

**Subject:** Budget Estimate Update for Foss Road & Church St Sanitary Sewer Upgrades**Recommendation:**

**BE IT RESOLVED THAT Council receive Report #2021-0144 - Budget Estimate Update for Foss Road and Church Street Sanitary Sewer Upgrades, for information**

**Background:**

The design of the Foss Road Sanitary Sewer Design project was awarded to GHD in 2018 and the Church Street Sanitary Sewer Design project was awarded to Associated Engineering (AE) in 2019. Existing sewer conditions, capacity concerns and lands near the area being developed has prompted the need for replacement. These are development driven projects funded in part by Development Charges. This area has also been identified in the Town's Sanitary I&I Study as a location of infiltration. The design for Foss Road is approximately 90% complete and the design for Church Street is also approximately 90% complete. These design projects are to be completed by October 2021 with the first project going to construction in Spring 2022 pending budget approval.

Fenwick is known to have a very sandy soil and high water tables creating difficulties for construction in the area. Following hydrogeological and geotechnical studies as well as discussions with GHD, Associated Engineering (AE) and Canadian Pacific Railway (CPR) with regards to this project, it was determined that additional funds for crossing the CP Railway will be required to complete these upgrades. From these discussions and previous studies, there are two important permits which will need to be obtained. A Permit to Take Water (PTTW) is required due to the soil conditions in the area. Water takings in Ontario are governed by the *Ontario Water Resources Act* (OWRA) and the Water Taking and Transfer Regulation (O. Reg. 387/04) under the Act. A Permit issued by CPR is also required for the approval to cross their corridor and install sanitary sewer under their railway tracks. Permit approvals need to be in place prior to construction in order to begin work in

2022.

The replacement of sanitary sewer along Foss Road between Church Street and the pumping station and along Church Street between Canboro Road and Foss Road is essential in allowing the Town to continue providing sufficient municipal sanitary services to the residents of Fenwick with no adverse effects. As new developments in Fenwick come online to the municipal wastewater system, issues of surcharging become possible, if not likely, without upgrades to these sanitary sewers.

### **Analysis:**

Challenges that have arisen and increased the need for budget involve crossing the tracks, crossing the culverts in NPCA regulated lands, the need for new ECA approvals and unstable soil conditions.

Many discussions and options were explored when determining the most economical and acceptable solution to crossing the CP Railway. Ensuring the Town meets all specifications and requirements in place by CPR, conference calls with all stakeholders have been conducted to ensure all information is captured and sufficient.

After careful consideration and investigations, it was determined that a trenchless method of installing the new sanitary sewer across the CPR right-of-way is required. This can be accomplished several different ways; however, based on the sandy and wet soil conditions the consultant is recommending a micro-tunnelling method at the Foss Road crossing and a Jack & Bore method at the Church Street crossing. In addition, significant dewatering will be required along with the installation of sending and receiving shafts to be able to cross the tracks at both locations which is contributing to the increase in construction costs. Due to these factors, the budget for these construction projects will need to be increased to accommodate for these challenges.

Until the designs for each project are 100 percent complete including all relevant geotechnical studies, staff are not in a position to determine which of the two projects will be completed first. Staff anticipate that the designs will be completed in the fall of 2021 and will be presenting the projects to Council as part of the 2022 capital budget presentation.

**Financial Considerations:**

The total estimated construction costs for both of these projects will be approximately \$5,700,000. The estimated costs for the Foss Road project is \$3,400,000 and the estimated costs for the Church Street project is \$2,300,000. These costs include all sewer installation, road works, coordination with utilities, contract administration and inspection. The biggest increase in costs to complete the works is the requirements to construct under the CP Rail crossings and the permit from CP Rail.

The current budget for the Foss Road project is broken down as follows:

2020 Budget:      Sewer WST-06-20 - \$800,000 (Prior Approved)  
                         Road RD-15-20 - \$500,000 (Prior Approved)

The updated budget estimate for Foss Road construction will need to be updated to the following:

Sewer - \$2,900,000. (Additional \$2,100,000)  
Road - \$500,000 (no increase required)

The estimated budget for Church Street Sanitary Replacement will be:

Sewer & Road - \$2,300,000.00 (current capital forecast amount is \$1,548,000 which represents an estimated increase of \$752,000).

Staff will consider and review the possibility of deferring either project for a year, cancelling other project(s) so as to be able to complete these without dramatically increasing next year's budget, or recommending both proceed as planned with various different funding scenarios. Further discussion and reporting will be necessary on these topics. At the moment these reports serve to create awareness for both Council and the public.

**Alternatives Reviewed:**

An alternative reviewed was to cross the tracks using the micro tunneling method instead of the Jack & Bore method. This alternative appears to be less economical and was determined to not be required. Another alternative

which was considered was Pipe Ramming, this also proved to be slightly less economical and other factors such as the noise associated with this method needed to be considered for the residential area.

**Strategic Plan Relationship: Strong Organization**

Given the current capacity of the sewers and future development which will be contributing to our wastewater system, upgrades to the existing sewers will mitigate the risks of having it surcharge which may potentially damage homes, flood roads and cause environmental impacts in the area.

**Consultation:**

The CPR, NPCA and Environmental Compliance have all been consulted to meet all regulations.

**Other Pertinent Reports/Attachments:**

Not applicable

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