PROJECT OVERVIEW
The Northwest Arm Trunk Sewer (NATS) began service in 1917 and was constructed mostly through tunneling at depths of 300mm to 5m. The 1,200mm round and 1,200mm by 1,500mm arch shaped sewer is made of concrete and clay tile and runs parallel to the Northwest Arm, an inlet off the Atlantic Ocean and a popular recreational area for both aquatic and land based activities. The sewer is about 10 to 15m from the shoreline and runs mostly through the yards of multi million dollar residential properties.

Of the $23 million budgeted for the project, approximately $18.5 million was assigned for the trenchless renewal portion including cleaning, assessment and post-installation inspections. Robinson Consultants, of Ontario, the prime consultant and engineer on the project began condition assessment and design work in July 2016. Request for proposals (RFP) went out in February 2017 and LiquiForce Services was awarded the contract in May 2017.

As the prime contractor on the project, LiquiForce handled project management, all mainline bypass, including the bypass of 141 residential addresses, as well as community engagement for residents directly affected by the project. LiquiForce assembled the sub contractor team that included Insituform Technologies, Uni Jet Industrial Pipe Services, Empipe Solutions Ltd., G&R Kelly and Absolute Traffic Services.

Once the sewer was cleaned and the bypass systems installed, the lining of the sewer began. Once a lining section began, it became a 24 hour operation. The CIPP installations ranged in lengths of approximately 75m to the longest install of 682m. By all accounts, based on research by all involved in the project, the 682m install is the longest single CIPP install completed in Canada to date.

On December 5th the last section of liner was in place and the trunk sewer back and running ahead of schedule. The owner’s goal for this project was to remove debris, restore the structural integrity, eliminate exfiltration, establish a corrosion barrier and extend the life of the sewer for up to 75 years. Mission accomplished.