

5

REQUEST FOR ADDITIONAL FUNDING FOR CLASS EA, DETAILED DESIGN, AND CONTRACT ADMINISTRATION SERVICES FOR THE WEST RAINBOW TRUNK SEWER REPLACEMENT CITY OF VAUGHAN – PROJECT 77310

The Transportation and Works Committee recommends that Council adopt the recommendation contained in the following report dated December 16, 2008, from the Commissioner of Environmental Services.

1. RECOMMENDATION

It is recommended that:

1. Blanket Purchase Order number P-03-13 issued to Totten Sims Hubicki Associates, now doing business as AECOM, for the Class Environmental Assessment, detailed design and contract administration for the West Rainbow Trunk Sewer Replacement be increased from \$607,020.75 to \$793,763.00, excluding GST, for additional engineering services primarily related to Toronto Region Conservation Authority approvals, special construction site access infrastructure and extended duration of contract administration outside of the original scope of work.

2. PURPOSE

This report seeks Council authorization to increase the purchase order issued to Totten Sims Hubicki Associates, now doing business as AECOM, for the Class Environmental Assessment (Class EA), detailed design and contract administration for the West Rainbow Trunk Sewer Replacement.

The Purchasing By-law requires Council authorization to increase the value of a purchase order in excess of 15% for contingencies and 20% for additional scope activities. As both of these limits have already been reached, Council authorization is required for this purchase order increase.

3. BACKGROUND

Additional project activities involved environmental investigations for TRCA approvals and registered survey plans for land acquisition

TSH was retained to complete a Schedule 'C' Class EA for the West Rainbow trunk sanitary sewer replacement project at an upset fee limit of \$449,645, plus GST.

Additional design services outlined below necessitated the activation of the allowances provided for in the Region's Purchasing By-law. Accordingly, P-03-13 issued to TSH for this assignment is currently at its maximum allowable limit of \$607,020.75.

The project is located exclusively within a natural "greenfield" area well off of the road system. The proposed sewer alignment is in close proximity to the West Rainbow Creek and includes a crossing of the Humber River. These factors introduced a relatively high level of concern and scrutiny on the part of the Toronto Region Conservation Authority (TRCA). This required additional field monitoring assessment, and reporting activities which were not included within the original fee and the original scope of work. This also resulted in a much higher level of regulatory agency consultation and coordination by TSH. The following additional activities carried out by TSH, which were directly related to TRCA requirements and were required to secure permits, totalled \$132,552:

- Fluvial Geomorphological Assessment
- Investigation and report on impacts to existing gas main
- Report and design for decommissioning of existing sewer
- Design of sewer in tunnel and associated maintenance hole
- Design of site access road
- Additional geotechnical investigations
- Design of West Rainbow Creek bank restoration
- Additional meetings and documentation
- Revision of tender documents
- Financing of review fees on behalf of the Region

The project also involved the extensive acquisition of property from the Ontario Realty Corporation. This was not known at the time TSH submitted their revised proposal. This resulted in additional fees for the preparation of registered survey plans totalling \$25,096.

The project will be tendered prior to the end of this year and construction will be completed prior to the end of 2009 with a contract duration of 40 weeks. Further additional services which have been provided by TSH, or will be required prior to the completion of this project, are outlined below.

4. ANALYSIS AND OPTIONS

Additional groundwater pump test required

The original scope of work for this project included a single groundwater pump test at the west end of the proposed sewer route to assess the impact of groundwater dewatering on West Rainbow Creek. A second pump test was required by TRCA to assess the impact of dewatering on a small wetland at the east end of the proposed sewer route. The fee associated with this additional pump test is \$44,773.

Additional design required for temporary site access bridge

As all of the proposed works are located on the north side of the Rainbow Creek, the original proposed construction access route was from the northern road network. As the Class EA study and design work progressed, more detailed natural environmental data was collected and assessed. This detailed assessment, ultimately determined that the least environmentally disruptive site access route is actually from the south. This route, however, necessitated the installation of a temporary access bridge across West Rainbow Creek. The fee associated with design of the temporary site access bridge is \$71,813.

Additional contract administration services required during construction

At the time of TSH's original proposal for this assignment, construction was anticipated to be completed from late 2004 to early 2005. Their fee for this aspect of the assignment was \$84,416 for 30 weeks of construction. Their fee for any additional weeks was set at a rate of \$2,420 per week.

The issues outlined above have resulted in the construction work taking place approximately four years later than anticipated. As such, TSH has requested an increase in their fees for contract administration to account for inflation as well as additional staffing resources during construction required for environmental monitoring. Specifically, TSH has requested that their fee for contract administration be revised by \$69,884 to cover the updated estimated duration of construction of 40 weeks.

Since 2002, 686 purchase orders with a total value of \$1,257,887,574 have been issued to secure engineering, consulting and construction services on water and wastewater projects. Of these, 64 or 9% of the purchase orders have required increases beyond the increases allowed in the Regional Purchasing Bylaw. The total value of such increases is \$36,197,666 or 3% of the total original value of the purchase orders.

5. FINANCIAL IMPLICATIONS

The total cost for the above additional detailed design and contract administration services on this assignment, which are in excess of the contingency and additional scope allowances, equals \$186,470.

There are sufficient funds in the 2008 Capital Project Budget to cover these additional expenditures in 2008 and the proposed 2009 Capital Budget included funds to cover expenditures beyond 2008.

All outstanding expenditures on this project will be funded 93% from development charges and 7% from wastewater rate reserve.

6. LOCAL MUNICIPAL IMPACT

This project will provide additional sanitary capacity to support growth in the Woodbridge and Huntington Industrial area of the City of Vaughan.

7. CONCLUSION

Totten Sims Hubicki Associates, now doing business as AECOM, have completed some additional services and will be required to provide further services on the Class EA, detailed design and contract administration assignment for the West Rainbow Trunk Sewer Replacement. Fees for these services are in excess of the contingency and additional scope allowances provided for in the Region's Purchasing By-law. Accordingly, it is recommended that their Purchase Order for this assignment be increased from \$607,020.75 to \$793,763, excluding GST, to fund these necessary additional services.

It should be noted that the construction contract for the West Rainbow Trunk Sewer Replacement project is currently estimated to be approximately \$6.6 million. This budget increase will result in the fees for TSH related to detailed design and contract administration services equalling approximately 7.8% of the value of construction. This is in line with the amount of engineering fees for these types of complex YDSS projects.

For more information on this report, please contact Bala Araniyasundaran, Director of Capital Planning and Delivery at Ext. 5131.

The Senior Management Group has reviewed this report.

(The attachment referred to in this clause is attached to this report.)