



Restaurant Depot

Seattle, Washington

The Geopier Impact® system was installed to for liquefaction mitigation and foundation support in the upper 25 feet of the soil profile for an earthquake with Peak Ground Acceleration (PGA) of 0.37g and a magnitude of (Mw) 6.8

Description: Construction of a warehouse with an approximate footprint area of 60,000 square feet. Design bearing pressure for column footings of 3.5 ksf and a floor slab pressure of 350 psf was anticipated.

Subsurface Conditions: The soil conditions consisted of about seven to 10 feet of medium dense sand fill with N-values ranging between about six and 18 blows per foot (design N-value of about 9 bpf), overlying about 10 feet of very soft to soft silt with some organics and very loose to loose silty sand to sand with SPT N-values ranging from 0 to 6 blows per foot; overlying medium dense sand. The groundwater table was encountered during drilling at a depth of about eight feet below grade.

Geopier Solution: Rammed Aggregate Pier® elements were constructed with a 20 inch diameter and installed to for liquefaction mitigation and foundation support in the upper 25 feet of the soil profile for an earthquake with Peak Ground Acceleration (PGA) of 0.37g and a magnitude of (Mw) 6.8.



PROJECT TEAM

Owner:

Restaurant Depot

Geotechnical Engineer:

Associated Earth Sciences Inc.

Structural Engineer:

Shutler Consulting Engineers

Geopier Installer:

Peterson Contractors, Inc.

Geopier Designer:

GFC-Northwest