Slide Rail System

Universal Post & Panel Trench Shield System

What is Slide Rail?

Efficiency's Universal Slide Rail is a component shoring system comprised of steel panels (similar to trench shield sidewalls) and vertical steel posts. Installing lighter component pieces rather than larger assembled trench shields allows a contractor to use smaller, more common-sized excavators and heavy equipment.

It is commonly used as a cost-effective alternative to traditional driven close-sheeting. The cost of rental and installation of the system is approximately 50 percent of steel sheeting.

The versatile system can be used in a variety of configurations, such as small four-sided pits; large unobstructed working pits as big as 50 x 50 feet with Efficiency's ClearSpan™ System; or in a linear Multi-Bay™ configuration to install length of pipe over 40 feet.

How is Slide Rail used?

Slide Rail is installed simultaneously as the trench or pit is excavated by sliding the panels into integrated rails on the posts–an outside slotted rail first, then an open-face rail on the inside–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.

Standard 4-Sided Pit

Slide Rail in a 4-Sided pit configuration can be installed in just two-and-a-half hours in ideal conditions.

ClearSpan™ System

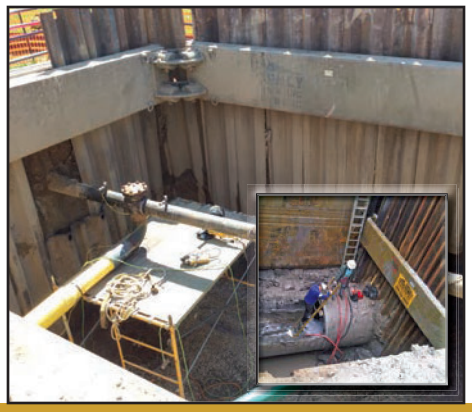
The Efficiency ClearSpan™ System incorporates special walers for larger unobstructed four-sided working pits for site specific jobs.

4-Sided or Linear Multi-Bay™

Longer pipe and larger tanks or structures can be installed by raising or removing the parallel beam spreader assembly.

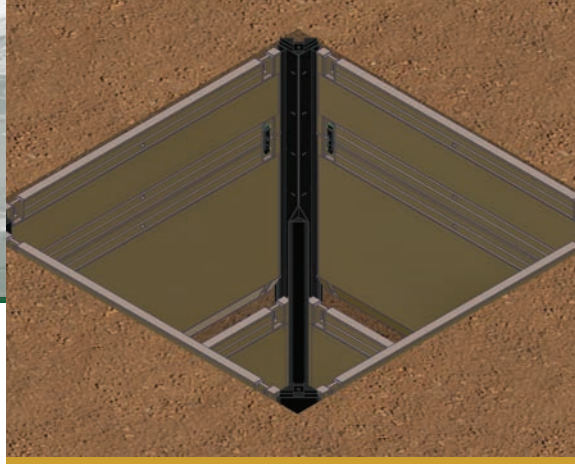
Shore-Trak™ Sheeting Guide Frame & Panel Guide

The industry's only pre-fabricated, pre-engineered cross-trench utility shielding system, Efficiency's innovative Shore-Track™ Sheeting Guide Frame and Panel Guide allows contractors to shore tightly around existing utilities.



4-Sided Pit

Dig & Push System reduces weight, time, and cost



Mauldon Bros. Construction - Mason, Michigan

Reaching a final grade of 28 feet is easy with triple-rail posts in the 16 x 16 foot square Slide Rail configuration.

RedStone Construction Group - Little Rock, Arkansas

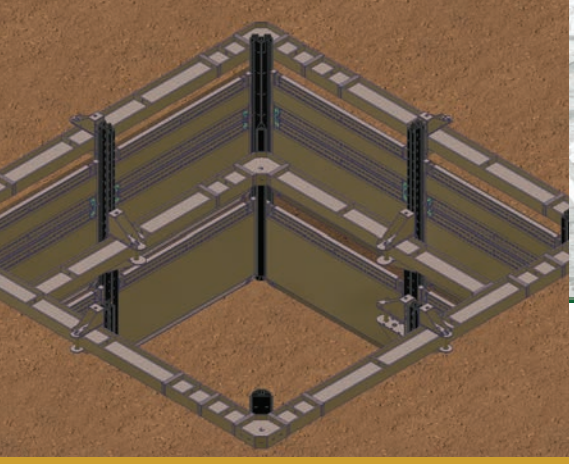
The contractor had about a 25 foot radius of space around where the wet-well was going to go, and there was no room for sloping or benching. Slide Rail was the only solution.

