# Subsurface Constructors

Ground Improvement

# PSU Abington Campus Residence Hall


## Aggregate pier installation to reach allowable bearing pressure and provide cost savings

As part of the Philadelphia Housing Project, Penn State University opened its first Residence Hall at the Abington Campus. The undertaking was a massive $50 million student housing project.

Subsurface Constructors installed approximately 500 aggregate piers for the 5-story, 675,000 square foot residence hall. This provided significant cost savings by using aggregate piers to support the footings instead of deep foundations.

The poor soil conditions at the site consisted of up to 10 feet of poor uncontrolled fill over approximately 7 feet of clayey silt on top of sand and gravel. The aggregate piers extended through the fill and clays into the sand and

gravel layer to a depth of up to 22 feet. Subsurface designed the piers for an allowable bearing pressure of 6,000 pounds per square foot (psf).

## Project details:

**Owner:** Penn State University
**Geotechnical Engineer:** Pennoni Associates
**General Contractor:** Turner Construction Company
**Structural Engineer:** Built Form
**Services Provided:** Ground improvement
**Year:** 2018
**Location:** Philadelphia, Pennsylvania