

TO:	CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON OCTOBER 24, 2017
FROM:	KELLY SCHERR, P. ENG., MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL & ENGINEERING SERVICES AND CITY ENGINEER
SUBJECT:	INTELLIGENT TRANSPORTATION SYSTEM APPOINTMENT OF CONSULTING ENGINEER

RECOMMENDATION

That, on the recommendation of the Managing Director, Environmental & Engineering Services and City Engineer, the following actions **BE TAKEN** with respect to the Intelligent Transportation System project:

- (a) LEA Consulting Ltd., **BE APPOINTED** consulting engineers to complete the project, in the amount of \$135,860 (excluding HST) in accordance with Section 15.2 (e) of the Procurement of Goods and Services Policy;
- (b) the financing for this project **BE APPROVED** in accordance with the Sources of Financing Report attached hereto as Appendix A;
- (c) the Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this project;
- (d) the approvals given herein **BE CONDITIONAL** upon the Corporation entering into a formal contract with the Consultant for the work; and,
- (e) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.

2015-19 STRATEGIC PLAN

The following report supports the Strategic Plan through the strategic focus area of **Building a Sustainable City** by ensuring the safe and efficient movement of goods and people using all modes of travel.

BACKGROUND

Purpose

This reports seeks the approval of Municipal Council to retain the engineering consultant to assist staff to formalize the needs of the new Intelligent Transportation System, to prepare a Request for Proposal(s) for the acquisition of the system and to assist in the implementation of the system.

Context

The City currently has 396 traffic signals with two to four new signals added each year.

Each traffic signal has a microcomputer to control the operation of the signal and the microcomputers are managed by a traffic signal system that was installed in 2003. The current traffic signal system, has been kept up-to-date since its installation; however, the city has grown since 2003. A new intelligent transportation system is needed to address the changing travel patterns, to support the City's rapid transit plans and to take advantage of new traffic signal technology.

DISCUSSION

Project Description

Currently, traffic signals utilize time based coordination (TBC) which uses pre-defined traffic signal timings that vary depending on the time of day. Traffic studies are used to determine the cycle length and green time assigned for to each movement at an intersection. TBC works well for typical days but cannot self-adjust in response to traffic variations.

In order to address today's changing traffic patterns, to support rapid and conventional transit, to manage congestion and to ensure London's existing and future traffic moves efficiently it is recognized that new or improved measures are needed which go beyond the traditional traffic signal system. In addition to addressing the needs of the city's rapid transit needs, new traffic signal system technology can also help address existing traffic problems by continuously adjusting to changing traffic volumes, improving travel time reliability and reduce congestion along major corridors. It is proposed that the city acquire and implement an Intelligent Transportation System (ITS) that may include the following:

- State-of-the-art transit signal priority for the City's rapid transit initiative;
- Adaptive control along key corridors;
- Motor vehicle and bicycle detection, counting and classification;
- Modern traffic control centre (TCC);
- Video monitoring;
- Real-time travel time monitoring and feedback to drivers;
- Improved communication between the TCC and the intersections which can also be used for rapid transit's data communication needs;
- Implementation of advanced traffic controller (ATC) cabinets; and
- Conformance with National Transportation Communications for ITS Protocol (NTCIP).

The above is not a comprehensive list of features that an ITS may include. In order to finalized what London's ITS would be comprised of and to acquire/implement the ITS, additional expertise is needed to assist city staff.

Consultant Procurement

On May 29th, 2017 a Request for Qualifications (RFEQUAL 17-08) was issued to determine which consultants would have the necessary qualifications to assist the city in the acquisition and implementation of an Intelligent Transportation System. Twenty-one companies showed an interest in RFEQUAL 17-08 and four companies submitted proposals. These proposals were evaluated by a team with representation from Roads and Transportation, with the assistance of Purchasing and Supply Division. The review

considered methodology, approach and understanding of project goals and objectives; experience with similar and relevant projects, including knowledge and expertise; key staff and their roles; the firm's project management plan; recommendations/innovative ideas; and client references.

Based on the above evaluation, three consultants were requested to submit more detailed technical and cost proposals. The technical proposals were evaluated using similar criteria to the RFEQUAL by a team from Roads and Transportation along with representation from London Transit Commission.

Based on the evaluation criteria and selection process identified in the Request for Proposals, the evaluation committee concluded that the proposal from LEA Consulting Ltd. provides the best value to the City. LEA Consulting Ltd.'s past proven experience on similar projects of this nature combined with a project proposal that demonstrated a thorough understanding of the goals and objectives demonstrated their suitability for the undertaking.

CONCLUSION

Project Description

Based on the technical evaluation of the proposals, it is recommended that LEA Consulting Ltd. be awarded the consulting assignment to assist in the procurement and implementation of an Intelligent Transportation System in the amount of \$135,860 (excluding HST) in accordance with Section 15.2 (e) of the Procurement of Goods and Services Policy.

PREPARED BY:	REVIEWED & CONCURRED BY:
SHANE MAGUIRE, P. ENG. DIVISION MANAGER, ROADWAY LIGHTING & TRAFFIC CONTROL	EDWARD SOLDI, P.ENG. DIRECTOR, ROADS AND TRANSPORTATION
RECOMMENDED BY:	
KELLY SCHERR, P.ENG., MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL & ENGINEERING SERVICES AND CITY ENGINEER	

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October 16, 2017/SM

Attach: Appendix A: Source of Financing

cc. Purchasing Division