



15 Mile Road Sewer Repair

Macomb County, Michigan

Mobilization of multiple Keller crews for the emergency response stabilization work began within one working day of the initial site visit.



The project

The Romeo Arm Interceptor is an 11-ft-diameter wastewater pipeline located approximately 70 ft below ground surface. A sinkhole developed along 15 Mile Road measuring approximately 100 ft wide by 200 ft long and 10 ft deep, with ground loss presumed to have occurred as a result of fines infiltrating the sewer through cracks and joints.

The challenge

Work was completed on an emergency response basis during the frigid Michigan winter alongside numerous contractors and activities in the same constrained area. Continuous changes to the work plan needed to be made as the ground response was evaluated.

The solution

Compaction grouting was performed along both sides of the utility and both ends of the sinkhole in a primary/secondary sequence to densify the loosened soils. The casing was advanced adjacent to the sinkhole and alongside the existing utility to approximately 65 to 75 ft below the existing grade. Low mobility grout was injected in 1 to 2-ft stages as the casing was extracted to the top of the treatment zone at approximately 35 ft below grade. Following the grouting program, wastewater flow was successfully restored and the road reopened to the public.

Project facts

Owner(s)

Macomb County, Michigan Public Works Commissioner's Office

Keller business unit(s)

Keller

Main contractor(s)

Ric-Man Construction, Inc.

Engineer(s)

GEI Consultants

Solutions

Ground improvement

Markets

Infrastructure
Water, sewage and waste disposal

Techniques

Low mobility (compaction) grouting

Email address

info@keller-na.com

Phone number

1 (800) 456-6548