

# MCI Network Information Center Overland, Missouri

Geopier® Rammed Aggregate Piers™

## Project Team

**Geotechnical Engineer:** PSI, Inc.

**Structural Engineer:** Group Mackenzie

**General Contractor:** Hoffman Construction Co.

**Geopier Installer:** Foundation Service Corp.

**Geopier Designer:** GFC – West

**The Geopier Intermediate Foundation System was selected as a value engineering alternative to over-excavating up to 20 feet deep and replacing with engineered fill.**

## Project Overview

### Description:

Construction of a new one story building with 500 psf floor loading and two battery story areas. Interior column loads range from 100 to 700 kips. Perimeter wall loads are ten kips per linear foot. Up to 15 feet of new fill was required to achieve design grade.

### Subsurface Conditions:

The geotechnical investigation revealed a soil profile consisting of non-engineered fill, as well as silts and lean clays underlain by fat clays. Sandstone and shale were encountered at depths ranging from 21 to 32 feet.

### Geopier Solution:

Originally, the design team considered over excavating up to 20 feet deep and replacing with engineered fill. The building columns would have to be supported by 72 inch diameter, 35 foot long drilled piers. The Geopier Intermediate Foundation System was selected as a value engineering alternative. The first phase of Geopier Rammed Aggregate Pier (RAP) installations stabilized



the existing subgrade soils in place, prior to the placement of grade raise fill, to control settlements due to the weight of the new fill. After the existing subgrade was stabilized and the site had been raised to design grade, additional RAPs were installed to support the heavy column and wall loads of the new structure. A total of 564 RAPs were installed in a grid pattern prior to the placement of the new fill. An additional 505 RAPs were installed to support the column loads. More than 1,000 RAPs were installed at the site in only 21 working days.

### FOR MORE INFORMATION

Contact Geopier Foundation Company at **800-371-7470**  
or at **[www.geopier.com](http://www.geopier.com)**



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*The Intermediate Foundation System*