



Council Report

Report Number: ENG2024-027

Meeting Date: September 24, 2024

Title: **Ellice Street Reconstruction and Water-Wastewater Main Replacement**

Description: As a result of unforeseen circumstances, this report requests Council to increase the budgets of 2024 capital projects relating to the reconstruction of Ellice Street and the replacement and expansion of water-wastewater mains under that street.

Author and Title: Corby Purdy, Manager, Infrastructure, Design and Construction

Recommendation(s):

That Report ENG2024-027, **Ellice Street Reconstruction and Water-Wastewater Main Replacement**, be received;

That the budget for capital project 983240303 (Ellice St. - Clifton St. to Wychwood Cres.) be increased by \$150,000, with that increase financed as follows: (i) \$15,000 by the Roads Account of the Development Charges Reserve Fund and (ii) \$135,000 by tax-supported debenture;

That the budget for capital project 998240411 (Ellice St. Mains - Clifton St. to Wychwood Cres.) be increased by \$1,618,000, with that increase financed as follows: (i) \$456,918 by the Water Distribution Account of the Development Charges Reserve Fund, (ii) \$205,282 by water debenture, and (iii) \$955,800 by wastewater debenture; and

That staff be authorized to issue to GIP Paving Inc. change orders in connection with these budget increases as necessary.

Department Head: _____

Financial/Legal/HR/Other: _____

Chief Administrative Officer: _____

Background:

At its meeting of February 20, 2024, Council adopted the following resolution:

CR2024-075

That Report PUR2024-004, 2024-011-CQ Ellice Street Reconstruction, be received;

That GIP Paving Inc. of Bowmanville be selected for the award of Request for Quotation 2024-011-CQ Ellice Street Reconstruction for the tender price of \$4,463,239.70 (not including HST);

That the deficit of \$1,570,507.00 in water-wastewater project 998240411 be financed \$270,912.46 (17.25%) by Water Debenture, \$514,341.04 (32.75%) by the Water Distribution Account of the Development Charges Reserve, and \$785,253.50 (50%) by Wastewater Debenture;

That subject to the receipt of the required documents, the Director of Engineering and Corporate Assets be authorized to execute the agreement to award Request for Quotation #2024-011-CQ; and

That the Engineering and Corporate Assets Department be authorized to issue a purchase order.

Carried

This project consists of two coordinated component projects as follows:

1. Ellice St. - Clifton St. to Wychwood Cres.: Approved as part of the 2024 Tax-Supported Capital Budget, this project entails reconstruction of the road and replacement of the storm sewer under it and is currently budgeted \$2,754,000.
2. Ellice St. Mains - Clifton St. to Wychwood Cres.: Approved as part of the 2024 Water-Wastewater Capital Budget, this project entails replacement and expansion of the watermain and replacement of the sewer under the road and is currently budgeted \$2,581,507, given CR2024-075.

During the design stage of the project, exploratory work and geotechnical analysis were conducted to determine material and chemical composition as well as groundwater levels of the project's site. The results of this work, as summarized in the geotechnical report attached as Appendix A to this report, indicated that the site was of a standard composition with expected bedrock elevations, that road base materials were acceptable for reuse from a chemical viewpoint, and that groundwater levels would be manageable without extraordinary dewatering techniques or efforts.

The construction tender for the project was released based on that geotechnical report, with the City's request for tender informing potential bidders that trench dewatering could be completed with sump and local pumping only. This expectation was consistent with the City's recent experience with comparable projects, such as the reconstruction of nearby Murray Street in 2022. In addition, the request for tender identified a provisional item for the removal of a relatively small quantity of hazardous material from the road base.

As a result of the taking of additional soil samples to comply with O.Reg 406/19 (On Site and Excess Soil Management), staff learned during the early stages of construction of elevated levels of contaminated material in the road base. This necessitated a major increase in the volume of soil required to be removed from the site and treated at a special facility. Furthermore, groundwater levels observed during construction were and continue to be much higher than indicated by the original geotechnical report. As such, the City and GIP Paving registered water taking activities on the Environmental Activity and Sector Registry, allowing for the taking of up to 400,000 L/day without a permit to dewater the site. However, the need for dewatering is so extensive, far beyond 400,000 L/day, that the City and GIP Paving submitted an application for a permit to take water, which is under review by the Ministry of Environment, Conservation and Parks.

As a result of these unforeseen circumstances, this report requests that Council increase the budgets for the affected capital projects.

Rationale:

The unforeseen volume of contaminated soil at the site is estimated to entail a budget increase of \$300,000. This relates to the legislated requirement that the contaminated soil be removed and transported to and treated at a facility specialized in the processing of such material. As reflected in the recommendations of this report, staff has determined that the \$300,000 in increased cost is attributable equally to the road and water-wastewater components of the project. In turn, staff has determined the \$150,000 water-wastewater share of this cost to be equally attributable to the watermain and sewer.

The unforeseen high groundwater at the site is estimated to entail a budget increase of \$1,468,000, which comprises the following contributors: (i) \$703,300 relating to the need for enhanced dewatering techniques and efforts (e.g., securing of permits, use of large pumps, installation of settlement tanks, sampling of water discharge quality, recording of discharge rates, monitoring and reporting, regulatory compliance etc.) and (ii) \$764,700 relating to the need to resort to a less efficient approach to construction (e.g., delays in work caused by high groundwater and waiting for permits to take water,

awkward staging of work and timing of pipe installation, temporary water supply and asphalt during winter, winterized installation of curb and gutter etc.). As reflected in the recommendations of this report, considering the sewer is of greater depth than the watermain, staff has determined that the \$1,468,000 in increased cost is attributable to the watermain and sewer at rates of 40% and 60%, respectively.

Other Alternatives Considered:

No other alternatives are being considered at this time, as the project is well underway and the recommendations of this report reflect the most cost-efficient approach to completing the project in light of the unforeseen circumstances stated above and the legislative compliance obligations arising from them.

Alignment to Strategic Priorities

The recommendations of this report align with Council’s 2024-2027 Strategic Plan as follows:

1. Healthy Environment: Contributed to by removal of contaminated soil in the road base and renewal of water-wastewater infrastructure.
2. An Exceptional Quality of Life: Contributed to through asset renewal and watermain expansion required to serve growth in Fenelon Falls.
3. A Vibrant and Growing Economy: Contributed to through asset renewal and watermain expansion required to serve growth in Fenelon Falls.
4. Good Government: Contributed to through asset renewal and compliance with legislation and regulatory requirements.

Financial/Operation Impacts:

The financial impacts associated with the recommendations of this report are those noted below.

Project Number	Project Budget	Other Committed Funds *see below	Project Balance	Purchase Amount (excl. HST)	HST Payable	Total Amount	Project Balance
983240303	\$2,754,000	\$2,600,995	\$153,005	\$150,000	\$2,640	\$152,640	\$365
998240411	\$2,581,507	\$2,492,781	\$88,726	\$1,618,000	\$28,478	\$1,646,478	(\$1,557,752)
Totals	\$5,335,507	5,093,776	\$241,731	\$1,768,000	\$31,118	\$1,799,118	(\$1,557,387)

Consultations:

Ministry of Environment, Conservation and Parks

GIP Paving Inc.

Manager of Corporate Assets

City Treasurer

Attachments:

Appendix A: Geotechnical Investigation Report



2024-011-CQ Annex
3 - Geotechnical Inves

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Department Head: Juan Rojas, Director of Engineering and Corporate Assets