

The Regional Municipality of York

Committee of the Whole
Environmental Services
November 7, 2019

Report of the Commissioner of Environmental Services

Northeast Vaughan Water and Wastewater Engineering Services

1. Recommendations

It is recommended that:

1. Council approve the award of contract for engineering services for the Northeast Vaughan Water Servicing Project to Associated Engineering (Ont.) Ltd. pursuant to Request for Proposal P-19-226 at a total cost of \$14,468,698.99, excluding HST, and authorize execution of the contract on behalf of York Region. The fee includes provisional contract administration and site inspection services of \$24,318.00 per week for 156 weeks at 50 hours per week, and \$76,356.00 per week for 52 weeks at 168 hours per week.
2. Council approve the award of contract for engineering services for the Northeast Vaughan Wastewater Servicing Project to CH2M Hill Canada Limited, pursuant to Request for Proposal P-19-227 at a total cost of \$13,352,391.00, excluding HST, and authorize execution of the contract on behalf of York Region. The fee includes provisional contract administration and site inspection services of \$16,455.21 per week for 117 weeks at 50 hours per week, and \$48,811.14 per week for 39 weeks at 168 hours per week.
3. The Commissioner of Environmental Services be authorized to execute the contracts on behalf of the Region.

2. Summary

This report seeks Council authorization to retain engineering services for detailed design and provisional services for contract administration, site inspection and related services for the Northeast Vaughan Water and Wastewater Servicing Projects.

Construction of the preferred water and wastewater servicing solutions will begin following completion of detailed design. Construction activities are scheduled to be completed in 2028 for all required water and wastewater infrastructure. In addition to advancing design staff are currently moving forward with land acquisition for construction and infrastructure needs.

The Region's Purchasing Bylaw requires Council authorization to award Requests for Proposal over \$2,000,000.

In the case of the water servicing project, the recommended proponent did submit the lowest cost and also achieved the highest overall scores and their bid is greater than \$2,000,000.

In the case of the wastewater servicing project, the recommended proponent did not submit the lowest cost, but achieved the highest overall score and their bid is greater than \$2,000,000.

Key Points:

- Regional water and wastewater servicing infrastructure is required to service anticipated growth in the northeast Vaughan service area to the year 2051
- York Region has completed the Northeast Vaughan Water and Wastewater Servicing Class Environmental Assessment and has identified the preferred water and wastewater servicing solutions
- The Region seeks to retain two engineering consulting firms to begin design of the preferred water and wastewater servicing solutions

3. Background

Northeast Vaughan Water and Wastewater Servicing Environmental Assessment identifies servicing requirements to year 2051

The Region has completed the Northeast Vaughan Water and Wastewater Servicing Schedule B Municipal Class Environmental Assessment. The Class Environmental Assessment developed cost-effective and sustainable Regional water and wastewater servicing solutions for residential and employment areas in the northeast Vaughan area to accommodate projected population growth of 120,000 persons to the year 2051.

The preferred water servicing solution includes construction of two new water pumping stations, two new elevated water storage tanks and new watermains, as shown in Attachment 1, and is scheduled for completion in 2028.

The preferred wastewater servicing solution includes construction of three new segments of gravity trunk sewer, as shown in Attachment 2, and is scheduled for completion in 2028.

The Class Environmental Assessment Project File Report was filed with the Ministry of the Environment, Conservation and Parks on April 11, 2019 and the public review period ended on May 13, 2019. The Ministry of the Environment, Conservation and Parks confirmed that no Part II Order requests were received during the review process and the project may proceed through design and construction as outlined in the Project File Report.

4. Analysis

Detailed design of the water and wastewater servicing solutions will be completed as separate projects

Given the size and complexity of the undertaking, the water and wastewater solutions will be delivered through two separate projects. This ensures that the Region retains the most qualified team and sufficient resources for each respective water and wastewater project to maximize success.

