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Form Revised: February 2005

**TORONTO TRANSIT COMMISSION
REPORT NO.**

MEETING DATE: October 25, 2006

SUBJECT: Procurement Authorization – Supply Of GPS Units For The Surface Vehicle Automated Stop Announcement System

RECOMMENDATION

It is recommended that the Commission approve the issuance of a purchase order to Strategic Mapping Inc. in the total amount of \$879,497.46 (tax included) for the supply of 1,546 Global Positioning System (GPS) units (including antennas) for the Surface Vehicle Automated Stop Announcement System (SVASAS). This award is conditional on the basis of testing and acceptance of one prototype GPS unit which has already been awarded to Strategic Mapping Inc.

FUNDING

Funds for this expenditure have been included in Project 2.3 Communications, under Surface Vehicle Automated Stop Announcement System, as set out on pages 369-371 Legislative Category, of the TTC 2006-2010 Capital Program as approved by City Council on December 12, 2005. It is now projected that the estimated final cost of this project will be \$6,600,000, largely due to increased costs for the Global Positioning System and these additional costs have been included in the proposed 2007-2011 Capital Program.

BACKGROUND

At its meeting of July 19, 2006, the Commission directed that the GPS chosen for the SVASAS project be of sufficient quality to permit its use for provision of real time schedule information to passengers when required.

The Surface Vehicle Automatic Stop Announcement System (SVASAS) was designed by TTC staff to automatically play sound files to announce the surface stops for the visually impaired and display messages

for the hearing impaired. The system uses a GPS which passes coordinates to a mobile controller. An application in the controller interprets the coordinates and compares them to a database. The computer is connected to a Public Address (PA) system through an amplifier.

The requirements for the SVASAS system were outlined to the Commission on July 19, 2006 (at a total cost of \$6,600,000,) and at that meeting, approval was given for the additional cost of \$3,100,000.

Surface Operations has committed to having the SVASAS rolled out to a significant amount of the revenue surface fleet by the end of 2006. The full rollout will be completed in 2007.

DISCUSSION

SVASAS will provide a stand alone unit on each bus and streetcar that will make audio and video stop announcements. A GPS unit on the vehicle will record the position of the vehicle in relation to service stops and feed the data to an onboard controller. The controller selects the appropriate announcement for the approaching stop and transmits audio output to the public address system and visual output to an LED display that will be mounted at the front interior of the vehicle.

A Request for Proposal was issued for proponents to submit pricing for one prototype GPS unit and 1,546 GPS units (including antennas) to equip the Commission's existing surface vehicle fleet with the SVASAS and further provide pricing for an additional optional 320 GPS units to equip the 320 buses the Commission is looking to acquire in 2007. The procurement of these buses has recently received full approval from City of Toronto Council and includes the costs for installation of SVASAS on these new buses, and the purchase of these additional GPS units will be the subject of a future Commission report.

Eleven companies were invited to submit Proposals in addition to the public advertisement on the TTC Web Site on August 9, 2006, out of which ten companies submitted Proposals, as summarized on the attached Appendix A.

Staff performed an initial evaluation of the proposals consisting of a preliminary commercial review resulting in four companies deemed commercially non-compliant and thus were not evaluated any further (Baka Trakit Inc., Digital Recorders, Grey Island Systems Inc., and Tyco Electronic). Examples of non-compliance are: did not acknowledge the addenda, did not submit their proposal on the Commission's Form Of Proposal; did not submit the Corporate Summary and References; and did not submit a complete price schedule.

Subsequent to the initial review, the six commercially compliant submissions were reviewed by staff and five companies were determined to be technically non-compliant as they did not meet the mandatory functional requirements and were not considered any further (Cancom Tracking, Charlotte Products Ltd., Clever Devices, North American Tracking, and Radio Satellite Integrators). Examples of non-compliance are: internal gyroscope not compatible to the older fleet, manual button for hardware reset not located where indicated, does not have the ability to provide accurate GPS coordinates in no satellite coverage; no manual reset button, unable to store last position fix after power down, etc.

Strategic Mapping Inc. (Strategic) submitted the only commercially and technically acceptable proposal. As they have not performed any previous work for the Commission; staff conducted a site visit to determine if they have the facility and resources available to supply the specified GPS units. Staff was satisfied with the site visit and deem Strategic capable of performing the required work in accordance with the Commission's requirements. They did not take any exceptions or qualifications to the Commission's Terms and Conditions and their proposal is considered commercially and technically acceptable.

Staff has already proceeded with the award of a contract for one prototype unit and the award of the additional 1,546 GPS units are conditional based on the testing and acceptance of the prototype GPS unit by staff. The purchase of the additional optional 320 units will be the subject of a separate Commission report in the future.

JUSTIFICATION

SVASAS will provide automated audio and visual stop announcements on buses and streetcars. The system will provide consistency in the announcement of surface stops, independent of Operator action.

October 11, 2006
5-120

APPENDIX A

PROPOSAL SUMMARY

SUPPLY OF GPS UNITS FOR THE SURFACE VEHICLE AUTOMATED STOP ANNOUNCEMENT SYSTEM

Baka Trakit Inc.	\$213,255.24 **
Tyco Electronic	\$307,457.66 **
Charlotte Products Ltd.	\$703,072.56 **
Strategic Mapping Inc.	\$879,497.46 *
Grey Island Systems Inc.	\$898,912.80**
North American Tracking Inc.	\$954,246.46 **
Radio Satellite Integrators	\$1,115,668.98 **
Cancom Tracking	\$1,533,322.80 **
Digital Recorders	\$1,857,738.30 **
Clever Devices	\$5,530,651.86 **

*Recommended for award.

**Either commercially and/or technically non-compliant.