

[<< Return to Main Page](#) | [Print](#)

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Contractor Works In Tight Spots

By James McRay Efficiency Production, Inc.

Every contractor prefers installing underground utilities in wide open spaces where they can open cut and slope to required specifications. Rarely is this the case when repairing or installing in-town utilities.

When sloping is not feasible, contractors turn to the old standbys like trench boxes or steel sheeting. Sometimes, even these standard applications are not feasible. What then?

Rothenberger Construction Company, of Concord, recently installed a new precast lift station ... right in the middle of the upscale Indian Lake suburb in Okemos. Rothenberger needed to keep the excavation as tight as possible — less than 2 feet from the property line of an expensive home — plus keep the roads open to local traffic.

Needing a custom shoring solution, Rothenberger contacted Efficiency Production, Inc., a manufacturer of trench shielding and shoring. Using a four-sided, 14-foot by 14-foot Slide Rail System rented from Efficiency, Rothenberger was able to excavate a pit 24 feet deep to install the new sewer lift station. The entire excavation took up only a small area, and the adjacent road and driveways were able to stay open and unobstructed!

"We've used Efficiency's Slide Rail System a dozen times or more, so we're very comfortable with excavating and installing the shoring system in some very tight spots," said Rothenberger Company owner, Dan Rothenberger. "We know what the Slide Rail System is going to do, without any experimentation. We look for those types of projects because we have a real advantage over other contractors not familiar with Slide Rail, plus it lets us put a solid number on the project bid."

Efficiency's Universal Slide Rail is a component shoring system comprised of steel panels (similar to trench shield sidewalls) and vertical steel posts. The versatile system can be used in a variety of configurations, such as small four-sided pits and large unobstructed working pits as big as 50 feet by 50 feet with Efficiency's ClearSpan™ System; or in a linear multi-bay configuration to install length of pipe over 40 feet.

Slide Rail is installed simultaneously as the trench or pit is excavated by sliding the panels into integrated rails on the posts — either double or triple rails depending on needed depth — then pushing the panels and posts incrementally down to grade as the pit is dug; a process commonly referred to as a "dig and push" system.

"Slide Rail works because it keeps excavations tight and vertical with no loss of dirt or fill," explains Greg Ross, Efficiency Production's senior Slide Rail installer and sales manager, who assisted Rothenberger with the initial installation of the shoring system. "With Efficiency's Slide Rail, you're able to reach deep depths quickly, much faster than tight sheeting."

Efficiency Production's Slide Rail is unique in that it is installed and removed incrementally, which allows the trench to be properly shored throughout the entire installation or removal process, always protecting workers from a trenchwall collapse.

"We used to use another manufacturer's slide rail, but after trying Efficiency's Slide Rail System, it just worked awesome; plus we get great customer service from Efficiency," said James Rothenberger, Dan's son and supervisor on the Indian Lake project. "Whenever we have a new tough installation planned, I know that I can call Greg and tell him what conditions we will be facing, and he can tell us almost exactly the type of system we're going to need, how long it will take to put in, and how much it will cost. It's like having another set of eyes on the job," Rothenberger added.

The 6-foot diameter, 23-foot-tall precast round lift station was completely installed in three days. Using only three laborers and a Cat 330C excavator, Rothenberger excavated and installed the Slide Rail components in one day, installed the lift station the second day, and had the pit backfilled and the shoring system pulled from the ground the third day.

"Tight sheeting is ridiculously outdated compared to the Slide Rail System," said James Rothenberger. "We can handle installing the Slide Rail with just three people, plus the Slide Rail pieces just take up less space around an already congested work site." The Slide Rail components included a set of 14-foot long panels, with 4-foot-tall panels stacked on 8-foot-tall panels in both the outside and inside rails of 24-foot-long corner posts. The excavation was made in very wet, Type-C soil.

Rothenberger Company specializes in underground utility installation and boring. They are members of the Michigan Infrastructure & Transportation Association (MITA) and the National Utility Contractors Association (NUCA).

Efficiency Production, Inc., "America's Trench Box Builder™," provides a wide selection of standard and custom trench shielding and shoring systems in the United States and Canada. Efficiency's products are designed specifically for safe and cost-effective installation of utility systems and infrastructure improvements. All products are certified to meet regulatory standards.

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[<< Return to Main Page](#) | [Print](#)

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