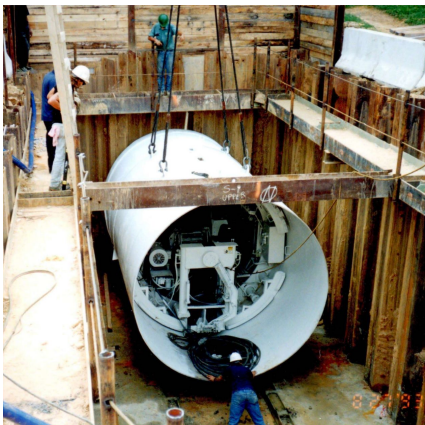


96-Inch and 84-Inch Diameter Steel Water Main Lanham, Maryland



PROJECT OVERVIEW AND CHALLENGES

Bradshaw installed 900' of 132" OD rib and board tunnel in two drives with mining and receiving shafts for each. The tunnels were excavated through silts and sands using a TBM digger shield. The first tunnel was under Route 50 and the second was under Amtrak Railroad's high speed rails between DC and Baltimore. 84" and 96" OD steel water main was installed in the tunnels, respectively. The primary challenges on this project were: 1) controlling the tunnel face while mining through dense silt and sand below the water table with an open face TBM digger shield, 2) getting Amtrak Railroad to allow the use of steel ribs and wood lagging tunnel supports in lieu of steel casing or liner plates, and 3) achieving essentially no settlement given both tunnels had only 1-2 diameters of cover.



PROJECT INFORMATION - 255

OWNER:

Washington Suburban Sanitary
Commission
Michael Crean
(301) 206-8550

ENGINEER:

Owner

CONTRACTOR:

Corman Construction, Inc.

COMPLETION DATE:

6/1/1993

GEOLOGY:

Silt and sand

EXCAVATION METHOD:

TBM Digger Shield

MINING DIMENSIONS:

900' x 132"Ø Rib & Board

FINAL LINING:

96" & 84" Steel Water Main

FOR MORE INFORMATION:

Lester M. Bradshaw, Jr., President
(410) 970-8300
Lester.Bradshaw@Bradshawcc.com
Refer to Project 255