Express Construction - Conway, South Carolina

Express Construction was able to install the Slide Rail System, set the precast wet well, and then remove the shoring system all in two days.

"Before when looking at lift station projects to bid, it's always been, 'well I don't know. It's going to be wet; it's going to be deep.' But with Slide Rail this was simple. A piece of cake." - Greg Mauldon, Mauldon Bros. Construction, Mason MI

"I really liked the open-face rails on the posts. It made it very easy to swing panels into the posts when installing the system and provided a little slack in the inner rail on the posts that made it easier to pull out the inside panels." - Brian Squires, Express Construction, Conway SC



ClearSpan™

Unobstructed 4-sided working pit for site-specific jobs

*"We prefer to use an **Efficiency Slide** Rail System if we can. I usually have a few ideas on what might work for shoring, **but the first thing I do is call the team in Efficiency's Special Operations Shoring Division**, and together we came up with a great shoring solution."* - Joe Fischer, Fischer Excavating, Freeport IL

*"We really appreciated the guidance **from Efficiency's Slide Rail** Installers and I think the system's installation was easily picked-up by everyone on the crew and the guys took to it really well, assumed ownership of it. It means a lot more when you can do things like this, and have the support to make that happen. It meant a lot to us."* - Brian Snode, SHELLY & SANDS, Zanesville OH

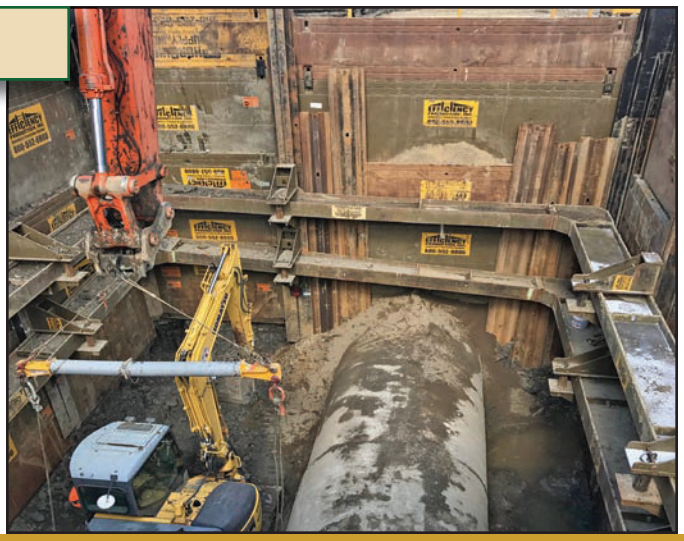
Fischer Excavating - Freeport, Illinois

Efficiency's innovative Slide Rail System allowed Fischer to excavate and shore the two giant pits less than 10 feet from each other!

Midwest REM - Melrose Park, Illinois

The height restrictions at the site meant tight-sheeting could only be driven at night. Instead, the contractor chose a ClearSpan™ configured Slide Rail System to shore the large excavation.

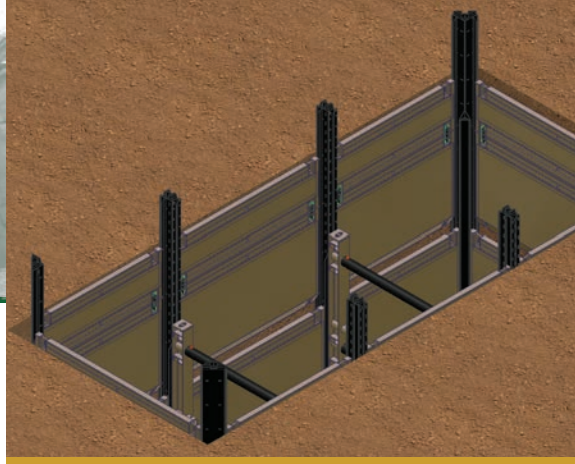
SHELLY & SANDS - Zanesville, Ohio



ClearSpan's flexiblity allowed the contractor to make "on-the-fly" design changes when the large 96 inch existing storm sewer was not in the exact location indicated in the site plan.

