

Clause No. 28 in Report No. 13 of Committee of the Whole was adopted, without amendment, by the Council of The Regional Municipality of York at its meeting held on September 11, 2014.

## **28**

### **CONSULTANT SELECTION FOR DETAILED DESIGN, CONTRACT ADMINISTRATION AND SITE INSPECTION SERVICES FOR THE WEST VAUGHAN SEWAGE SYSTEM PROJECT 75300**

**Committee of the Whole recommends adoption of the following recommendations contained in the report dated July 25, 2014 from the Commissioner of Environmental Services:**

#### **1. RECOMMENDATIONS**

It is recommended that:

1. Council approve the award of contract for detailed design, contract administration and site inspection services for the West Vaughan Sewage System Project to Delcan Corporation (on behalf of DelcanGEODATA), pursuant to Request for Proposal P-13-43 at a total cost of \$26,960,620.33, excluding taxes and authorize execution of the contract on behalf of the Region.
2. Council authorize the Commissioner of Environmental Services to adjust the contract administration and site inspection fees using the competitive unit price of up to \$39,000 per contract week, excluding taxes, and not exceeding the Capital Spending Authority for this project.

#### **2. PURPOSE**

This report seeks Council authorization to retain engineering services to complete the detailed design, contract administration, site inspection and related services for the West Vaughan Sewage System Project.

The Region's Purchasing Bylaw requires Council authorization to award Request for Proposals over \$2,000,000 or when the recommended proponent is not the lowest cost. In this case, the recommended proponent has submitted the lowest cost; however, their bid is greater than \$2,000,000.

### **3. BACKGROUND**

#### **West Vaughan Environmental Assessment plans for servicing to year 2051**

The Region has completed the West Vaughan Sewage Servicing Class Environmental Assessment. The overall objective of the Class Environmental Assessment was to develop a cost effective and sustainable Regional sewage servicing plan for communities in the West Vaughan area to accommodate approved population growth within the servicing boundaries to the year 2031 and projected population growth to the year 2051. This study was initiated based on the conclusion of the Region's Water and Wastewater Master Plan Update, which outlined the need to provide additional servicing capacity for the North West Vaughan area to meet future servicing demands to the year 2051.

#### **Significant growth projected for West Vaughan Sewage Service Area**

Projected growth in the service area is 51,900 persons, of which 24,900 are residents and 27,000 are employment related by 2031. The 2051 forecast is 83,300 (33,200 residents and 50,100 employment related). The Study Area included the future service area, existing servicing infrastructure and alternative trunk sewer and forcemain routing configurations. The West Vaughan Sewage Servicing Class Environmental Assessment Study and Service Area boundaries are shown in *Attachment 1*.

#### **Class Environmental Assessment Servicing Recommendations include approximately 14 kilometres of new sewer and expansion of the existing Humber Sewage Pumping Station**

Key recommendations from the Class Environmental Assessment were to construct a new Regional sewer from the Kleinburg Water Pollution Control Plant to the Humber Sewage Pumping Station and to expand the existing Humber Sewage Pumping Station from a capacity of 1,700 L/s to 2,400 L/s. The expanded Humber Sewage Pumping Station will include upgraded backup power, odour control, surge control and a deeper wet well.

The recommended route for the new 14 kilometre Regional trunk sewer begins at the Kleinburg Water Pollution Control Plant and follows Highway 27 south to Highway 7. The trunk sewer then extends along Highway 7 east to Legion Drive, then follows Legion Drive (just west of Islington Avenue) and continues south to cross a CP Rail Corridor, a Hydro One corridor, Highway 407 and a CN Rail corridor towards its connection at the Humber Sewage Pumping Station. As part of the new Regional sewer system, an interconnecting sewer starts at the Huntington sewage diversion chamber, follows Rutherford Road and joins the new Regional trunk sewer from the west. The preferred sewer route identified in the Class Environmental Assessment is illustrated in *Attachment 2*.

The Ministry of the Environment and Climate Change confirmed that no Part II Order requests were received during the review process and the project could proceed through design and construction as outlined in the Environmental Study Report.

The sewer alignment is subdivided into four segments (Northern, Western, Central and Southern) based on the construction method used for the individual sections. The proposed sewer route is described in Table 1.

