

TORONTO TRANSIT COMMISSION REPORT NO.

MEETING DATE: May 11, 2011

SUBJECT: PROCUREMENT AUTHORIZATION AMENDMENT
TORONTO-YORK SPADINA SUBWAY EXTENSION PROJECT
CONTRACT NO. A85-75D – HIGHWAY 407 STATION
CONTRACT AMENDMENT NO. 5

ACTION ITEM

RECOMMENDATION

It is recommended that the Commission authorize Contract Amendment No. 5 to AECOM Canada Ltd. (AECOM), in the amount of \$3,470,000.00, increasing the total upset limit amount to \$23,030,000.00. This will provide for complete design services from preliminary design to design support during construction for Highway 407 Station and associated works.

FUNDING

Sufficient funds for this expenditure are included in the Toronto-York Spadina Subway Extension Project, as set out on pages 1447 to 1449R of the TTC 2011-2015 Capital Program (Category - Expansion) which was approved by City Council on February 23, 2011.

BACKGROUND

The TTC is implementing the design and construction of an underground subway line from the existing Downsview Station on the Spadina line to the proposed Vaughan Corporate Centre Station located in the City of Vaughan, Region of York. The 8.6 km extension includes six new subway stations, one of which is Highway 407 Station.

The Toronto-York Spadina Subway Extension (TYSSE) project is being funded by the Federal Government, the Province of Ontario, the Regional Municipality of York and the City of Toronto. The TTC is managing the design and construction of the YYSSE project and will own and operate the subway extension.

At the Commission meeting of October 23, 2008, the Commission approved YYSSE's recommendation to award Contract A85-75D for the design of Highway 407 Station to the design team lead by Earth Tech Canada Inc. (now doing business as AECOM Canada Ltd.), in

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the upset limit amount of \$12,000,000.00. The fee was subsequently increased by the Commission at its meeting on March 24, 2010 by \$7,550,000.

Public presentation of the Highway 407 Station took place on March 10, 2010 with overall positive feedback. The Highway 407 Station was tendered as part of Contract A35-26 on September 10, 2010. The contract was awarded to the successful bidder on January 14, 2011.

Contract A85-75D details are as follows:

Original Contract Upset Limit Amount	\$12,000,000.00
Previous Amendment (Fairness Monitor for the Tunnel Boring Machine Proposal)	\$10,000.00
Previous Amendment (Detailed Design and Construction Documentation of various additional design activities detailed in the March 24, 2010 Commission Report)	\$7,550,000.00
Current Total Contract Amount	<u>\$19,560,000.00</u>
This Contract Amendment	<u>\$3,470,000.00</u>
Total Revised Upset Limit Amount (including HST):	\$23,030,000.00

To date there has been no expenditure beyond the previously authorized \$19,560,000.00.

DISCUSSION

Subsequent to the amendment per the March 24, 2010 Commission Report, a number of changes have materialized. This necessitated additional design and redesign work, the extent of which is summarized below. This work included addressing permitting issues and incorporating stakeholder requirements. It should be noted that to maintain the project schedule, Highway 407 Station, along with Sheppard West Station, were the first two stations of the Spadina Subway extension to be tendered for construction. For this reason many of the items described below have been addressed in the design development of the other four stations.

In addition, the incremental cost of HST on all previously approved fees, which have been expended since July 1, 2010 will be addressed as part of this amendment.

1. HST Adjustment (\$290,000)

The incremental costs of HST applied to the portion of the \$19,560,000 design fee used after July 1, 2010 is estimated to be \$290,000. However, it should be noted that \$250,735 (approximately 86%) will be reimbursed.

It should be further noted that the costs associated with this contract amendment include HST in the amount of approximately \$365,841, of which \$316,312 will be reimbursed.

2. GO/YRT Bus Terminal Requirements (\$530,000)

Additional design effort was incurred to incorporate the operational and technical requirements of GO Transit and York Region Transit in the combined GO/YRT owned and operated bus terminal. This also includes the interface with the TTC subway station to ensure the overall functionality of the Highway 407 Station as an integrated, multi-agency intermodal transit facility. An invoice has been submitted to Metrolinx for approximately two-thirds of the design costs related to the GO/YRT Bus Terminal.

3. Project Environmental Task (\$100,000)

This task involved conducting field work and reviewing the impact of groundwater dewatering discharge from construction activities on receiving natural bodies of water in order to mitigate negative impact to fish habitat for the northern portion of the project.

4. Third Party, Permitting and Approvals (\$175,000)

An advance contract was awarded to construct a number of enabling works at the Highway 407 Station site. This included realigning Black Creek, relocating a trunk sanitary sewer and constructing a six lane bridge to provide access to site for the main subway station construction contract.

This necessitated advancing the schedule, and the consultant providing additional resources to support the TYSSE in obtaining nearly 30 separate permits, approvals, and agreements for the Highway 407 Station advance contract (including redesign and multiple submissions to address comments) from multiple external agencies including: Toronto and Region Conservation Authority, Ministry of Environment, Ministry of Culture, York Region, City of Vaughan, Hydro One Networks, Ontario Realty Corporation, Department of Fisheries and Oceans, Highway 407 ETR, Ministry of Transportation and the Ministry of Natural Resources.

5. Additional Design Requirements

A number of additional design requirements were established after March 2010. These included:

- Development and design of fully wrapped waterproofing for enhanced performance and lower long term maintenance costs (\$75,000);
- Optimization of the fire ventilation system to reduce capital costs (\$320,000);
- Revisions to elevating devices to improve performance and maintainability (\$135,000);
- Addition of CCTV cameras at parking lot exit and entrances (\$15,000);
- Implementation of design requirements including: implementation of Fire Department request to pressurize fire fighters' accesses; measures to minimize water ingress by preventing concrete cracking to improve station serviceability; provisions for future installation of platform edge doors; (\$280,000);
- Provision of air conditioning redundancy to increase service availability of elevators (\$35,000);
- Additional station signage (\$15,000);
- Structural analysis and redesign of station structure to address revised groundwater table level field data (\$290,000);
- Electrical requirements to interface with follow-on Systems contracts under development (\$125,000); and
- Revisions to address Electrical Safety Authority review comments (\$85,000).

6. Design Support Services During Construction (\$1,000,000)

The original design services budget for Highway 407 Station included an allowance for design support during construction equal to 1% of the estimated subway station construction cost. A review of the requirements has revised this allowance to 1.9% of the estimated construction cost. This percentage allowance is within the range that was realized during the construction of the stations on the Sheppard Subway extension.

The total authorization being requested as an upset limit, including design support during construction, is \$23,030,000.00. Work will only proceed on the basis of work plans approved by staff.

The Contract Amendment is being requested at this time to ensure that sufficient authorization is in place for the design work and design support during construction.

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JUSTIFICATION

The Contract Amendment is required to pay for the additional engineering costs associated with the increased project work.

April 19, 2011
70-29-42
03-04-000027212