4-Sided Multi-Bay™

Parallel Beams utilize trench box spreader pipe



McDaniel's Construction Corp. - Columbus, Ohio

Efficiency's Slide Rail provides a safe, shored excavation in the very tightest of spots such as between buildings, alongside busy roads and highway, and adjacent to railroad tracks.

Ferrantella Construction - Schererville, Indiana

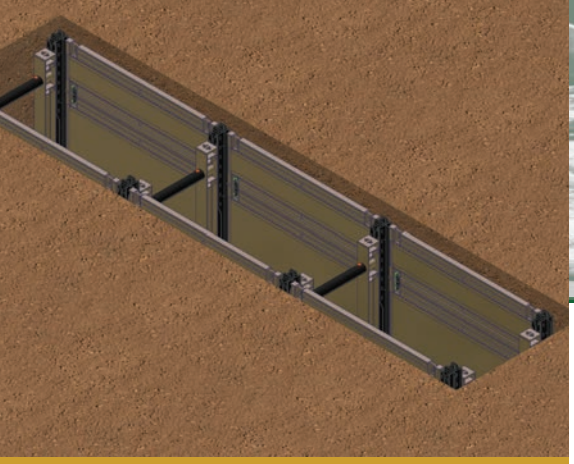
This innovative contractor used an existing concrete wall as the fourth side of a three-bay Multi-Bay™ System to safely install a poured-in-place CSO valve basin vault.

Marcus Construction - Willmar, Minnesota

Multi-Bay utilizes Efficiency's exclusive Parallel Beams that have spreader collars that pin standard trench box spreaders. This versatility enabled the widths of two bays to be altered by simply using two different lengths of spreader pipe.

"At a certain depth, trench boxes can become unsafe for our personnel. So we went with the best shoring system available, which is ***Efficiency Production's Slide*** *Rail System."* - Steve Betsko, McDaniel's Construction Corp., Columbus OH

*"****Efficiency's Slide*** *Rail System worked great and really kept the project moving. I'm not sure what else we would have done because there was no overhead room for sheet piling."* - Mike Heinen, Marcus Construction, Willmar MN



Linear Multi-Bay™

Continuous use, back to front linear application

W.W. Clyde & Company - Springville, Utah

The Linear Multi-Bay™ System allowed the contractor to lay 44 foot of pipe at the front of the system, while backfilling and removing the system in the back; then 'leapfrogging' the Slide Rail System.

"Efficiency's Slide Rail System is very well built–overbuilt really–and everyone is always very safe laying pipe. It's a total shoring system." - Allan Schieb, W.W. Clyde & Co., Springville UT

Haleakala Construction - Naples, Florida

Slide Rail is considered "positive shoring." There is absolutely no over-excavation so soil pressure is maintained throughout the entire installation and removal of the system.

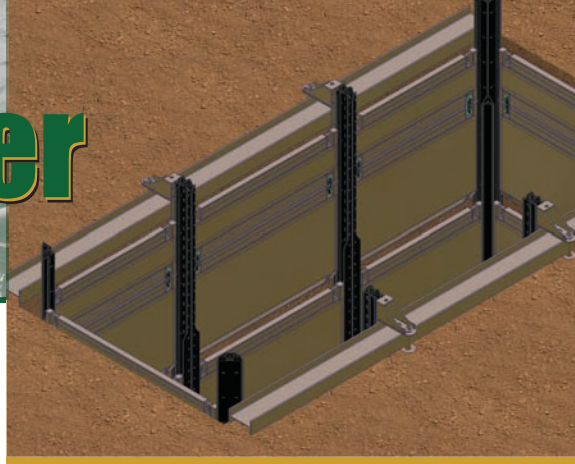
"We were competing for the job against one other contractor who came in with no other shoring options other than open-cut, so I think the Slide Rail option helped us land the job." - Randy McKenney, Goodfellow Construction, Corunna ON, Canada

Goodfellow Construction - Corunna, Ontario Canada

This Slide Rail shored trench was shallow, only 14 feet deep, but just a foot-and-a-half from the foundation of an adjacent structure!

