

GEOPIER®

Rail Applications



FOR TRACK MAINTENANCE APPLICATIONS, THE GEOPIER GEOSPIKESM AND SRT[®] SYSTEMS ARE RAPIDLY INSTALLED, LOW-COST METHOD FOR STABILIZING RAILROAD SUBGRADES.



Elements installed in minutes



20-50% cost savings vs. alternatives



Reduces ongoing maintenance



85%+ dynamic deflection reduction

DESIGN CONSIDERATIONS:

- Designed to repair shallow subgrade failures in existing track
- Installation depths up to 10+ feet

APPLICATIONS:

- Railroad maintenance applications related to:
- Mud spots • Dips
 - Surface defects • Slope Stabilization



KATOEN NATIE BAYTOWN, TX

Repaired failed clay subgrade under an industrial track lead with approximately 800 GeoSpikeSM elements in the 800' switching lead.



NORFOLK SOUTHERN DEMOPOLIS, AL

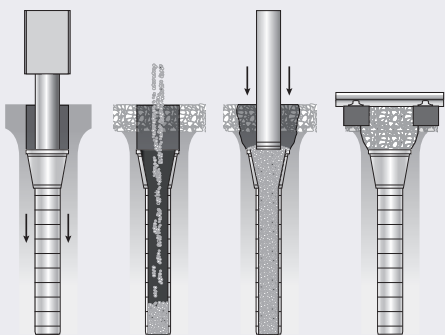
Approximately, 120 GeoSpikeSM elements were installed in the 200' section in a day and a half resulting in 0.14" deflection at 150% design load.



TEX RAIL SLOPE STABILIZATION DALLAS, TX

The Geopier SRT[®] system allowed the existing railway to remain in operation while the new retaining wall and track configuration were completed. Approximately, 100 Plate Piles[™] were installed in 5 working days.

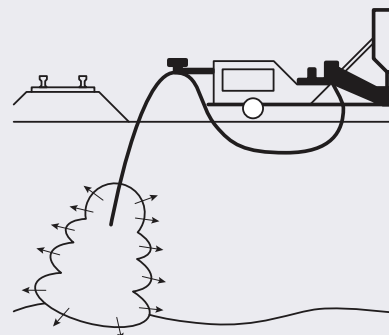
GEOPIER GEOSPIKESM SYSTEM



GeoSpike is a cost-effective, rapidly installed solution for track subgrade stabilization

- ✓ Installed with track in place
- ✓ Rapid installation, resulting in minimal disruption to operations
- ✓ Equipment and materials easily delivered and stored on site

OTHER TRACK STABILIZATION



Alternative solutions can be disruptive, expensive, and time-consuming; making them impractical

- ✗ May require removal of the track and embankment
- ✗ Remediation can significantly interrupt operations, resulting in loss of revenue
- ✗ Equipment and materials can be difficult to mobilize and require large staging area

Subgrade failure can lead to track surface defects. According to the Federal Railroad Administration, a Violation of CFR 213.63 (track surface) could result in a \$5,000 fine.

Let Geopier[®] help you keep your track safe and avoid violations.

Geopier GeoSpikeSM Installation

- Drive HDPE shell between ties to design depth
- Allows for efficient load transfer from ballast
- High quality aggregate is placed within GeoSpike shell

Geopier GeoSpikeSM elements are HDPE pier elements that transfer loads from the ballast, through soft soils, into a suitable bearing layer.

Geopier SRT[®] Installation

- Plate Pile[™] elements are driven through unstable soil into a competent layer.
- Piles are driven in an engineered pattern based on soil conditions and depth of slide.

Geopier SRT[®] Plate Pile[™] system is an efficient and cost-effective solution for the stabilization of new slopes and active slides up to 15+ feet deep that occur around rail tracks.

Whether you are an engineer, contractor, or owner - We can help.

For more information on Geopier solutions, call **800-371-7470**, visit www.geopier.com or email info@geopier.com

