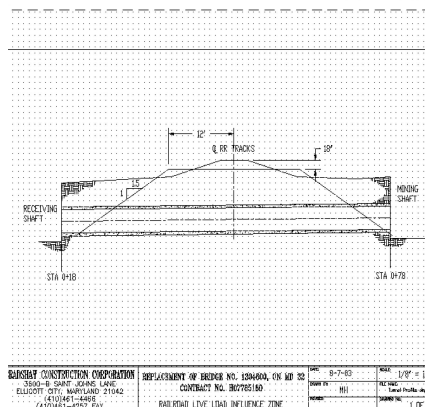


## MD Route 32 Bridge Replacement Sykesville, MD



### 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