

U.S. Department of Transportation Federal Highway Administration- California Division- Title 23 Damage Assessment Form (DAF)		DAF No. <input type="text"/> - NAP <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/>
Sheet # 1 of 3		Federal Project # EO ER - <input type="text"/> ()
Disaster No. CA <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> PR ER - <input type="text"/> ()		
Applicant Napa County Public Works	County Napa Congressional districts 5	Incident Date (mm/dd/yyyy) Inspection 08/24/2014 09/25/2014
Location of Damage:	Per Site <input checked="" type="checkbox"/> or <input type="checkbox"/> Per Mile	Federal-aid Highway? Y for yes, if no, ineligible for ER funds <input type="checkbox"/> Y
Name of Road/Bridge: Silverado Trail Culvert	PM Begin: 10.64 PM Length: 11.00 PM End: 10.64 (in feet)	Map No <input type="text"/> 5K13
Road/Bridge Data:	Bridge No <input type="text"/> Type: Conc Arch & box, stc	Functional Classification Type: MAJOR COLLECTOR
Traveled Way: Width 40 Type: PCC <input type="checkbox"/> AC <input checked="" type="checkbox"/> Gravel <input type="checkbox"/>	Shoulder: Width 8 Type: PCC <input type="checkbox"/> AC <input checked="" type="checkbox"/> Gravel <input type="checkbox"/>	Route # <input type="text"/> Forest Hwy? Y/N <input type="checkbox"/> N Interstate? Y/N <input type="checkbox"/> N Existing ADT: 5,450
Description of Damage:	Crack from top to bottom in step fashion at Southwest stone masonry wingwall.	

COST ESTIMATE				
Emergency Opening (EO)	Type of Repair	Description of Work	Cost Summary	
	EO- AGENCY FORCES CT Work Order #(s): EA(s):			PE
CE				0
EO- CONTRACT EO EA(s):			Construction	0
			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 <input checked="" type="checkbox"/> Contract <input type="checkbox"/> FA	Pressure grout (E) crack, add concrete wall behind (E) damaged stone masonry wingwall. Tie new wall & (E) wall with drill & bond dowel.	PE	1,810
	PR FAs		CE	2,715
			Construction	22,626
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	\$27,151
Eligible	Signature	Date	PE Total	\$1,810
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Local Agency (if applicable): <i>[Signature]</i>	4.13.2015	CE Total	\$2,715
<input type="checkbox"/> Yes <input type="checkbox"/> No	Caltrans: <i>[Signature]</i>	5-8-15	R/W Total	\$0
<input type="checkbox"/> Yes <input type="checkbox"/> No	FHWA: <i>[Signature]</i>		Construction Total	\$22,626
TOTAL ESTIMATE				\$27,151

Agency sig. Name (print): For Mallika Ramachandran, P.E. FHWA Sig. Name (print): _____
 CT signature Name (print): John Brewster 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.

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	Sheet # 2 of 3		Federal Project # EO ER -		()		
	Disaster No. CA <input type="text"/>	<input type="text"/>	-	<input type="text"/>		PR ER -		()
	Agency EO Calc <input type="checkbox"/>		EO contract <input type="checkbox"/>		PR Calc <input checked="" type="checkbox"/>				

