

## I-285 30" Watermain Replacement at Panthersville Rd. Panthersville, GA



### PROJECT OVERVIEW AND CHALLENGES

Bradshaw recently completed construction on a microtunneling project in Decatur, GA, installing 245' of 60" steel casing under I-285 for a 30" DIP water transmission main. The tunnel was installed behind a Herrenknecht AVN-1200 microtunnel boring machine. 32' and 16' diameter liner plate launch and recovery shafts were installed, with sample borings showing loose sands and the water table settling near tunnel casing crown. However, substantial rock (gneiss) was encountered on the launch shaft, requiring unanticipated blasting to reach final grade. Partnering with John D. Stephens, Bradshaw was able to quickly adjust course to perform the blasting, keeping the project on schedule. Once the shafts were down, the tunnel was successfully installed through the mixed face/mixed reach conditions, with no settlement or grade disruptions despite transitioning from gneiss to sandy clay midway through the drive.



### PROJECT INFORMATION - 574

**OWNER:**

Georgia Department of  
Transportation  
404-631-1990

**ENGINEER:**

River 2 Tap, Inc.  
770-569-7038

**CONTRACTOR:**

John D. Stephens, Inc.

**COMPLETION DATE:**

12/8/2017

**GEOLOGY:**

Gneiss, Sandy Clay

**EXCAVATION METHOD:**

Herrenknecht AVN 1200 MTBM

**MINING DIMENSIONS:**

245' x 60" Ø

**FINAL LINING:**

30" Ductile Iron Pipe

**FOR MORE INFORMATION:**

Jordan Bradshaw, Project Manager  
410-970-8300  
jordan.bradshaw@bradshawcc.com  
Refer to Project 574