

Emergency Non-competitive Contract with AECOM Canada Ltd., and Amendment to Purchase Order 6045596 for Repairs to the East Don Sanitary Trunk and Highland Creek Sanitary Trunk Sewers

Date: March 4, 2022

To: General Government and Licensing Committee

From: General Manager, Toronto Water and Chief Procurement Officer, Purchasing and Materials Management

Wards: 17- Don Valley North and 21- Scarborough Centre

SUMMARY

The purpose of this report is to advise Toronto City Council, pursuant to Chapter 195 of the Toronto Municipal Code (Purchasing By-law, Section 195-7.4), of a non-competitive contract with AECOM Canada Ltd. (AECOM) for engineering design services and contract administration related to emergency repairs to the East Don Sanitary Trunk Sewer and the Highland Creek Sanitary Trunk Sewer in the amount of \$650,000 inclusive of contingency and net of all applicable taxes and charges (\$661,440 net of HST recoveries).

In addition, the issuance of an amendment to Purchase Order Number 6045596 issued to Capital Sewer Services Inc. (CSSI) for the provision of the Full Length Trenchless Rehabilitation of Existing Gravity Sewers - Various Locations within Toronto (Citywide), for unanticipated additional emergency construction services (PO Amendment) required beyond the existing base scope under the City's contract with CSSI (CSSI Contract), by an additional amount of \$3,000,000 net of all applicable taxes and charges (\$3,052,800 net of HST recoveries).

The issuance of this AECOM Contract and the PO Amendment under the CSSI Contract was a matter of urgency. The damage to the trunk sewers indicated a high probability of complete failure potentially resulting in sewage spilling into the Don River (16 million litres per day) and Highland Creek (43 million litres per day). To avoid risk of a health and safety hazard to the public and to maintain the City's sewers in accordance with legislative requirements, these critical repairs are necessary to maintain the integrity of these vital sewers without delay.

Both damaged trunk sewers were deemed emergencies by the General Manager of Toronto Water, under Chapter 195-7.1(G) of the Municipal Code. In consultation with the Purchasing and Materials Management Division, this emergency procurement could not be reported to the General Government and Licensing Committee and Council in

the required timeframe. Reporting back to City Council is required in accordance with Municipal Code Chapter 195, Purchasing, where the potential value of the non-competitive contract exceeds \$500,000 as per Article 7, Section 195-7.4(B) of the Purchasing By-law.

RECOMMENDATIONS

The General Manager, Toronto Water and the Chief Procurement Officer recommend that:

1. City Council receive this report for information.

FINANCIAL IMPACT

The cost to the City of the emergency non-competitive contract for Engineering Services with AECOM will be in the amount of \$650,000, net of HST (\$661,440 net of HST recoveries) under the emergency provision of the Purchasing By-law.

The amendment of Purchase Order Number 6045596 by an additional amount of \$3,000,000 net of all taxes and charges (\$3,052,800 net of HST recoveries), has increased the purchase order value from \$6,777,410 net of all taxes and charges (\$6,896,692 net of HST recoveries) to \$9,777,410 net of all taxes and charges (\$9,949,492 net of HST recoveries) under the emergency provision of the Purchasing By-law

Funding is included in the Toronto Water 2022 Approved Capital Budget and 2023-2031 Approved Capital Plan, as summarized in Table 1 below:

Table 1: Financial Impact Summary

WBS Element	Description	2022	2023	Total (net of HST recovery)
CWW465-09	Sewer Rehabilitation	\$2,100,000	\$952,800	\$3,052,800
CWW465-09	Sewer Rehabilitation	\$251,900	\$0	\$251,900
CWW014-17-14	Sewer Rehabilitation	\$352,000	\$57,540	\$409,540

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

DECISION HISTORY

The Bid Award Panel adopted Item No.BA33.3 at its meeting held on July 26, 2017, thereby authorizing the award of Request for Proposal 9117-17-7047 to AECOM for Professional Services for Sewer Rehabilitation Program Management, for a total potential contract award including the option periods of \$14,726,409 net of all applicable taxes and charges.

The Bid Award Panel decision can be found at:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2017.BA33.3>

The Bid Award Panel adopted Item No.BA33.7 at its meeting held on July 26, 2017, thereby authorizing the award of the CSSI Contract in the amount of \$6,777,410 net of all taxes and charges.

