



REPORT FOR ACTION

Contract Award for Tender Call 200-2017, Contract No. 17ECS-MI-03DC for the Integrated Pumping Station-Site Preparation (Construction Contract 1) at the Ashbridges Bay Treatment Plant

Date: January 10, 2018
To: Public Works and Infrastructure Committee
From: Chief Engineer and Executive Director, Engineering and Construction Services
Chief Purchasing Officer
Wards: Ward 32 (Beaches - East York)

SUMMARY

The purpose of this report is to advise of the results of Tender Call 200-2017 issued for Contract No. 17ECS-MI-03DC for the Integrated Pumping Station, Site Preparation (Construction Contract 1) at the Ashbridges Bay Treatment Plant (ABTP), and to request the authority to award the contract to Kenaidan Contracting Ltd. in the amount of \$23,470,000 net of all applicable taxes and charges (\$23,883,073 net of HST recoveries).

RECOMMENDATIONS

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

1. The Public Works and Infrastructure Committee, in accordance with Section 195-8.4 of Toronto Municipal Code Chapter 195 (Purchasing By-Law), grant authority to award Contract 17ECS-MI-03DC, Tender Call 200-2017, for the Integrated Pumping Station, Site Preparation (Construction Contract 1) at the Ashbridges Bay Treatment Plant, to Kenaidan Contracting Ltd. in the amount of \$23,470,000 net of all applicable taxes and charges (\$23,883,073 net of HST recoveries) having submitted the lowest compliant bid and meeting the specifications in conformance with the Tender requirements.

FINANCIAL IMPACT

The total value of the contract award for Contract 17ECS-MI-03DC, Tender Call 200-2017, for the Integrated Pumping Station, Site Preparation (Construction Contract 1) at the Ashbridges Bay Treatment Plant is \$26,521,100 including HST which represents a total cost to the City of \$23,883,073 net of HST recoveries.

Funding is included in Toronto Water's 2018-2027 Approved Capital Budget and Plan under two accounts, CWW040-08 Integrated Pumping Station, and CWW480-04 Coxwell By-Pass Tunnel, as summarized in the table below (all values are net of HST recoveries):

WBS Elements	2018	2019	2020	Total
CWW040-08	\$8,800,000	\$4,949,409	\$250,000	\$13,999,409
CWW480-04	\$7,033,664	\$2,850,000	-	\$9,883,664
Total	\$15,833,664	\$7,799,409	\$250,000	\$23,883,073

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

DECISION HISTORY

At its meeting of October 7, 2015, Public Works and Infrastructure Committee granted authority to the Executive Director, Engineering and Construction Services, to negotiate and enter into agreements with Black and Veatch Canada Company, being the highest overall scoring proponent meeting the requirements of Request for Proposal No. 9117-15-7122, for the provision of Professional Engineering Services for the Design, Construction and Post Construction Services for the new Integrated Pumping Station at the Ashbridges Bay Treatment Plant for a total award value of \$51,237,492 net of HST. The Public Works and Infrastructure Committee decision can be found at: <http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2015.PW8.5>.

At its meeting of March 4, 2014, Public Works and Infrastructure Committee granted authority to the Executive Director, Engineering and Construction Services, to negotiate and enter into agreements with Black and Veatch Canada Company, being the highest overall scoring proponent meeting the requirements of Request For Proposal No. 9117-13-7210, to provide contracted professional engineering services for the Design and Construction Administration of the Wet Weather Flow System to Control CSO Discharges to the Don River and Central Waterfront, in the amount of \$57,018,913 net of HST. The Public Works and Infrastructure Committee decision can be found at: <http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2014.PW29.5>.

COMMENTS

BACKGROUND

A new Integrated Pumping Station is required to address critical sanitary sewer infrastructure needs to service the Ashbridges Bay Treatment Plant, as well as to provide new pumping infrastructure for the wet weather flow collection and treatment systems associated with the Don River and Central Waterfront Project.

Ashbridges Bay Treatment Plant

The Ashbridges Bay Treatment Plant (ABTP) is the largest of four wastewater treatment plants owned and operated by the City of Toronto. It is located at 9 Leslie Street, in Toronto's east end, and is one of Canada's largest and oldest wastewater treatment plants. The ABTP services the area bounded by Steeles Avenue to the north, the Humber sewershed to the west, the Highland Creek sewershed to the east, and the lakeshore to the south. The total sewershed area is approximately 25,000 hectares, with a connected population of 1,524,000 people. The ABTP utilizes a conventional activated sludge process with a rated average design capacity of 818 million litres per day (MLD). The sewershed area serviced by the plant includes the combined sewer system servicing the downtown core; as a result, the plant can receive peak instantaneous flows during wet weather in excess of 3,200 MLD.