**Table 1**  
Proposed Trunk Sewer Segments

<b>Sewer Segment</b>	<b>Length (approx. km)</b>	<b>Size (approx. mm)</b>	<b>Anticipated Construction Method*</b>
Northern Segment (along Highway 27 from Kleinburg Water Pollution Control Plant to Rutherford Road)	3.3	825	Micro-tunnelling
Western Segment (along Rutherford Road from Huntington Road to Highway 7)	1.8	975	Micro-tunnelling /Tunnelling
Central Segment (along Highway 27 from Rutherford Road to Highway 7)	4.7	3000	Rock Tunnelling
Southern Segment (along Highway 7 to existing Humber Pumping Station)	4.2	3000	Soft Ground Tunnelling

*\*Construction method to be confirmed during detailed design phase*

#### **4. ANALYSIS AND OPTIONS**

##### **Request for Pre-qualification issued in Q4 2013 to pre-qualify consulting firms**

In November 2013, a Request for Pre-qualification No. P-13-150 for consulting services for detailed design, contract administration and site inspection services for the West Vaughan Sewage System Project was issued. This Request for Pre-qualification was advertised in the *Daily Commercial News* and through the Region's "Bids and Tenders" notification system. Of the forty-one firms that received the Request for Pre-qualification documents, nine submitted a formal response.

Three pre-qualified consulting firms that were invited to participate in the Request for Proposal process were:

- Hatch Mott MacDonald Ltd.
- CH2M HILL Canada Ltd.
- Delcan Corporation

### **Request for Proposal P-13-43 issued to three pre-qualified consulting engineering firms**

In accordance with the Region's Purchasing Bylaw, Request for Proposal P-13-43 for the detailed design, contract administration, site inspection and related services for the West Vaughan Sewage Servicing Project was issued to three pre-qualified engineering firms in April 2014.

The Request for Proposal P-13-43 detailed the scope of work required, which included the following services:

- Project management, planning and control
- Detailed design and tendering
- Procurement of approvals
- Construction of contract administration and site inspection services
- Quality assurance and quality control

All three pre-qualified consulting firms submitted proposals for this assignment.

### **Proposals evaluated using two-envelope system**

Proposals were evaluated using the two-envelope system with technical and financial information submitted in separate envelopes. The 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-13-43 that included:

- Project team experience and qualifications
- Corporate experience in similar projects
- Project Director/Project Manager's experience and qualifications
- Experience on projects of similar size and scope
- Technical support staff experience and qualifications, including sub-consultants' staff
- Understanding of the project and the services to be provided
- Understanding of the deliverables to be provided
- Viability of the approach methodology

- Project schedule, work plan and deliverables
- Project management approach
- QA/QC approach and methodologies
- Value added services, innovative concepts/ideas
- Approach to health and safety
- Approach to tunnelling equipment data administration
- Approach to dispute resolution
- Approach to risk management

Technical components of the proposal must achieve a minimum technical score of 60 per cent (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, their financial proposal is returned unopened. Technical and financial results are summarized in *Table 2*.

**Table 2**  
Consultant Proposal Evaluation Summary

<b>Consulting Engineering Firm</b>	<b>Technical Score (out of 80)</b>	<b>Total Fee (\$) (excluding taxes)</b>	<b>Financial Score (out of 20)</b>	<b>Total Score (out of 100)</b>
Delcan Corporation	67.50	\$26,960,620.33	20	87.50
Hatch Mott MacDonald Ltd.	61.42	\$42,090,839.46	12.81	74.23
CH2M HILL Canada Ltd.	*41.62	N/A	N/A	N/A

---

*\*Financial proposal returned unopened*

### **Evaluation of proposals revealed Delcan Corporation achieved the highest ranked proposal**

Delcan Corporation achieved the highest overall technical score and their financial proposal was the lowest total cost.

The proposal submitted by Delcan Corporation demonstrated a clear understanding of project requirements and a well thought out project approach and methodology to complete the assignment.

Supplies and Services Branch reviewed the evaluation summary and issued its report confirming that Delcan Corporation be recommended as the successful overall proponent to undertake detailed design, contract administration, site inspection and related services for the West Vaughan Sewage System Project.

### **Link to key Council-approved plans**

The Region's Water and Wastewater Master Plan Update outlined the need to provide additional servicing capacity for the North West Vaughan area to meet future growth servicing demands to the year 2051. With the award of this consulting assignment, the Region will implement the Regional sewage servicing plan for the West Vaughan area to accommodate the approved population growth within the servicing boundaries to the year 2031 and projected population growth to the year 2051.