NORTHEAST VAUGHAN WATER SERVICING

Request for Pre-qualification issued in Q2 2019 for engineering consulting firms

Request for Pre-qualification No. PQ-19-58 for engineering consulting services for the Northeast Vaughan Water Servicing Project was published on April 9, 2019. The Request for Pre-qualification was advertised through Biddingo.com and the Region's Bids and Tenders notification system. During the pre-qualification stage, proponents were invited to submit for evaluation, their team experience and past project experience regarding design and construction of new water storage and distribution facilities. The Request for Pre-qualification closed on May 15, 2019. Of the fifteen proponents that obtained the Request for Pre-qualification documents, six submitted a formal response and three were pre-qualified following evaluations:

- Associated Engineering (Ont.) Ltd.
- GHD Limited
- WSP Canada Group Limited

Three pre-qualified proponents were invited to submit proposals for Request for Proposal P-19-226

In accordance with the Region's Purchasing Bylaw, the three pre-qualified proponents were invited to submit proposals for Request for Proposal P-19-226 for engineering services for the Northeast Vaughan Water Servicing Project on August 14, 2019.

Request for Proposal P-19-226 detailed the scope of work required, which included the following services:

- Project management, planning and control, including stakeholder engagement, financial reporting and schedule tracking
- Overall project quality assurance and quality control
- Delivering engineering and environmental studies required to support design and permit and approval applications, including hydrogeological and geotechnical studies,

energy management, hydraulic modelling, noise and vibration analysis, and subsurface utility engineering

- Detailed design and tendering, including constructability reviews and value engineering
- Obtaining regulatory permits and approvals associated with project construction
- Provisional contract administration and site inspection services

The Request for Proposal closed on September 19, 2019. All three pre-qualified consulting firms submitted proposals for this assignment.

Proposals were evaluated using the two-envelope system

Proposals were evaluated using the two-envelope system with technical and financial information submitted in separate envelopes. Overall proposal score was evaluated based on a weighting of 80 points for the technical proposal and 20 points for the financial proposal. Technical proposals were evaluated prior to any knowledge of financial information.

The Region's proposal evaluation team reviewed technical proposals based on criteria listed in Request for Proposal P-19-226 that included:

- Understanding of the project including services to be provided, objectives, key deliverables, and potential challenges and how they can be addressed
- Project team organization and qualifications
- Project approach methodology including: key issues and risks, project management plan, project schedule and a realistic time task breakdown
- Value added services, innovative concepts and ideas

Technical components of the proposal must achieve a minimum technical score of 60% (48 points out of the potential 80 points) to have the financial portion of the proposal considered. If a proponent does not achieve this minimum technical score, its financial proposal is returned unopened. Technical and financial results are summarized in Table 1.

Table 1
P-19-226 Consultant Proposal Evaluation Summary

Consulting Engineering Firm	Technical Score (out of 80)	Total Fee (\$) (excluding HST)	Financial Score (out of 20)	Total Score (out of 100)
Associated Engineering (Ont.) Ltd.	65.6	14,468,698.99	20.0	85.6
GHD Limited	*n/a	n/a	n/a	n/a
WSP Canada Group Limited	57.9	14,511,006.50	19.9	77.8

*The bid was deemed non-compliant and was disqualified for not submitting the amended Financial Proposal form

Associated Engineering (Ont.) Ltd. achieved the highest overall score

Evaluation of the proposals determined that Associated Engineering (Ont.) Ltd. achieved the highest overall score and is therefore recommended for this assignment. Had any of the other bidders achieved an overall score within five points of Associated Engineering (Ont.) Ltd.'s overall score, a dollar cost per technical point methodology would have been applied to determine the winning bid. In this case, the second highest overall score was not within the required five points.

The proposal submitted by Associated Engineering (Ont.) Ltd. demonstrated a clear understanding of project requirements and provided an experienced team committed to working with Regional staff. The proposal submitted by Associated Engineering (Ont.) Ltd. represents the best value for the Region.

The Procurement Office reviewed the evaluation summary and issued its report confirming that Associated Engineering (Ont.) Ltd. be recommended as the successful overall proponent to undertake detailed design, contract administration and site inspection services for the Northeast Vaughan Water Servicing Project.

