

# Procurement Authorization - Acquisition Of Next Vehicle Arrival System

Meeting Date: August 27, 2008

Subject: Procurement Authorization - Acquisition Of Next Vehicle Arrival System

## **Recommendation**

It is recommended that the Commission authorize the award of contracts to Grey Island Systems Inc. (Grey Island) for the Next Vehicle Arrival System (NVAS) as follows:

1. In the upset limit amount of \$1,000,000 (includes applicable taxes) for a Pilot Project, and
2. In the upset limit amount of \$8,920,000 (includes applicable taxes) for full implementation of the Next Vehicle Arrival System. This award is subject to successful completion of the Pilot Project and appropriate Capital Budget approval.

## **Funding**

Sufficient funds for the Pilot Phase of this expenditure have been included in Program 7.2 Intelligent Transportation and Technical Systems under Project # 6313 Next Bus Arrival as set out on pages 1469 to 1472 – Category Improvement, of the 2008-2012 TTC Capital Program as approved by City Council on December 11, 2007; however, funds of only \$5.2 million are currently provided for the full project. Additional funds will be allocated in future Capital Budgets to accommodate implementation and full-system roll-out, pending successful completion of the Pilot program, and once appropriate approvals to proceed have been obtained from the Commission and City of Toronto Council.

## **Background**

The purpose of the NVAS Project is to develop and implement a system to provide TTC riders with vehicle location, vehicle arrival time, and other transit related information. The system will consist of a collection of computer hardware, software, and GPS technology, used for capturing, managing, analysing and displaying projected vehicle arrival times. The system will be installed to work with existing Automated Vehicle Location (AVL) tracking systems and communications infrastructure.

The system will use GPS Satellite technology with GPS receivers mounted on vehicles in order to determine the precise location of the vehicle and the intended stop. This data is communicated to a central information centre. The centre uses a dedicated server with software that allows the calculation of an estimated time of arrival for the vehicle. Vehicle arrival times will be displayed on electronic signs

at bus streetcar stops and station loading areas, to the internet and to wireless devices such as cell phones and PDA's.

### **Discussion**

Seven companies were invited to submit Proposals in addition to the public advertisement on the TTC Web Site on May 13, 2008, out of which four companies submitted Proposals as summarized on the attached 'Appendix A'.

The Request for Proposal (RFP) stated that the contract award shall initially be for a Pilot Project and subject to successful completion of the Pilot the remainder of the contract will be awarded. The Commission has the right at its sole discretion whether or not to proceed with full implementation (350 NVAS units).

The RFP requested pricing based on five categories:

- NVAS Application;
- NVAS Applications Infrastructure Provider (AIP) Hosting;
- NVAS Cellular Services/Radio Communications;
- NVAS LED/LCD/VFD Display Screen Hardware for Service Stops/Shelters; and
- NVAS LED/LCD/VFD Display Screen Hardware for Bus/Street Car Terminals (Optional for proponents - This requirement was included to determining the cost of hardware for bus/streetcar terminals and is not required at this time).
- Init Innovations in Transportation Inc.'s proposed solution requires modifications to their system for some of the mandatory technical requirements which will be provided for an additional cost that was not specified in their proposal. Due to their proposed pricing being subject to change, their proposal is considered non-compliant.

Proposal evaluations were based on deployment of 350 NVAS units which are anticipated to be deployed in 2008/2009.

Staff performed an initial evaluation consisting of a commercial review and a review of mandatory requirements. Upon completion of this initial evaluation only Grey Island's proposal was considered acceptable and was evaluated further based on pre-determined criteria. The following proposals were considered non-compliant as they did not meet all of the mandatory requirements and were not considered any further:

- IBI Group's proposal did not meet all of the technical requirements of the RFP (e.g. Multi-Language Support, Solar Technology, Compatibility with the Ontario Disabilities Act, etc.). In addition their

proposed pricing is based on the Pilot Project only and the RFP required proponents to submit pricing for both the Pilot and full implementation in order to be considered.

- Strategic Mapping Inc.'s proposal does not have the required minimum two installations of their proposed system for a similar size and nature as the Toronto Transit Commission.

Prior to the RFP closing, staff determined that a total scoring of 75% or higher would be required based on pre-determined criteria as summarized on the attached Appendix 'A' in order to be considered acceptable and the selection of the recommended proponent would be based on the lowest priced qualified proponent.

Following the qualitative evaluation Grey Island's proposal was considered acceptable as they received a score exceeding 75%. They have provided a complete, detailed and quantifiable response to the RFP and staff established that the system proposed meets the Commission's specified requirements for the NVAS project. They can provide the Commission with a proven solution that has all the requisite components ready to go from day one.

The Commission has been able to corroborate Grey Island's responses on prediction accuracy requirements (one of the most critical factors in determining the accuracy of the NVAS project) using internally gathered data from a December 2007 TTC Public Transit Agency Survey on Next Bus Arrival Systems.

Grey Island's system is a mature system that has been field tested and proven to work as demonstrated by their successful installations in over 45 North American Public Transit Agencies (e.g. San Francisco, Washington DC, Guelph Transit, etc.) and is considered qualified for this project. Their proposal did not state any exceptions or qualifications to the Commission's Terms and Conditions and is considered commercially and technically compliant and is recommended for award.

The upset limit amounts include funds for the electronic LED signage hardware. This is a key component of the system. Currently the TTC is working with the City of Toronto and Astral Media and its partners in the deployment of TTC Bus Shelters as part of the City of Toronto Street Furniture initiative. The replacement of City owned and maintained TTC Bus shelters will take place over the next 20 years and will include accommodation for the TTC's Next Vehicle Arrival electronic signage hardware. The TTC along with the City and Astral Media are in discussions regarding the inclusion of the LED signage within the framework of the Street Furniture program.

As no firm decision has been reached at this point in this regard, the TTC is including 350 NVAS hardware components for Bus Shelters as an optional part of the NVAS contract award (approximate cost \$4,700,000). Upon determining the cost of the electronic LED signage hardware from the City, staff will determine whether or not to proceed with NVAS hardware portion of the work with the City or Grey

Island. The Commission has the right to award all or portion of the work at its sole discretion, as such, the optional NVAS hardware components will only be purchased from Grey Island if that is the final decision.

An allowance of 10% is included in the recommended upset limit amounts to cover adjustments in the actual quantities of hardware and software modules purchased.

### **Justification**

The Next Vehicle Arrival System project has been initiated by the TTC as a measure toward improving customer service, TTC service visibility and increasing ridership. This initiative will provide TTC riders with real-time, reliable and relevant passenger information.

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Attachment: Appendix 'A'

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### **Appendix 'A'**

Procurement Authorization – Acquisition Of Next Vehicle Arrival System

Proposal Summary

Company / Total Bid (Including Pilot and Taxes)

- IBI Group - \$4,794,000.00
- Grey Island Systems International Inc. - \$9,920,000.00
- Init Innovations in Transportation Inc. - \$10,860,000.00
- Strategic Mapping Inc. - \$14,606,000.00

Note: Grey Island Systems International Inc. is recommended for award. Bids placed by IBI Group, INIT Innovations in Transportation Inc. and Strategic Mapping Inc. are commercially non-compliant.

Evaluation Criteria:

1. Corporate Qualifications/Experience
2. Project Staff Qualifications/Experience
3. Technical Qualifications
4. Project Implementation
5. Quality Assurance & Service Level Agreement