The project aligns with the Region's *2011 to 2015 Strategic Plan* objectives of continuing to deliver and sustain critical infrastructure and focusing growth along Regional centres and corridors. This is in keeping with the long-term Council-adopted *Vision 2051* and the *Regional Official Plan*, which envision livable cities and complete communities.

## **5. FINANCIAL IMPLICATIONS**

### **10 year Capital Plan has adequate Capital Spending Authority for West Vaughan Sewage System Project**

The fee for the proposed work is \$26,960,620.33 excluding taxes. The 2014 approved budget and 10 year plan projected a total project cost of \$248,176,000 comprised of funding for the West Vaughan Sewer and funding for the Humber Pumping Station Expansion. These projects are funded from development charges and reflect the preliminary total project budget. The approved 2014 *10 Year Capital Plan* has adequate Capital Spending Authority for this assignment.

### **Fees submitted are within industry standards for this highly complex and multi-faceted project**

The West Vaughan Sewage Servicing Environmental Assessment and conceptual design estimated a total construction cost of \$269,000,000 for the sewer and pumping station expansion. The revised total cost of the project will be brought forward in the 2015 budget submission. Engineering fees submitted by Delcan Corporation equate to approximately 10 per cent of the estimated total value of the combined construction costs, which is within industry standards for this highly complex and multi-faceted project.

Fees for the proposed work include contract administration and site inspection for an estimated duration of 1,245 calendar days. Based on the competitive price within the financial proposal submitted by Delcan Corporation, the weekly rate for these services is up to \$39,000. However, contract administration and site inspection services will be paid according to actual hours spent by the consultant during construction of the work. The weekly rate will be used to calculate either the increase or decrease in the fee, as the case may be, to account for actual duration of construction.

Should actual duration of construction go beyond the time specified in the tender documents, it is recommended that the Commissioner of Environmental Services be authorized to adjust accordingly by the amount of up to \$39,000 per week, excluding taxes, within the Capital Spending Authority for this project.

## **6. LOCAL MUNICIPAL IMPACT**

To ensure smooth project implementation, City of Vaughan staff will be consulted during detailed design to better understand and account for local site-specific conditions and identify potential construction concerns.

Stakeholder engagement will continue throughout design and construction phases. The schedule for completing this work will be developed in coordination with conservation authorities and will consider local community needs. A risk management strategy was developed for the project with key mitigation measures to be implemented at all locations to minimize impacts to residents and businesses in the general vicinity of the work.

