



Subject: Erie Street Watermain – Funding and Construction Approval

To: Council

From: Public Works Department

Report Number: 2021-205

Meeting Date: August 23, 2021

Recommendation:

That Public Works Department Report 2021-205 be received;

That Council approve funding for the construction of watermain on Erie Street in the amount of \$1.88 million; and

That Council delegate the authority to the Director of Public Works to award the construction contract to the lowest bid proposal through the City's tender process.

Purpose:

To seek funding in the amount of \$1.8 million for the construction of Erie Street watermain between Killaly Street West and Neff Street.

Background:

On June 14, 2021, Council approved Report Number 2021-158, the award for the Design of Replacing Watermain on Erie Street. The Project was awarded to Associated Engineering Ltd. (the consultant).

Staff accepted the consultant's preliminary design recommendation to replace the watermain in a new alignment located on the southbound lane of Erie Street, between the existing storm and sanitary sewer. This would allow the existing watermain to remain in service while the new watermain is being constructed, eliminating the requirement for a temporary (aboveground) water system during construction.

It is anticipated that the tender will be issued in September 2021, and the contract awarded immediately thereafter.

Discussion:

The existing 150 mm diameter cast iron watermain on Erie Street, installed in the 1940s, has reached the end of its service life with numerous breaks occurring in recent years. Approximately 740 metres of watermain, servicing 54 residential homes, will be replaced along the entire length of Erie Street between Killaly Street West and Neff Street, crossing the intersections and side streets at Minto, Pine, Union, McCain, Charles, Snider, and George Street.

A preliminary cost estimate was prepared by the consultant to compare three different design options; installation in the same trench location (Option A), installation in a new trench location (Option C), and a hybrid option which used a new trench for part of the watermain and the same trench for the other part (Option B) (Appendix – Figure 3-1). Removal and replacement of watermain at the same trench location (Option A or B) would require installation of a temporary aboveground water system to service the affected homes, would conflict with the existing storm sewer system, and would also require the removal of mature trees (Appendix – Figure 3-2 and 3-3). The cost difference between the various options is marginal, thus the preferred watermain alignment in a new trench location (Option C) will provide the least inconvenience during construction, will allow the mature trees on the street to remain and provides flexibility with the construction phasing.

While staff intend to award the contract in late September/early October, staff have been made aware that there are currently Province-wide shortages of some watermain materials due to the pandemic. The successful contractor will be required to provide proof of materials availability prior to the start of trench excavation to avoid any potential delays once construction has started. However, it is possible that construction may need to be pushed back to early Spring 2022 due to materials shortages. Staff will advise Council of any construction delays.

Internal Consultations:

Consultations with the Water Wastewater Department revealed that between 2008 and 2021, over 20 watermain breaks were repaired on Erie Street and that most of the breaks (15) occurred south of Union Street to Killaly Street West.

The consultant completed a Preliminary Design Investigation Report and conducted a Risk Management Workshop with City Staff. During the Workshop, staff identified the risk of additional watermain breaks occurring during construction, and thus chose the new watermain alignment (Option C) as it had the most separation from the existing watermain to mitigate that risk. It was also identified that construction activities during

winter would increase the risk of watermain breaks occurring.

Financial Implications:

The construction cost is estimated at \$1.88 million to be funded through a combination of previously approved water capital funds (\$362,000 and water reserve funds (\$1.518 million).

This will leave the unallocated water capital budget and reserve balances at zero.

Public Engagement:

There will be public engagement and notification during the design phase and prior to start of construction. Thus, soliciting feedback and mitigating concerns during construction.

Strategic Plan Alignment:

The initiative contained within this report supports the following pillar(s) of the strategic plan:

- City-Wide Investments in Infrastructure and Recreational/Cultural Spaces
 - Governance: Communications, Engagement, and Decision-Making
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Conclusion:

Council approval of funding will accelerate the construction of watermain in early fall 2021, thus mitigating risk of watermain disruption through winter.

Appendices:

- a. Sketch – Option C preferred watermain alignment

Respectfully submitted,

Eliza Durant, BSc., C.E.T.
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Report Approval:

All reports reviewed and approved by the Department Director and also the City Treasurer when relevant. Final review and approval by the Chief Administrative Officer.