

TORONTO TRANSIT COMMISSION REPORT NO.

MEETING DATE: July 14, 2010

SUBJECT: PROCUREMENT AUTHORIZATION AMENDMENT
TORONTO-YORK SPADINA SUBWAY EXTENSION PROJECT
CONTRACT NO. A85-75A – STEELES WEST STATION
CONTRACT AMENDMENT NO. 4

ACTION ITEM

RECOMMENDATION

It is recommended that the Commission authorize Contract Amendment No. 4 to The Spadina Group Associates (TSGA) in the amount of \$7,903,299.00 for the completion of detailed design and support during construction for the Steeles West Station, increasing the total upset limit amount to \$23,220,000.00 from \$15,316,701.00.

FUNDING

Sufficient funds for this expenditure are included in the Toronto-York Spadina Subway Extension (TYSSE) project, as set out on pages 1439 to 1442 of the TTC 2010-2014 Capital Program (Category - Expansion) which was approved by City Council on December 8, 2009.

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, York Region. The 8.6 km extension includes six new subway stations, one of which is Steeles West 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 A85-75A for the design of Steeles West Station to the design team lead by The Spadina Group Associates Inc., in the upset limit amount of \$15,000,000.00. The fee was intended to cover design services for Steeles West Station preliminary design, detailed design, design support during construction and preparation of record drawings.

At the October 29, 2009 meeting, the Commission approved the conceptual design of the

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Steeles West Station. Public presentations of the Steeles West Station took place on February 3, 2010, March 10, 2010, and with the Vaughan Corporate Centre Station and Highway 407 Station on April 28, 2010.

Contract A85-75A details are as follows:

Original Contract Upset Limit Amount (including GST)	\$15,000,000.00
Previous Amendments	\$316,701.00
This Contract Amendment (including HST*)	<u>\$7,903,299.00</u>
Total Revised Upset Limit Amount	\$23,220,000.00

(*Note: HST premium is included for work done after July 1, 2010)

No work has been done on this Contract Amendment.

DISCUSSION

The original upset limit was based on the conceptual design in the Environmental Assessment Report (2006) subsequently updated to provide for an expanded station layout incorporating an additional station platform and turnback track to accommodate short turns and emergency management for train service disruptions.

While development of the conceptual design for this station was advancing, a decision was made to relocate the turnback facility to the north end of Finch West Station. This was done to reduce construction cost and to address opposition from major stakeholders to the temporary and permanent disruption of existing infrastructure and planned development around Steeles West Station. This reduced the size of Steeles West Station down to two tracks and one island platform, requiring the design consultant to develop a new concept for the station layout.

Subsequent design development to the 30% (preliminary) design stage increased the expected final cost from \$133M to \$165M, i.e. for a cost increase of \$32M. The cost increase is for new roads B & C, north of Steeles Avenue; an east-west roadway from Jane Street to the parking lot in the Hydro corridor; an emergency exit building at the east end of the station crossover box; and an underground connection to the north York Region Transit (YRT) bus terminal.

The cost increase is to be covered by the project contingency allowances. Negotiations are also ongoing with the City of Vaughan for cost sharing on additional elements over and above the cost of the subway station.

In developing the concept, staff and the station designer have met and reviewed concepts with major stakeholders including staff from YRT and York Region, York University and

York University Development Corporation (YUDC), the City of Toronto, and the City of Vaughan.

The \$7.9M design services cost increase accounted for several conditions not foreseen when the original project budget was established. The station concept presented in the Environmental Assessment required significant modification to fully address field conditions, environmental requirements, the needs of multiple stakeholders, and the adoption of updated design criteria. The most significant adjustments requiring additional design work include:

- Extensive redesign to accommodate the relocation of the turn back facility from Steeles West Station to north of Finch West Station;
- Co-ordination and development of alternative station entrance structure designs in conjunction with York Region and the City of Vaughan to promote compatibility between the Steeles West Station infrastructure and the future transit oriented development being planned by the City of Vaughan, York Region and YUDC;
- Extensive discussion with YRT and the City of Vaughan to determine their design requirements and redesign of the YRT bus terminal;
- The design of the underground pedestrian passage linking the YRT bus terminal to future transit oriented development anticipated adjacent to the north subway entrance;
- Development of an advance contract package to allow a number of site preparation works to be tendered ahead of the main subway station construction contract. This includes the construction of a launch shaft for the tunnel boring machine drive between Steeles West Station and the Finch West Station. This advance contract required additional design effort to accelerate selected portions of the overall design and produce a separate tender document;
- Addition of “project” tasks to TSGA’s scope to fulfil commitments made by the Project in the approved Environmental Assessments. These include a noise and vibration impact analysis for the section of the project between Finch West Station and Vaughan Corporate Centre Station, and the co-ordination and preparation of environmental management plans required to fulfil a commitment made by the project as a whole as part of the approved Environmental Assessment;
- Development of a construction staging and traffic coordination study for the York University Campus, covering both Steeles West and York University Stations;
- Value engineering design to offset cost of infrastructure not included in the original order of magnitude estimate (OME). The original OME was based on the Sheppard Subway model but additional plant and infrastructure is needed to accommodate evolving standards, codes and site (subsurface) conditions;
- Preliminary conceptual and detailed design fees to assist the City of Vaughan and

York Region with negotiations to facilitate the land exchange with UPS;

- Design fees for the design of a stormwater retention pond within lands owned by the TRCA at the Black Creek Pioneer Village. This pond is required to replace an existing City of Vaughan pond on lands that will be conveyed to UPS.
- Design rough-in for PEDs;
- Addition of emergency exit building at east end of station crossover box;
- Conceptual and detailed design of new north-south roads north of Steeles Ave., and east-west road from Jane Street to station parking lot.

Other changes to the original design were covered in the original design fee, including:

- High water table requiring special design measures to counteract flotation of the station box, and detailed design of a more robust structure;
- Incorporation of the Green Standard, requiring additional strategies and design, and energy modelling.

Negotiations with third parties are underway for cost sharing of design fees related to roadworks.

The total upset limit, including support during construction, will be \$23,220,000.00, which is in line with the Professional Engineers Ontario (PEO) guidelines for this type of project, and consistent with previous TTC costs. The original authorized fee of \$15,000,000.00 will only be increased on the basis of work plans approved by staff.

JUSTIFICATION

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

June 16, 2010
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