

Amendment to Purchase Order Number 6053871 with Parsons Inc., for Professional Services During Construction for Construction of the Downsview Transmission Watermain and Keele Pumping Station Upgrades Project

Date: December 18, 2023

To: General Government Committee

From: Chief Engineer and Executive Director, Engineering and Construction Services and Chief Procurement Officer, Purchasing and Materials Management Division

Wards: 6 (York Centre) 7 (Humber River - Black Creek)

SUMMARY

The purpose of this report is to request authority to amend Purchase Order Number 6053871, awarded under Request for Proposal 9117-18-7141, issued to Parsons Inc., for professional engineering services for the construction of the Downsview Transmission Watermain project.

The total value of the Purchase Order Amendment being requested is \$654,575 net of all taxes and charges (\$666,096 net of Harmonized Sales Tax recoveries). This revises the current purchase order value from \$2,391,683 to \$3,046,259 net of all taxes and charges (\$3,099,873 net of Harmonized Sales Tax recoveries).

This project includes the Downsview Transmission Main, Keele Pumping Station Upgrades, and Basement Flooding Protection Program Storm Sewer Upgrades. The requested amendment is required to address the financial needs for additional professional services required during construction related to added Basement Flooding Protection Program scope and a deepened watermain alignment.

The General Government Committee approval is required in accordance with Municipal Code Chapter 195, Purchasing, where the current request exceeds the Chief Procurement Officer's authority of the cumulative five-year commitment limit for each vendor under Article 7, Section 195-7.3(D) of the Purchasing By-law or exceeds the threshold of \$500,000 net of Harmonized Sales Tax allowed under staff authority as per the Toronto Municipal Code Chapter 71, Financial Control, Section 71-11.1.

RECOMMENDATIONS

The Chief Engineer and Executive Director, Engineering and Construction Services, and the Chief Procurement Officer, Purchasing and Materials Management recommend that:

1. General Government Committee in accordance with Section 71-11.1.C of the City of Toronto Municipal Code Chapter 71 (Financial Control Purchasing By-Law), grant authority to the Chief Engineer and Executive Director, Engineering and Construction Services to amend Purchase Order Number 6053871 with Parsons Inc., for the provision of additional contract administration and site inspection professional services for construction of the Downsview Transmission Watermain project from Keele Pumping Station to Sheppard Avenue West as well as Keele Pumping Station Upgrades, by an additional amount of \$654,575 net of all taxes and charges (\$666,096 net of Harmonized Sales Tax recoveries). This revises the current purchase order value from \$2,391,683 to \$3,046,259 net of all taxes and charges (\$3,099,873 net of Harmonized Sales Tax recoveries).

FINANCIAL IMPACT

The total value of the Purchase Order Amendment identified in this report is \$654,575 net of all applicable taxes and charges (\$666,096 net of Harmonized Sales Tax recoveries).

Funding is included in Toronto Water's Approved 2023 Capital Budget and 2024-2032 Approved Capital Plan. Funding details with forecasted expenditures (net of Harmonized Sales Tax recoveries) are summarized in Table 1 below:

Table 1 - Financial Impact Summary for Purchase Order Number 6053871

WBS Element	Description	2024	2025	2026	Total (net of Harmonized Sales Tax recoveries)
CWW421-15-09	Downsview Transmission Watermain	\$200,000	\$91,059	\$30,000	\$321,059
CPW041-05	Basement Flooding Protection Program	\$300,000	\$15,000	\$30,037	\$345,037

The Chief Financial Officer and Treasurer has reviewed this report and agrees with the financial impact information.

DECISION HISTORY

On October 17, 2018 Bid Award Panel adopted Item Number 2018.BA102.1 authorizing the award of Request for Proposal Number 9117-18-7141 to Parsons Inc. (Parsons) to provide Professional Engineering services for the Detail Design, Services During Construction and Post Construction for the Downsview Transmission Watermain as well as Keele Pumping Station Upgrades in the amount of \$ 4,878,508 net of all applicable taxes and charges. A link to the related Bid Award Panel decision is provided.

<https://secure.toronto.ca/council/agenda-item.do?item=2018.BA102.1>

Subsequently a separate Purchase Order was issued for each phase of the Request for Proposals: Design, Services During Construction, and Post-Construction for a total of three (3) Purchase Orders (Purchase Orders). The contract commitments to Parsons under this award consist of three (3) purchase orders in total. Purchase Order Number 6048141 for design services in the amount of \$2,420,851.35 Purchase Order Number 6053871 for construction administration services in the amount of \$2,391,683.42 and Purchase Order Number 6053872 for post-construction services in the amount of \$65,972.96 net of all taxes and charges. On May 7, 2021, Purchase Order Number 6048141 was amended by \$220,667.44 increasing the target value from \$2,420,851.35 to \$2,696,134.21 net of all taxes and charges. The second amendment on November 28, 2019, in the amount of \$275,282.86 increasing the value from \$2,696,134.21 to \$2,916,801.65 net of all taxes and charges.

