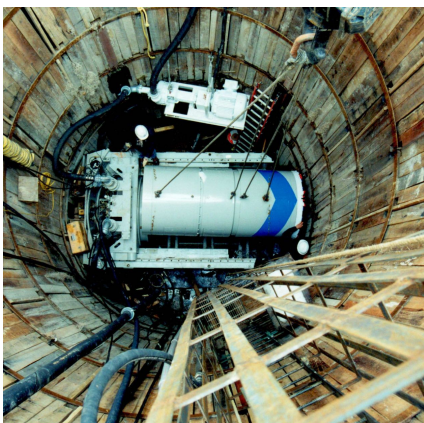


## Cohas Brook Interceptor - Phase 1 Manchester, NH



### PROJECT OVERVIEW AND CHALLENGES

Bradshaw installed 2,400' of 42" RCP using an Akkerman Slurry Microtunnel Boring Machine (SL-44). There were 5 separate microtunnel drives, 3 of which encountered boulders requiring rescue shafts. Three drives crossed major highways and one drive crossed under the Pine Island Pond. The geologic report for the project stated the tunnel elevation was selected to avoid any boulders in the glacial deposits. Bradshaw installed all drive and receiving shafts including two by the caisson method. The greatest challenge on the job was the ground conditions. This included unexpected boulder obstructions, extremely loose silt, and saw dust and wood debris in the pond invert. One obstructed drive had to be converted to a hand mined tunnel using liner plate supports and compressed air ground stabilization.



### PROJECT INFORMATION - 324

**OWNER:**

City of Manchester  
475 Valley Street  
Manchester, NH 03103  
(603) 624-6444

**ENGINEER:**

Costello, Lomasney & deNapoli, Inc.  
Leslie G. Nelson, P.E.  
(603) 668-8223

**CONTRACTOR:**

Park Construction Corp.

**COMPLETION DATE:**

6/15/1999

**GEOLOGY:**

Alluvial deposits of silt, sand, cobbles  
and boulders

**EXCAVATION METHOD:**

Akkerman MTBM SL-44

**MINING DIMENSIONS:**

2,400 x 54" Ø

**FINAL LINING:**

42" Reinforced Concrete Pipe

**FOR MORE INFORMATION:**

Lester Bradshaw, Jr., President  
(410) 970-8300  
lester.bradshaw@bradshawcc.com  
Refer to Project 324