

## Sumter Avenue Storm Drain

Rock Hill, SC



### PROJECT OVERVIEW AND CHALLENGES

Bradshaw installed a replacement storm drain under the Norfolk Southern Railroad. The tunnel traversed two mainline and one siding sets of tracks in Rock Hill, SC. The existing CMP storm drain was collapsing. The tunnel was accomplished by installing 84" diameter x 24" wide smooth back 4-flange liner plates behind a shielded Akkerman tunnel machine. The machine was launched into the base of an embankment fill and encountered a couple of steel piles under the railroad that were cut out of the way at the forward shield by hand with no problems. After completion of the liner plate tunnel, 3-4 inches of reinforced shotcrete was installed for the final lining of the new storm drain.



### PROJECT INFORMATION - 441

#### OWNER:

City of Rock Hill  
Utilities Dept., Storm Water Division  
803-325-2500

#### ENGINEER:

Armstrong Glen, P.C.  
704-529-0345

#### CONTRACTOR:

Garawaco, Inc.

#### COMPLETION DATE:

8/15/2006

#### GEOLOGY:

Wet sandy fill and natural alluvium at the base

#### EXCAVATION METHOD:

Akkerman Shielded Tunnel Machine

#### MINING DIMENSIONS:

191 x 84" Ø

#### FINAL LINING:

84" Liner Plate  
Shotcrete

#### FOR MORE INFORMATION:

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Refer to Project 441