Project Profile: SHAFT CONSTRUCTION

BRADSHAW CONSTRUCTION CORPORATION
TUNNELING SPECIALISTS

Nancy Creek Pump Station Shaft
Atlanta, GA

PROJECT OVERVIEW AND CHALLENGES

The City of Atlanta awarded a design-build contract to Western Summit Constructors, Inc. (WSCI) to construct a 100 mgd, 160' deep pump station at the R.M. Clayton WWTP. WSCI hired Bradshaw/Frontier Kemper JV (BFK) to design, excavate and support the shaft for the pump station. Jenny Engineering designed the shaft for BFK. The shaft was 72' in diameter by 150 feet deep after site excavation. The upper 60' was in residual piedmont soil and partially weather rock and supported with lattice girders, wire mesh & shotcrete. The lower 90' was in mica schist & gneiss & supported primarily with spot rock bolts and locally with wire mesh and shotcrete. BFK completed the shaft in 5.5 months. The project earned a 2006 Design-Build Excellence Award from the DBIA.

PROJECT INFORMATION - 419

OWNER:
City of Atlanta
Scott Miller
404.597.2643

ENGINEER:
Jenny Engineering
Prakash Donde
973.379.6699

CONTRACTOR:
Western Summit Constructors

COMPLETION DATE:
7/20/2004

GEOLOGY:
Residual Soils, Mica Schist, PWR, Gneiss

EXCAVATION METHOD:
SEM/NATM Soft Ground
Drill & Blast Rock

MINING DIMENSIONS:
72' Ø x 150VF

FINAL LINING:
N/A

FOR MORE INFORMATION:
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Refer to Project 419