

# Jordan Creek Mall West Des Moines, Iowa

Geopier® Rammed Aggregate Piers™

## Project Team

**Geotechnical Engineer:** Allender Butzke Engineers, Inc.

**Structural Engineer:** Skilling Ward Magnusson Barkshire, Inc.

**Owner:** General Growth Properties, Inc.

**General Contractor:** Vratsinas Construction Company

**Geopier Installer:** Peterson Contractors, Inc.

**Geopier Designer:** GFC – Midwest

**To achieve the required bearing pressure, the geotechnical engineer recommended either over excavation and granular replacement of 3 to 7 feet below the footings or the Geopier Intermediate Foundation System.**

## Project Overview

### Description:

Construction of a two level retail structure covering ten acres with potential expansion of up to six anchor stores. Column loads range from 60 to 780 kips.

### Subsurface Conditions:

The soil profile on the west side included 10 to 20 feet of glacial lacustrine silts with organics underlain by fat clay Paleosol (weathered Pre-Illinoian till) and sandy lean to fat clay Pre-Illinoian till. Only fat clay Paleosol over sandy lean to fat clay Pre-Illinoian till were encountered on the east side of the site.

### Geopier Solution:

The structural engineer required that the soils supporting the lower level structure exhibit an allowable bearing pressure of 4,000 psf. To achieve the required bearing pressure, the geotechnical engineer recommended either over excavation and granular replacement of three to seven feet below the footings or the Geopier Intermediate Foundation System. The more cost efficient Geopier System was selected and about 1,150 Rammed



Aggregate Piers (RAPs) were installed at the lower level portion of the mall, which included about six and one quarter acres of the estimated ten acre retail structure.

### 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*