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KING CITY SANITARY SERVICING PROJECT COST UPDATE TOWNSHIP OF KING, PROJECTS 73020 AND 73700

The Transportation and Works Committee recommends:

- 1. The deputation and written submission by Mrs. Nancy Hopkinson, Nobleton resident be received; and**
- 2. The recommendations contained in the following report, January 24, 2005, from the Commissioner of Transportation and Works be adopted:**

1. RECOMMENDATIONS

It is recommended that:

1. The upset fee for the detailed design for the King City Sanitary Servicing Regional Pumping Station and Forcemain, which is being undertaken by R. V. Anderson Associates, be increased by \$434,082 from \$762,742 to \$1,196,824 excluding GST, to complete the design of the works.
2. The Regional Clerk forward a copy of this report to the Clerk of the Township of King to advise of the revised project costs.

2. PURPOSE

The purpose of this report is to update Committee and Regional Council on the status of the King City Sanitary Servicing Project and, in particular, the updated costs in light of the recent tender closings for two significant components of the overall works.

This report is also submitted to obtain Council approval for an increase in the consulting engineering fees for the design of the Regional Pumping Station and Forcemain, particularly relating to the extensive efforts required for the procurement of regulatory approvals.

3. BACKGROUND

3.1 Environmental Assessment

A Class Environment Assessment (EA) for the King City Sanitary Servicing Project was approved by the Ministry of the Environment (MOE) on November 8, 2002. This allowed the project to proceed to the detailed design phase.

Upon approval of the Class EA, York Region and the Township of King entered into a settlement agreement, dated December 11, 2003, in which both municipalities agreed to

have the sanitary servicing project constructed in an expeditious manner. The agreement included cost estimates for each of the key project elements.

3.2 Project Phases

The King City servicing project consists of two primary phases. The first phase has been designed to be tendered under four separate contracts as follows:

- Contract 1 Main Pumping Station.
- Contract 2 Forcemain Installation from Banner Lane to Near Yonge Street.
- Contract 3A Local Sewers Adjacent to King Road and Sections of the Forcemain.
- Contract 3B Drop Structure at King Road/Keele Street Intersection, GO Rail crossing and Forcemain Connection to York Durham Sewage System (YDSS) at Yonge Street.

Phase 2 consists of completing the local collector system which will be divided into as many as eight individual construction contracts and would include the local pump stations.

3.3 Approvals

The Certificate of Approval (C of A) for the first phase of the project was issued by the MOE on July 30, 2004. The C of A contained various conditions that needed to be satisfied by the Region prior to any construction taking place. After numerous meetings and submission iterations, the Region received a final sign-off from the MOE on the C of A conditions on December 1, 2004. This allowed the first phase of the project to proceed to construction.

It should be noted that the procurement of the above MOE C of A required significant additional effort and exercises, well in excess of past practices on projects of similar scope and nature. It became evident early on in this process that the MOE had “raised the bar” on these approvals, resulting in higher project costs as discussed later in this report.

As each future phase is designed, it will undergo a technical review by the MOE and an ‘amended’ C of A will be issued. The amended C of A will be made up of the original certificate plus the newly approved phase. Once the entire project has been designed and approved, there will be one C of A covering the entire King City Sanitary Servicing project.

4. ANALYSIS AND OPTIONS

4.1 Project Status

4.1.1 Contract 1 - Main Pumping Station

The contract for the main pumping station closed on January 18, 2005. Nine bids were received and the low bid at the time of tender opening was \$2,822,000. Staff is currently conducting the standard bid analysis process in order to issue the award of the contract.

Construction on this contract is expected to commence in late March 2005, and be completed in early 2006.

4.1.2 Contract 2 – Forcemain Installation from Banner Lane to Near Yonge Street

The forcemain contract from Banner Lane to near Yonge Street was tendered in early September 2004 and has just recently been awarded for construction to Robert B. Somerville for the bid amount of \$3,118,000. Construction is scheduled to commence in mid February 2005, pending formal notification to proceed by the Region.

4.1.3 Contract 3A – Local Sewers Adjacent to King Road and Sections of the Forcemain

The detailed design for contract 3A, which is the local sewers on King Road from Banner Lane to west of Charles Street, the local sewers on several streets adjacent to King Road as well as this section of forcemain, is under final review. This contract will be ready for tender this March, for construction in spring 2005.

4.1.4 Contract 3B – Drop Structure at King Road/Keele Street Intersection, BO Rail Crossing and Connection to YDSS at Yonge Street

Contract 3B is the drop structure at the King Road/Keele Street intersection, the GO Rail crossing and the connection to the YDSS at Yonge Street. This contract comprises the final sections of Region forcemain on this project. This contract is still being designed and will be ready for tender in April 2005.

4.1.5 Phase 2 – Local Collection System

Detailed design of the local collection system is at various stages of development. The first of a possible eight contracts is scheduled for tender in late 2005.

Regional Council at its meeting on December 16, 2004 adopted a by-law transferring ownership of the local collection system in King City to the Township of King subject to the Township receiving five million dollars in COMRIF funding by July 1, 2005. Similarly, Township Council, at its meeting of January 6, 2005, adopted a by-law assuming the local collection system, returning the system to the Region if COMRIF funds are not received by July 1, 2005. The Township and the Region are currently drafting a side agreement in respect of the transfer based on principles approved by Regional Council on December 16, 2004.