ITEM #38 FROM BRIDGES AND CULVERTS SPREADSHEET					
SILVERADO TRAIL 122' N OF 7764, MP 10.64 (REF: District 2, Structure 45) LOP 233; DAF 25					3/9/2015
CULVERT REPAIR					
Item	Description	Unit	Quantity	Unit Price	Estimated Cost
1	Mobilization	LS	1	\$ 1,167.80	\$ 1,167.80
2	SWPPP Implementation, Erosion and Sediment Control (BMP)	LS	1	\$ 583.90	\$ 583.90
3	Clearing, Grubbing and Misc. Demolition	LS	1	\$ 1,167.80	\$ 1,167.80
4	Traffic Control	LS	1	\$ 583.90	\$ 583.90
5	Temporary Shoring	SF	312	\$ 10.00	\$ 3,120.00
6	Structure Excavation	CY	6	\$ 125.00	\$ 750.00
7	Structure Backfill	CY	4	\$ 180.00	\$ 720.00
8	Structural Concrete	CY	2	\$ 1,420.00	\$ 2,840.00
9	Bar Reinforcing Steel	LB	400	\$ 1.60	\$ 640.00
10	Drill and Bond Dowel	EA	12	\$ 84.00	\$ 1,008.00
11	Pressure Grout	Days	2	\$ 1,300.00	\$ 2,600.00
12	Right of Way Analysis/Appraisal/Acquisition/TCE	LS	1	\$ -	\$ -
13	Environmental Process, Permitting & Fees, Environmental Mitigation, Environmental Monitoring & Reporting	LS	1	\$ 2,919.50	\$ 2,919.50
	Subtotal				\$ 18,100.90
	25% Contingency (Planning Level)				\$ 4,525.23
	Total Construction				\$ 22,626.13
	PE 10% of Total Construction				\$ 1,810.09
	CE 15% of Total Construction				\$ 2,715.14
	Total Estimated Cost				\$ 27,151.35
ESTIMATED PROJECT COST					\$ 27,200.00

Justifications/comments

All quantities are estimated, the actual limits of work can only be determined in preliminary engineering phase. The sizes of structure and pavement sections are estimated. Actual structure type and size and pavement section will be determined by hydraulic, geotechnical and other studies. Items of work are broken down to the extent feasible for budgetary estimate. The items will be further defined and itemized in preliminary engineering phase.

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

In general the following items are included in the Environmental Process, Permitting & Fees, Environmental Mitigation, and Environmental Monitoring & Reporting:

- 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 roughen channel, riparian restoration at a 3:1 ration to habitat structures and fish passage and scour measures 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.

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Federal Highway Administration-
California Division- Title 23
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Sheet # 3 of 3 Federal Project # EO ER - _____ ()
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Photos, Sketches, and/or Narrative



View of east side of culvert



View of west side of culvert

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Sheet # 3 of 3 Federal Project # EO ER - _____ ()
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Southwest wingwall made of cement and rock is cracked from bottom to top in step fashion



Southwest wingwall made of cement and rock is cracked from bottom to top in step fashion

Damage Assessment and Recommendations Report
Silverado Trail Rd MP 010.64 Culvert
03/16/15

Damage Assessment

Silverado Trail Culvert at MP 10.64 consists of 1- 84" tall x 108" wide cell concrete box culvert and masonry stone arch culvert. The masonry stone arch culvert is supported by stone masonry wingwall on each side of the arch culvert.

Crack from top to bottom in steps fashion was observed in the Southwest stone masonry wingwall.

Recommendations

Culvert repairs include strengthening the existing cracked wingwall by adding new concrete wall behind the existing wingwall. Drill and bond dowels will be used to tie the existing wingwall and new concrete wall together. Crack at the existing stone masonry wingwall will be repaired with pressure grout.

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 <u>Napa County</u>	Division <u>Public Works</u>	District <u>2/ Item #45</u>
On Route _____	at Milepost <u>10.64</u>	or Miles From <u>38.45856, -122.36577</u>
TYPE OF CULVERT		BARRELS
Shape <u>Box</u>	Size <u>84"x108"</u>	inlet Northing: <u>38.45856</u>
Material <u>Rock</u>	Number <u>1</u>	inlet Westing: <u>-122.36577</u>
Coating _____		
CONDITION		Date of Inspection <u>9/25/14</u>
Channel & Channel Protection		<u>Remarks</u>
Channel Scour		
Embankment Erosion		
Drift		
Silt		
Vegetation		
Culvert & Retaining Walls		<u>Remarks</u>
Barrel		
Headwall		
Wingwall		Southwest wingwall cracked full height in step fashion
Settlement		
Adequacy of Cover		
Roadway		<u>Remarks</u>
Shoulders		
Embankment		
Pavement		
Miscellaneous Comments		
Crack located on rock box culvert on southwest wingwall full height in step fashion. Approx depth, width, and length of crack measured.		

Initial Summary of Findings:

- Crack from top to bottom in step fashion at stone masonry wingwall.

These initial finding are based only on visual observations of existing conditions at the time of the damage assessment. Certain conditions may not be visible or may be affected by the passage of time.