NORTHEAST VAUGHAN WASTEWATER SERVICING

Request for Pre-qualification was issued in Q2 2019 for engineering consulting firms

Request for Pre-qualification No. PQ-19-59 for engineering consulting services for the Northeast Vaughan Wastewater Servicing Project was published on April 9, 2019. The Request for Pre-qualification was advertised through Biddingo.com and the Region's Bids

and Tenders notification system. During the pre-qualification stage, proponents were invited to submit for evaluation, their team experience and past project experience regarding design and construction of new gravity trunk sewers. The Request for Pre-qualification closed on May 15, 2019. Of the eighteen firms that obtained the Request for Pre-qualification documents, eight submitted a formal response and three were pre-qualified following evaluations:

- Associated Engineering (Ont.) Ltd.
- CH2M Hill Canada Limited
- Hatch Limited

Three pre-qualified proponents were invited to submit proposals for Request for Proposal P-19-227

In accordance with the Region's Purchasing Bylaw, the three pre-qualified proponents were invited to submit proposals for Request for Proposal P-19-227 for engineering services for the Northeast Vaughan Wastewater Servicing Project on August 14, 2019.

Request for Proposal P-19-227 detailed the scope of work required, which included the following services:

- Project management, planning and control, including stakeholder engagement, financial reporting and schedule tracking
- Overall project quality assurance and quality control
- Delivering engineering and environmental studies supporting: design, permit and approval applications including hydrogeological and geotechnical studies, energy management, hydraulic modelling, noise and vibration analysis, and subsurface utility engineering
- Detailed design and tendering, including constructability reviews
- Obtaining regulatory permits and approvals associated with project construction
- Provisional contract administration and site inspection services

The Request for Proposal closed on September 19, 2019. All three pre-qualified consulting firms submitted proposals for this assignment.

Proposals were evaluated using the two-envelope system

Proposals were evaluated using the two-envelope system with technical and financial information submitted in separate envelopes. Overall proposal score was evaluated based on a weighting of 80 points for the technical proposal and 20 points for the financial proposal. Technical proposals were evaluated prior to any knowledge of financial information.

The Region's proposal evaluation team reviewed technical proposals based on criteria listed in Request for Proposal P-19-227 that included:

- Understanding of the project including services to be provided, objectives, key deliverables, and potential challenges and how they can be addressed
- Project team organization and qualifications
- Project approach methodology including: key issues and risks, project management plan, project schedule and a realistic time task breakdown
- Value added services, innovative concepts and ideas

Technical components of the proposal must achieve a minimum technical score of 60% (48 points out of the potential 80 points) to have the financial portion of the proposal considered. If a proponent does not achieve this minimum technical score, its financial proposal is returned unopened. Technical and financial results are summarized in Table 2.

Table 2
P-19-227 Consultant Proposal Evaluation Summary

Consulting Engineering Firm	Technical Score (out of 80)	Total Fee (\$) (excluding HST)	Financial Score (out of 20)	Total Score (out of 100)
Associated Engineering (Ont.) Ltd.	*n/a	n/a	n/a	n/a
CH2M Hill Canada Limited	67.9	13,352,391.00	19.9	87.8
Hatch Limited	60.0	13,296,401.00	20.0	80.0

*Proponent did not achieve the minimum technical score of 60% (48 out of 80). The technical proposal did not demonstrate a thorough understanding of the project scope.

CH2M Hill Canada Limited achieved the highest overall score

Evaluation of the proposals revealed that CH2M Hill Canada Limited achieved the highest overall score and is therefore recommended for this assignment. Had any of the other bidders achieved an overall score within five points of CH2M Hill Canada Limited's overall score, a dollar cost per technical point methodology would have been applied to determine the winning bid. In this case, the second highest overall score was not within the required five points.

Associated Engineering (Ont.) Ltd.'s technical proposal did not achieve the minimum score of 60%. Therefore, the financial proposal was not opened. Despite Associated Engineering (Ont.) Ltd. achieving the highest overall score for the Northeast Vaughan Water Servicing Project, the technical proposal submitted for the Northeast Vaughan Wastewater Servicing Project did not demonstrate a thorough understanding of the project scope based on the total

effort proposed for the project. Associated Engineering (Ont.) Ltd. proposed approximately 39% fewer hours in key engineering areas versus other proponents. The technical proposal submitted by Associated Engineering (Ont.) Ltd. did not include innovative or value added alternatives pertaining to key issues, risks and project challenges that could be encountered during design and construction of the complex wastewater infrastructure.

