

# Subsurface Constructors

Ground Improvement

## The Edge at Cleveland State University



### Installing ground improvement for student housing at CSU

[The Edge at Cleveland State University \(CSU\)](#) is an 11-story premium student housing complex located a block away from Playhouse Square in Downtown Cleveland, Ohio. The building provides 240 residential suites, a 163-car parking garage and various other amenities. Subsurface Constructors, Inc. designed and installed 640 [vibro stone columns](#) and 160 grouted uplift anchors in order to reinforce the urban fill and the underlying very loose to dense sands. The [ground improvement design](#) provided a 5,000 pounds per square foot (psf) post-treatment bearing pressures and 45 kip per ground anchor uplift capacity.

### Project details:

**Owner:** Cleveland State University

**Geotechnical Engineer:** Professional Service Industries, Inc. (PSI) – Cleveland

**General Contractor:** Clayco

**Structural Engineer:** Alper Audi, Inc. and Crux Engineering

**Services Provided:** Vibro stone columns, grouted uplift anchors

**Year:** 2017

**Location:** Cleveland, Ohio