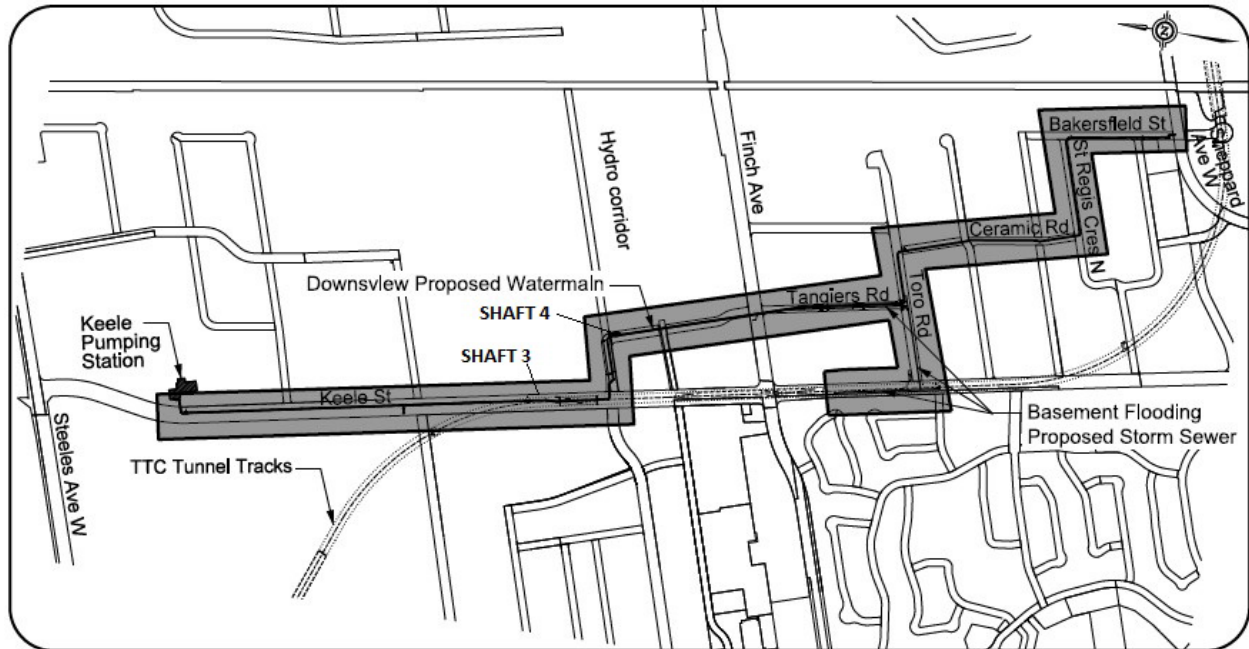
COMMENTS

Background

The City of Toronto's water system provides safe drinking water to residents, businesses and industries within the City of Toronto. The Downsview area is expected to undergo significant growth and development over the near and long term, including new development as part of the approved Downsview Area Secondary Plan, other secondary plans, and future growth linked to public transit projects including the Finch West Light Rapid Transit (LRT) and Toronto-York Spadina Subway Extension (TYSSE). In addition, low water pressures have been experienced in the northwest part of Downsview area, centred around the Keele Street and Finch Avenue West area, due to localized high-ground elevation.

Figure 1 shows the Downsview Transmission Watermain route which was determined as the preferred route through the Downsview Area Long Term Water Servicing Municipal Class Environmental Assessment Study completed in 2018.

Figure 1: Downsvlew Transmission Watermain Route - Project Map



In 2019, after award of this Professional Services assignment, Toronto Water and Infrastructure Coordination Unit identified a potential schedule conflict with the Basement Flooding Protection Program Assignment Number 14-03B. The scope of the Basement Flooding Protection Program assignment is to upsize the storm sewers on Keele Street, Toro Road and Tangiers Road and construct a new in-line storage storm sewer on Tangiers Road. The Basement Flooding Protection Program project was proposed to be constructed in 2023 which conflicted directly with the Downsvlew Transmission Watermain construction locations and timeline of 2023 to 2025.

