

CIPP for Stamford Interceptor Sewer

This paper will focus on the planning, design, pre-qualification, tendering and construction oversight to implement the City of Niagara Falls (City) largest Cured In Place Pipe (CIPP) rehabilitation project. Included in the presentation will be the process by which the Region, GHD Ltd. and Liquiforce completed the rehabilitation of approximately 3,015ft. of 42 and 4,577 ft. of 48 concrete sewer and 23 manholes that were degraded by H₂S.

The Stamford Interceptor sewer has been in operation since 1962 when it was originally installed by open-cut to accommodate new residential and commercial development for the Corporation of the Township of Stamford incorporated by the Region of Niagara in the same year. The STSS conveys flow from three pump stations including Dorchester 3725gpm, Southside High Lift 12046gpm and Drummond Road 730gpm. Each has to be bypassed in order for the rehabilitation process to be successful. Establishing, managing and maintaining successful bypass pumping will have a major effect on most of key performance indicators. Ensuring proper testing procedures are complete following the lining will help the Region determine the quality of the new installation. Key elements of the paper will include:

- Defining the challenges that are to be overcome to rehabilitate the sewer
- Conducting the evaluation of the appropriate trenchless technology and benefits
- Selecting the preferred solution and managing the associated risks
- Establishing the requirements for pre-qualification of contractors
- Developing By-pass plans to rehabilitate by CIPP
- Developing and Testing components for CIPP liner and manhole rehabilitation
- Lessons Learned from construction