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Item No. 15.1.8
Halifax Regional Council
November 8, 2022

TO: Mayor Savage and Members of Halifax Regional Council

Original Signed by 

SUBMITTED BY: _____
Jacques Dubé, Chief Administrative Officer

DATE: November 1, 2022

SUBJECT: Increase to Contract - Tender 21-218 Lady Hammond Road Bridge Rehabilitation

ORIGIN

This report originates from a need to increase the cost for tender No. 21-218 Lady Hammond Road Bridge Rehabilitation beyond 20% and \$20,000 of its original award.

LEGISLATIVE AUTHORITY

The Municipality may spend money for municipal purposes in accordance with section 79A of the HRM Charter. The recommended contract award complies with all of the pre-requisites for awarding contracts as set out in Section 26 of Administrative Order 2020-004-ADM, the Procurement Administrative Order.

The recommendation complies with all the pre-requisites for Contract Amendment as set out in Section 32 of the Administrative Order 2020-004-ADM, the Procurement Administrative Order.

Section 32, Section 7 of the Procurement Administrative Order provides that Halifax Regional Council can approve cumulative contract amendments for any amount.

RECOMMENDATION

It is recommended that Halifax Regional Council approve an increase to the contract with Atlantic Underground Services Limited (AUS) under Purchase Order No. 2070856941 for additional work that was required to complete the bridge repairs in the amount of \$316,150.50 (net HST included) with funding from Project Account CR200003–Bridges, as outlined in the Financial Implications section of this report.

BACKGROUND

The Lady Hammond Road Bridge is located in the north end of Halifax where Lady Hammond Road crosses over Massachusetts Avenue. The bridge consists of a voided concrete deck that spans approximately 32 meters over four lanes of traffic on Massachusetts Avenue. The bridge is approximately 19.8 meters wide and contains two lanes of traffic with pedestrian sidewalks on either side. Both Level II and Level III bridge inspections conducted in 2017 recommended that the structure needs significant work including repair to the existing abutment walls, soffit concrete near the abutments, as well as replacement of existing bridge bearings, approach slabs, and expansion joints.

In May 2019, the detailed design component of the project was awarded to SHM Canada Consulting Ltd. by the Director's Delegate. SHM subsequently completed the detailed design in 2020.

In April 2021, the Chief Administrative Officer awarded Tender No. 21-218 Lady Hammond Road Bridge Rehabilitations to the recommended lowest bidder, Atlantic Underground Services Ltd, for a total amount of \$2,215,488.28 (net HST included). This contract was based on the detailed design drawings and specifications completed by SHM in 2020 before construction began.

DISCUSSION

Once construction began, unforeseen challenges arose which led to several changes and increases to Contractor's contract and construction duration. These changes were captured in change order numbers one (1) to seventeen (17) as shown in the table below. Among the changes, change order numbers one (1) to thirteen (13) have been approved by the director and represent a total increase of \$311,781.30 (Net HST included) to the contract which is 14.07% of the original award amount. The remaining change orders, numbers 14, 15, 16 and 17, require approval by council.

An overview of the challenges are as follows:

- **Concrete Repair:** As part of the original contract, concrete was removed from the abutments which exposed concrete that was not accessible during the pre-construction inspections. These surfaces were in poor condition requiring additional time and effort to address properly.
- **Bearing Redesign:** Detailed design was completed using the available record drawings. Once construction began, the bearings in the field did not match the record drawing information. Additional field work & efforts were required to revise the bearing layout to suit the actual bridge geometry.
- **Increased Construction Duration:** The construction work was originally planned to be completed in three phases in 2021 over a 75-day period. Due to the issues identified above, only one phase of the construction was completed in 2021 and some tasks were delayed. There were additional costs associated with equipment storage, overhead costs and traffic control, as the contractor needed to perform the work over two years.

A summary of the changes to the original contract award is as follows:

Tender – 21-218 - Summary of Changes to AUS Contract (PO No. 2070856941)	(Net HST included and rounded to .00)	%Increase
Original contract amount	\$2,215,488.28	
Change Order #1 Bridge Deck Face Repairs (Phase 1)	\$67,979.87	3.07%
Change Order #2 Temporary Asphalt	\$3,889.86	3.24%
Change Order #3 Northeast Corner Repairs (Phase 1)	\$13,140.04	3.84%
Change Order #4 Heat and Winter Protection for Expansion Joint	\$16,685.76	4.59%
Change Order #5 Additional Engineering for Jacking	\$8,186.45	4.96%
Change Order #6 Transportation and Heated Storage	\$6,622.16	5.26%
Change Order #7 Bearing Pad Increase	\$8,479.20	5.64%
Change Order #8 Failed Jacking (Aug 9)	\$10,690.55	6.12%
Change Order #9 Mobilization and Demobilization	\$89,877.85	10.18%
Change Order #10 Delays Due to Additional Testing & Design	\$100,037.16	14.70%
Change Order #11 Reduction in Quantity to Concrete Soffit Repair	-\$77,171.64	11.21%
Change Order #12 Bridge Deck Face Repairs (Phase 2)	\$59,192.61	13.88%

Change Order #13 End Block Repair	\$4,171.43	14.07%
Change Order #14 Additional Cost Bearings Install (Current Funding Request)	\$131,400.36	20.00%
Change Order #15 Additional Traffic Control (Current Funding Request)	\$55,553.90	22.51%
Change Order #16 Additional Chipping to Install Bearings (Current Funding Request)	\$111,158.45	27.53%
Change Order #17 Final Tender Quantities Overruns (Current Funding Request)	\$18,037.79	28.34%

The total cumulative amount of these changes, both those previously approved and those currently outlined for consideration by Regional Council, is \$627,931.80 which represents a cumulative increase of 28.34% to the original contract value of \$2,215,488.28.

FINANCIAL IMPLICATIONS

The approved 2022/23 Budget included Additional Work for this project of \$700,000 to cover construction change orders. These recommended changes would result in the total amount of change orders totalling \$627,931.80.

Based on the final construction cost increase of \$316,150.50 (Net HST included), funding is available in the approved 2022/2023 Capital Project Budget from Project Account No. CR200003–Bridges. The budget availability has been confirmed by Finance.

Budget Summary:	<u>Project Account No. CR200003 - Bridges</u>	
	Cumulative Uncommitted Budget	\$2,288,178.90
	Less increase to Tender 21-218 (Change Orders 14, 15, 16, 17)	<u>\$ 316,150.50</u>
	Balance	\$1,972,028.40

*The construction component of this project was originally awarded as part of the 2021/22 Capital Project Budget for \$2,215,488.28.

The balance of funds will be used to implement the remaining 2022/23 Bridge projects approved by Council.

RISK CONSIDERATION

There are no significant risks associated with the recommendations in this Report.

ENVIRONMENTAL IMPLICATIONS

There are no known environmental implications associated with the recommendations in this report.

SOCIAL VALUE

No social value was identified as this report addresses an increase to an existing contract.

ALTERNATIVES

There are no alternatives recommended by staff, as this work is substantially complete.

ATTACHMENTS

N/A

A copy of this report can be obtained online at halifax.ca or by contacting the Office of the Municipal Clerk at 902.490.4210.

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