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CONSULTANT SELECTION FOR ENGINEERING SERVICES HYDRAULIC MODEL FOR YORK REGION WASTEWATER SYSTEM, PROJECT NO. 73660

The Transportation and Works Committee recommends the adoption of the recommendations contained in the following report, December 17, 2003, from the Commissioner of Transportation and Works:

1. RECOMMENDATION

It is recommended that:

1. The following report be received for information by Committee and Regional Council.

2. PURPOSE

The purpose of this report is to advise Council of the award of the engineering assignment for the development of a graphical hydraulic model for the York Region wastewater system to the engineering consultant, Earth Tech Canada Inc., at an upset limit cost of \$363,638, excluding GST.

The award was made by the Chief Administrative Officer to Earth Tech Canada Inc. on December 15, 2003, during Council recess. In accordance with the Region's Purchasing By-law, a report pertaining to the award has to be submitted to Council as soon as reasonably possible.

3. BACKGROUND

The rapid growth of the Region has led to significant expansion of the Region's wastewater system and in turn the need for a graphically based hydraulic model that could accurately assess the capacity of the existing Region's wastewater system and identify areas for system improvement.

The current model used by the Region was developed in 2002 as part of the York Durham Sewerage System Master Plan Update. It is not graphically based nor does it cover areas outside the YDSS service boundary. With the rapid growth in recent years, the Region's sanitary sewer system is becoming more complex and operating close to its capacity, with potential surcharging in some segments. It is realized that a more sophisticated and reliable sewer model is required to accurately assess current system capacity as well as to cost-effectively plan new infrastructure to support growth. During the preparation of the 2003 ten-year capital program, a new project was initiated for the

development of a graphically based hydraulic model for the Region's wastewater system. It was intended that a consultant with considerable experience in developing and operating hydraulic models would be retained to undertake the project.

The scope of the consultant's assignment includes the following tasks:

- Recommend a commercial software package to be purchased by York Region for the development of the hydraulic model.
- Develop a hydraulic model for the York Region wastewater system encompassing the YDSS, the satellite systems in Keswick and Sutton (Georgina), Mount Albert (East Gwillimbury), Kleinburg (Vaughan), Schomberg (Township of King) and Holland Landing (East Gwillimbury) as well as major sanitary sewers owned by the local municipalities.
- Operate and maintain the model on behalf of the Region for a six-month period upon completion of the model development phase.
- Prepare user manual and train staff for using the model.
- Develop a data management plan that will provide the framework for system data preparation, data integration between the Region's and local municipalities' systems in order that the model can be easily updated in response to source data changes.

4. ANALYSIS AND OPTIONS

Expression of Interest P-03-41 was issued on May 15, 2003 for the assignment. Nine submissions were received. Four firms were selected to respond to the Request for Proposal P-03-64 issued on September 25, 2003:

1. CH2M Hill Canada Limited
2. Earth Tech Canada Inc.
3. MacViro Consultants Inc.
4. XCG Consultants Ltd.

Three proponents responded to the Request for Proposal:

1. CH2M Hill Canada Limited
2. Earth Tech Canada Inc.
3. MacViro Consultants Inc.

Regional staff evaluated the technical proposals based on the following criteria:

- Responsiveness of submission
- Project Implementation (including methodology, schedule etc.)
- Experience and Qualifications of the Project Team
- Management Qualifications (including past projects, quality assurance and quality control)

The price proposals were opened after the technical evaluations were complete. The prices were factored into the proposal evaluation using standard procedures, as summarized in Table 1.

Table 1
Consultant Proposal Evaluation Summary

Firm	Technical Score (out of 90)	Upset Fee (excluding GST)	Financial Score (out of 10)	Total Score (out of 100)
Earth Tech Canada Inc.	72.0	\$363,638	9.6	81.6
MacViro Consultants Inc.	64.8	\$445,956	7.8	72.6
CH2M Hill Canada Limited	59.5	\$349,894	10.0	69.5

Earth Tech Canada Inc. was ranked highest on the technical portion of the proposal. Their proposal clearly demonstrates their experience and knowledge in developing both the hydraulic model and the data management plan. CH2M Hill Canada Inc. was lowest on the financial portion of the proposals.

Overall, Earth Tech Canada Inc. attained the highest score and was selected as the preferred consultant.

Based on proposal submitted by Earth Tech Canada Inc., development of the data management plan will be completed in May 2004 and development of the hydraulic model will be completed in June 2004. As per the Request For Proposal, the consultant will maintain the model for a six-month period from June to December 2004, upon model delivery.

5. FINANCIAL IMPLICATIONS

The upset limit fee for the work is \$363,638, excluding GST. Sufficient funds have been allowed in the 2003 capital works budget for this assignment. It is noted that this assignment was awarded during 2003.

6. LOCAL MUNICIPAL IMPACT

The hydraulic model will allow the Region to assess its system capacity more accurately and thereby optimize the timing and quantity of sewage capacity assigned to the local municipalities for allocation purposes.

The scope of the modelling work will also include some major local sewers connected to the Region's system. The Region is prepared to share the modelling results with the local municipalities for use on their own infrastructure planning.

7. CONCLUSION

Regional staff selected the proposal by Earth Tech Canada Inc. as it represents the best overall value to York Region and demonstrates that Earth Tech Canada Inc. has highly qualified and knowledgeable personnel to complete the assignment successfully. The assignment was awarded by the Chief Administrative Officer to Earth Tech Canada Inc. on December 15, 2003

The Senior Management Group has reviewed this report.