

Procurement Authorization Amendment: Authorization Of Funds For Phase 4 “ATC Procurement” Of Po. C31PV06860

Meeting Date: April 23, 2008

Subject: Procurement Authorization Amendment: Authorization Of Funds For Phase 4 “ATC Procurement” Of Po. C31PV06860 “Consultant Services Engineering Review Of Automatic Train Control Technology Yonge/University/Spadina Subway Line”

Action Item: X

Recommendation

It is recommended that the Commission authorize Amendment #3 to the Contract with Parsons Overseas Company of Canada, Ltd. (Parsons) in the upset amount of \$786,738.00(USD) for the provision of Engineering Consultant Services to provide an Automatic Train Control (ATC) specification as specified in Phase 4 of Contract C31PV06860. Phase 4 encompasses further consultant services, up to the award of an ATC Contract.

Funding

Sufficient funds for this expenditure have been included in Project 2.4, YUS ATO Resignalling in the State of Good Repair/Safety category as set out on pages 499 - 508 of the 2008-2012 TTC Capital Program, as approved by City Council on December 11, 2007.

Background

The resignalling of the YUS subway line utilizing Automatic Train Control will improve safety and capacity on the YUS line. Automatic Train Control enforces a minimum safe separation between trains based on the safe braking distance from the last verified location of the rear of a preceding train or any other obstruction such as disturbed switches. This technology allows trains to travel closer together than the traditional fixed block system currently employed on the YUS line. This ability to travel closer together increases the throughput of the service and therefore allows more trains to be scheduled and more passengers to be carried.

Staff have begun the work to replace the existing traditional signalling system with Automatic Train Control supplemented by a new back-up conventional signalling system. Automatic Train Control

Systems of this magnitude are very different than the Commission's current signalling technology. The Consultant Services Contract provides for assisting TTC staff in obtaining tender proposals, which will allow successful completion of this complex project. Parsons were originally awarded a Contract on December 29, 2006 and are currently working, with TTC staff, to finalize an ATC specification, for the complete YUS line.

Contract details are as follows:

- Original Contract Amount (awarded in USD) - \$168,000 USD
 - Previously Approved Contract Amendments - \$897,479 USD
 - This Contract Amendment - \$786,738 USD
 - Total Revised Contract Amount (Upset Limit) - \$1,852,217 USD
- Work under this Contract Amendment is 0% complete.

Currently the Canadian and US dollars are approximately at par.

Discussion

The scope of work, for both the base work scope and optional work scope is that referenced in the Contract Documents for Consultant Services Engineering Review of Automatic Train Control (ATC) Technology Yonge/University/Spadina Subway Line (Purchase Order No. C31PV06860).

Phase 1 included production of a Work Plan for carrying out the Consulting Services and Phase 2 covers Conceptual Design. These two phases are complete. Parsons are currently working on Phase 3, which includes the preparation of an ATC specification. Phase 4 includes coordination of contractors site visit, response to RFP comments, bid evaluation criteria, TTC interface control, and analysis of proposal submissions.

The approval by the Commission of the YUS ATO Resignalling project on March 7, 2007 has extended the need for ATC Consultant Engineering Services. Phase 4: ATC Procurement: was originally specified as an Optional Phase and the work is to be carried out at the rates agreed to in the Contract. An outline scope of work was provided in the original Contract Documents; a more detailed scope of work has now been developed for this phase and has been used as a basis by Parsons to provide a fully costed and scheduled Work Plan estimate.

The quotation submitted by Parsons for the scope of Phase 4 has been reviewed and found acceptable by TTC staff. Future phases will include support for contract administration, evaluation of design documents, support for testing and commissioning.

Justification

Parsons are the recognized world authority on Automatic Train Control Systems and have planned and implemented projects worldwide. Most recently, they are working with New York City Transit to upgrade some of their key subway lines to operate under Automatic Train Control.

Parsons assistance to TTC staff in the planning of the implementation of ATC, on the YUS line, will ensure a successful and timely implementation of the project. The new system will be phased into implementation, starting with the South Yonge portion of the YUS line, which will be operating under ATC in 2012. The entire YUS line will be operating under ATC by 2016.

March 25, 2008

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