

## Cohas Brook Interceptor - Phase 1 Manchester, NH



### PROJECT OVERVIEW AND CHALLENGES

As part of a microtunneling project Bradshaw installed two caissons: a 14' ID x 40' deep jacking shaft and a 10' ID x 60' deep receiving shaft. They were constructed using precast concrete segments and fitted with steel cutting shoes. They were sunk under their own weight, by excavating the soil with a crane & clam bucket. The lower portions were excavated subaqueous and the bottom slabs were tremie poured up to 7 feet thick to resist hydrostatic pressure. Both caissons were converted to permanent manholes once the microtunneling was complete. The principal challenges were 1) transporting the large and heavy precast concrete segments from the manufacturing plant to the site, 2) stopping the 14' ID jacking shaft in the extremely soft silt soils at the proper elevation, and 3) dealing with boulders above the final invert of the 10' receiving shaft.



### 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:**

7/15/1999

**GEOLOGY:**

Glacial Deposits of Silt, Sand,  
Cobbles & Boulders

**EXCAVATION METHOD:**

Crane & Clam Bucket

**MINING DIMENSIONS:**

10' x 60VF & 14' x 40VF

**FINAL LINING:**

Precast Segments

**FOR MORE INFORMATION:**

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Refer to Project 324