



STAFF REPORT ACTION REQUIRED

Procurement of Required Services for the Emergency Repair of Highland Creek 900mm Sanitary Trunk Sewer Located in Bendale Park

Date:	August 17, 2009
To:	Government Management Committee
From:	General Manager, Toronto Water Director, Purchasing and Materials Management
Wards:	38
Reference Number:	P:\2009\Cluster B\TW\gm09024

SUMMARY

The purpose of this report is to advise on the emergency procurement in the amount of \$1,414,453.20, net of all taxes, related to the emergency repair of the Highland Creek 900mm sanitary trunk sewer located in Bendale Park (Lawrence Ave East and McCowan Rd) and to request to amend the Capital Budget to include the cost of the emergency work. A purchase order (6027882) was issued in the amount of \$1,443,855.00 plus \$200,000.00 contingency allowance with a total value of \$1,643,855.00 net of GST to Capital Sewer Services Inc.

The repair of this trunk sewer was deemed an emergency by General Manager of Toronto Water under Chapter 195-10 F of the Municipal Code. It was necessary to complete the work without a formal competitive tender process due to the risk of imminent failure of the trunk sewer that could have resulted in basement flooding, sewage back up into Highland Creek, impact on health and safety of the public using Bendale Park, and lastly, the legislative requirements for maintaining the integrity of these critical sewers.

Repair of three sanitary trunk sewer sections was completed within the timeframe required to meet the City's requirements and was within the original cost estimates provided by contractor.

RECOMMENDATIONS

The General Manager of Toronto Water recommends that:

1. Toronto Water's 2009 Capital Budget be increased by \$1,415,000.00 in WBS Element CWW014-13 Trunk Sewer Rehabilitation funded from Wastewater Capital Reserve Fund XR6004 to fund the cost of the emergency repairs.

Financial Impact

The \$1.415 million required to fund the emergency repair was not included in Toronto Water's approved 2009 Capital Budget; but can be accommodated from the Wastewater Capital Reserve Fund XR6004 and would increase Toronto Water's approved 2009 Capital Budget from \$504.238 million to \$505.653 million.

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

DECISION HISTORY

Large diameter trunk sewers are among the most critical components of the City's underground infrastructure systems. Given the criticality, size, flow, location (adjacent to Highland Creek) of this sanitary trunk sewer and the potential impact of a failure including possible basement flooding and sewage back up in the area, impacts to health and safety of the public using Bendale Park, and the legislative requirements for maintaining the integrity of these critical sewers, the repair of this trunk sewer was deemed an emergency by General Manager of Toronto Water under Chapter 195-10 F of the Municipal Code.

Due to the emergency nature of the work, it was deemed that the time available did not allow for a formal competitive tender process, hence required services to repair the trunk sewer was secured through a sole source. A report is required to be submitted to the Public Works and Infrastructure Committee, in accordance with Section 195-9(C) of Chapter 195, Municipal Code.

ISSUE BACKGROUND

Toronto Water staff discovered two sink holes in Bendale Park located along the walking/bicycle path directly over a 900mm sanitary trunk sewer. The sink holes were monitored on daily basis and unexpectedly, got much larger and deeper. Subsequent investigation determined that the trunk sewer was broken and was at imminent risk of failure. It was clear that the time available to repair the sewer did not allow for a formal competitive tender process, hence required services to repair the sewer was secured through a sole source.

COMMENTS

In early spring 2009 Toronto Water staff discovered two sink holes in Bendale Park located along the walking/bicycle path directly over a 900mm sanitary trunk sewer. The sink holes were monitored on a daily basis and unexpectedly, got much larger and deeper. Three attempts were made to investigate the trunk sewer with closed circuit televised camera (CCTV) at various times with no success due to the high amount of flow in this trunk sewer (1.0m³/s or approximately 15,800 USGPM).

Due to the unsuccessful CCTV inspection attempts, a consultant was employed to investigate the sewer using sonar inspection technology. The consultants report concluded that there are settlements (dips) in the sewer line and a section of the pipe was broken. Sonar imagery indicated that the pipe wall was fully broken in several places and the pipe was not structurally stable. It was recommended that repairs be carried out as soon as possible and emergency provisions be made to deal with a potential collapse of the pipe. It was also recommended that a by-pass system be implemented such that a CCTV investigation could be carried out prior to finalizing appropriate repair methods/plans (i.e. spot dig repair, replacement, lining or combination of spot dig repair/lining).

Given the criticality of this sanitary trunk sewer, Toronto Water staff contacted three contractors in an attempt to obtain emergency quotes for by-passing this trunk sewer. Three quotes were received on May 2, 2008. The lowest bid, Capital commercial Sewer Services, was retained on an emergency sole source basis for setting up/managing the by-pass system and carrying out a CCTV inspection.

The sewer bypass was completed on May 20, 2009 and the CCTV inspection was carried out on May 21, 2009. Upon review of CCTV inspection video, it was determined that the pipe was severely broken and approximately 22 meters of pipe needed to be repaired by excavation, in conjunction with the structural lining – Cured in Place Pipe (CIPP) of three sewer sections totaling approximately 300 meters to correct identified infiltration along several joints within the three pipe sections. A quote was requested from Capital Sewer Services Inc. to carry out the excavation repair and CIPP lining. The quote received on May 21, 2009 was acceptable and, as the General Manager of Toronto Water deemed this to be an emergency Capital Sewer Services Inc. was instructed on May 22, 2009 to commence the repair work. The repairs were discussed and reviewed with the Acting Director, Purchasing & Materials Management who concurred with the approach.

The fully repaired/rehabilitated 900mm trunk sewer sections (i.e. three sections) went back into service on July 17, 2009. The City's requirements have been met and all work is completed within the original cost estimates. Toronto Water is currently working on a tender for restoration of the Bendale Park with work anticipated to be carried out and completed in October 2009.

Summary of actual costs (net of GST) is as follows:

Scope of work	Cost (net of GST)
By-pass System/CCTV	\$681,450.24
CIPP installation of three 900mm trunk sections	\$338,399.96
Replacement of 24.9 meters of 900mm trunk sewer	\$348,513.00
Installation of two new maintenance holes	\$41,800.00
Live flow monitoring	\$4,290.00
	\$1,414,453.20

As the \$1.415 million required to fund the emergency repair was not included in Toronto Water's approved 2009 Capital Budget, the unanticipated repairs costs can be accommodated from the Wastewater Capital Reserve Fund thus increasing the Toronto Water's approved 2009 Capital Budget from \$504.238 million to \$505.653 million

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