## **7. CONCLUSION**

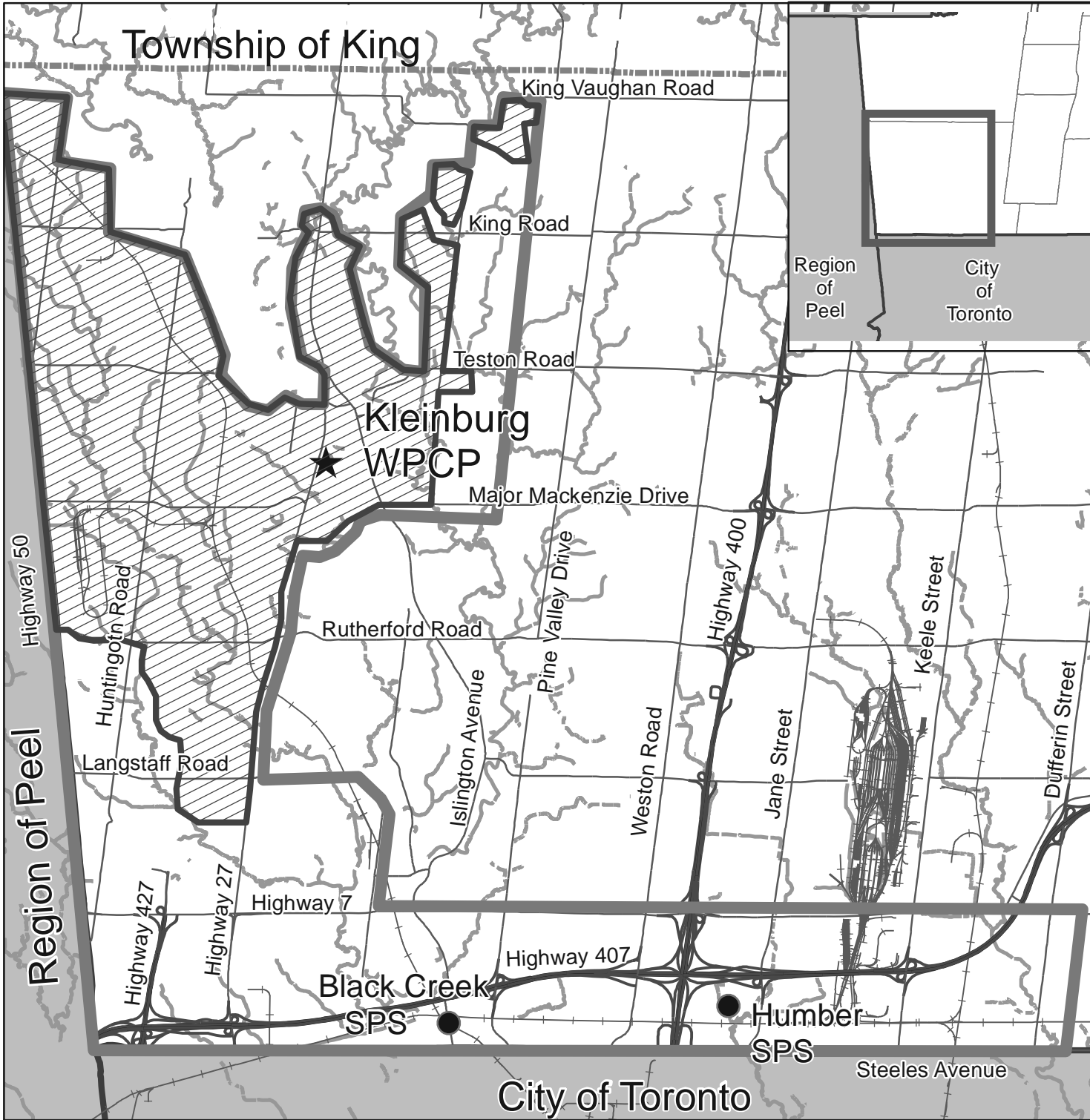
Three proposals from consulting firms were received and evaluated for this project in accordance with the Region's Purchasing Bylaw. The Proposal from Delcan Corporation represents the best value for money to the Region.

It is recommended that Delcan Corporation be engaged to undertake detailed design, contract administration, site inspection and related services for the West Vaughan Sewage System Project at a fee of \$26,960,620.33 excluding taxes.  
For more information on this report, please contact Mike Rabeau, Director, Capital Planning and Delivery at 905-830-4444, Ext. 75157.

The Senior Management Group has reviewed this report.

*Attachment (2)*



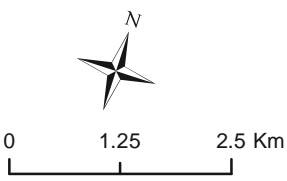


**STUDY AND SERVICE AREAS**

Consultant Selection for Detailed Design, Contract Administration and Site Inspection Services for the West Vaughan Sewage System Project 75300  
 Report of the Commissioner of Environmental Services  
 September 4, 2014

