



Clause No. 12 in Report No. 4 of Committee of the Whole was adopted, without amendment, by the Council of The Regional Municipality of York at its meeting held on February 13, 2014.

**CONSULTANT SELECTION FOR INSPECTION AND ASSESSMENT OF VARIOUS
SEWERS AND MAINTENANCE HOLES
PROJECT 78582**

Committee of the Whole recommends adoption of the following recommendation contained in the report dated January 20, 2014 from the Commissioner of Environmental Services:

1. RECOMMENDATION

It is recommended that:

1. Council approve the award of the contract for a three year sewer and maintenance hole inspection and assessment program to Andrews Infrastructure, pursuant to Request for Proposal P-13-25 at a total cost of \$1,973,308.40 excluding HST, and authorize the execution of the contract on behalf of the Region.

2. PURPOSE

This report seeks Council authorization to retain engineering services to support the Region's sewer and maintenance hole inspection and assessment program.

The Region's Purchasing By-law requires Council authorization to award Requests for Proposals over \$500,000. In this case, the recommended proponent bid is greater than \$500,000.

3. BACKGROUND

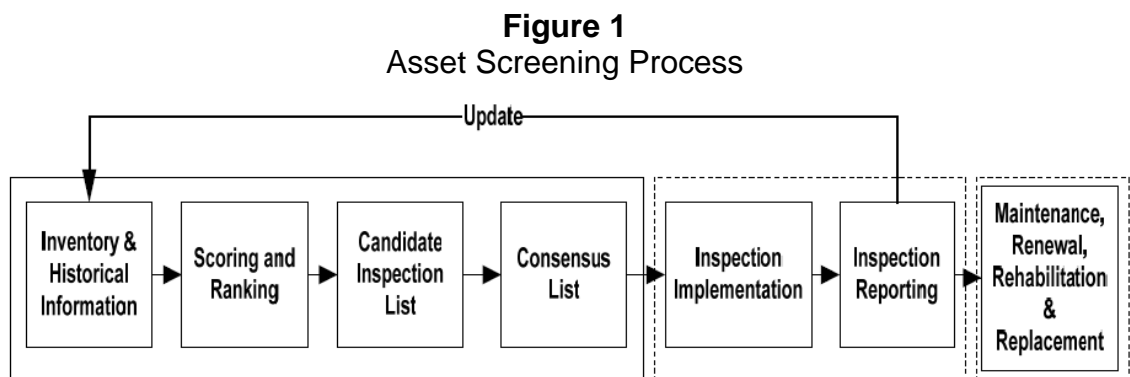
Over a three year program, 89.8 kilometres of sewers and 566 maintenance holes identified for inspection in Markham, Vaughan, Richmond Hill, Aurora, Whitchurch-Stouffville, East Gwillimbury, King, Durham Region, Georgina and Newmarket

Environmental Services has a sewer and maintenance hole inspection and assessment program. The program's focus is to identify any deficiencies in sewers and maintenance

holes for potential warnings of failures including leaks, sediment, inflow and infiltration, collapse, debris, etc. to determine cost-effective maintenance, renewal, rehabilitation, and replacement measures.

Deterioration of sewers and maintenance holes must be constantly monitored

A screening methodology has been established to prioritize specific sewer segments and maintenance holes for scheduled inspection. This proactive screening process is outlined in Figure 1.



Criteria used in the screening model include location of sewer and maintenance holes, bedding, diameter, age, buried depth, function and current condition information. The 89.8 kilometres of large diameter sewers and 566 maintenance holes listed in the scope of the 2014 to 2016 sewer inspection and assessment program were identified using this screening methodology.

4. ANALYSIS AND OPTIONS

Request for Proposal issued for Sewer and Maintenance Inspections and Assessment

In accordance with the Purchasing Bylaw, a Request for Proposal (RFP) P-13-25 was released to obtain engineering services for the sewer and maintenance hole inspection and assessment program. The following scope of services was identified in the RFP:

- Closed circuit television (CCTV) inspections
- Multi-sensor inspection (MSI) technology for provisional inspection where CCTV cannot provide the required detail
- Sewer and maintenance hole inspection coordination and management, including quality assurance and control, site investigation/assessment and status reports

- Sewer and maintenance hole condition and assessment reporting and related quality control
- Develop/prepare a safe work plan, traffic control plan and road occupancy permits as required

Fourteen (14) firms obtained the bid document and only two (2) firms submitted proposals. Supplies and Services staff contacted the companies who received the RFP document but did not submit a bid. The reasons given for not submitting a bid included the following:

- Insufficient capability to perform the specialized work required
- Inability to submit a competitive bid
- Inability to supply the required service
- Inability to provide sufficient resources
- Current workload could not accommodate this assignment

In addition, this assignment requires specialized equipment. The length between maintenance holes within the Region's sewer system requires inspection equipment to travel in one direction to such a length that it excludes many contractors.

