

City of Lee's Summit

Change Order Details

Bridge Maintenance FY17

Description: Bridge Maintenance on Chipman Road and Main Street. Chipman Bridges: EB Bridge includes deck repair only. WB Bridge includes joint replacement only. Main Street Bridge includes half sole repair and concrete overlay. Contractor PCi Roads. Accounting Unit 32472750555. Chipman Bridge Activity Number 32932472, Main Street Activity Number 13532472. PO #117752.

Change Order: 2 **Date Created:** 07/31/2017

Status: Draft **Date Approved:**

Type: City Council Approval

Summary: Bridge Deck Overlay Changes

Change Order Description: Due to the excessive repairs needed on the Main Street Bridge deck, it is anticipated that the service life of the structure is now between 10 and 20 years. With this shortened life, the epoxy polymer overlay no longer makes sense economically. For that reason, it was decided to apply a Silica Fume concrete overlay in lieu of the Epoxy Polymer overlay. The most recent Silica Fume overlay lasted 25 years on the Main Street Bridge. This results in significant savings to the project.

With the contract in place and the specialized materials on hand to provide an Epoxy Polymer Overlay, it was decided to apply a 3/4" Epoxy Polymer overlay on the EB Chipman Road Bridge. While the number of patches on this structure is significant, all of the patches were half sole (just deep enough to encompass the first layer of reinforcing steel). With the deck completely patched, now is the best time to seal the bridge deck with a 3/4" Epoxy Polymer overlay. This material will seal the deck from all moisture and chlorides from road salt, preventing future deterioration. With the Epoxy Polymer overlay in place, it is anticipated that little to no deck repair will be required on this structure for 30 years.

Awarded Project Amount: \$343,327.65
Authorized Project Amount: \$448,417.05
Change Order Amount: \$66,256.80
Revised Project Amount: \$514,673.85

Increases/Decreases

Line Number	Item	Unit	Unit Price	Current		Change		Revised	
				Quantity	Amount	Quantity	Amount	Quantity	Amount
Section: 2 - Main Street Bridge									
11	4A	Sq Yd	\$406.150	325.00	\$131,998.75	-325.00	-\$131,998.75	0.00	\$0.00
2" Polymer Concrete Overlay (1121 MM Mix)									
Reason: Due to the extensive deterioration of the bridge deck, it was determined the EPO is no longer economically feasible.									
Funding Details									
Main (13532472)				325.00	\$131,998.75	-325.00	-\$131,998.75	0.00	\$0.00
(1 Item)			Totals		\$131,998.75		-\$131,998.75		\$0.00

New Items

Line Number	Item	Unit	Proposed Quantity	Unit Price	Dollar Amount
Section: Add Items - Items added after award of contract					
14C	14C	SY	325.00	\$91.000	\$29,575.00
2" Silica Fume Concrete Overlay					
Reason: After overlay was removed from existing deck, it was determined the epoxy polymer concrete would not be a good match for the repair due to excessive deterioration. Given the condition of the bridge, the silica fume overlay was the best option.					
Funding Details					
Main (13532472)			325.00	\$91.000	+\$29,575.00
15C	15C	SY	489.00	\$344.950	\$168,680.55
3/4" Epoxy Polymer Overlay					
Reason: 3/4" EPO is being added to the EB Chipman Road Bridge to extend the service life of the structure.					
Funding Details					
Chipman (32932472)			489.00	\$344.950	+\$168,680.55
(2 Items)				Total:	+\$198,255.55

Funding Summary

Fund Package	Original Amount	Authorized Amount	Proposed Amount	Revised Amount
Chipman (32932472)	\$103,717.50	\$241,192.50	+\$168,680.55	\$409,873.05
Main (13532472)	\$239,610.15	\$207,224.55	-\$102,423.75	\$104,800.80
(2 Fund Packages)	\$343,327.65	\$448,417.05	+\$66,256.80	\$514,673.85