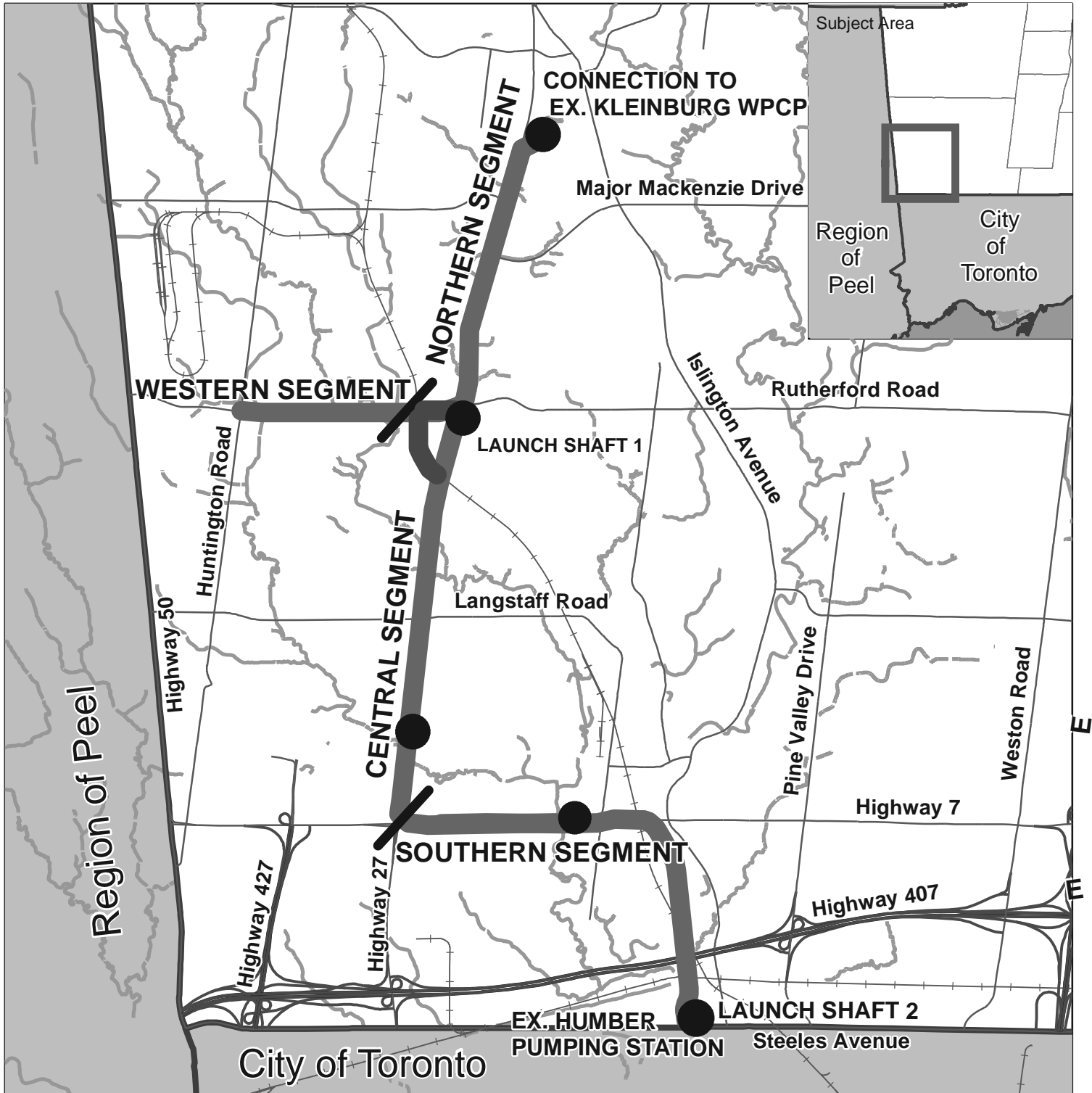


Produced by: Capital Planning and Delivery Branch  
 Environmental Services Department  
 © Copyright, The Regional Municipality of York, September 2014  
 © Copyright, First Base Solutions Inc. 2013 Orthophotography  
 \* Includes © Queen's Printer for Ontario 2003-2014



**Legend**

- Provincial Highway/ Express Toll Route
- Regional Road
- Lakes & Rivers
- Service Area
- Study Area
- Railway
- Sewage Pumping Station
- Kleinburg WPCP

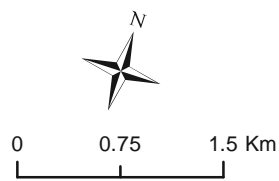


**PREFERRED ROUTE**

Consultant Selection for Detailed Design, Contract Administration and Site Inspection Services for the West Vaughan Sewage System Project 75300  
 Report of the Commissioner of Environmental Services  
 September 4, 2014



Produced by: Capital Planning and Delivery Branch  
 Environmental Services Department  
 © Copyright, The Regional Municipality of York, September 2014  
 © Copyright, First Base Solutions Inc. 2013 Orthophotography  
 \* Includes © Queen's Printer for Ontario 2003-2014



**Legend**

- Provincial Highway
- Regional Road
- Lakes & Rivers
- Railway
- Preferred Sewer Route
- Optional Connection Point
- Proposed Launch - Extraction Shaft