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AUTHORIZATION OF SERVICES
CLOSED CIRCUIT TELEVISION INSPECTION
YORK DURHAM SANITARY SYSTEM

The Transportation and Works Committee recommends the adoption of the recommendation contained in the following report, September 22, 2005, from the Commissioner of Transportation and Works:

1. RECOMMENDATION

It is recommended that:

1. The firm of American Water Services Corporation be engaged to undertake the Closed Circuit Television Inspection of selected areas of the York Durham Sanitary System at an upset limit of \$224,891.34.

2. PURPOSE

This report is provided in order to obtain Council authorization to retain services for Closed Circuit Television Inspection (CCTV) related to the management of the York Durham Sanitary System (YDSS).

3. BACKGROUND

Inspections of the sanitary sewer system are a routine and essential requirement of the Water and Wastewater Branch to allow assessment and monitoring of condition and help in identifying any required works necessary to maintain the continued viable operation of the system. Regular inspections can help troubleshoot and minimize problems with the collection system. Condition information and unwanted sources of inflow and infiltration are identified through sewer inspections.

Internal sewer line inspections are performed to gather additional information about what is taking place between manhole access points. These typically include using Closed Circuit Television (CCTV) inspections to photograph the sewer system. CCTV inspections are performed for a number of reasons including:

- Because of a suspected problem.
- In connection with Inflow and Infiltration investigation work.
- In advance of planned sewer rehabilitation work.
- Routine check on the condition of the sewer.
- Sewer inspection prior to local improvements.

The need to prioritize sewer inspection is a result of the uncertainty of the condition of buried infrastructure and the potential for costly and catastrophic system failures. By prioritizing sewer inspection, timely information can be obtained about the most critical reaches. Scheduling sewer inspection and the subsequent maintenance/rehabilitation process is a part of the branch strategy for asset management. The infrastructure management plan is focused on prioritizing rehabilitation. However, prioritizing rehabilitation requires a detailed inspection of a sewer system's lines. Therefore, prioritizing inspections is the first step in an infrastructure management plan when insufficient resources, either time or money, exist to inspect all sewers. The goal of the Region is to inspect and re-inspect every sewer on a regular basis. The work proposed to be undertaken at this time is to include approximately 30 kilometres of the York Durham Sanitary Sewer (YDSS) that has not previously been inspected.

4. ANALYSIS AND OPTIONS

Deteriorating sewers leave the Region's communities vulnerable to unexpected failures that disrupt not only sewer service but also above-ground activities. Failures are difficult to avoid if the Region is unaware of the pipe condition. This work is a necessary component of the sewer system (linear asset) management.

A Request for Quotation was advertised on August 16, 2005 and firms were invited to submit quotations to provide services. This closed on August 30, 2005.

One quotation from American Water Services Corporation (AWS) was received in an amount of \$224,891.34. The upset limit provided in the quotation is \$224,891.34. The unit rate for this work is approximately \$4.85/m of sewer inspection. This compares favourably with recent work completed for shorter and more accessible lengths.

5. FINANCIAL IMPLICATIONS

There are sufficient funds identified in the 2005 budget for this assignment.

6. LOCAL MUNICIPAL IMPACT

The sections of sewer proposed for inspection are in several of the local municipalities. Most of the sewer locations are in non-public areas and most of the work will take place during non-peak flow times during the night. Minimal to no interference is expected to the public during this work.

AWS has performed work on many other Region inspections with favourable results. The inspection work under this project is on the sewer reaches that are either the most

inaccessible, the deepest or have the longest runs between manholes. The amount of sewer being inspected is extensive compared with the typical lengths conducted. It is possible that other service providers did not have the necessary equipment resources to commit to this project.

Completing this work will add to the body of knowledge the Branch maintains on its infrastructure that helps to ensure the continued reliable operation of the sewer system.

7. CONCLUSION

It is recommended that the firm American Water Services Corporation be engaged to undertake the Closed Circuit Television Inspection at an upset limit of \$224,891.34.

Furthermore, it is recommended that appropriate Regional officials be authorized to take all necessary steps to execute a formal agreement for the completion of these services.

The Senior Management Group has reviewed this report.