P	$53,753	$53,753	$0	$47,587		$6,165	

* "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 :
Title : SUPERVISING CIVIL ENGINEER
Project location : CUTTINGS WHARF, 1.7, NAPA COUNTY
Remarks :

For questions regarding finance letter, contact:
Printed Name: MALLIKA RAMACHANDRAN, P.E.
Telephone No.: 707-259-8194