**MD Route 32 Bridge Replacement**
Sykesville, MD

## PROJECT OVERVIEW AND CHALLENGES

Bradshaw Construction hand mined a 66 inch liner plate tunnel and installed a 48 inch reinforced concrete storm drain under a CSX Railroad. The removal of boulders during shaft and tunnel excavation required extreme care so as not to cause settlement of the railroad.

### PROJECT INFORMATION - 405

**OWNER:**
Maryland State Highway Administration
410-545-0300

**ENGINEER:**
DMJM Harris
Brian Harris
215-735-0903

**CONTRACTOR:**
Joseph B. Fay Company; James McNelis; 410-424-3380; jmcnelis@jbfayco.com

**COMPLETION DATE:**
12/19/2003

**GEOLOGY:**
Silty Sand with Large Boulders

**EXCAVATION METHOD:**
Hand Mine

**MINING DIMENSIONS:**
60' x 66''Ø

**FINAL LINING:**
48" Reinforced Concrete Pipe

**FOR MORE INFORMATION:**
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Refer to Project 405