The plant receives raw sewage from the M and T Building Pumping Stations (located north of Lake Shore Boulevard East, immediately north of the ABTP), and by gravity from the Coxwell Sanitary Trunk Sewer. The sewage flows to the ABTP are split approximately two-thirds from the M and T Building Pumping Stations and one-third from the Coxwell Sanitary Trunk Sewer.

Don River and Central Waterfront Project

In 2008, the Don River and Central Waterfront Project Class Environmental Assessment (EA) was initiated to provide a comprehensive approach to address the dry weather servicing and wet weather flow issues associated with combined sewer overflow (CSO) discharges to the Don River and Inner Harbour. The ultimate goal of the Don River and Central Waterfront Project is to improve water quality conditions in the lower Don River and Inner Harbour, by intercepting CSO discharges from the Don River, Inner Harbour, and Taylor Massey Creek, and diverting them for treatment prior to discharge, thereby advancing the delisting of Toronto as an Area of Concern in the Great Lakes Basin.

In 2012, the Don River and Central Waterfront Project Class EA was completed and recommended a system of deep tunnels, including the Coxwell Bypass Tunnel, connected to a new wet weather flow pumping station. The flows from the pumping station would be pumped to a new dedicated high-rate wet weather flow treatment facility, prior to discharge to Lake Ontario. The new pumping station and the new high-rate wet weather flow treatment facility would be located within the ABTP property.

M and T Building Pumping Stations

In 2009, a condition assessment study was undertaken at the M and T Building Pumping Stations. The study found that both the M and T Building Pumping Stations were at the end of their service life and out of compliance with current health and safety requirements. Specifically, critical upgrades to existing pumping and mechanical equipment were required, including a new electrical substation to support the operation of the two pumping stations.

In 2010, a Schedule B Class Environmental Assessment (EA) was initiated to determine the upgrade/rebuild requirements for the M and T Building Pumping Stations, taking into account the natural, socio-economic and archaeological environments, ease of operability and maintainability, system integration, and long term operation and maintenance cost.

Because the Don River and Central Waterfront Project Class EA was completed while the M and T Building Pumping Stations Class EA was still underway, the recommendations contained in the Don River and Central Waterfront Project Class EA, in particular construction of a new pumping station connecting to the new high-rate wet weather flow treatment facility, were considered as part of the M and T Building Pumping Stations Class EA.

Integrated Pumping Station

The M and T Building Pumping Stations Class EA was completed in 2014 and recommended the construction of one new integrated pumping station at the ABTP site to provide pumping capacity for both dry and wet weather flows, where the flows remain separated and only the sewage flows would be directed to the ABTP, while the wet weather flows from the Don River and Central Waterfront System would be directed to a new high-rate wet weather flow treatment facility.

Additional background information about the Don River and Central Waterfront Project, and the Integrated Pumping Station is available at: <https://www.toronto.ca/services-payments/water-environment/managing-rain-melted-snow/what-the-city-is-doing-stormwater-management-projects/lower-don-river-taylor-massey-creek-and-inner-harbour-program/projects-of-the-lower-don-river-taylor-massey-creek-and-inner-harbour-program/>

Construction Coordination between the IPS and the Don River and Central Waterfront Project

Construction of the new Integrated Pumping Station (IPS) involves many key components, including bringing all of the sanitary trunk interceptor sewers into a new screening building, a new pump house and electrical building, and new diversion chambers to route all of the sewage flowing into the ABTP for treatment. Figure 1 presents an aerial view showing the existing M and T Building Pumping Stations, the future IPS, and the future Coxwell By-Pass Tunnel shaft location north of the ABTP. During construction of the IPS, the ABTP must remain fully operational; thus, the entire project will need to be constructed without affecting the current operation of the plant.



Figure 1. Aerial view showing existing M and T Building Pumping Stations, future Integrated Pumping Station, and the future Coxwell By-Pass Tunnel shaft location north of the ABTP.

The first phase of the Don River and Central Waterfront Project involves the construction of the Coxwell Bypass Tunnel, currently out for tender and with construction expected to begin later this year. The tunnel will be built from a construction shaft to be located approximately 100 metres west of the IPS site. Thus, the two projects will be constructed immediately adjacent to each other. Both projects require site clearing and, therefore, the contract award which is the subject of this report, includes site clearing for both projects. This will optimize the schedule for the entire Don River and Central Waterfront Project, reduce overall costs, minimize operational risk to the City, and enable the City to effectively manage both projects.

Construction of the IPS will be phased, as follows:

- Phase 1: site preparation (for both the IPS and the Coxwell Bypass Tunnel)
- Phase 2: screen building excavation, substructure construction, shafts and tunneling
- Phase 3: pump house excavation and substructure construction, Integrated Pumping Station buildout and commissioning

Phase 1 site preparation for both the IPS and the Coxwell Bypass Tunnel, which is the subject of this report, involves preparing the site north of the ABTP and south of Lakeshore Boulevard and consists of:

- Building an access road along the existing North Road and installation of construction site fencing
- Clearing and grading the Coxwell Bypass Tunnel project area
- Clearing and grading the IPS project area
- Removing and disposing of contaminated soils
- Miscellaneous other works including: realignment of the Woodfield Road Storm Sewer; re-routing of existing high voltage electrical feeders; and, the construction of a temporary Contractor Training Centre.

