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CONSULTANT SELECTION FOR THE RICHMOND HILL PUMPING STATION PUMP REPLACEMENTS AND MISCELLANEOUS UPGRADES, TOWN OF RICHMOND HILL, PROJECT 75620

The Environmental Services Committee recommends the adoption of the recommendations contained in the following report dated August 23, 2010, from the Commissioner of Environmental Services.

1. RECOMMENDATIONS

It is recommended that:

1. Cole Engineering Group Ltd. be engaged to undertake the Class Environmental Assessment, detail design, contract administration and site inspection for the replacement of pumps and miscellaneous upgrades at the Richmond Hill Pumping Station as outlined in this report, at an upset limit fee of \$778,402.00, exclusive of taxes. The upset limit fee includes:
 - a) \$358,642.00 for Class Environmental Assessment, detail design and engineering services.
 - b) \$419,760.00 for contract administration and site inspection services, based on a construction duration of 66 weeks estimated by staff.
2. The Commissioner of Environmental Services be authorized to adjust contract administration and site inspection fees using the competitive unit price of \$6,360.00 per week excluding taxes, once the updated construction duration is determined and specified in the tender documents.

2. PURPOSE

This report seeks Council authorization to retain engineering services for Class Environmental Assessment, detail design, contract administration and site inspection for the replacement of pumps and miscellaneous upgrades at the Richmond Hill Pumping Station. A location plan is appended to this report (*see Attachment 1*).

The Purchasing By-law requires Council authorization to award a Request for Proposal (RFP) over \$500,000, or when the recommended proponent does not have the lowest cost. In this instance, the recommended proponent submitted a responsive bid greater than \$500,000 and does not have the lowest cost.

3. BACKGROUND

Richmond Hill Pumping Station condition assessment conducted in 2010

The Richmond Hill Pumping Station, constructed in 1978, is an in-line booster pumping station consisting of four (4) pumps with a total pumping capacity of 568 l/s. This station is an integral part of the York Water System to supply water to Pressure District 7 for areas in the Towns of Richmond Hill, Markham and the City of Vaughan.

In April 2010, a condition assessment report was completed. Objectives of the report were to assess performance of the existing pumps, determine current total pumping capacity of the station, assess condition of existing mechanical and electrical systems as well as evaluate station upgrade options to increase total pumping capacity.

Condition assessment revealed need for upgrades to optimize station performance

After an investigation and evaluation of the station, the report revealed several inefficiencies and deficiencies in the existing equipment which need to be replaced due to their age and inability to perform at their designed capacity. Some of the equipment identified for replacement were the pumps, valves, heating ventilation air conditioning system, main transformer, primary cable and instrumentation control panel. In addition, the report identified the total pumping capacity of the station can be increased to 684 l/s with all upgrades confined within the existing building.

Project created in the Infrastructure Improvement Program to address the needs

The report recommended the existing pumps be replaced with larger pumps including associated mechanical equipment such as valves and pipes, increase to the size of the existing heating ventilation air conditioning system, transformer and cable to accommodate the larger pumps and upgrade the instrumentation control panel to meet current York Region standards. In addition, a new standby power system should be installed to provide redundancy and reliability at the station. Accordingly, a project was created in the Infrastructure Improvement Program to complete these upgrades at the Richmond Hill Pumping Station and increase its total pumping capacity to meet the future water demand in Pressure District 7.

4. ANALYSIS AND OPTIONS

Request for Proposal issued to four qualified consulting engineering firms

In accordance with the Purchasing By-law, a Request for Pre-Qualification (RFPQ) for Class Environmental Assessment, detailed design, contract administration and site inspection services for the Richmond Hill Pumping Station Pump Replacements and Miscellaneous Upgrades project was advertised in the *Daily Commercial News* and electronically on *Biddingo.com*. A total of nine consulting firms submitted a formal response to this RFPQ.

Based on the information received in the formal response to the RFPQ, the following four firms were invited to submit a proposal in response to a Request for Proposal.

- Associated Engineering (Ont.) Ltd.
- Cole Engineering Group Ltd.
- Conestoga-Rovers & Associates Ltd.
- GHD Inc.

