



Wal-Mart

Oregon, Ohio

The Geopier GP3® system provided significant cost savings and schedule advantages as compared to alternatives

Description: Construction of a 150,000 square foot, one story Wal-Mart super center with maximum column loads of 150 kips and wall loads of four to six kips per foot.

Subsurface Conditions: The soil profile consists of 6 to 12 inches of topsoil overlying 8 to 13.5 feet of lean clay fill with SPT “N-values” of seven blows per foot. Beneath the clay fill is natural lean clay with an average of 14 bpf. Groundwater was encountered at the surface.

Geopier Solution: The Geopier GP3® system was developed to support the new fill, floor slab and foundations. A total of 890 Geopier Rammed Aggregate Pier® (RAP) elements were placed, with a maximum spacing of 15 feet on center, beneath the proposed column and wall locations for support of structural loads. This total included 410 RAP elements installed beneath the foundations and 480 installed beneath the floor slab. The Geopier® approach provided significant cost savings and schedule advantage as compared to conventional overexcavation/replacement that would otherwise have been required.



PROJECT TEAM

Owner:

Wal-Mart

Geotechnical Engineer:

Testech, Inc.

Civil Engineer:

CESO, Inc.

General Contractor:

Cleveland Construction, Inc.

Geopier Installer:

Peterson Contractors, Inc.

Geopier Designer:

GFC Great Lakes