

THE GEOPIER SRT™ SYSTEM

SLOPE REINFORCEMENT TECHNOLOGY



The Geopier SRT™ system is an efficient and cost-effective solution for the stabilization of new slopes and active slides up to 15 feet thick. The patented system is comprised of Plate Pile™ elements—vertical steel reinforcements—that are rapidly driven through unstable soil into a competent layer. The Plate Pile elements are engineered into a staggered spacing based on slope grades and soil properties. The Plate Pile elements transmit slide forces to the underlying stable soil to resist lateral movements and increase the factor of safety against failure. Plate Pile installations are fast and allow for immediate stabilization without the need for massive earthwork and site disruption.

The Geopier SRT system is designed to stabilize slopes where the soil conditions consist of an upper zone of weathered, loose, soft or disturbed soil over a stable zone of soil or soft rock. The closely spaced Plate Pile elements form a series of horizontal barriers where the soil arches between the plates, forming a continuous line of resistance against downslope movement. The Geopier SRT system is ideal for shallow slides or constrained sites.



ADVANTAGES OF THE SRT™ SYSTEM

- ▶ **PROVEN** Tens of thousands of Plate Pile elements have been installed, and have successfully supported numerous slopes during periods of heavy rainfall.
- ▶ **ECONOMICAL** Geopier SRT provides measurable cost savings when compared with remove and replace with retaining wall alternatives.
- ▶ **FAST** Typical installation ranges from 100 - 400 Plate Pile elements per day.
- ▶ **AGILE** Plate Pile elements can be installed in tight sites and steep slope constraints poorly suited for equipment access.
- ▶ **CONVENIENT** Typical installation can be performed on the slope with a track-mounted excavator, which eliminates the need for special equipment access roads.
- ▶ **ENGINEERED** Projects are engineered by Geopier Professional Engineers based on project specific grading, soil properties and site conditions.

THE INSTALLATION PROCESS

The Geopier SRT™ system is most commonly installed using a track-mounted excavator fitted with impact or vibrator hammers.

1. Plate Pile™ elements are arranged and installation sites are marked as predetermined and shown on plans based on slope steepness and soil conditions.
2. Plate Pile elements are driven one by one at an inclination of 3 to 5 degrees from vertical in the upslope direction. The tops of the plate piles are driven to a depth of 12 to 18 inches below existing grade. Successive rows are staggered so that individual Plate Pile elements are centered between adjacent elements located in uphill and downhill rows.
3. Upon completion of the installation of Plate Pile elements, the slope surface is track rolled to remove any surface disturbance remaining from the installation operations. Erosion protection can be applied to the slope surface within 48 hours after the completion of the installation operations.

GEOPIER APPLICATIONS

The Geopier SRT system is one of many ground improvement solutions offered by Geopier. Geopier systems have become preferred replacements for traditional methods. Local Geopier engineers and representatives work with you and your specific soil conditions and loads to engineer a project-specific practical solution to improve your ground. With multiple systems we are able to engineer support for virtually any soil type and groundwater condition across many applications, including:

- ▷ Slope Stabilization
- ▷ Foundations
- ▷ Floor Slabs
- ▷ Industrial Facilities
- ▷ Storage Tanks
- ▷ Liquefaction Mitigation
- ▷ MSE Walls/Embankment Support
- ▷ Transportation
- ▷ Wind Turbines
- ▷ Uplift & Lateral Load Resistance



New Madrid, Missouri: Levee repair



Oakland, California: Steep slope stabilization



Salina, Utah: Stabilizing a slide activated by road widening



Williams, California: Stabilizing 1.5 miles of ramp slopes for CA DOT

Geopier Foundation Company developed the Rammed Aggregate Pier (RAP) system to provide an efficient and cost effective Intermediate Foundation® solution for the support of settlement sensitive structures. Through continual research and development we've expanded our system capabilities to offer you more. Our design-build engineering support and site specific modulus testing combined with the experience of providing settlement control for thousands of projects provides an unmatched level of support and reliability to meet virtually all of your ground improvement challenges.

Work with regional engineers worldwide to solve your ground improvement challenges.

Tensar | **GEOPIER®
FOUNDATIONS**

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