Multi-Bay™ w/ Waler

Unobstructed pits for bores, tanks and structures



Huxted Tunneling - Palmetto, Florida

Efficiency's 4-Sided Multi-Bay™ with external walers is becoming a preferred shoring system for jack & bore and microtunneling operations.

Cutting Edge Excavating- Hudsonville, Michigan

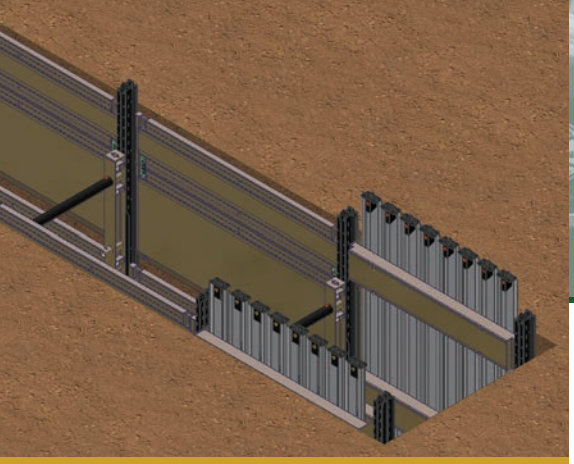
I-beams are used as tie-back walers at the top of the Slide Rail System on both of the long sides, and paired with a "sacrificial member" braced cross-trench against the bottom of the linear post, the system provides a full 70 feet of open space.

Tonn & Blank Construction - Michigan City, Indiana

The external walers are secured into integrated brackets that slide down the outside face of the linear posts.

"The Slide Rail went in very fast, faster and easier than sheet piling in my opinion. I've suggested to other excavation contractors that they might want to consider Slide Rail instead of sheet piling if they're bidding on a project that requires microtunneling." - Steve Pollack, Huxted Tunneling, Palmetto FL

"I had used Slide Rail before, so I knew what it could do, and that it would work in the wet, sandy soil. However, this was the first time I had used Efficiency's Slide Rail System because it was cheaper in the bid for this project."- Rich Nykamp, Cutting Edge Excavation, Hudsonville MI



Shore-Trak™ Sheeting Guide Frame

Cross-trench utility shielding system

"The Shore-Trak™ Sheeting Guide Frame was just a great system, and really worked better than what I expected. Now that the state's DOT has approved this system as 'active shoring,' I expect that we will be able to successfully bid on future DOT let jobs in the state." - Roger Kimrey, B.R.S. Contracting, Richfield NC

"This was the first time I've seen an Efficiency Slide Rail go in the ground, and I was very impressed with the system. I really liked the Shore-Trak™ Sheeting Guide Frame, because we could put in the stab-sheeting around the culverts, and still be integrated with the rest of the system." - Clint Martinez, Wolverine Engineers & Surveyors, Mason MI

Shook Construction - Indianapolis, Indiana

Shore-Trak™ Sheeting Guide Frames integrate seamlessly into any configuration of Slide Rail, including a large ClearSpan™ System.

Army Corp. of Engineers - Sault Ste. Marie, Michigan

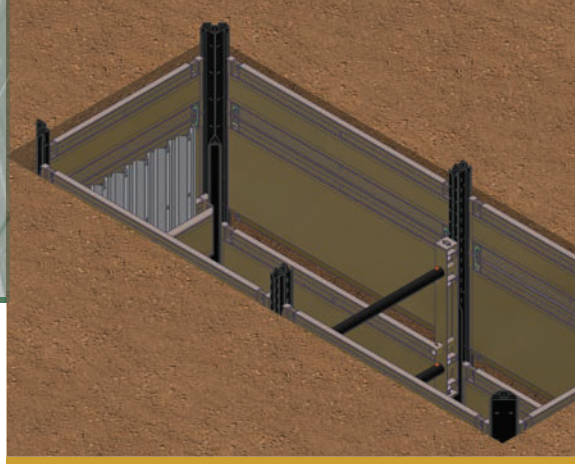
Efficiency's Shore-Trak™ Sheeting Guide Frames were used to stand up KD-6 sheeting to shore closely around a service tunnel as part of an excavation project at the historic Soo Locks in Sault Ste. Marie, Michigan.

Pan-Oceanic Engineering Co. - Chicago, Illinois

Shore-Trak™ sheeting guide frames typically connect using Slide Rail posts, however this contractor used specially designed collar connecting brackets.

