

## GEOPIER® SOLUTIONS

# MSE WALLS & EMBANKMENT SUPPORT

### IMPROVED STABILITY

Constructing MSE walls and embankments on weak soils can result in inadequate factors of safety for global stability. Geopier® ground improvement solutions, exhibiting friction angles of up to 50 degrees, increase the composite stiffness of the soft foundation soils and provide additional shear reinforcement that increases the factors of safety for bearing capacity and global stability.

### SETTLEMENT CONTROL

The increase in lateral stress achieved during ramming improves the surrounding soil stiffness. The improved stiffness is coupled with the high stiffness of the Geopier foundation elements to significantly reduce embankment and retaining wall settlement. The piers may be constructed with open-graded stone to facilitate radial drainage thereby reducing the time for settlement to occur. The reduction in settlement magnitude and duration eliminates the need for staged embankment construction and reduces overall construction schedules while delivering superior performance.

### INCREASED BEARING CAPACITY

Tall cast-in-place retaining walls and MSE walls exert high bearing pressures near the toe of the wall. These pressures often exceed the soil bearing capacity. Geopier ground improvement systems are installed beneath MSE and retaining walls to cost-effectively increase the bearing capacity of weak or soft



Loop 363, Temple, Texas

foundation soil and fill. The high friction angle of the Geopier systems provides significant increases of 2 to 3 times in the allowable bearing pressure, offering reliable support of tall walls.

### GEOPIER® EXPERIENCE

Geopier ground improvement systems have supported hundreds of retaining wall and embankment projects. Geopier offers the only ground improvement technology evaluated by an independent HITEC committee for transportation projects. Geopier solutions provide unmatched value and performance by supporting transportation projects in most states in the U.S.



I-40 / I-240 MSE Wall Support  
Memphis, Tennessee



Sienna Parkway MSE Wall Support  
Missouri City, Texas



I-70 / I-270 MSE Wall Support  
Hazlewood, Missouri



I-235 and 50th Street MSE Wall  
Des Moines, Iowa

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

**Tensar**

**GEOPIER®  
FOUNDATIONS**

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