# Project Profile: MICROTUNNELING

BRADSHAW CONSTRUCTION CORPORATION
TUNNELING SPECIALISTS

## BWI Stage 3B 20" Transmission Line
Baltimore, MD



### PROJECT OVERVIEW AND CHALLENGES

Bradshaw Construction installed 945 linear feet of 30 inch Permalok steel casing at Baltimore Washington International (BWI) airport in 3 drives under a railroad and 2 highways using the Akkerman pilot tube guided boring method. The ground conditions were extremely dense silt and sand with occasional stiff clays. Shafts for the drives were supported by steel sheeting, trench boxes as well as drilled in place corrugated steel casing. The dense/stiff soil conditions provided the greatest challenge to overcome with the pilot tube installation method as well as auger boring the casing with an American Augers 48-500 boring machine for lengths up to 475 linear feet. Another challenge was working on the BWI airport property resulting in tight security and limited both work space and access. The completed casings were lined with 20” fuel lines for the new Southwest Airlines concourse at BWI.





### PROJECT INFORMATION - 445

**OWNER:**
Southwest Airlines, Inc.
(800) 435-9792

**ENGINEER:**
Aircraft Fueling Systems, Inc.
(918) 384-7171

**CONTRACTOR:**
Poling & Bacon Construction Company, Inc.

**COMPLETION DATE:**
6/30/2006

**GEOLOGY:**
Sand, Clay, Silt

**EXCAVATION METHOD:**
Akkerman GBM 240
American Augers 36-500

**MINING DIMENSIONS:**
475', 220', & 250' x 30" Ø

**FINAL LINING:**
20" Steel Fuel LInes

**FOR MORE INFORMATION:**
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Refer to Project 445