Project Profile: TBM TUNNELING

BRADSHAW CONSTRUCTION CORPORATION
TUNNELING SPECIALISTS

National Center Sanitary Sewer Project
Crystal City, VA



PROJECT OVERVIEW AND CHALLENGES

The NCSS project highlights Bradshaw Construction's ability to redesign projects to increase efficiency, decrease costs, and streamline logistics. The NCSS project was initially designed as a pilot tube MTBM job. However, this would have involved the installation of 8 shafts in the middle of Jefferson Davis Highway - a major artery into and out of DC. We redesigned the project as a rib-and-board TBM job, which decreased the necessary number of shafts by half: one launch shaft, one receiving shaft, and two 8' diameter intermediary shafts - used for the installation of manholes. All of the shafts were located within the median; no lanes of traffic had to be shut down during the project. From a tunneling standpoint we successfully mined through several hundred feet of cobbles and boulders, none of which were on the boring logs.





PROJECT INFORMATION - 478

OWNER:
Arlington County
Department of Public Works
Jerry Kuo
703.228.3664

ENGINEER:
Patton, Harris, and Rust Associates
Graeme Lake, PE
410.997.8900

CONTRACTOR:
Bradshaw Construction Corporation

CONTRACT VALUE:
$3,248,850

COMPLETION DATE:
2/15/2011

GEOLOGY:
Sand, Cobbles, Boulders, Clay

EXCAVATION METHOD:
Akkerman TBM, 68" Ø

MINING DIMENSIONS:
1,890' x 68" Ø

FINAL LINING:
Steel Rib and Board

FOR MORE INFORMATION:
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Refer to Project 478