

**THE REGIONAL MUNICIPALITY OF YORK**

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**REPORT NO. 1 OF THE REGIONAL COMMISSIONER OF TRANSPORTATION AND  
WORKS AND THE COMMISSIONER OF FINANCE**

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**For Consideration by  
The Council of The Regional Municipality of York  
on June 22, 2006**

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**BUDGET ADJUSTMENT- YDSS INTERCEPTOR SEWER – PROJECT 76050**

*(Mayor Black disclosed an interest in the following report as it relates to the YDSS Interceptor Trunk Sewer as her spouse is an environmental engineer who works for a company that is a sub-contractor on this project. Mayor Black did not take part in the consideration or discussion of or vote on this item at the Regional Council meeting of June 22, 2006.)*

**1. RECOMMENDATION**

It is recommended that:

1. The budget for this project be increased from \$55 million to \$86 million, to be funded 80% from Development Charges and 20% from rate supported reserves to reflect the actual costs that have been experienced through the tendering process.

**2. PURPOSE**

The purpose of this report is to seek Regional Council approval to amend the total budget for this project to reflect the actual costs that have been experienced through the tendering of the contracts for the project. Funds are available within the 2006 overall Transportation and Works capital budget to meet the 2006 spending, however the

budgeted amounts for the years 2007 and 2008 will need to be amended in the 2007 budget. This tunnel contract will complete the construction of this critical piece of infrastructure required to alleviate potential surcharging in the Yonge Street portion of the YDSS through the Town of Richmond Hill.

### **3. BACKGROUND**

#### **3.1 Project History**

The need for an interceptor sewer to relieve the Yonge Street trunk sewer was first identified in the 1997 YDSS Master Plan. A Master Plan update, completed in 2002, reaffirmed the need. The Master Plans addressed the system-wide requirements of the Environmental Assessment Act.

The 19<sup>th</sup> Avenue and Lower Leslie Sanitary Trunk Sewer project was further subjected to a Schedule B, Class Environmental Assessment. The Notice of Completion for the associated Screening Report was filed on June 7, 2003, and no Part II Orders were received on this project during the obligatory 30-day public review period. The project proceeded to the detailed design phase as an open-cut sewer along 19<sup>th</sup> Avenue between Yonge Street and Leslie Street and ultimately connecting to the existing sewer on Leslie Street north of Elgin Mills Road.

On October 1, 2004, the Minister of the Environment formally notified the Region that she had received a request to consider a Part II Order on all unfinished YDSS Projects. Although the Minister denied the Part II Order, a number of project specific conditions were imposed which resulted in significant changes in the scope of works for the YDSS Interceptor project.

The project team undertook significant effort to complete an unprecedented level of public consultation, field work and design, all of which was reviewed by an Independent Peer Review Team of experts in the fall of 2005. In a letter dated March 28<sup>th</sup>, 2006, the Ministry of the Environment (MOE) confirmed its completion of review of all documentation on the preferred route selection for the Interceptor project and concurred with the Region's new comparison of alternatives and the independent peer review. The letter states "The Ministry is satisfied that the work completed by York Region is sufficient and provided a basis for the Region to make an environmentally-sound decision as to the most appropriate route, sewer design and sewer construction techniques for this project".

#### **3.2 Tender Process**

The construction of the sewer will be carried out using two contracts, an open-cut contract and a tunnelled contract.

The open-cut contract, T-06-18, includes construction of a 2100mm diameter sewer approximately 1.4km in length to be constructed by open-cut methods along Leslie Street between Elgin Mills and 19<sup>th</sup> Avenue. Tender T-06-18 closed on April 11, 2006, and nine bids were received. The contract was awarded on April 18th to the lowest bidder, Memme Excavation Company Ltd. at a total cost of \$7,931,083 excluding GST.

The tunnel portion contract, T-06-29, included construction of a minimum 2100mm diameter sewer approximately 4.2km in length, along 19<sup>th</sup> Avenue between Yonge Street and Leslie Street including a short length south on Leslie Street. Due to the artesian groundwater conditions in the area and the Region's goal to minimize the need for dewatering and minimize disruption to the environment, local residents and businesses, specialized tunnelling technology was a strict requirement for this contract. As such, a two-envelope process required the contractor to submit Compliance Information (bid deposits, undertaking to bond, letter of insurability), Technical Experience Statement and References prior to opening the cost envelope. The tender closed on June 14, 2006. One bid was received from McNally/Aecon. Following a review by the technical team in conjunction with Supplies and Services, the sole bidder was found to be compliant and the cost envelope was opened.

### 3.4 Schedule

The following provides an overview of the timelines for both the open-cut and tunnel contracts for the YDSS Interceptor Sewer Project.

