CASE STUDY
PILOT TUBE METHOD | PILOT TUBE MICROTUNNELING

Project Name:
Shively Interceptor

Prime Contractor:
Midwest Mole, Inc.

Location:
Shively, KY

Owner:
Louisville Metropolitan Sewer District (MSD)

Ground Conditions:
Loose-Medium Dense Coarse Sands Below the Water Table to Loose Fine Sand

Akkerman Equipment:
GBM 308 & 4800 Jacking Frames & PCH 20

Pipe:
15, 18, 21, 27-in. ID Can Clay Denlok®

Total Length/Longest: 10,678-lf./365-lf.

PROJECT OVERVIEW

The Shively Interceptor is a gravity flow sewer that was built to replace an aging force main and eliminate the need for five pump stations that were regularly overwhelmed by wet weather events.
The project was part of the Louisville, Kentucky – Jefferson County Metropolitan Sewer District sewer improvement and overflow abatement program.

THE CHALLENGES

- Soil conditions and location made an open-cut installation of in the middle of a tight residential area impossible
- Flat grade the entire alignment from 0.068% to 0.143%,
- 17-35ft. crossing depths necessitated the precisely accurate installation offered by guided boring technology

THE SOLUTION

Contractor used two Guided Boring systems and a PCH 28.5 Powered Cutter Head to install 10,678 lf. in 35 utilizing the three-pass guided boring method.

- Minimized surface footprint by using (34) 9ft. (3) 12-ft. jacking shafts
- 1,228-lf. of 27-in.
- 733-lf. of 21-in.
- 4,280-lf. of 18-in.
- 4,437-lf. of 15-in.

OUTCOME

- Successfully installed sewer alignments within a tenth of a foot
- Approach saved Louisville MSD a substantial amount of taxpayer dollars and allowed the residents of Shively to maintain their day to day lives with minimal impact

- The third largest pilot tube Guided Boring project ever completed in the United States
- Project received Trenchless Technology New Installation Honorable Mention Award

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