The Request for Proposal detailed the scope of work required, which included the following services:

- Project management, planning and control
- Class Environmental Assessment, detailed design and tendering
- Procurement of approvals
- Construction contract administration and site inspection
- Quality assurance and quality control

Proposals were evaluated using two-envelope system

Proposals were evaluated using the two-envelope system with technical and financial information submitted in separate envelopes. Technical proposals were evaluated prior to any knowledge of the financial information. Technical content was weighted at 80%.

Technical proposals were reviewed based on the following criteria:

- Corporate experience on similar projects
- Experience of key project staff
- Sub-consultants' experience
- Understanding of the project
- Project approach and methodology
- Quality assurance and control process

Technical proposals must achieve a minimum technical score of 48 out of 80 to have the financial portion considered.

The financial evaluation composed the remaining 20% weight of the total evaluation. Technical and financial results are summarized in Table 1.

Table 1
Consultant Proposal Evaluation Summary

Consulting Engineering Firm	Technical Score (out of 80)	Financial Score (out of 20)	Total Score (out of 100)	Total Price Exclusive of Taxes
Cole Engineering Group Ltd.	65.1	17.4	82.5	\$778,402.00
GHD Inc.	56.0	20.0	76.0	\$676,728.00
Conestoga-Rovers & Associates Ltd.	54.0	17.2	71.2	\$786,897.00
Associated Engineering (Ont.) Ltd.	50.6	13.5	64.1	\$999,532.00

Evaluation of proposals resulted in Cole Engineering Group Ltd. achieving highest total score

The proposal with the highest total score, which consisted of the highest technical score, was the submission by Cole Engineering Group Ltd.

Their proposal demonstrated a clear understanding of the project and a thorough working knowledge of the overall Richmond Hill Pumping Station facility which was evident in their clear description of the facility and the detailed list of work and services required for the project. Cole Engineering Group Ltd. also achieved high technical scores for their project approach and methodology to complete the project as well as for corporate and staff experience on similar size projects which met or exceeded the requirements of the Request for Proposal. This experience and recent work they completed at the Richmond Hill Pumping Station brings added value to the project as lessons learned. Their extensive knowledge of the facility can be effectively utilized in the design of the new infrastructure.

5. FINANCIAL IMPLICATIONS

Sufficient funds have been allocated for this project

The upset limit fee for the proposed work is \$778,402.00, excluding taxes. This project will be funded from the Infrastructure Improvement Program Project 78512 – Pumping Water. Sufficient funds are available in the 2010 budget for the project work anticipated to be completed this year.

The estimated total capital cost for this project is \$6,078,000.00. As such, the engineering fee for this assignment is 12.8% of the total cost estimate which is within the range for this type of project.

The fee includes construction contract administration and site inspection services for an estimated duration of construction of 330 working days (66 weeks). Based on the competitive prices within the financial proposal submitted by Cole Engineering Group Ltd., this equates to a prorated value of \$6,360.00 for each week of construction. This value will be used to calculate either the increase or decrease in the upset limit fee, as the case may be, to account for the actual duration of construction.

Should the actual duration of construction increase, as determined by the detailed design and specified in the tender documents, it is recommended that the Commissioner of Environmental Services be authorized to adjust the upset limit fee accordingly by the amount of \$6,360.00 per week excluding taxes.

6. LOCAL MUNICIPAL IMPACT

This project will assist the Region in meeting the future water demands to better serve the affected local area municipalities.

