

CITY COUNCIL AGENDA ITEM
CITY OF SHORELINE, WASHINGTON

AGENDA TITLE:	Motion to Authorize the City Manager to execute Change Order No. 1 with MJ Hughes Construction in the amount of \$61,055.12 for the Richmond Beach Saltwater Park Pedestrian Bridge Repair Project
DEPARTMENT:	Public Works Parks, Recreation and Cultural Services
PRESENTED BY:	Noel Hupprich, Capital Projects Manager Eric Friedli, Parks, Recreation and Cultural Services Director
ACTION:	<input type="checkbox"/> Ordinance <input type="checkbox"/> Resolution <input checked="" type="checkbox"/> Motion <input type="checkbox"/> Discussion <input type="checkbox"/> Public Hearing

PROBLEM/ISSUE STATEMENT:

The recently completed Richmond Beach Saltwater Park Pedestrian Bridge Repair project experienced additional construction costs due to complications with Burlington Northern Santa Fe Railroad (BNSF), staff availability and unforeseen conditions of the bridge. Change Order No. 1 has been prepared to account for these additional costs.

RESOURCE/FINANCIAL IMPACT:

The cost of Change Order No. 1 will be paid based on the following funding:

EXPENDITURES

Design:		
Staff	\$42,000	
Professional Services	\$62,000	
Total Design		\$104,000
Construction:		
Staff and other Direct Expenses		\$36,000
Construction Contract	\$270,424	
Change Order No. 1	\$61,055	
Change Order No. 1	-\$1,524	
Total Construction Contract		\$329,955
Railroad Inspection and Flagging	\$50,000	
Contingency	\$3,041	
Total Construction		\$418,996
1% for the Arts:		\$2,543
Total Project Cost:		\$525,539

REVENUE

KC Trail Levy ¹	\$154,800
General Capital Fund ²	\$370,739
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Total Funding:	\$525,539

RECOMMENDATION

Staff recommends that Council move to authorize the City Manager to execute Change Order No. 1 to complete the construction contract for the Richmond Beach Saltwater Park Pedestrian Bridge Repair project.

Approved By: City Manager **DT** City Attorney **MK**

¹ \$70,000 of KC Trail Levy funding was re-allocated from the Regional Trail Signage project as well as other surplus funding to support this project. Construction of the Regional Trail Signage project has been moved to 2016 and will utilize KC Trail Levy Renewal funding.
² General Capital Fund was increased by approximately \$15,000 from additional Real Estate Excise Tax funding and remains within the authorized budget.

INTRODUCTION

On November 26, 2014 the City entered in to a contract with MJ Hughes Construction Co. in the amount of \$270,424 to complete planned repairs to the Richmond Beach Saltwater Park Pedestrian Bridge. During the construction phase, several factors impacted the project's schedule and cost. Change Order No. 1 accounts for changes in contract time and cost related to the following:

1. Construction delay,
2. Contractor overtime pay,
3. Fence post replacement,
4. Bridge pile repair, and
5. Decrease in original contract due to unused bid quantities.

BACKGROUND

The 50-year-old Saltwater Park Pedestrian Bridge that serves Richmond Beach had been in need of structural repairs and upgrades. In 2011, City staff worked with the King County Bridge and Structural Design Unit to complete a thorough inspection of the bridge. The inspection report identified repair work and advised that the work be completed within the next five to ten years.

Repairs included replacement of the bridge deck, deck curbing, and repairs to the bridge substructure. The repairs were necessary to maintain a safe bridge and allow continued access for emergency and maintenance vehicles. Completion of these repairs will extend the life of the bridge by 20 or more years.

A majority of the repairs involved working within BNSF right of way. This work required a BNSF permit that specifies construction restrictions related to rail safety and limiting rail transportation impacts. A main component of the BNSF permit is that a BNSF Flagger must be present during all work within 25 feet of the tracks. The Flagger monitors rail traffic and communicates between the train engineers and construction crew to ensure the rails are clear when a train is approaching. By comparison, for a typical capital improvement project located within City right of way, vehicle traffic is controlled to complete construction, whereas for a typical project located within BNSF right of way, construction is controlled to maintain rail traffic.