#### **T-06-18 Open-Cut Contract**

*(~1.4km of 2100mm diameter sewer)*

|                                 |                                |
|---------------------------------|--------------------------------|
| Tender Award Date:              | April 18, 2006                 |
| Notice to Commence Work:        | May 25, 2006                   |
| Preconstruction Meeting:        | May 26, 2006                   |
| Currently mobilized and on site |                                |
| Completion Date:                | February 26, 2007              |
| Duration of Contract:           | 180 working days (nine months) |

#### **T-06-29 Tunnel Contract**

*(~4.2km of 2100mm diameter sewer in tunnel, section of open-cut east of Yonge Street)*

|                              |                              |
|------------------------------|------------------------------|
| Tender Close Date:           | June 13, 2006                |
| Anticipated Completion Date: | First Quarter 2008           |
| Duration of Contract:        | 360 working days (18 months) |

Both contracts call for aggressive schedules. While the pipe for the Leslie Street contract is being produced, Memme is proceeding with shop drawings, independent test pits to confirm soil conditions and identify ways to improve the schedule, and clearing and grubbing activities have begun. McNally/Aecon will require several months to secure two (2) EPB tunnelling machines and contract for the construction and delivery of the segmented liner which will comprise the tunnelled portion of the sewer. Following notice

of award and contract execution, McNally/Aecon will begin the process of mobilization and initiate construction.

#### 4. FINANCIAL IMPLICATIONS

The initial project cost for the construction of the YDSS Interceptor was presented as \$57 million in the '*New Comparison of Alternative Route Alignments*'. This preliminary estimate was prepared for the purpose of comparing various routes and construction options. The 2006 10-Year Capital Plan that was finalized in the fall of 2005 was based on this estimate. Earth Tech Canada consultants completed a more detailed cost estimate based on two (2) EPB tunnelling machines and the technology of sealed shaft construction following the completion of the detailed design and the tender documents. This provided an estimate for the tunnelling portion of this project of approximately \$61 million. Based on the bid by McNally/Aecon, the total project cost is currently estimated at \$86 million not including the costs associated with the Class EA and the subsequent '*New Comparison of Alternative Route Alignments*'.

The following table provides an overview of the Project costs.

**Table 1**  
**Project Costs**

| <b>Contract</b>  | <b>Costs</b>         |
|--|----------------------|
| Leslie Street T-06-18 Open-Cut Construction Costs                  | \$ 7,931,083         |
| 19 <sup>th</sup> Avenue T-06-29 Tunnelled Construction Costs       | 69,214,179           |
| Engineering Costs<br>(Detailed Design and Contract Administration) | 8,854,738            |
| <b>Total Cost (excluding GST)</b>                                  | <b>\$ 86,000,000</b> |

##### 4.1 Project Funding

The 2006 Ten Year Capital Plan included funds totalling \$55 million for this project, to be funded 80% from Development Charges and 20% from rate supported reserves. It is recommended that the budget for this project be adjusted to reflect the latest estimate of project costs of \$86 million, funded 80% from Development Charges and 20% from rate supported reserves. Corresponding adjustments are required to the Development Charge by-law, and are planned through amendment of the Development Charge By-law in early 2007.

## **5. LOCAL MUNICIPAL IMPACT**

This sewer is required to accommodate future growth within York Region as well as alleviate constraints within the Yonge Street Sewer by intercepting the flows and diverting to the Lower Leslie Street Trunk Sewer. Specifically, the YDSS Interceptor Trunk Sewer is required for Newmarket, Aurora, Richmond Hill and East Gwillimbury and the community of King City to fully utilize the June, 2005 servicing allocation. The trunk sewer expansion will continue to provide service to the Towns of Markham, Richmond Hill, Aurora, Newmarket, Whitchurch-Stouffville, the City of Vaughan and the communities of Holland Landing, Queensville and King City.

To maintain the high degree of environment protection provided through the York Durham Sewer System, construction of the YDSS Interceptor Trunk Sewer must be expedited. This project is considered critical to the ability to provide wastewater servicing to approved development within the Region.

## **6. CONCLUSION**

It is recommended that Council amend the overall budget for this project to reflect the tendered costs.

The Senior Management Group has reviewed this report.

**Respectfully submitted,**

**June 20, 2006  
Newmarket, Ontario**

**B. Macgregor  
Commissioner of Transportation and Works**

**L. Russell  
Commissioner of Finance**

***(Report No. 1 of the Commissioner of Transportation and Works and the Commissioner of Finance was adopted, without amendment, by Regional Council at its meeting held on June 22, 2006.)***