The proposal submitted by CH2M Hill Canada Limited demonstrated a clear understanding of project requirements and provided an experienced team committed to working with Regional staff. The proposal submitted by CH2M Hill Canada Limited represents the best value for the Region.

The Procurement Office reviewed the evaluation summary and issued its report confirming that CH2M Hill Canada Limited be recommended as the successful overall proponent to undertake detailed design, contract administration and site inspection services for the Northeast Vaughan Wastewater Servicing Project.

Northeast Vaughan Water and Wastewater Servicing Projects support objectives of the Region's Strategic Plan

The Region's *Water and Wastewater Master Plan Update (2016)* confirmed the need to provide additional servicing capacity for the northeast Vaughan area to meet future growth servicing demands to the year 2051.

The projects align with the Region's *2019 to 2023 Strategic Plan: Vision to Results* objective of encouraging and sustaining economic growth and vitality of the Region. This aligns with the long-term Council-adopted *Vision 2051*, along with the *Regional Official Plan*, that set out the quality of life goals for our communities.

5. Financial

Funding for these engineering assignments is included in the approved 10 Year Capital Plan (2019-2029). The bids submitted by Associated Engineering (Ont.) Ltd. for the Northeast Vaughan Water Engineering Services and CH2M Hill Canada Limited for the Northeast Vaughan Wastewater Engineering Services are in line with project budget estimates.

There is adequate Capital Spending Authority for the engineering design components of these projects. Work proposed for the water and wastewater servicing solutions includes provisional contract administration and site inspection fees that are anticipated to be incurred from 2024 to 2028. The provision of contract administration and site inspection services under these assignments will be evaluated following completion of detailed design. As the projects progress, estimates and Capital Spending Authority requests will be submitted as part of future 10 Year Capital Plans.

Total project estimates for the Northeast Vaughan Water and Wastewater Servicing Projects are \$92,497,000.00 and \$162,979,000.00, respectively. Engineering services fees for the Northeast Vaughan Water and Wastewater Servicing Projects are \$14,468,698.99 and \$13,352,391.00, respectively. Engineering services fees for the Northeast Vaughan Water and Wastewater Servicing Projects represent 15.6% and 8.2% of the total project estimates, respectively. Since the water servicing project involves design and construction of multiple facilities, it has a higher level of complexity than the wastewater servicing project and requires more technical, contract administration and site inspection resources.

6. Local Impact

The purpose of the Northeast Vaughan Water and Wastewater Servicing Projects is to develop and implement locally sustainable water and wastewater servicing solutions to accommodate projected growth in the northeast Vaughan area to the year 2051.

To ensure smooth project implementation, City of Vaughan staff were consulted during the Class Environmental Assessment to better understand how the proposed facilities will be integrated into the future landscape of the northeast Vaughan area and to understand local site-specific conditions. York Region will continue engaging with local municipalities, including the City of Vaughan and the Township of King as the projects move into detailed design and construction phases.

7. Conclusion

Three proposals from consulting firms were received and evaluated for the Northeast Vaughan Water Servicing Project in accordance with the Region's Purchasing Bylaw. The proposal from Associated Engineering (Ont.) Ltd. represents the best value for money to the Region. It is recommended that Associated Engineering (Ont.) Ltd. be engaged to undertake engineering services for the Northeast Vaughan Water Servicing Project at a fee of \$14,468,698.99, excluding HST.

Three proposals from consulting firms were received and evaluated for the Northeast Vaughan Wastewater Servicing Project in accordance with the Region's Purchasing Bylaw. The proposal from CH2M Hill Canada Limited represents the best value for money to the Region. It is recommended that CH2M Hill Canada Limited be engaged to undertake engineering services for the Northeast Vaughan Wastewater Servicing Project at a fee of \$13,352,391.00, excluding HST.

For more information on this report, please contact Mike Rabeau, Director, Capital Planning and Delivery at 1-877-464-9675 ext. 75157. Accessible formats or communication supports are available upon request.

Recommended by: **Erin Mahoney, M. Eng.**
Commissioner of Environmental Services

Approved for Submission: **Bruce Macgregor**
Chief Administrative Officer

October 24, 2019
Attachments (2)
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