Cement bridge on Toyon St. (presently under culverts)

District 3

Bridge Inspection

Road	ADDTL LOCATION INFO	Description/Type	Date Inspected	Recommended Maintenance	Length
Silverado Trail DAF 25	MPM 10.64 (Bent down) 0.2 mi North of Oakville Cross Road	Stone Arch w/cement arch extension, w/added cement floor's, w/cement box extension.	5/23/14	E. guard rail has some brush, but it's clear of bike path. Box floor has minor cracks & gravel obstructing bottom of arch wall, they but bottom of both arch walls mortar is eroding & could use some cement, especially at outlet. On that wing wall has diagonal crack.	10'
Silverado Trail DAF 22	at Taplin Road	Stone Arch w/added cement floor w/ cement box extension	5/23/14	Vertical cracks on arch stone joints extending 1/4 on ea. side of arch w/ a going through rail. Stone missing from bottom of arch headwall needs repair. Some mortar missing from inlet headwall. Arch's floor is eroded & finish at middle, sides, & needs cement repair work.	Stone Arch 8' Cement box 10'
Skettingers LAVERNE	at intersection of Porti Road	Cement bridge (possibly box)	5/23/14	by stone if bar calver for test cant find error by probe. Street has a little over growth in street. Cracks in headwall at both sides of road.	8'
Pratt Avenue	at Silverado Trail	Cement bridge w/ center embayment	5/23/14	Need waders, or wait till dryer for access to E. bank to see footing. All else 100 Ks fine. Center embayment has normal erosion from higher water.	110'
Sanitarium Rd. Stone Arch at Foot of Hill Foot of Hill	Stone Arch at Foot of Hill Canon Creek	Stone Arch	5/29/14	2 timbs wedged in inlet. 2' of large rocks of gravel in inlet sides. Inlet arch wall needs mortar. Berries getting thick in creek & over outlet.	9'
Howell Mountain Road	1/2 mi. South of Angwin, or 2 mi. South of Cold Springs Road.	Stone Arch w/ multiple arches w/ cement wall foundations extension	5/29/14	Stone Arch & Multiple foundations are built on bedrock. Parts of foundations aren't visible, cause of gravel. 1/3" tree trunk laying in file.	Stone Arch 2' Multiple foundations 17'4"

re-insp. when dryer

I added this to 1154



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

DEPARTMENT OF TRANSPORTATION
 DIVISION OF ACCOUNTING
 LOCAL PROGRAM ACCOUNTING BRANCH

ATTN: RACHEL CARPENTER

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 Agrmt No.: _____

Date: 4.13.2015
 Agency: NAPA COUNTY
 Fed Project No.: _____
 Project ID: DAF 25 Silverado Trail MP 10.64
 PPNO: _____
 Bridge 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
P	\$0	\$0					
P	\$1,810	\$1,810		\$1,602		\$208	
PRELIMINARY ENGINEERING							
Preliminary Engineering: EMERGENCY OPENING							
Preliminary Engineering: PERMANENT RESTORATION							
State Furnished Preliminary Engineering Overhead at _____ %							
RIGHT OF WAY (R/W)							
Purchase Costs							
Relocation Assistance /Utility							
CONSTRUCTION:							
Contract Items EO PR \$0 \$18,100.90							
Utilities							
Supplemental Work							
Contingencies \$4,525							
Trainees							
Agency/State Furn. Mat.							
Contract Total: \$0 \$22,626							
P	\$0	\$0		\$0		\$0	
P	\$22,626	\$22,626		\$20,031		\$2,595	
CONSTRUCTION ENGINEERING							
Construction Engineering: EMERGENCY OPENING							
Construction Engineering: PERMANENT RESTORATION							
State Furnished Construction Engineering Overhead at _____ %							
State Furnished Materials Testing							
Overhead at _____ % Subjob _____							
Striping by Agency							
Force Account Work by Agency							
TOTALS:							
P	\$27,151	\$27,151	\$0	\$24,037		\$3,114	

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

TOTALS: * "P" = Pro Rata, "L" = Lump Sum
 Certification

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

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

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

Signature: _____
 Title: SUPERVISING CIVIL ENGINEER
 Project location: SILVERADO TRAIL MP 10.64, NAPA COUNTY

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