844-HELICON
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Lector 85 Mixed Use Building

VIBRO STONE COLUMNS PROJECT

Project

The project is a Multi-Family and Retail Development, located on Adamo Drive in Tampa, Hillsborough County. The building consists of 4 & 5-story residential/retail structures and a 6-story precast parking structure, with associated paved parking & driveway areas. Due to the presence of loose to medium dense fine sands & slightly silty sand & clay in the upper 30 feet, the Geotechnical Engineer of Record recommended a ground improvement program for Vibro-Replacement Stone Columns (VSC).Columns (VSC), which were used to improve the shallow overburden soils upon completion of the preconstruction grout program and provide an allowable net bearing capacity of 6,000 psf.

Challenge

- Difficulty penetration the clay layers and required some pre-drilling
- Limited movement around the site, due to ongoing site conditions & multiple trades
- Un-documented clay & debris were removed by others during our work

Solution

Helicon worked alongside the general contractor & the geotechnical/structural design teams, to develop a site-conscious Vibro-Replacement design submittal. We also worked with the site contractor in order to overcome the buried debris & other obstacles. The VSC Program was designed to meet the design load criteria of 7,000 psf allowable. Helicon's VSC crew worked approx. 10-hour shifts for up to six days a week, in order to meet the client's critical path schedule. Efficient planning & coordination was key to overcoming the challenges & limitations. (1,043) Vibro-Replacement Stone Columns (VSC) were installed from site grade to depths ranging from 15-ft to 25-ft. Helicon collaborated with the Geotechnical Engineer of Record throughout the work and confirmed all recommended criteria were followed. The VSC work was successfully completed in (30) days and within budget.

Owner: Lector 85 (Milhaus)
Contractor: Juneau Construction
Engineer: Universal Engineering Sciences
Market: Mixed-Use, Retail
Solution: Ground Improvement
Services: Vibro Stone Columns