Project Profile: MICROTUNNELING

BRADSHAW CONSTRUCTION CORPORATION
TUNNELING SPECIALISTS

Power Industry Raw Water Intake
Southwest Pennsylvania, PA

PROJECT OVERVIEW AND CHALLENGES

Bradshaw Construction installed a 320’ tunnel into the Monongahela River in southwest PA. The 60” welded steel casing tunnel was installed through 25 ksi limestone which transitioned into the river bed consisting of sand and gravel. The tunnel was installed out of 60’ deep secant pile shaft, with the tunnel 20’ below the typical river elevation. Once driven to station, the MTBM was excavated and recovered subaqueously. Bradshaw then installed 24” HDPE and three 2” welded stainless steel airburst lines for the power plant raw water intake. Project challenges included transitioning from the very hard limestone into the river alluvium. This project was also constructed as the COVID-19 outbreak was first spreading, resulting in a one-week shutdown. Despite the delay, which jeopardized the drive due to the pipe string locking up from inactivity, Bradshaw was able to resume pipe-jacking operations and complete a safe and successful project.

PROJECT INFORMATION - 600

OWNER:
Not Available (Private)
Garney Companies, Inc (GC)
Mark Peters
703-794-6194

ENGINEER:
McKim & Creed
412-385-4132

CONTRACTOR:
Garney Companies, Inc.

COMPLETION DATE:
5/22/2020

GEOLOGY:
Limestone, Alluvium

EXCAVATION METHOD:
Herrenknecht AVN-1200 MTBM

MINING DIMENSIONS:
320' x 60" Ø

FINAL LINING:
24" HDPE

FOR MORE INFORMATION:
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Refer to Project 600