



REPORT FOR ACTION WITH CONFIDENTIAL ATTACHMENT

Amendment to Purchase Order No. 6041805 for Truck Loading Biofilter Upgrades at the Ashbridges Bay Treatment Plant, Contract No. 15ECS-MI-01AB

Date: October 4, 2017
To: Public Works and Infrastructure Committee
From: Chief Engineer and Executive Director, Engineering and Construction Services
Director, Purchasing and Materials Management Division
Wards: Ward 32 - Beaches-East York

REASON FOR CONFIDENTIAL INFORMATION

This report involves the security of property belonging to the City or one of its agencies or corporations.

SUMMARY

The purpose of this report is to request authority to amend Purchase Order No. 6041805 with Torbear Contracting Inc. for construction of the Truck Loading Biofilter Upgrades at the Ashbridges Bay Treatment Plant, Contract No. 15ECS-MI-01AB. The amendment is required for the completion of additional works during construction, and to accommodate an extended timeline for completion of the works.

The general scope of additional work includes structural modifications, roof repairs, cable tray rerouting, resolution for subsurface condition issues, and disposal of contaminated soil from site.

The total Purchase Order amendment being requested is \$3,677,000 net of all taxes and charges, revising the current contract value from \$15,614,938 net of all taxes and charges, to \$19,291,938 net of all taxes and charges (\$19,631,476 net of HST recoveries).

RECOMMENDATIONS

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

1. The Public Works and Infrastructure Committee, in accordance with Section 71-11.1.C of the City of Toronto Municipal Code Chapter 71 (Financial Control Bylaw), grant authority to amend Purchase Order No. 6041805 with Torbear Contracting Inc. for construction of the Truck Loading Biofilter Upgrades at the Ashbridges Bay Treatment Plant, Contract No. 15ECS-MI-01AB, Tender Call No: 126-2015, by an additional amount of \$3,677,000 net of all taxes and charges (\$3,741,715 net of HST recoveries), revising the current contract value from \$15,614,938 net of all taxes and charges, to \$19,291,938 net of all taxes and charges (\$19,631,476 net of HST recoveries).
2. The Public Works and Infrastructure Committee direct that the confidential information contained in Confidential Attachment 1 remain confidential in its entirety, as it relates to the security of the property of the municipality.

FINANCIAL IMPACT

Amendment of Purchase Order No. 6041805 by an additional amount of \$3,677,000 net of all taxes and charges (\$3,741,715 net of HST recoveries) will increase the current contract value from \$15,614,938 net of all taxes and charges, to \$19,291,938 net of all taxes and charges (\$19,631,476 net of HST recoveries).

The delivery date for completion of the construction contract covered by Purchase Order No. 6041805 was originally December 31, 2017. This Amendment includes an extension, revising the Purchase Order completion date to December 31, 2019.

Funding is available in the 2017 Approved Capital Budget and 2018-2026 Approved Capital Plan for Toronto Water.

Funding details are provided below (net of HST recoveries):

WBS Element	Description	2017	2018	Total
CWW042-04	Truck Loading Biofilter Upgrades at Ashbridges Bay TP, Contract No. 15ECS-MI-01AB	\$2,622,355	\$1,119,360	\$3,741,715

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

DECISION HISTORY

At its meeting on July 2, 2015, Bid Committee awarded Tender Call No. 126-2015, Contract No. 15ECS-MI-01AB, to Torbear Contracting Inc. for the Ashbridges Bay Treatment Plant Truck Loading Biofilter Upgrades Project in the amount of \$15,614,938 net of all taxes and charges (\$15,889,760 net of HST recoveries), being the lowest bidder meeting specifications. The Bid Committee decision can be found at: <http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2015.BD34.1>

At its meeting on April 18, 2012, Bid Committee awarded a contract for Request for Proposal 9117-11-7321, to Black & Veatch Canada Company to provide Professional Engineering Services for the Ashbridges Bay Treatment Plant Truck Loading Biofilter Upgrades project, in the amount of \$3,162,280. The Bid Committee decision can be found under Item 4 at: <http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2012.BD70.1>

COMMENTS

Background

The Ashbridges Bay Treatment Plant is located at 9 Leslie Street in Toronto's east end. It was originally built in 1910 and is one of Canada's largest and oldest wastewater treatment plants, with a capacity of 818,000 cubic metres per day.

The Ashbridges Bay Treatment Plant is a source of nuisance odours, and the City has taken measures to mitigate impacts to the surrounding community. One of the measures has been to install biofilters at the biosolids loading facility, which will treat a consolidated foul air stream captured from the biosolids handling process, pelletizer building, and future solids handling and polymer upgrades.

