

CASE STUDY

PIPE JACKING & UTILITY TUNNELING | TUNNEL BORING



Project Name:
Hwy. 400 & Tiffin Street Overpass & Barrie Collingwood Railway Overhead

Subcontractor:
CRS Tunnelling

Location:
Barrie, Ontario, Canada

Owner:
Ministry of Transportation

Ground Conditions:
Compacted Sand and Dirt

Akkerman Equipment: 720 Series II TBM, 5200 Pump Unit and 1548 Haul Unit

Pipe:
72-in. ID RCP

Total Length/Longest:
200-lf./200-lf.

PROJECT OVERVIEW

CRS Tunnelling was selected subcontractor to work with Dufferin Construction on a Ministry of Transportation Project in the City of Barrie, Ontario, Canada.

The project involved the construction of a tunnel under Hwy. 400 installed by pipe jacking methods to install the RCP product pipe.

THE CHALLENGES

- Construction adjacent to a watercourse containing protected aquatic species
- Protective soil erosion and sedimentation control measures to prevent impact
- Tunnelling occurred beneath a major expressway
- Limited cover over the crown of the tunnel
- Complex traffic control and staging plans
- Experienced tunneling expertise required to ensure correct levels of face support

THE SOLUTION

- 720 Series II TBM and Tunnel Boring System
- Closed face cutter head to prevent subsidence

OUTCOME

- Successful installation with no settlement of the roadway surfaces or impeded traffic