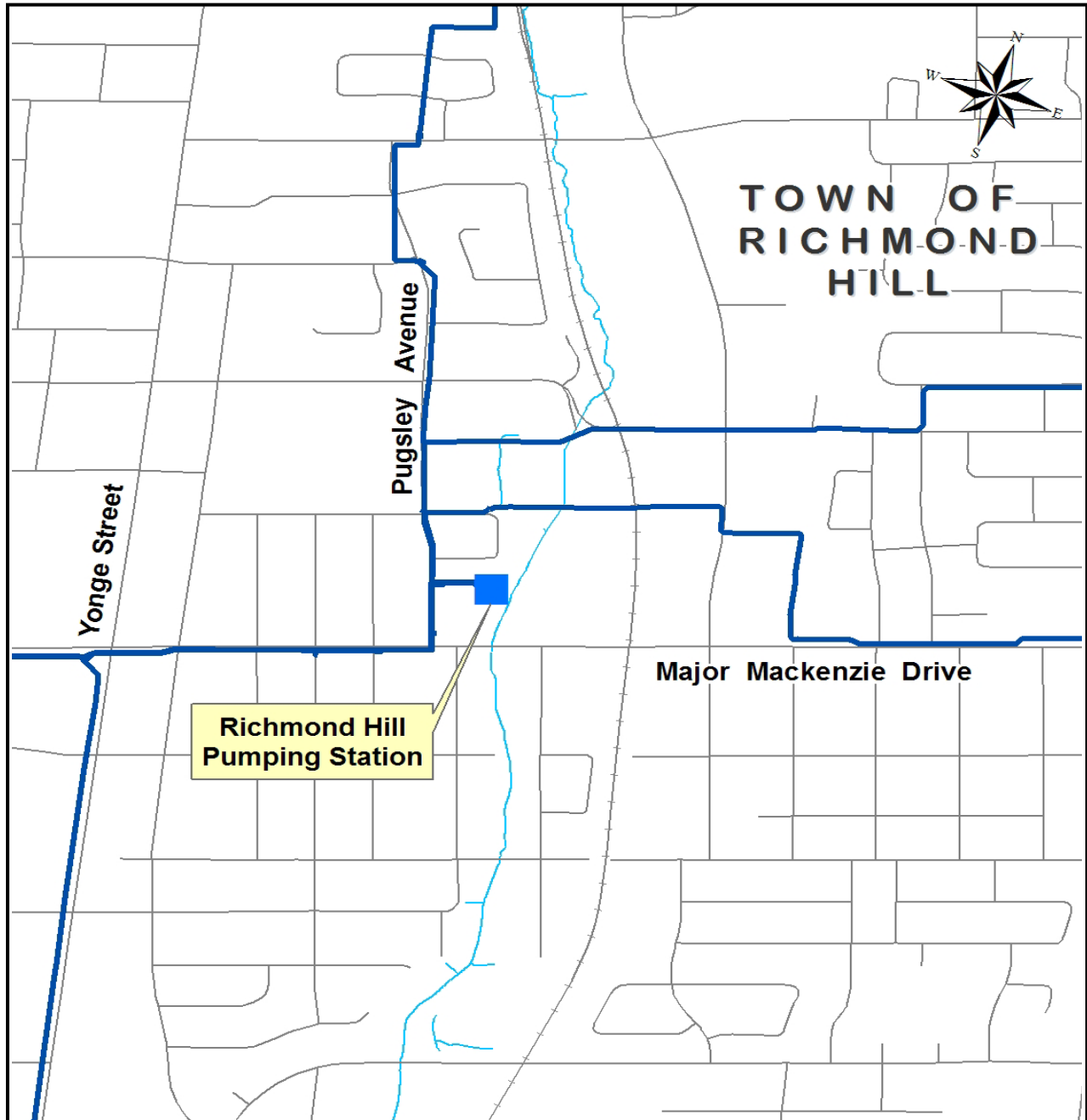
7. CONCLUSION

It is recommended that Cole Engineering Group Ltd. be engaged to provide Class Environmental Assessment, detail design, contract administration and site inspection for the replacement of pumps and miscellaneous upgrades at the Richmond Hill Pumping Station, at a cost not to exceed \$778,402.00, exclusive of taxes.

For more information on this report, please contact Daniel Kostopoulos, Director, Capital Planning and Delivery, Environmental Services Department at extension 5070.

The Senior Management Group has reviewed this report.

(The attachment referred to in this clause is attached to this report.)



LOCATION PLAN

Consultant Selection for the Richmond Hill
Pumping Station Pump Replacements
And Miscellaneous Upgrades,
Town of Richmond Hill

0 100 200 400 Meters

- Pumping Station
- Existing Watermains

