



To: Chair and Members
Engineering and Public Works Committee

From: Mark Misko
Director, Engineering and Transportation

Date: January 19, 2022

Subject: Notice of Emergency Purchase – Contract 313-21-A-21 Replacement of the Wallington Creek Twin Culverts

Report: PW-1-2022-2

Recommendation

THAT the 2021 Tax Supported Capital Budget and Forecast be amended as outlined in the following table:

Project	Current Amended Budget	Proposed Amendment	Total Proposed Budget
313143 Replacement of Wallington Creek Twin Culverts	\$0	\$400,000	\$400,000
313133 DMM Minor Structure Rehab/Maintain 2021	\$500,000	(\$50,000)	\$450,000
313071 ML MR 7 Port Sandfield Bridge	\$1,205,000	(\$50,000)	\$1,155,000
313132 DMM Culvert Replace/Rehab Program 2021	\$780,000	(\$300,000)	\$480,000
Total Expenditures	\$2,485,000	\$0	\$2,485,000

Sources of Financing	Current Amended Budget	Proposed Amendment	Total Proposed Budget
Roads Capital Reserve Fund	\$241,000	(\$10,000)	\$231,000
Roads Development Charges	\$2,244,000	\$10,000	\$2,254,000
Total Sources of Financing	\$2,485,000	\$0	\$2,485,000

Origin

This report provides notification to the Engineering and Public Works Committee in regards to an emergency purchase that staff authorized to procure construction services for the replacement of the Wallington Creek Twin Culverts in the Town of Huntsville at a cost of \$354,079.63.

The authorization was made in accordance with the Procurement Policy ([Policy FI-007-2020](#)), Section 9.3.3, Emergency Purchases which states that “the CAO jointly with the Commissioner of Finance and Corporate Services may authorize an Emergency Purchase up to \$500,000 when it is required to maintain Essential Services or to prevent the disruption of Essential Services”.

The policy also requires that the relevant details surrounding the Emergency Situation shall be included in a report and submitted to the responsible Standing Committee or District Council during the next scheduled meeting.

Background

On October 27, 2021, Engineering and Public Works (EPW) staff became aware of a localized failure that had occurred at the Wallington Creek Twin Culverts (Culverts) located on Muskoka Road 45 (Etwell Road) which resulted in minor surface deformation within the driving surface. EPW staff immediately initiated an emergency inspection of the culverts through engineering consultant D.M. Wills Associates Limited (DM Wills).

Analysis

Following the DM Wills inspection, which was completed on October 28, 2021, it was identified that the culverts had critically failed and that flows were eroding the road embankment. It was noted that this section of road would continue to degrade until the culverts were replaced and that deterioration was too significant to implement short-term repairs. Additionally, DM Wills advised that the culverts must be replaced before the spring 2022 spring melt as the resulting freshet would overcome the hydraulic capacity of the collapsed culverts which would result in full road closure.

The culverts are located on a key detour route for residents living off of Muskoka Road 45 should the north end of Muskoka Road 45 or Muskoka Road 2 experience seasonal flooding which has historically been observed. To eliminate the risk of “land locking” these residents in the spring, staff recommend this replacement be given high priority.

Although not ideal to complete this work during the winter, the risk of installation quality can be mitigated through winter specific techniques and thorough inspection. This risk of product quality is far outweighed by the risk of experiencing a lengthy unplanned closure should the road structure fail during the freshet.

Completing the construction will require a planned 3 week full road closure with a 25 minute (maximum) duration detour. The intended schedule is for Construction to

commence on January 17, 2022 and be completed on February 11, 2022. This has been communicated to affected residents in advance of construction.

Procurement

The procurement of the new culvert materials has been completed separately in order to eliminate any potential industry delays on its production and delivery. Due to the estimated value of the construction services, conventional procurement method timelines were not feasible and thus an emergency purchase was requested. To ensure that competitive prices were received within these priority circumstances, staff initiated a Request for Quotation (RFQ) process for the construction services of the replacement of the culverts during the aforementioned material procurement lead time. Fidelity Engineering and Construction Inc. (Fidelity) submitted the lowest bid at a value of \$354,079.63 (excluding HST). Full results are as follows:

Bidder	Total Bid Price (excluding HST)
Fidelity Engineering and Construction	\$354,079.63
Clearwater Structures Inc.	\$364,505.00
Fowler Construction Company Ltd.	\$368,011.50
Weir Gradall	\$757,625.00
Cunnington Construction	Rejected (Bid Discrepancy)

As part of the price submissions bidders were required to submit a list of similar projects and references. Through their submission Fidelity displayed a successful history of completing projects of this type and scale by identifying several completed on behalf of the Ministry of Transportation Ontario (MTO) and neighboring municipalities. Some of the MTO projects listed have been local to the Muskoka area.

Although new to the District, EPW staff alongside DM Wills have mutually determined Fidelity to be a befitting Contractor for this project.

Financial Considerations

Project 313143 – Replacement of Wallington Creek Twin Culverts, which has been created to cover this work. Funding for this project is scheduled to be transferred from three other Roads projects as follows:

- \$50,000 from Project 313071 – ML MR 7 Port Sandfield Bridge which has been completed and has unused budget of approximately \$85,000 due to unused contingency amounts;
- \$50,000 from Project 313133 – DMM Minor Structure Rehab/Maintain 2021 which has unused budget available; and
- \$300,000 from Project 313132 DMM Culvert Replace/Rehab Program 2021 which is established each year in order to provide funding for these types of projects.

Spending on this project is forecasted as follows:

313143 Replacement of Wallington Creek Twin Culverts			Contract Award	Forecast to Complete	Total Proposed Project Budget
Contract			\$354,080	\$0	\$354,080
Contingency			\$0	\$35,408	\$35,408
Non-rebatable HST			\$6,232	\$623	\$6,855
In-House Costs			\$0	\$3,657	\$3,657
Total Expenditures			\$360,312	\$39,688	\$400,000

Climate Change Implications

The District assesses climate implications in all staff reports using the Clean Air Partnership's '[Municipal Climate Lens Tool](#)' to consider climate impacts or benefits associated with any project, program or initiative. The following is a summary of the results.

Municipal Climate Lens Tool	Results
Mitigation	Project does not result in GHG reduction, but more GHG intensive options exist
Temperature	There are no Temperature impacts associated with this report
Precipitation	Precipitation impacts has been considered and improved over base case

Communications

Fidelity has been provided notice of award for this project. Notification was released to the public and all affected stakeholders as of January 11, 2022, prior to the start of construction.

Strategic Priorities

This report supports the following [District of Muskoka Strategic Priorities](#):

Infrastructure s4.1

Respectfully submitted,

Mark Misko, CET, Director, Engineering and Transportation; and
Fred Jahn, P.Eng, Commissioner of Engineering and Public Works