# CASE STUDY
# MICROTUNNELING | SLURRY MICROTUNNELING

**Project Name:**
Dugway West Interceptor Relief Sewer

**Prime/Sub Contractors:**
Walsh Construction, Super Excavators, Inc.

**Location:**
Cleveland, OH

**Owner:**
Northeast Ohio Regional Sewer District (NEORSD)

**Ground Conditions:**
Engineered fil, siltm sand, glacial tills, clay, high water head

**Akkerman Equipment:**
SL60C MTBM, SL74C MTBM, MT860K

**Pipe:**
48 and 72 in RCP

**Total Length/Longest:**
11,000 Lf / 1,079 Lf

## PROJECT OVERVIEW

Presented an opportunity to embark bravely into the next frontier of microtunneling by designing and completing a curved drive, trenchless contractor Super Excavators, Inc. (SEI) stepped up to the challenge, delivering excellent value to the project owner, while working to minimize surface disruption for residents in a busy east side Cleveland neighborhood.

## THE CHALLENGES

- Curved alignment
- Dense urban area with overhead and buried utilities
- Difficult ground

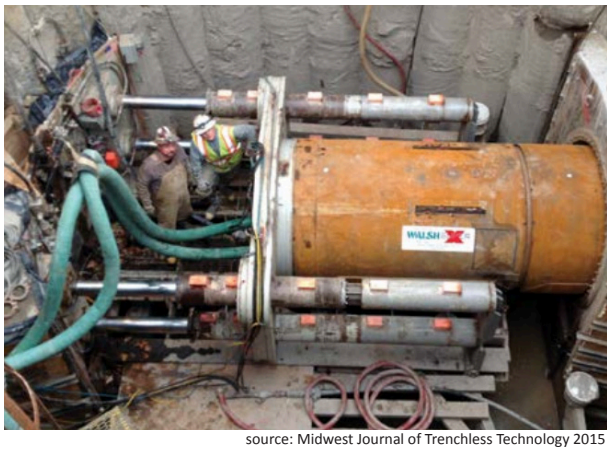
## THE SOLUTION

Because of the project specific soil conditions and elevated water table, two Microtunnel Boring Machines (MTBMs) with the capability to continuously pressurize the mining face were used. The first MTBM drive was launched in August 2014 from a 45-foot deep secant pile shaft with an Akkerman SL60 MTBM. The SL60 was used throughout the project for the 48-inch RCP sewer, including a 915 LF run through shale, while an Akkerman SL74 was deployed on all the 72-inch drives including the 700 LF of curved microtunnel. Both MTBMs were equipped with an increase kit so that the final bore diameter would accommodate the outer bore diameter of the jacked pipe. The machines performed very well in the various ground conditions encountered during tunneling operations.

## OUTCOME

Joining an elite group of North American microtunneling contractors who have accomplished this feat, SEI completed the approximate 700 LF of 72-inch curved MTBM drive this summer. It is the first curved microtunnel completed in the Midwest region and the 4th such milestone using conventional microtunneling equipment completed to date in the US. 100% the brainchild of SEI, the VECP further reduced community impacts from DWIRS construction in a densely populated Cleveland neighborhood, while reducing long term maintenance costs for project owner NEORSD.

The DWIRS project demonstrates how close ongoing cooperation between owner and contractor can deliver success. SEI worked together with NEORSD to ensure the most accurate, up-to-date information on the project was dispersed to local residents. The microtunnel curve facilitated an accelerated schedule as did the fact NEORSD allowed work to proceed on a 24-hour basis for much of the job. Microtunnel construction completed in August 2015, 60 days ahead of schedule.

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