Industry and manufacturing

Kearny Point Industrial Park Building 197

UNITED STATES — **Kearny, NJ**

Owner
Crown Point Group

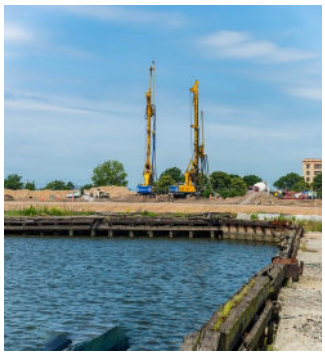
Engineer
Melick-Tully

General contractor
Hugo Neu Corporation

Dates of work
March 2017 June 2017

Main figures

Controlled Modulus Columns
2,532 EA.



Description

The Hugo Neu Corporation, one of the nation's largest industrial real estate developers, is transforming a former shipyard into a modern, mixed-use industrial park. Kearny Point Industrial Park is a soon-to-be thriving business district located on a peninsula between the cities of Newark and Jersey City, NJ.

As part of this construction initiative, Menard Group USA designed and installed Controlled Modulus Column (CMC)® rigid inclusions on the site of a demolished industrial building to support the future footings, walls, and slabs of a new warehouse.

Ground conditions

The site's upper soil at 0 to 11 ft contains brick, concrete, and wood from the demolished industrial building. Underlying the upper fill is peat and organic silt from 11 to 26 ft, underlain by medium dense sand at 26 to 36 ft, underlain by a layer of silty clay at 36 to 55 ft. At 55 to 66 ft there's a layer of medium dense sand with trace silt, underlain by silty clay from 66 ft.

Solution

The site's conditions proved to be a challenge for ground improvement installation. Because of the obstructions in the site's upper soil, Menard Group USA crews pre-drilled in some areas to avoid damaging the CMC augers. Terminating the CMC rigid inclusions in the medium dense sand layer also proved to be tricky because this layer was very thin in some areas.

Settlement was a concern because of the site's underlying soft organics. CMC rigid inclusions are a good solution for this site because they allow transfer of building's future loads through the organics and into the bearing sand layer.

A total of 2,532 CMC rigid inclusions were installed to an average depth of 61 ft and met the settlement criteria of 2 in total, 3/4 in differential between column footings.