Proposals were evaluated using the two envelope system

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

The evaluation team reviewed the two proposals based on the following criteria headings:

- Firm/project manager/key staff credentials, years of experience in project management and inspections and assessment projects
- Demonstrated five years of experience in reviewing inspection data, assessing the condition of sewer pipes and maintenance holes and recommending rehabilitation of replacement solutions
- Demonstrated full understanding of the project objectives and the services to be provided
- Methodology for quality assurance and control for complex sewer inspections
- Compliance with RFP

The financial evaluation composed the remaining 20 per cent of the total evaluation. Technical and financial results are summarized in Table 1 below. A technical score of 48 points or 60 per cent of the technical points were required to open the financial proposal. Both companies met the minimum technical score required.

Table 1
Consultant Proposal Evaluation Summary

Name of Company	Technical Score (80%)	Financial Score (20%)	Total Score (100%)	Total Price Exclusive of HST (\$)	Dollar Cost Per Technical Point Methodology (\$)
Andrews Infrastructure	58.60	20.00	78.60	1,973,308.40	33,674.20
CH2M Hill Canada Limited	65.25	8.42	73.67	4,684,717.43	71,796.44

Evaluation of proposals revealed Andrews Infrastructure achieved highest total score and lowest price per technical point

The evaluation team, including Supplies and Services staff, evaluated each proposal and Andrews Infrastructure achieved the highest total score; this is attributed largely to the experience of the team and resources assembled for this project. Andrews Infrastructure was previously awarded the 2011-2013 sewer and maintenance hole inspection and assessment assignment.

Given the total score achieved by CH2M Hill was within five (5) points of the highest total score, a “dollar cost methodology” calculation was completed, as required by the Purchasing By-law. Results of this calculation shown in Table 1 determine that the proposal submitted by Andrews Infrastructure represents the best overall value to the Region.

Proposals from both Andrews Infrastructure and CH2M Hill both met technical requirements. However, CH2M Hill’s higher cost was related to the use of sub-contracted equipment with capabilities that exceeded requirements. Also, Andrews Infrastructure’s experience with the Region, having been previously awarded the 2011-2013 sewer and maintenance hole inspection and assessment assignment, resulted in a more cost effective approach.

Link to key Council-approved Plans

The proposed sewer and maintenance hole inspection and assessment is a priority program which is critical for managing the Region’s wastewater infrastructure. This project aligns with the Region’s 2011 to 2015 Strategic Plan objective of continuing to deliver and sustain critical infrastructure.

5. FINANCIAL IMPLICATIONS

The fee for proposed work is \$1,973,308.40, excluding HST. Funding for this project is included in the Region's Wastewater Asset Management Program which is funded from user rates. Cost for this assignment includes sewer inspections, project management, quality assurance and quality control, site investigations and assessments, provisional inspections, sewer condition assessment and reporting.

6. LOCAL MUNICIPAL IMPACT

The sewer and maintenance hole inspection and assessment program benefits all nine local municipalities by ensuring their wastewater is properly conveyed through the Region's wastewater collection systems. This program allows the Region to identify potential deficiencies which may affect local municipal sewer systems. Sections of the Region's sanitary sewer system located within the City of Markham, City of Vaughan, Town of Richmond Hill, Town of Aurora, Town of Whitchurch-Stouffville, Town of East Gwillimbury, Town of King, Durham Region, Town of Georgina and Town of Newmarket will be inspected over a three year period (2014 – 2016). Table 3 identifies length of the Region's sanitary sewer system and the number of maintenance holes to be inspected in each local municipality from 2014-2016.

Table 3
Location, Sewer Length and Maintenance Holes to be inspected

Local Municipality	Gravity Sewer Length (km)	No. of Maintenance Holes
City of Markham	36.2	161
City of Vaughan	20.0	134
Town of Richmond Hill	13.8	87
Town of Aurora	7.1	65
Town of Whitchurch-Stouffville	4.2	25
Town of East Gwillimbury	3.6	37
Town of King	1.8	22
Durham Region	1.6	0
Town of Georgina	1.0	22
Town of Newmarket	0.5	13
TOTAL	89.8	566

The sewer inspection program provides direct benefit to the Region and all nine local municipalities by sustaining critical infrastructure.

7. CONCLUSION

Completion of a three year sewer and maintenance hole inspection and assessment program will identify deficiencies in sewers and maintenance holes so that cost-effective maintenance, renewal, rehabilitation and replacement measures can be implemented.

Two (2) proposals were received through an open bid process and evaluated in accordance with Regional procedures and the Purchasing Bylaw. The proposal from Andrews Infrastructure represents the best overall value to the Region and it is recommended that the assignment be awarded to Andrews Infrastructure at a fee of \$1,973,308.40, excluding taxes.

For more information on this report, please contact Brett Bloxam, Director, Operations, Maintenance and Monitoring at (905) 830 4444 Ext 75320.

The Senior Management Group has reviewed this report.