

## Chesapeake Avenue Sewer Edgemere, MD



### PROJECT OVERVIEW AND CHALLENGES

In 1991, Bradshaw Construction Corporation (formerly L M Bradshaw Contracting, Inc.) installed the first jacked pipe using slurry microtunneling in the US mid-Atlantic region. An Iseki "Unclemole" microtunnel system was used to jack 212' of 30" steel casing for a 12' DIP sewer (two pass method) under a Chesapeake Bay estuary in extremely soft tidal marsh sand and silt. Bradshaw dewatered and installed a 21' ID jacking pit and 12' ID receiving pit supported with liner plates and steel ribs. The project challenges were: 1) unexpected buoyancy of the MTBM and casing under the estuary; 2) 18" of site flooding from a Nor'easter storm; and 3) organic debris (wood) in the soil causing the MTBM slurry system to plug up and limit production. In spite of these challenges, the sewer was installed to design line and grade and completed on time.



### PROJECT INFORMATION - 231

#### OWNER:

Baltimore County  
Department of Public Works  
410-887-3300

#### ENGINEER:

Baltimore County  
Department of Public Works  
410-887-3300

#### CONTRACTOR:

Cossentino Contracting, Inc.

#### COMPLETION DATE:

5/1/1991

#### GEOLOGY:

Sand & Tidal Marsh Silts

#### EXCAVATION METHOD:

Iseki Unclemole Slurry  
Microtunneling - 30" Ø

#### MINING DIMENSIONS:

212' x 30" Ø

#### FINAL LINING:

12" Ductile Iron Pipe

#### FOR MORE INFORMATION:

Lester Bradshaw, Jr., President  
(410) 970-8300  
lester.bradshaw@bradshawcc.com  
Refer to Project 231