Lincoln High School Modernization

Portland, Oregon, USA

Keller provides a design-build VibroPier® solution for the first high-rise high school on the West Coast.

The project

As part of a capital infrastructure program, Portland Public Schools completed a major renovation and modernization of Lincoln High School. Located on the west side of the existing campus, the six-story building includes updated classroom facilities, athletic facilities, and an outdoor plaza. The building footprint is on the historic Tanner Creek, reclaimed land containing over 50 feet of poorly placed urban fill. Because of this mixed, compressible fill, a ground improvement solution was required to support the new structure.

The challenge

The site contained multiple underground utilities and a combination of known and unknown obstructions, including a pipe that carried the modern-day Tanner Creek to the Willamette River.

The solution

The general contractor selected Keller as the design-build contractor to provide a ground improvement solution to meet all project requirements. Keller’s final design consisted of over 1000 VibroPiers®, installed to depths up to 20 ft. Before construction began, Keller collaborated with the project team to remove obstructions encountered during installation, relocate several piers, and adjust installation methods as necessary. Due to their depths below the final grade, many of the building's subsurface utilities were placed before pier installation. Pre-drilling was performed to ensure that no obstructions would be encountered with the vibroprobe and to increase VibroPier® installation efficiency. Keller completed construction on schedule while working concurrently with other trades on site.

Project facts

Owner(s)
Portland Public Schools

Keller business unit(s)
Keller

Main contractor(s)
Hoffman Construction

Solutions
Ground improvement

Markets
Institutional

Techniques
Vibro (aggregate) piers®

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