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**AUTHORIZATION OF CONSULTING SERVICES
YORK-PEEL SANITARY DIVERSION,
CITY OF VAUGHAN, PROJECT 77200**

Regional Council at its meeting on April 21, 2005 referred the following report to Council's Private Session. (See Minute No. 67.)

The Transportation and Works Committee recommends the adoption of the recommendation contained in the following report, March 18, 2005, from the Commissioner of Transportation and Works:

1. RECOMMENDATION

It is recommended that:

1. Approval be given to increase Earth Tech Canada Inc. fees for providing engineering service during the detailed design and contract administration phases of the York-Peel Sanitary Diversion project by \$324,686.68 from \$1,660,500.00 to \$1,985,186.68 excluding GST.

2. PURPOSE

The purpose of this report is to obtain Regional Council approval to increase the purchase order amount for the previously retained consulting engineer.

3. BACKGROUND

The York-Durham Sewage System (YDSS) Master Plan completed in June 1997, proposed the diversion of sewage from the Woodbridge Community to the South Peel Sewage System. Diverting sewage to Peel will free capacity downstream in the YDSS. The diversion is located along Steeles Avenue from Highway 50 to the Peel Sewage System west of Airport Road in the City of Brampton (*see Attachment 1*).

3.1 Scope of the Assignment

The project consists of approximately 11 kilometres of twin 900 millimetre sanitary forcemain and an odour control facility.

The scope of this assignment includes complete engineering services throughout the detailed design and contract administration phases of the entire project.

3.2 Project Status

This project is currently in the construction phase with the forcemain portion of the project nearing completion. The odour control facility is currently under construction in the City of Brampton which should be completed by the end of May, 2005.

4. ANALYSIS AND OPTIONS

Earth Tech Canada Inc. (Earth Tech) was retained originally to provide engineering services for the forcemain project including detailed design, contract administration and full time site supervision. This was subject of a Council report dated April 18, 2002. In 2003 the odour control facility was added to the overall project. To ensure continuity and maintain the project schedule, the engineering services for the odour control facility was added to Earth Tech's scope of services. Additional engineering fees are required to address scope changes and delays to both the odour control facility and the forcemain construction.

4.1 Addition of Odour Control Facility

The Regional Municipality of Peel and The Regional Municipality of York signed a memorandum of understanding (MOU) subsequent to the Wastewater agreement dated June 4, 1998. The MOU references The Regional Municipality of York's acknowledgement that the commencement of the "York flow" into Peel Region shall occur only following the resolution of intermittent odour issues to the satisfaction of Peel's Council. These intermittent odour issues relate to existing odour problems at the Lakeview Wastewater Treatment Plant within the South Peel Sewage System.

This issue was resolved when The Regional Municipality of York agreed to construct a facility at the end of the forcemain which would control any intermittent odours which could contribute to the odour concerns further down stream at the Lakeview Plant. At that time, staff increased the purchase order for Earth Tech to incorporate this change in scope to include the design of the facility as well as the contract administration and site supervision during construction. This was done within the council approved allowances for contingency and change of scope. At the time, it was estimated that construction could be completed within 85 working days and Earth Tech's fees for contract administration and site inspection were based on this duration.

The contract for the odour control facility was tendered and awarded late in 2004. During the tender process it became evident that insufficient time was allotted to construct this facility. This was evident as most of the contractors bidding on the project expressed concerns relating to the aggressive schedule. The construction period was subsequently increased to 120 days in order to provide a more realistic timeframe and ensure sufficient qualified contractors would bid on this tender. An adjustment is required to Earth Tech fees to account for the additional 35 days of construction at \$1,310/day.

4.2 Forcemain Construction Delays

The construction of the forcemain has generally progressed well without any major obstacles with the exception of the two Humber River crossings. The construction of these crossings required dewatering and in both cases Permits To Take Water (PTTW) were required. This necessitated extensive technical assessments to satisfy the regulatory agencies including Ministry of the Environment (MOE), Toronto and Region Conservation Authority (TRCA) and Ministry of Natural Resources (MNR).

In both situations, additional work and costs resulted due to the changing environment for obtaining Permits to Take Water from the MOE. Significant engineering effort was expended trying to secure these permits. In one case, a full redesign of the crossing was prepared in order to minimize the impacts to the river. Permits for both crossings have been secured, however, the time to secure the permits has resulted in extensions to the contract completion date. Additional days were permitted within the contract to allow the contractor to complete the work. The additional time to secure the permits has resulted in an extension to construction period and additional contract administration and site supervision costs for the consultant. The original fees provided by Earth Tech were to cover a contract duration of 640 days. If the delays due to the PTTW had not occurred then the crossings would have been completed concurrently with the forcemain construction within the 640 days. The delays have resulted in the need for contract administration services for an additional 85 days at \$1,310/day.

5. FINANCIAL IMPLICATIONS

Earth Tech's assignment was to undertake the detailed design and contract administration services for the York-Peel Sanitary Diversion Project at an upset fee of \$1,660,500.00. Given the various changes to the scope of work and the challenges in satisfying the latest requirements set out by the MOE regarding Permits to Take Water, together with related design change to both the forcemain and odour control contracts it is recommended that authorization be given to increase the purchase order by \$324,686.68 for Earth Tech and its team to complete contract administration and site supervision services to a total cost of \$1,985,186.68 excluding GST. The following table summarize the additional costs. Staff has reviewed the extra costs and concur they are reasonable. Sufficient funds are available in the proposed 2005 budget.

Table 1
Summary of Additional Costs

Description	Costs
Additional Contract Administration	\$157,150.00
Additional Efforts relating to MOE Permits	123,536.68
Additional Design/Permitting relating to Odour Control Facility	44,000.00
TOTAL	\$324,686.68

6. LOCAL MUNICIPAL IMPACT

This will have no direct impact to the local municipality.

7. CONCLUSION

Earth Tech is required to assist Regional staff in administering the construction of this project. In order to accomplish this, an increase is required to the current purchase order to reflect delays to the construction.

The Senior Management Group has reviewed this report.

(The attachment referred to in this clause was included in the agenda for the April 6, 2005 Committee meeting.)