The purpose of the Truck Loading Biofilter Upgrades Project is to ensure the Ashbridges Bay Treatment Plant meets the regulatory requirements of the Ministry of Environment and Climate Change ("MOECC") for odour mitigation. The Project involves:

- Construction of a new concrete partial in-ground enclosed biofilter structure;
- Installation of a new overhead stainless steel air duct from the pelletizer facility to the new biofilter facility that conveys captured foul air at the pelletizer facility and transports it to the new biofilter for odour removal;
- Upgrades and repairs to the existing truck loading facility, conversion of the existing air scrubber room into a storage and workshop area including building a new mezzanine floor for an administrative facility; and,
- Installation of associated electrical, mechanical, ventilation systems, process and instrumentation upgrades needed for the overall facility function.

A view of the project site and photographs of the Biofilter Building construction is provided in Attachment 1.

Black & Veatch Canada were contracted to provide professional engineering services during design, construction and post construction for the Truck Loading Biofilter Upgrades Project.

Current Situation

The construction contract for the Ashbridges Bay Treatment Plant Truck Loading Biofilter Upgrades Project was awarded to Torbear Contracting Inc. and the construction commenced in September 2015. As the construction work progressed numerous scope changes were required, due to discrepancies and insufficient information provided in the tendered design, affecting the overall project cost and schedule. As a consequence, additional materials and work are required, including a new roof, structural piping supports, overhead cable tray and associated support structures, and modified controls. At present, construction of the project is estimated at 60% complete. Work remaining includes the additional construction work due to the above-noted design issues, and construction of additional scope items, summarized in the following:

Reconstruction due to Design Issues

- Installation of additional biofilter pipe supports are required for the foul air duct across the roof of the biofilter, in order to eliminate risk of damage to the air duct and the roof structures due to resultant loads;
- Original duct bank design for power and control cable feeds to the biofilter control room has to be changed to an overhead cable tray due to underground services interferences and area space restrictions identified during construction;
- Additional roof supports are required across the existing truck loading facility and scrubber building roofs to accommodate the load of the new air duct;
- The application of a joint sealant for pre-cast roof section expansion joints, which had not been contemplated in the original contract, due to revisions to the biofilter roof design;
- Upgraded pelletizer fans require additional structural supports;
- Installation of the biofilter exhaust fans resulted in the need to realign the cantilevered stairs; and
- The need for modifications in the existing motor control center due to the incompatibility of the existing power and controls systems with the new upgraded fan systems.

Construction for Additional Scope Items

- Changes to the caisson installation method to overcome potential safety concerns as a result of unexpected groundwater conditions resulting in a longer than expected installation period involving extra labour and equipment;
- Disposal of an excess volume of contaminated caisson spoils above the amount estimated in the base contract;
- Significantly higher level of cleaning of dried sludge is required in the truck loading facility below the top floor level to allow installation of the cover plate flooring;
- Repairs to the truck loading facility roof deck, which was found to be in a deteriorated condition;

- Unusually high moisture content identified in existing block walls in the truck loading bays requires a change in the coating process, which will include remediation to remove algae and mould spores; and
- Replacement of the existing roofing membrane, which is being done proactively, as it has been found to be very close to the end of its service life and the incremental cost and time required for the replacement as part of this contract is estimated to be lower than if a separate contract was tendered for the replacement.

Further details regarding changes to the project are set out in Confidential Attachment No. 1.

The contract completion date for this construction contract through Purchase Order No. 6041805 was originally September 1, 2017. This report is recommending an extension to the Purchase Order to December 31, 2019 to provide for the implementation of the above-noted changes to the project scope. Correspondingly, an amendment to Purchase Order No. 6041805, in the amount of \$3,677,000 net of all taxes and charges (\$3,741,715 net of HST recoveries) to Contract No. 15ECS-MI-01AB, Tender 126-2015, Truck Loading Biofilter Upgrades project at the Ashbridges Bay Treatment Plant is also being recommended. This will result in a revision of the current contract value from \$15,614,938 net of all taxes and charges, to \$19,291,938 net of all taxes and charges (\$19,631,476 net of HST recoveries).

CONTACT

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SIGNATURE

Michael D'Andrea, M.E.Sc., P.Eng., Chief Engineer and Executive Director, Engineering and Construction Services

Michael Pacholok, Director, Purchasing & Materials Management

ATTACHMENTS

Attachment 1 - Photographs of the Biofilter Building Construction
Confidential Attachment No. 1 - Amendment to Purchase Order 6041805