

Clause 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 March 29, 2018.

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Contract Increase for Consulting Services for the
Leslie Street Sewage Pumping Station Upgrade

Committee of the Whole recommends adoption of the following recommendation contained in the report dated February 15, 2018 from the Commissioner of Environmental Services:

1. Council authorize an increase in the contract price payable to GHD Limited under Contract P-10-53 for engineering consultant services associated with the Leslie Street Sewage Pumping Station Upgrade project by \$480,000 from \$3,467,276.52 to \$3,947,276.52, exclusive of HST.

Report dated February 15, 2018 from the Commissioner of Environmental Services now follows:

1. Recommendation

It is recommended that:

1. Council authorize an increase in the contract price payable to GHD Limited under Contract P-10-53 for engineering consultant services associated with the Leslie Street Sewage Pumping Station Upgrade project by \$480,000 from \$3,467,276.52 to \$3,947,276.52, exclusive of HST.

2. Purpose

This report seeks Council authority to increase the contract price payable to GHD Limited pursuant to Contract P-10-53 beyond the scope change and contingency allowances provided for in the Purchasing Bylaw Section 11.1 and 12.2a to complete the Leslie Street Sewage Pumping Station Upgrade project.

3. Background and Previous Council Direction

Leslie Street Sewage Pumping Station Upgrade project is critical for sustained service and growth in the York Durham Sewage System

The Leslie Street Sewage Pumping Station was originally commissioned in 1982 by the Ontario Ministry of the Environment. It was subsequently operated by Ontario Clean Water Agency prior to being transferred to York Region in 1998. This facility pumps wastewater collected from service areas in the City of Vaughan, Town of Richmond Hill and City of Markham, with a combined population of over 400,000 people. Major upgrades to the facility were completed in 1996 and 2006 to increase the capacity and reliability of this pumping station. Leslie Street Sewage Pumping Station is the largest pumping station in York Region and is critical for sewage conveyance to our Duffin Creek Plant.

As part of York Region's Water and Wastewater Master Plan, the Leslie Street Sewage Pumping Station was programmed for an upgrade to increase its capacity from 3,600 litres per second to 5,400 litres per second.

The project includes:

- Installation of two new 1,500 litre-per-second raw sewage pumps and complete refurbishment of the four existing 1,200 litre-per-second pumps
- Upgrade of the electrical system
- Replacement of existing generators with three new generators to support additional pumping capacity
- Upgrades to staff space including office space, locker rooms, heating, ventilation, and air conditioning

At this time, sewage servicing commitments have been achieved and construction work is anticipated to be completed in Q2 2018 with a total construction cost of \$31,136,551.

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Major components of this project are complete and in operation

The following works have been completed and are in service:

- Office renovations achieved Leadership in Energy and Environmental Design (LEED) accreditation
- Two new pumps were installed and three of the four existing pumps were refurbished and returned to service
- Station generator main control panel and two of the three switchgear sections have been installed and are ready for service
- Three existing diesel generators have been replaced with three new 2,000 kilowatt (2,600 horsepower) units
- Majority of programming for the Supervisory Control and Data Acquisition (SCADA) control system has been successfully achieved. Programming is underway for the final SCADA system implementation

Previous Regional Council authorization to address a global settlement with the contractor for unforeseen conditions

On [April 20, 2017](#), Council authorized an increase in the contract price between the Region and the general contractor, ASCO Construction Ltd., for construction of the Leslie Street Sewage Pumping Station Upgrades project from \$23,736,551 to \$31,136,551 as a result of circumstances that arose during construction beyond the scope of work defined in the original contract documents. GHD Limited's increase presently being sought relates to the consultant's assignment associated with the additional scope of work approved for construction. Staff have reviewed work performed by GHD Limited and are satisfied that it was reasonable, directly related to the complexity and duration of the additional engineering effort supplied and provided value for money.

4. Analysis and Implications

Consulting services required due to unforeseen and additional issues emerging during construction

GHD Limited provided additional engineering effort and resources to overcome unforeseen issues during construction and to advance progress on this critical facility. The unforeseen issues could not have been anticipated when the original construction and engineering consultant contracts were executed.

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The increase in consulting services results from additional project scope associated with critical construction circumstances reflected in the increase in the contract price between the Region and the general contractor, ASCO Construction Ltd., as approved by Council on [April 20, 2017](#). The increase in the contract price payable to GHD Limited is necessary to complete the project and ensure that existing and future demands of the Leslie Street Sewage Pumping Station are met.

To alleviate impacts and address these issues, GHD Limited and its sub-consultants engaged additional staff for expert advice and technical oversight. Additionally, a specialist instrumentation and controls sub-consultant was required by the GHD Limited team to enhance integration with York Region's SCADA control systems throughout all phases of project implementation.

GHD Limited evaluated numerous additional contractor claims and was involved in extensive meetings and negotiations associated with the additional construction contract scope on this project. This required preparation for and participation in numerous meetings to negotiate and finalize scope and value of these items.

Throughout the project, GHD Limited has worked closely with York Region staff to identify construction work alternatives and evaluate their impact, select preferred alternatives and manage risks associated with their implementation.

York Region and GHD Limited are continuing to work proactively with the contractor to mitigate ongoing challenges and project impacts. GHD Limited remains committed to the successful completion of this important and complex Regional project.

5. Financial Considerations

Unforeseen consulting services during construction require a proposed fee increase of \$480,000.00, revising the current contract value from \$3,467,276.52 to \$3,947,276.52. All amounts exclude HST. This increase exceeds the remaining available contract scope and contingency allowances described in the Purchasing Bylaw and therefore requires Council approval.

Costs negotiated with GHD Limited reflected in the contract increase are reasonable for the additional engineering services provided on this project. The unforeseen circumstances were not evident prior to tender and the revised contract value is representative of the level of effort required to complete the increased scope of work. The total engineering consulting fee equates to 12.7 per cent of the total construction contract price and is considered to be a good value and within the range of industry practice for the complexity of the project.

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Increases beyond the scope change and contingency limits under the Purchasing Bylaw for water and wastewater engineering services contracts are infrequent and staff endeavor to manage change within the contract. In this case, additional consulting services were needed to manage unforeseen conditions related to the age of the facility, the additional complexity and sequencing of the construction work while maintaining existing operations.

Funds are available in the 2018 approved budget and Capital Spending Authority.

6. Local Municipal Impact

This upgrade project will increase the Leslie Street Sewage Pumping Station's capacity to meet growth requirements for the Town of Richmond Hill, City of Vaughan and City of Markham. To date, sewage servicing commitments have been achieved and an alternative sequence of construction has been developed to complete the Leslie Street Sewage Pumping Station Upgrade project. The upgrades are scheduled to be completed in Q2 2018.

7. Conclusion

An increase in the purchase order with GHD Limited in the amount of \$480,000.00 is required for additional consulting services during construction, for a new purchase order value of \$3,947,276.52, excluding HST. The proposed increase is for significant effort expended to address unforeseen issues during construction.

For more information on this report, please contact Mike Rabeau, Director, Capital Planning and Delivery, Environmental Services at 1-877-464-9675 ext. 75157.

The Senior Management Group has reviewed this report.

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