Project Profile: TBM TUNNELING

BRADSHAW CONSTRUCTION CORPORATION
TUNNELING SPECIALISTS

Deep River Outfall Sewer
High Point, NC



PROJECT OVERVIEW AND CHALLENGES

This project involved the utilization of two tunneling methods: hand mine drill & blast, and a TBM capable of mining through hard rock conditions. For the most part the 1,000' TBM run was self-supporting, but some of the weaker zones required rock bolts, roof channels, and even liner-plates for a short reach. Two drill and blast road crossings totaling 400' were completed on this job. Both drill and blast tunnels used horseshoe rib and board supports, with a 96" vertical ID. The TBM launch shaft was 30' in diameter & 50-feet deep and excavation support consisted of rib & board. The lower half of the shaft was drilled and blasted. The final lining consisted of 60" of Hobas pipe which was blocked in place and backfilled with fly-ash cement grout. Ground conditions primarily consisted of hard, crystalline metamorphic and igneous rock (gneiss and granite).





PROJECT INFORMATION - 430

OWNER:
City of High Point, NC
Greg Hall
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ENGINEER:
DMP
Robert Davis, Project Manager
336.886.4821

CONTRACTOR:
Thalle Construction Co., Inc.

COMPLETION DATE:
9/30/2005

GEOLOGY:
Hard Gneiss, Granite Rock

EXCAVATION METHOD:
Jarva TBM 82" Ø
Hand Mine: Drill & Blast

MINING DIMENSIONS:
1,000' x 82" Ø; 400' x 96" Ø

FINAL LINING:
60" Hobas

FOR MORE INFORMATION:
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Refer to Project 430