BNSF Schedule Impacts

As the bridge repair work was about to begin, BNSF informed the City and Contractor that a Flagger would not be available for several weeks due to a separate project that had taken longer than expected. The Contractor revised their schedule to complete as much work as possible that would not require a Flagger. The Contractor completed that work on February 11, 2015. At that time, the City suspended work on the contract until a confirmed date for a Flagger was determined. The contract was suspended for 23 days. On March 16, 2015 the Contractor returned to the project site and on March 23, 2015, a BNSF Flagger was assigned to the project for five (5) weeks.

The following additional cost requests are associated with unavailability of a BNSF Flagger:

- Construction delay (\$21,846).
Delay charges from the City's contractor, due to suspension of work. These charges account for costs associated with, demobilization, remobilization and extended overhead.
- Contractor overtime pay (\$9,246).
BNSF informed the City they could provide a Flagger beginning March 23, 2015, for seven days each week, up to five weeks. The Contractor worked 10 hour days, Monday through Saturday (and one Sunday), in order to complete the required work within the Flagger's available schedule. This time constraint was beyond the Contractor's control and overtime work was not in the original scope of work.

Additional Repair Work

Fence Post Replacement - As demolition of the existing bridge decking and timber curb was being completed, it became apparent that the existing steel fence posts along the bridge had corroded and were no longer securely attached to the bridge. The fence posts had been welded to the steel girders that support the bridge deck and bolted to existing timber curbing along each side of the bridge deck. Consideration was made to re-weld the existing fence posts; however, most were in poor condition and would need to be replaced. It was decided that replacing all of the bridge fence post would provide the best value and longevity.

Additional Pile Repair - A portion of the structural repair work consisted of replacement of two pile caps located nearest to the railroad tracks. The bridge piles are the posts that transfer the bridge load from the bridge deck to the ground. The pile cap is a timber or steel beam that is attached to the tops of the piles and supports the bridge girders. The girders in turn support the bridge deck. Attachment A shows a schematic drawing of these components of the bridge sub-structure.

After close inspection of the piles at the two replacement locations, the structural engineer advised City staff to consider installing additional banding and support around the tops of the piles and pile caps. The main reason for completing this work was to take advantage of the existing railroad permit and current access. The additional support will help ensure the extended life of the bridge and reduce the need to come back for future repairs.

The following additional cost requests are associated with this additional repair work:

- Fence post replacement (\$26,360).
60 fence posts were replaced with new powder coated black posts.
- Bridge pile repair (\$3,603).
Additional banding at six piles and two pile caps.

Adjustment to the Original Contract

All bridge repair work is now complete and staff has confirmed all bid quantities used on the project with the Contractor. Final payment for original bid quantities (not including the additional cost shown above) is \$1,524 less than the original contract amount.

- Decrease in contract amount due to unused bid quantities (-\$1,524).

Change Order No. 1 will increase the contract by \$61,055 for additional work and decrease the contract by \$1,524 for unused bid quantities for a final contract amount of \$329,955.

Note: The amount for the decrease should not be combined with the amount for the increase to result in a lower total change order amount. The decrease should be accounted for separately because it addresses work in the original bid that was not completed. If the decrease were combined with the increase to reduce the total change order amount, the unused bid quantities would have to be paid as part of the original contract.

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² General Capital Fund was increased by approximately \$15,000 from additional Real Estate Excise Tax funding and remains within the authorized budget.

RECOMMENDATION

Staff recommends that Council move to authorize the City Manager to execute Change Order No. 1 to increase the contract sum by \$61,055 and decrease the contract sum by \$1,524 and complete the construction contract for the Richmond Beach Saltwater Park Pedestrian Bridge Repair project.

ATTACHMENTS

Attachment A: Bridge Elevation Schematic

Typical Bridge Cross Section

