Project Profile: MICROTUNNELING

BRADSHAW CONSTRUCTION CORPORATION
TUNNELING SPECIALISTS

Mansfield Wastewater Treatment Plant - Phase 1, Raw Water Intake & Pump Station
Austin, TX

PROJECT OVERVIEW AND CHALLENGES

Bradshaw was selected to install a 43 inch steel casing by microtunnel outside Austin, TX. The microtunnel was launched from a 190 foot deep shaft at the Mansfield Dam on Lake Travis. The 530LF of lined and coated casing was microtunneled into Lake Travis and the MTBM was recovered underwater. Many of the challenges of the project were related to the deep shaft, underwater MTBM recovery and the high pressures resulting from the elevation differentials. The slurry pressure to the MTBM was high due to 190ft of head pressure from the slurry tank down to the tunnel. Also, the high pressures from up to 110ft of water depth at the MTBM recovery site required careful planning and design of the launch seal and recovery procedures. The subsurface conditions consisted of weak limestone transitioning to clay at the lake bottom.

PROJECT INFORMATION - 541

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CONTRACTOR:
Archer Western Construction

COMPLETION DATE:
3/13/2015

GEOLOGY:
Limestone, Clay

EXCAVATION METHOD:
Herrenknecht AVN-800 MTBM

MINING DIMENSIONS:
530' x 43" Ø

FINAL LINING:
43" Steel Casing

FOR MORE INFORMATION:
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Refer to Project 541