The Bid Award Panel decision can be found at:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2017.BA33.7>

COMMENTS

1. Sanitary Trunk Sewer Emergencies

Toronto Water currently operates and maintains over 10,000 kilometers of local storm, sanitary, and combined sewers and 400 kilometers of trunk sewers that are critical services to Toronto residents and businesses. Efficient and reliable operation of the sewer system is vital to the City's ongoing growth and success.

In April 2021, Toronto Water discovered a sink hole along the East Don Sanitary Trunk Sewer (STS) located along the East Don River south of Finch Avenue East and west of Alamosa Drive. Subsequent Closed Circuit Television (CCTV) inspection identified a 200m section in different stages of failure. Ground settlement, sink hole development and damage to the East Don Trail suggested possible additional failure(s) of the sewer. See Attachment 1.

In June 2021, a road depression was observed above the Highland Creek Sanitary Trunk Sewer (STS) in the southbound lanes of McCowan Road north of the Scarborough Health Network General Hospital entrance (3050 Lawrence Avenue East). A CCTV inspection of the sewer revealed debris accumulation in the damaged pipe and a sinking maintenance hole. Ground Penetrating Radar (GPR) inspection revealed a 3.0 m x 6.2 m void with a depth of 60 cm in the curb lane and 30 cm in the passing lane. See Attachment 2.

Given the significance of the failures and the need to address them to avoid the risk of a health and safety hazard to the public and to maintain the sewers in accordance with legislative requirements, it was necessary to undertake the design and repair of these vital sanitary trunk sewers.

Both damaged trunk sewers were deemed emergencies by the General Manager of Toronto Water, under Chapter 195-7.1(G) of the Municipal Code and, as noted above, reporting back to City Council is required in accordance with Chapter 195-7.4(B) of the Municipal Code, where the potential value of the non-competitive contract exceeds \$500,000.

2. Emergency Non-competitive Contract with AECOM

Given that AECOM is currently providing professional engineering and contract administration services for Toronto Water's Sewer Rehabilitation Program including the CSSI Contract and repairs to both damaged trunk sewers were deemed emergencies, AECOM was requested to proceed and coordinate with the contractor to install a by-pass, clean the sewers, perform CCTV inspections, and provide the necessary design and construction administration services for the repairs at both locations.

Accordingly, City staff initiated a process to enter into a non-competitive contract with AECOM in the amount of \$650,000, net of all taxes and charges (\$661,440 net of HST recoveries), for engineering design services and contract administration related to the emergency repairs.

At this time, it is anticipated that the AECOM Contract will be executed and a purchase order will be issued under the AECOM Contract sometime in March 2022

3. Emergency PO Amendment under CSSI Contract

In May 2021, following the discovery of the sink hole along the East Don STS, Toronto Water confirmed there was sufficient funds remaining within the then existing CSSI purchase order under the CSSI Contract to conduct the emergency repairs without exceeding the purchase order value and issued several change orders under the contingency available in the CSSI contract. The total cost of these change orders is approximately \$2.9 million and the scope of work included the sewer by-pass, soil stabilization, the liner installation and the restoration works.

However, following the discovery of the road depression on McCowan Road above the Highland Creek Sanitary Trunk Sewer (STS) during the summer of 2021, it was determined that the cost to conduct the emergency repairs would exceed the value of the purchase order under the CSSI Contract and the PO Amendment was required. The scope of additional work necessitated by the emergency includes the sewer by-pass, maintenance hole repairs, soil stabilization, sewer lining and temporary road restoration. For the reasons outlined in this report, this emergency work was undertaken and the cost of the approved change orders to date is approximately \$1.2 million. The total cost will depend on the duration of the bypass and the final cost for soil stabilization.

Therefore, on January 7, 2022 the PO Amendment under the CSSI Contract was issued to increase the funds available under the CSSI Contract by \$3,000,000 net of all taxes (based on the best estimates) to pay for the construction work needed for the emergency sewer repairs.

4. Current Status of Emergency Sewer Repairs

Emergency repairs to the East Don STS were completed in December 2021 with the exception of permanent repairs to the pedestrian pathway and the tree planting which is expected to be completed in the spring of 2022.

