



Boston Fire Department Training Simulator

Quincy, Massachusetts

The Geopier Impact® system provided foundation support and allowed for building with conventional spread footings

Description: The \$4 million project was to provide support for a six-story training tower and a two-and-a-half story concrete structure with a footprint of 2,000 square feet. The concrete slab around the perimeter of the building would extend out eight feet. The finished floor elevation at 15 feet would require less than two feet of grade raise fill.



Subsurface Conditions: The soil conditions on Moon Island consisted of sand fill to stiff silt to clayey silt extending to depths of 11 to 15 feet. Glacial till was revealed to the maximum explored depth of 23 feet. Groundwater was encountered at about 10 feet below

Geopier Solution: Rammed Aggregate Pier® (RAP) elements were installed through the existing fill to tag glacial till. The RAP elements allowed for building with conventional spread footings. A total of 180 20-inch Geopier elements were installed to complete this project.

PROJECT TEAM

Geotechnical Engineer:

Terracon

Structural Engineer:

Lin Associates, Inc.

Architect:

Whitney Atwood Norcross Assoc, Inc

General Contractor:

WCI Corporation

Geopier Installer:

Helical Drilling, Inc.

Geopier Designer:

Design/Build Geotechnical, LLC