To resolve this conflict, Toronto Water recommended adding the remaining work required for Basement Flooding Protection Program Assignment Number 14-03B to the Downsvlew Transmission Watermain project. On November 28, 2019, Parsons Design-phase Purchase Order Number 6048181 was amended to add \$275,283 for inclusion of the Basement Flooding Protection Program 14-03B design work to the Design phase of the Parsons Downsvlew Transmission Watermain and Keele Pumping Station Upgrades assignment. In May 2021, the Purchase Order was again amended to add \$220,667 for re-design of a section of the Tangiers Rd. watermain alignment with a deeper alignment to avoid conflict with a recently revised Finch West LRT alignment.

The combined Downsvlew Transmission Main, Keele Pumping Station Upgrades, and Basement Flooding Protection Program Storm Sewer Upgrades design was released as a single tender (contract number 21ECS-LU-04TT) and awarded on September 21, 2022, by approval of the Bid Award Panel. Construction commenced on November 28, 2022 and is currently underway with a projected Substantial Completion date of January 2025.

Parsons indicated at the time of Design Purchase Order Amendment that additional professional services during construction would be needed related to the added Basement Flooding Protection Program scope and deepened watermain alignment. It was agreed that it should be authorized at a time when the impact of the scope on professional services could be better quantified.

In July 2023, Parsons provided a quotation for the added Basement Flooding Protection Program services during construction in the amount of \$308,245 and a quotation for the additional services during construction for the revisions to the watermain alignment in the amount of \$274,353 for a total combined additional amount of \$582,598 (excluding Harmonized Sales Tax).

A Purchase Order Amendment is required due to insufficient contingency to fund these additional costs.

Services During Construction for the Additional Scope of Work

For Basement Flooding Protection Program scope:

As per the Request for Proposals, the original scope of work included the construction services for the Downsview Transmission Watermain and Keele Pumping Station Upgrades only, and Parsons quantified their services during construction to these requirements accordingly. This adds the construction of 1000 metres of storm sewer construction to 3.5 kilometres of watermain construction, significantly increasing the required contract administration and inspection effort.

For Transmission Watermain and Pumping Station scope:

As per the Request for Proposals, the original scope of work included the construction services for the Downsview Transmission Watermain and Keele Pumping Station upgrades only, and Parsons quantified their services during construction to the Request for Proposals requirements accordingly. After the Request for Proposals, it was agreed that key benefits could be realized by incorporating the following improvements developed during the design phase:

1. The construction method of the watermain alignment along Keele Street was revised from open trench to trenchless tunnelling to help mitigate traffic impacts on a major arterial route. With approximately a sixty percent (60%) increase in the length of watermain alignment utilizing tunnelling, the complexity of professional services significantly increased over the Request for Proposals assumptions of only one tunnelled section along Tangiers Road and the remainder of the alignment to be constructed by conventional open trench methods.
2. The tunnelled alignment on Tangiers Road was deepened to avoid conflict with the recently revised Finch West Light Rapid Transit alignment. Tunnelling at a deeper depth requires overcoming significant geotechnical and structural design challenges.

Additional effort at higher qualification levels is required for contract administration as well as engineering review of contractor document submissions of additional complexity.

3. Pressure Reducing Valve chambers and a watermain connection on Paulvale Drive were added for more adequate pressures to water users at varying elevations in the service area. Updated water system model simulations identified the need for these additions, resulting from changes in development plans in the service area since the Request for Proposals.

The added Basement Flooding Protection Program and watermain scope require additional project management, services of subconsultants, engineering support, contract administration and inspection services to ensure construction conforms to tender specifications, to resolve construction issues and to assist in communications with numerous stakeholders.

Purchase Order Amendment to Services During Construction Purchase Order Number 6053871

Inclusion of Basement Flooding Protection Program Assignment Number 14-03B and a deeper transmission watermain alignment were not anticipated at the time of Request for Proposals and require additional services during construction. The additional services will help to significantly reduce construction risks to the City, ensure the construction conforms to tender specifications, resolve construction issues and to assist in communications with numerous stakeholders.

Parsons Inc., submitted their quotations for a total amount of \$582,598 (net of all taxes and charges) for the provision of additional services during construction. Staff from Engineering and Construction Services and Toronto Water have reviewed this quotation and believe the additional fees are reasonable.

A ten percent (10%) contingency allowance of \$71,977 (net of all taxes and charges) is also being recommended to provide for additional work that may be required for any unforeseen circumstances which may arise through to completion of construction.

The funds included in the amendment request will adequately cover the remaining risk over the extended duration of the project and is recommended to provide for additional work that may be required for any unforeseen circumstances which may arise through to completion of construction phase. The total Purchase Order Amendment being requested is \$654,575 (net of all taxes and charges).

CONTACT

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SIGNATURE

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