

TORONTO TRANSIT COMMISSION REPORT NO.

MEETING DATE: September 18, 2008

SUBJECT: PROCUREMENT AUTHORIZATION – DESIGN, SUPPLY &
INSTALL SIGNAL SYSTEM FOR SOUTH YONGE SUBWAY

ACTION ITEM:

RECOMMENDATION

It is recommended that the Commission authorize:

- a) The award of a contract to Union Switch & Signal Inc. (US&S Inc) in the amount of \$14,032,123.04 (CDN) for the design, supply, install and testing of a fixed block auxiliary wayside signal system for the South Yonge Subway line including specified option for the provision of a Computer Based Zone Control Panel to be located at Davisville;
- b) funds in the estimated amount of \$110,000.00 (CDN) that will be paid for freight and brokerage;

Bringing the total authorisation for this contract to \$14,142,123.04 (CDN)

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 515-524 of the 2009-2013 TTC Capital Program, as approved by the Commission on August 27, 2008.

BACKGROUND

The Resignalling of the YUS subway line utilizing Automatic Train Control (ATC) will improve safety and capacity throughout the length of the line. ATC 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.

To allow trains and workcars not equipped with ATC equipment to operate over the YUS Line and to mitigate against delay in the event of an ATC system failure, a new conventional auxiliary wayside signalling system is required to be installed.

The South Yonge portion of the YUS line was first opened in 1954 and still has the majority of the original signal equipment in use. This area is in the worst state of repair due to aging equipment and must be resignalled prior to the introduction of ATC. Staff have commenced the planning, design and procurement work for this project and recommend the award of the Contract for the Design, Supply & Install of the signal system to allow work to proceed in a timely manner.

DISCUSSION

The Contract is for the detailed design, supply, installation and testing of a fixed block auxiliary wayside signal system for the South Yonge Subway Line. The work includes a microprocessor based control system, new equipment cases and modifications to existing cases, new track circuits, Local Control Panels at each interlocking and a Zone Control Panel governing the entire South Yonge Area. Signals, trainstops, cables and other wayside equipment are being procured by the Commission under other contracts and installed by Commission Forces.

Specifications and drawings were prepared and a Request for Proposal was issued to the only two pre-qualified proponents for this work Alstom Signaling Inc, (Alstom) and Union Switch and Signal Inc. (US&S) on April 4, 2008. Submissions from both companies were received on July 28, 2008. The Proposal included a submission of a specified option price for the provision of a Computer Based Zone Control Panel. The base Proposal requested submission of unit prices for supply of additional parts which are to be valid for the duration of the Contract. Proposal submissions were to include comprehensive technical information which would undergo a Pass/Fail and technical evaluation process. The recommendation for award is based on the lowest priced qualified proponent.

The scope of work, for both the base work scope and specified optional work scope is that referenced in the Proposal Documents for Design, Supply & Install Signal System for South Yonge Subway (Proposal No. P31PV07834).

Freight is FOB plant. The Commission is responsible for arrangement of freight and Customs clearance and payment of brokerage fees.

US&S Inc. submitted the lowest price and did not state any exceptions or qualifications. Their proposal met the specified Pass/Fail requirements and met the technical evaluation criteria. US&S's proposal states that they are licensed to collect Federal taxes and Ontario Retail Sales taxes. US&S stated an exchange rate of \$1.00 CDN = \$0.9887 USD at time of closing of the Proposal. Based on a review of the US&S's financial statements, it appears they have the financial capability to perform this contract.

Alstom Signaling Inc. submitted the second lowest price and did not state any exceptions or qualifications. Their proposal met the Pass/Fail requirements but did not meet the technical evaluation criteria. Alstom's solution is not technically compatible for the scope of this project and requires much more equipment and cabling; therefore would be more difficult and costly for the Commission to implement.

The Agreement to Bond submitted by US&S covers both a Performance Bond and a Labour and Material Payment Bond and was submitted by Chubb Insurance Company of Canada, who have been verified as a Surety Company licensed to transact business under the Insurance Act of Ontario.

The Proposal submitted by US&S including the Specified Option is recommended for acceptance.

JUSTIFICATION

The Resignalling of the YUS is necessary to meet predicted ridership figures. Utilising ATC will provide this increase in capacity. An auxiliary wayside signalling system is necessary to allow mixed mode operation and mitigate against delay in the event of an ATC system failure. Resignalling of the South Yonge area with conventional wayside equipment is the first major stage of the ATC project. This project is imperative as the state of the signalling equipment in the South Yonge area is at its life expiry date and in deteriorating condition.

The Proposal submitted by US&S is compliant with the specifications outlined in the Request for Proposals.

August 26, 2008
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Attachments:
Appendix A

APPENDIX "A"

PROCUREMENT AUTHORIZATION
DESIGN, SUPPLY & INSTALL SIGNAL SYSTEM FOR SOUTH YONGE SUBWAY
PROPOSAL NO. P31PV07834

LIST OF PROPONENTS
(Alphabetically)

- 1) Alstom Transportation Information and Security Inc. * *
- 2) US&S Inc. *

EVALUATION CRITERIA

- A. SYSTEM DESIGN
- B. SYSTEM DESIGN INTERFACES
- C. DESIGN IMPACT TO TTC
- D. SYSTEM TESTING
- E. MANAGEMENT PROGRAM
- F. SYSTEMS ASSURANCE

* Recommended for award

* * Unacceptable