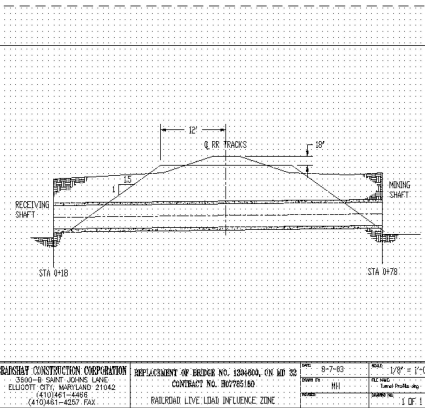


MD Route 32 Bridge Replacement  
Sykesville, MD



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:**  
Eric Eisold, Vice President  
410-970-8300  
EEisold@BradshawCC.com  
Refer to Project 405