Emergency repairs to the Highland Creek STS are currently underway. In February 2022, AECOM completed the design and CSSI has ordered the sewer liner. The bypass is currently in place on standby until the sewer liner is installed. At this time it is expected that the slope stabilization, liner installation and temporary road restoration will be completed in March 2022. Details concerning the permanent road restoration are currently being coordinated with Transportation Services.

CONTACT

Richard Noehammer, Director, Customer and Technical Support, Toronto Water Division, Telephone 416-397-7296, Email: Richard.Noehammer@toronto.ca

Sabrina Di Pietro, Manager, Infrastructure & Development Services, Purchasing Client Services, Purchasing and Materials Management, Telephone 416-397-4809, Email: Sabrina.Dipeitro@toronto.ca

SIGNATURE

Lou Di Gironimo, General Manager, Toronto Water

Michael Pacholok, Chief Procurement Officer, Purchasing and Materials Management

ATTACHMENTS

1. Attachment 1 - East Don Sanitary Trunk Sewer Images
2. Attachment 2 - Highland Creek Sanitary Trunk Sewer Images

Attachment 1: East Don Sanitary Trunk Sewer Images



Figure 1- East Don River south of Finch Avenue East and west of Alamosa Drive

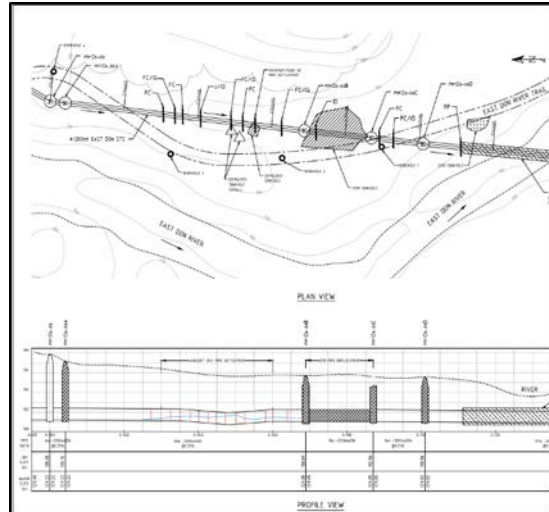


Figure 2- Plan and profile showing pipe settlement

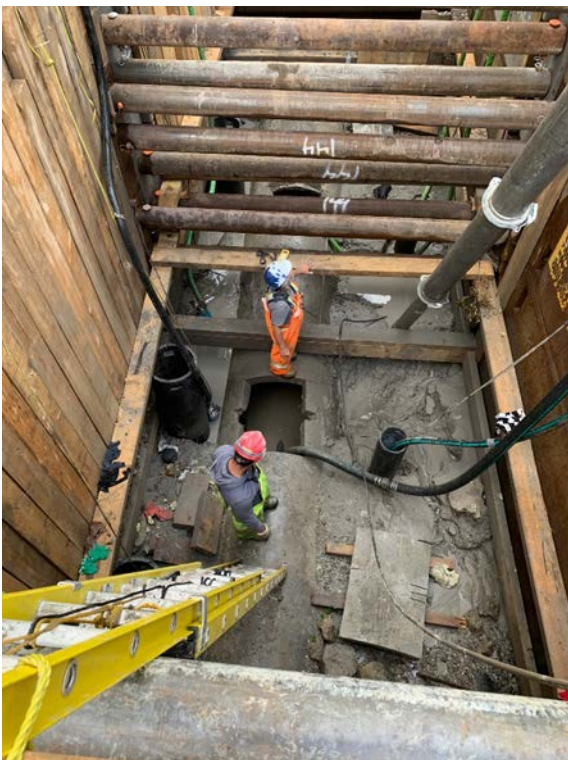


Figure 3- Excavation pit and exposure of pipe fracture



Figure 4- Preparing the sewer liner

Attachment 2: Highland Creek Sanitary Trunk Sewer Images



Figure 5- Highland Creek at McCowan Road north of the Scarborough General Hospital entrance (3050 Lawrence Ave E)



Figure 6- Ground Penetrating Radar image indicating location of voids 30 cm (yellow) to 60 cm (red) in depth



Figure 7- Image of surface settlement on McCowan Road



Figure 8- Image of broken pipe at the crown