A CIPP Solution for the Hespeler Trunk Sanitary Sewer
Cambridge, Ontario

PROJECT OVERVIEW
Hespeler Trunk Sanitary Sewer (HTSS) was constructed in the 1970s and feeds the Hespeler Wastewater Treatment Plant. The HTSS lays entirely within Grand River Conservation Authority lands and includes an underwater crossing of the Speed River.

After a 5,600 ft section of sewer was determined to need rehabilitation, the City concluded a CIPP rehabilitation method would be preferable. An RFP was issued by the City in May 2017 and closed in June. The contract was awarded to LiquiForce Services and the project kicked off in July 2017.

The project scope included the rehabilitation approximately 5,000 ft of 24-27 inch diameter vitrified clay sewer and sixteen manholes varying in depths up to 15 ft. The project team included the City of Cambridge, GHD Ltd as the engineer, and LiquiForce as the contractor. LiquiForce decided that for the bypass system to cross the Speed River, a bailey bridge would need to be used. The entire bypass system, capable of carrying approximately 9,000gpm (567L/sec) plus full redundancy was commissioned at the end of October. Once the bypass system was in operation, almost 5,000 ft of trunk sewer was inspected, cleaned, prepared and re inspected within four days.

Rehabilitation was completed in 11 inversions, each ranging in length from 141 ft to 686 ft and finished in 12 days.

Within two years from the initial feasibility study, the City had a product in place that will allow them to operate their trunk sewer for the next 50 years. Furthermore, all construction works were completed within 65 working days. The process also allowed the City to preserve a large amount of forested area along the Speed River, and the shortened schedule limited the impacts of the project on the local public.

Client:
The City of Cambridge

Construction Cost:
$2,100,000

Construction:
General Contractor

Construction Dates:
August 2017 - October 2017

Project Features:
- Rehabilitated 5,000 ft of 24-27 inch diameter vitrified clay sewer main
- 11 CIPP inversions ranging in length from 141 ft to 686 ft
- Rehabilitated 16 manholes varying in depths up to 15 ft
- Project included the installation of a bailey bridge for bypass purposes
- All construction works completed within 65 working days