Figure 2 below identifies the work zones within the ABTP property associated with the Phase 1 contract.

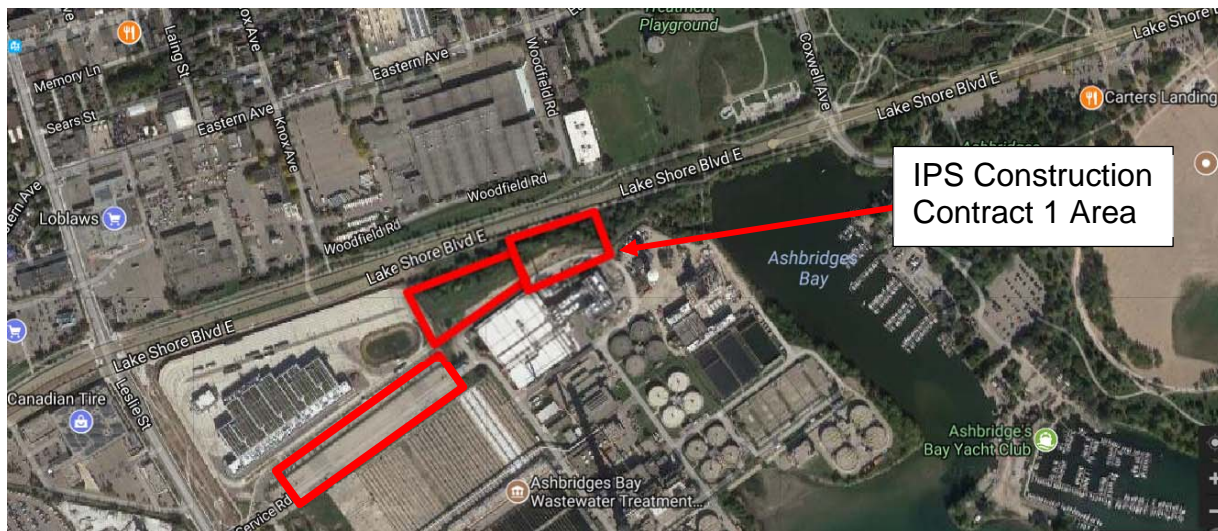


Figure 2. Aerial Photograph showing the location of the Ashbridges Bay Treatment Plant and the work zones associated with the Integrated Pumping Station Construction Contract 1.

The Integrated Pumping Station - Site Preparation (Construction Contract 1) will take approximately 15 months to complete from the time of contract award. Subsequent phases of the IPS construction are expected to commence in 2019 and 2020, respectively. The M and T Building Pumping Stations will remain in service until 2027, when the new Integrated Pumping Station is expected to be fully commissioned and operational.

Contract Award for Tender Call 200-2017

Tender Call 200-2017, Contract No. 17ECS-MI-03DC, for the Integrated Pumping Station, Site Preparation (Construction Contract 1) at the Ashbridges Bay Treatment Plant, was issued by the Purchasing and Materials Management Division (PMMD) and was advertised on the City's website on September 15, 2017. PMMD, at its Public Opening held on October 27, 2017, opened the following Tender submissions:

Bidders	Bid Price including HST
Kenaidan Contracting Ltd	\$26,521,100.00
Aecon Buildings	\$59,154,435.63*

*Bid prices were corrected for mathematical errors. Purchasing and Materials Management has verified that the mathematical errors were corrected.

The Tender documents submitted by the recommended Bidder for Tender Call 200-2017, Contract No. 17ECS-MI-03DC, were reviewed and evaluated by staff from PMMD and Engineering and Construction Services, and were found to be in conformance with the Tender requirements.

Engineering and Construction Services staff compared the bids to the estimated cost and found the price of the recommended Bidder of \$26,521,100 including all applicable taxes and charges, to be comparable to the pre-tender engineering estimate of \$26,494,142 including all applicable taxes and charges.

The Fair Wage Office has reported that the recommended Bidder has indicated they have reviewed and understand the Fair Wage Policy and Labour Trades requirements and the recommended Bidder has agreed to comply fully.

The Tender submission from Kenaidan Contracting Ltd. for Tender Call 200-2017, Contract No. 17ECS-MI-03DC includes their agreement to complete the works within a time frame of 62 weeks from the date of the written Order to Commence. The planned completion date is April 11, 2019.

A single Purchase Order will be issued to Kenaidan Contracting Ltd. for Contract No. 17ECS-MI-03DC in the amount of \$23,470,000 net of all applicable taxes with funding from the Toronto Water 2018 Approved Capital Budget and 2018-2027 Approved Capital Plan.

CONTACT

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SIGNATURE

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