

## Route 262 CSX Crossing Staunton, VA



### PROJECT OVERVIEW AND CHALLENGES

Bradshaw Construction installed a 10'Ø Hand Mined Liner Plate tunnel under CSX Railroad in Staunton, Virginia. The tunnel was excavated from a portal through Boulder Fill in the embankment of the railroad. Due to the voids in the fill, a cementitious grout curtain was pumped over the tunnel alignment before mining. In order to mitigate the risks settlement and the danger of mining through boulders, the tunnel heading was bulk-headed, and more grout was pumped ahead of mining upon completion of each mining shift. 84" RCP was installed in the tunnel for storm drainage.



### PROJECT INFORMATION - 443

#### OWNER:

Virginia Department of  
Transportation  
Alan Tucker  
(800) 586-8905

#### ENGINEER:

Virginia Department of  
Transportation  
Alan Tucker  
(800) 586-8905

#### CONTRACTOR:

Fairfield Skanska

#### COMPLETION DATE:

6/3/2006

#### GEOLOGY:

Boulder Fill

#### EXCAVATION METHOD:

Hand Mined Liner Plate

#### MINING DIMENSIONS:

75' x 120" Ø

#### FINAL LINING:

84" Reinforced Concrete Pipe

#### FOR MORE INFORMATION:

Michael Wanhatalo, Project Engineer  
(410) 970-8300  
mwanhatalo@bradshawcc.com  
Refer to Project 443