

Audenried High School

Philadelphia, Pennsylvania

Construction of a new high school in historic Philadelphia required treatment of 20 feet of urban fill. Ground improvement was used to treat the poor subgrade soils.



The project

The School District of Philadelphia planned the construction of a new high school. Although the location was desirable, the subsurface conditions were not.

The challenge

The subsurface profile included 20 feet of uncontrolled urban fill. The miscellaneous urban fill would not support the new school on shallow spread footings.

The solution

Keller and the design engineer developed a Rapid Impact Compaction (RIC) program to improve the fill to provide an allowable bearing pressure of 4,000 psf. RIC is a dynamic compaction system for improving shallow loose soils. The RIC program specified the compaction of 3,400 points across 150,000 square feet of the building site. The RIC system achieved the necessary improvement of the fill to support the design bearing pressure of 4,000 psf within tolerable settlement limits. The RIC program successfully improved the urban fill for the Audenried High School site.

Project facts

Owner(s)

School District of Philadelphia

Keller business unit(s)

Keller

Main contractor(s)

Daniel J. Keating Co.

Solutions

Ground improvement

Markets

Institutional
Education

Techniques

Rapid impact compaction (RIC)

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