

DATE: August 13, 2012

REPORT TITLE: **PROFESSIONAL ENGINEERING SERVICES FOR WASTEWATER  
PUMPING STATION CONTROL UPGRADES  
CAPITAL PROJECT 08-2912  
DOCUMENT 2012-292P**

FROM: Dan Labrecque, Commissioner of Public Works

## RECOMMENDATION

**That the contract (Document 2012-292P) for the Professional Engineering Services for Wastewater Pumping Station Control Upgrades be awarded to Cole Engineering Group Ltd. in the estimated amount of \$332,760 (excluding applicable taxes), in accordance with Purchasing By-law 63-2008.**

### REPORT HIGHLIGHTS

- Current controls and automation technology is outdated and no longer supported or manufactured by the vendor.
- This project will provide the required design necessary to mitigate the risk to Peel's sewage pumping stations by providing specifications for a general contractor to replace the automation and field wiring.
- Twenty-five (25) Sewage Pumping Stations have been identified as requiring an upgrade in technology, which will result in a stable and fully supported automation and controls system, consistent with the existing technology at water pumping stations.
- This project will result in the application of the newly created Wastewater Pumping Standards and Process Automation and Instrumentation Design Standards (PAIDS).
- The Request for Proposal Document 2012-292P was issued competitively and Cole Engineering Group Ltd. is recommended for award.

## DISCUSSION

### 1. Background

This project will provide the detailed design, contract administration, and commissioning coordination and site services for the upgrade of the existing Wastewater Pumping Station Supervisory Control and Data Acquisition (SCADA) and Controls System. The existing Peel Wastewater SCADA System is based upon two controller platforms; Allen Bradley PLC based systems, communicating with digital communications infrastructure and Bristol Babcock front end controllers, strategically located with Radio towers, which communicate

August 13, 2012

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with the remaining Bristol Babcock serial slave field controllers using the BSAP communication protocol over leased lines.

This project's aim is to upgrade the 25 Wastewater Pumping Stations to the Region's latest Wastewater SCADA Standard by replacing all existing Bristol Babcock controllers with new Allen Bradley controllers. In addition to new controllers, this project will design the upgrade to the automation field wiring, control panels, device labeling, documentation, and communications at each chosen site to bring them up to the current PAIDS Standard (4.0).

This engineering design assignment will serve three general purposes:

1. Enable a contractor to perform all electrical work, control panel construction, site communications implementation, site coordination, site transition planning from existing to new equipment and controls implementation, and commissioning duties,
2. Provide the necessary documentation as outlined by PAIDS for the Region to complete all software programming and software integration duties, and
3. Provide the Region with a comprehensive and accurate drawing set in which to maintain the site going forward.

The ultimate goal of the Region is to have a standardized, robust, high quality, cost effective SCADA system in conformance with the established Region PAIDS SCADA System Design Standards and Wastewater Pumping Station Design Standards.

## **2. Procurement Process**

The Region of Peel issued a Request for Proposal Document 2012-292P to the following professional engineering firms: CIMA Canada Inc., Insyght Engineering Inc., EMA Canada Inc., AECOM Canada Ltd. and Cole Engineering Group Ltd.

Five professional engineering firms submitted proposals on time and the documents were found to be in order. The proposals were submitted in two parts: the first being the technical component and the second the financial component. The Technical Evaluation Team reviewed the submissions in accordance with set criteria. The evaluation criteria included the consultants' understanding of the project, proposal concepts and technical merit, qualifications and experience of the proposed staff, the consultants' previous experience in similar assignments, compliance with the terms of reference, and the schedule and cost to complete the assignment.

Upon completion of the technical evaluation; short listed proponents proceed to the pricing component. The purchasing representative completed the financial analysis, the scores were combined and the overall ranking was determined.

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August 13, 2012

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The evaluation summary is as follows:

Vendor Name	Technical (80 per cent)	Financial (20 per cent)	Price Submitted	Overall Ranking
Cole Engineering Group Ltd. Markham, ON	3	1	\$332,760	1
AECOM Canada Ltd., Markham, ON	2	2	\$381,316	2
Insyght Engineering Inc., Burlington, ON	1	3	\$481,400	3
CIMA Canada Inc., Vaughan, ON	4	4	\$544,250	4

The proposal submitted by Cole Engineering Group Ltd. received the highest overall score when assessing the combination of technical proficiency and price. The Professional Engineering firm demonstrated a thorough understanding of the assignment, proposed a comprehensive project approach and presented an experienced project team. The technical evaluation team has concluded that the proposal submitted by Cole Engineering Group Ltd. provides the best overall value to the Region.


**FINANCIAL IMPLICATIONS**

Sufficient funding is available under Capital Project 08-2912.


  
for Dan Labrecque  
Commissioner of Public Works

**Approved for Submission:**

  
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D. Szwarc, Chief Administrative Officer

 For further information regarding this report, please contact Mark Schiller at extension 4394 or via email at [mark.schiller@peelregion.ca](mailto:mark.schiller@peelregion.ca)

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