

# CASE STUDY

## MICROTUNNELING | SLURRY MICROTUNNELING



**Project Name:**  
King Street Feedermain

**Prime/Sub Contractors:**  
CRS Tunnelling Inc./Dibco, JV

**Location:**  
Caledon, ON

**Owner:**  
Region of Peel

**Ground Conditions:**  
Clays, Sands, Cobbles

**Akkerman Equipment:**  
SL60C MTBM, MT860K

**Pipe:**  
1200 mm RCP

**Total Length/Longest:**  
841 m/ 373 m

### PROJECT OVERVIEW

The King Street Feedermain project included the construction of 852 m of 1200 mm ID RCP water main through the congested downtown of Bolton. Microtunneling was selected as the preferred method, with minimal access shafts to protect the historical integrity of the region while improving their water systems.

Using microtunneling avoided removal of over 1400 truckloads of material and importing of 1400 truckloads of granular material, plus the repaving of 900 m of roadway. The minimal construction footprint saved literally tonnes of material resources and lowered the overall social and environmental impacts of this project.

### THE CHALLENGES

- Tight spacing in work zones
- High traffic around shaft locations
- Shaft depths up to 14 m
- Restricted working hours
- Soft ground and silty clay with boulders
- Construction during cold winter weather
- Settlement, vibration and noise monitoring

### THE SOLUTION

The contractor selected their SL60C microtunneling system for this project. Microtunneling commenced in three staged runs using four shafts for launch and reception of the MTBM.

### OUTCOME

Successful completion on time, on budget despite restrictions.

The application of the correct technology allowed the Region of Peel to install a critical section of infrastructure within the municipality's right of way with minimal construction impacts.

Effective use of coordinated communication plan with mitigation strategy for all stakeholders.

First microtunnel in downtown Bolton, a community dating back to 1794 with the founding of Bolton's flour mill.



source: The Ontario Technologist



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