4.2 Project Scope Changes

From the time of execution of the above-mentioned York/King settlement agreement in late 2003, the project has experienced a number of significant scope changes.

As noted above, the procurement of the MOE C of A required a significant amount of additional effort and exercises, well in excess of past experiences on projects of similar scope. Some key additional activities are as follows:

- Completion of the “King City Sanitary Servicing Oak Ridges Moraine Compliance Report”.

- Completion of the “King City Sanitary Servicing Ground Water Management Plan”.
- Preparation and implementation of a comprehensive Well and Construction Impact Response Program.
- Establishment and monitoring of a twenty-four hour “Construction Complaint Hotline”.
- Completion of a detailed trench water discharge plan.
- Preparation and implementation of an extensive environmental baseline data collection program.
- Provision of a dedicated Environmental Inspector.
- Provision of a dedicated Communications Facilitator.

Also of note is the requirement for a full structural analysis of the GO Rail retaining wall adjacent to Keele Street, as well as numerous design enhancements related to both the forcemain and pumping station facilities, as the project evolved from preliminary design into the detailed design level.

To address the additional environmental compliance requirements as well as to incorporate the design scope changes, the fees for the project consultant R.V. Anderson have increased. Regional staff feels that these additional requirements and design changes could not have been anticipated at the time that the Request for Proposal for consulting services was issued.

5. FINANCIAL IMPLICATIONS

Table 1 identifies the comparison of the total project cost between the 2003 agreement and the latest 2005 cost estimates.

Contracts 1 and 2 consist of approximately 80% of York’s infrastructure on this project. As such, with the close of tenders on these Contracts, the Region is able to apply actual construction values to the estimated total project costs. It is therefore appropriate now to formally notify Township of King Council of the revised project cost by way of this report.

The updated total project costs are higher than those contained in the settlement agreement (approximately 24%). In addition to the scope changes outlined above, another contributing factor to these increases was a general inflation of construction costs of approximately 10%, and additional engineering costs to address the scope changes.

Table 1
Comparison of Total Project Cost
(\$000's)

Facility	2003 Settlement Agreement	2005 Updated Estimates
Pumping Station		
York Region Cost (68%)	\$1,972	\$2,856
Township Cost (32%)	928	1,344
Total Pumping Station	\$2,900	\$4,200
Forcemain		
York Region Cost (68%)	\$2,160	\$3,944
Township Cost (32%)	1,016	1,856
Total Forcemain	\$3,176	\$5,800
Local Collection System		
York Region Cost (0%)	nil	nil
Township Cost (100%)	20,182	22,760
Total Local Collection System	\$20,182	\$22,760
Total York Region Cost	\$4,132	\$6,800
Total Township Cost	\$22,126	\$25,960
Total Project Cost	\$26,258	\$32,760

The cost increase for the pumping station can be attributed to the design enhancements, environmental approvals and general inflation factor outlined in section 4.2. With respect to the cost increase for the forcemain, in addition to the factors outlined in section 4.2, the unit cost used for the original estimate of construction in 2003, was based on information provided by contractors. Given that this method of construction, (horizontal directional drilling) was a relatively new technology at the time, limited costing information was available. As such, the actual tender unit cost was significantly higher than anticipated.

Paragraph 15 of the settlement agreement states:

“In the event that the actual costs for any contract for any Phase... are greater than 10% above the estimated costs for such Phase...the Region and Township will consult and determine if there are changes to the scope, or mitigation efforts that may be taken, to reduce the potential costs...”.

This paragraph is specifically limited to the local system and not the Regional works, but Regional and Township staff have been working closely together, through a steering committee, to determine if there are any design modifications or mitigation efforts that

may be taken to reduce these costs. Both are in agreement that the latest cost estimated to complete the work are appropriate.

Regional staff has been updating the cost estimates for the Regional components of the project through the normal Capital Wastewater Construction Program budget approval process. As such, the Region has sufficient funds in its Capital Budget for these works.

The revised contract costs are not reflected in the Regional Development Charges Bylaw. At its January 2004 meeting, Regional Council approved that the Development Charges Bylaw be amended to reflect increases in major capital projects. This Bylaw amendment will be brought forward mid 2005.

With respect to the additional design fees to complete this project, it is recommended that the upset fee for detailed design for the Regional Pumping Station and Forcemain, which is being undertaken by R.V. Anderson be increased by \$434,082 from \$762,742 to \$1,196,824 excluding GST. Given the extent of scope changes outlined in section 4.2, Regional staff feels that the request for extra fees are reasonable.

6. LOCAL MUNICIPAL IMPACT

This project will address the health concerns identified in the community caused by the existing private septic systems. The installation of the sewers will be completed while making every attempt to minimize disruption to the local residents as well as ensuring that the natural environment is protected.

7. CONCLUSION

Two major contracts, comprising approximately 80% of the Regional works on this project, have closed tenders. As such, it is now appropriate for the Region to provide updated total project cost estimates to the Township of King.

It is also recommended that the upset fee for the detailed design for the King City Sanitary Servicing Regional Pumping Station and Forcemain, which is being undertaken by R. V. Anderson Associates, be increased by \$434,082 from \$762,742 to \$1,196,824 excluding GST, to complete the design of the works.

The Senior Management Group has reviewed this report.