



New Silver Beach Waste Water Treatment Facility & Pump Station

Falmouth, Massachusetts

The Impact® system provided a significant cost savings, reduced construction related noise and vibration in comparison to deep excavation and replacement

Description: Construction of a 5,000 square foot pump station to be completed close to a quiet residential neighborhood and school.

Subsurface Conditions: Soil conditions consisted of loose fine sands extending to depths of 30 feet. Groundwater was encountered at five to seven feet below grade.

Geopier Solution: Preliminary foundation evaluations included deep excavation and replacement or a pile supported structural slab. In addition to the significant cost for these alternatives, construction related noise and vibration impacts and long construction schedules were major project concerns. With this understanding, the Geopier Impact® system was selected as the foundation support solution. The Impact system provided a pier stiffness modulus of 200 pci at an eight foot rectangular grid to mitigate liquefaction potential for the 1/5,000 year design seismic event. Work was completed in only 3 days with little impact to the abutting neighborhood.



PROJECT TEAM

Owner:

Town of Revere, Massachusetts

Geotechnical Engineer:

Weston & Sampson Engineers Inc

Structural Engineer:

Weston & Sampson Engineers Inc.

General Contractor:

Winston Builders

Geopier Installer:

Helical Drilling, Inc.

Geopier Designer:

Design/Build Geotechnical, LLC