



# Barclay / 4th / Chase MIS Replacement

**LOCATION:** Milwaukee, WI

**OWNER:** Milwaukee Metro Sewerage District

**OWNER CONTACT:** Larry Ellis, (414) 272-5100  
2600 W. Seeboth Street  
Milwaukee, WI 53204

**ARCHITECT OR ENGINEER:** CH2M Hill, Attn: Bart Grolewski  
(414) 272-2426

**CONSTRUCTION MANAGER:** MMSD, Attn: Greg Hottinger  
(414) 272-5100

## PROJECT PROFILE

Super Excavators installed 4,200 linear feet of 48" RCP and 6,089 linear feet of 72" RCP. All of the tunneling was completed using a single pass microtunnel system with reinforced concrete pipe. There was an array of different soil conditions on this project ranging from full face of rock to dense clays to saturated sands on silts, to zero blow count organic soils. Ground water was present throughout the project. The longest drive on the project was 1,068 linear feet. The entire project was located in the near South side of the City of Milwaukee and had very narrow city streets. Equipment setups required very tight configurations in order to accommodate traffic and pedestrian access.

This project also contained a total of 18 construction work shafts ranging in depth between 30-80 vertical feet. Shaft construction types varied based on soil conditions - implementing either interlocked steel sheeting, or steel ribs and wood lagging. For portal grouting and control of ground water in areas below the water table, our shaft crews used hydrophobic polyurethane grout and hydro active soils to stabilize ground conditions and prevent inflow. Shafts with depths greater than fifty feet included:

- MH-16 (launch MTBM): 22' ID, 74.06 Vertical Ft.; 22' ID Rings & Wood
- MH-15 (receiving MTBM): 20' ID, 72.15 Vertical Ft.; 20' ID Ring & Wood
- MH-17 (receiving MTBM): 20' ID, 68.08 Vertical Ft.; 20' ID Ring & Wood
- MH-14 (launch MTBM): 24" ID, 67.90 Vertical Ft.; 25' ID Ring & Wood
- MH-13 (jacking MTBM): 22" ID, 56.75 Vertical Ft.; 22' ID Ring & Wood
- MH-6 (receiving MTBM): 18" ID, 53.93 Vertical Ft.; 18' ID Ring & Wood

**TOTAL VALUE OF CONTRACT:**  
\$28,068,550

**COMPLETION TIMELINE:**  
JANUARY 29, 2008 - SEPTEMBER 10, 2010

**COMPLETED AS:**  
PRIME CONTRACTOR