Shore-Trak™ Panel Guide

Deep trench sheeting advantage



Woodruff & Sons - Michigan City, Indiana

A Shore-Trak™ Panel Guide set in the inside rail of 35 foot tall triple rail posts, allowed 24 foot lengths of KD-6 sheeting to be installed deeper in the excavation.

American Excavating - Saginaw, Michigan

By using Efficiency's Slide Rail System with Shore-Trak™ Panel Guides instead of sheeting, the contractor avoided shutting down two nearby sewer lines.

Hubbard Construction - Orlando, Florida

In a Linear Multi-Bay™ system, a Shore-Trak™ Panel Guide gave the contractor more flexibility shoring alongside an existing methane gas trunk line.

"I'd say we saved about 10 to 20 percent by using Slide Rail instead of sheeting; and we can keep our own guys working, rather than hiring a sheet piling company or driving sheet piling ourselves," - Todd Bell, Woodruff & Sons Contractors, Michigan City IN

"With Efficiency's Slide Rail, we could excavate to the exact dimensions of the system without any over cutting. This was a huge cost savings both in time and money. Slide Rail was a real problem solver, both economically and physically." - Brad Shultz, Evans Construction, Jackson WY

Slide Rail Accessories

Helpful Tools for Efficiency Production's Slide Rail System

Corner Spacing Tool

Part # SR-TOOL-SPACING

A spacing template that helps place the fourth corner post in 4-sided configurations.

Ground Quick-Release™ Shackle

Part # 58025

In the process of installing Slide Rail, the shackle connecting the top of posts, panels, and sheeting must be removed manually. This is normally done by climbing a ladder to reach the top. The innovative **Ground Quick-Release™ Shackle** has a spring loaded pin that when pulled from the ground by a connecting rope, retracts and frees the shackle.

Slide Rail Squaring Tool

Part # SR-TOOL-SQUARING

Squaring the system is critical to the ease of the dig and push process. The Squaring Tool is a spacing template that makes it easy to assure that the system is square and plum.

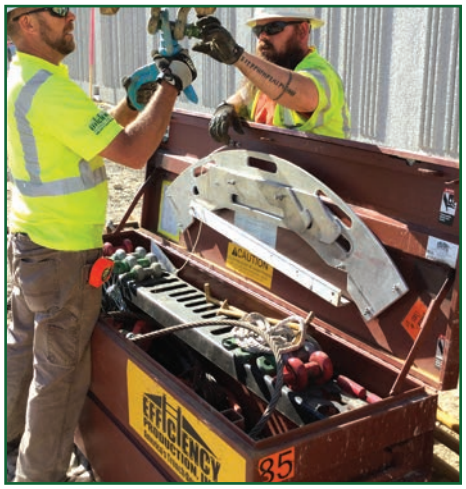
Slide Rail Barrier Post & Guard Rail

Part # BARRIER-POST

Slide Rail shored excavations typically remain open for extended periods of time. Efficiency's intergrated **Barrier Posts & Guard Rail** are an easy, OSHA compliant fall protection device. The posts' adjustable shoes also fit 3-8 inch trench shield sidewalls.

Slide Rail Job Box

Part # SR-JOB-BOX



Customized, lockable tool box designed specifically for Slide Rail components and tools. Custom racks hold multiple cables, shackles, and Slide Rail accessories:

- Corner Spacing Tool
- Slide Rail Squaring Tool
- 4' Magnetic Level
- Wire Rope & Single Leg Slings
- Shackle Rack for Job Box
- Screw Pin Shackles & Swivel
- Shackle Removal Wrench
- Slide Rail Post Handling Device

Sheeting Pushing Cap

Part # SR-KD6-PUSH

Pins at the top of KD-6 Sheeting, providing a larger surface area to push sheeting down, and reduces bending of the sheets. Includes a recessed lifting lug.

Pull Bracket-Removal Shackle

Part # SR-PULL-BRACKET

Efficiency's innovative Pull Bracket-Removal Shackles are uniquely designed to quickly and easily pull Slide Rail panels from compacted soil without damaging the panels or other equipment.

Slide Rail Post Handling Device

Part # SR-POSTLIFT

Allows for the easy picking of long Slide Rail posts from the center in a horizontal position for moving, stacking, and loading.