

## Little Patuxent Sewer Phase 3 Savage, MD



### PROJECT OVERVIEW AND CHALLENGES

Bradshaw Construction hand drilled and blasted a 96 inch tunnel, 355 linear feet in length, to accommodate a 42 inch FRP sanitary sewer. A combination of 96" horseshoe ribs and wood lagging, as well as rock bolts and wire mesh were used to support the seamy and blocky rock patterns. Rock samples showed rock with unconfined compressive strength greater than 55 KSI. There were noise considerations as the tunnel location was near an elementary school and some residences. There were also environmental concerns due to the nearby Little Patuxent River and Patuxent Branch Nature Trail.



### PROJECT INFORMATION - 490

**OWNER:**

Howard County  
Jim Jaecksch  
(410) 313-6122

**ENGINEER:**

George, Miles, & Buhr LLC  
David Vanderbeck  
(410) 329-5005

**CONTRACTOR:**

American Infrastructure

**COMPLETION DATE:**

7/1/2010

**GEOLOGY:**

Amphibolite Hard Rock

**EXCAVATION METHOD:**

Hand Mine Drill & Blast

**MINING DIMENSIONS:**

355' x 96" Ø

**FINAL LINING:**

42" Fiber Reinforced Pipe

**FOR MORE INFORMATION:**

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Refer to Project 490