

## Northern Arizona University Campus Hub

Flagstaff, Arizona

Keller provided an alternate ground improvement solution, saving significant cost and time over the conventional deep foundation system originally considered.



## The project

The owner developed a new student housing facility near Northern Arizona University's campus approximately 100,000 ft<sup>2</sup> and five stories high with structural loads ranging from 180 to 600 kips. The surficial soils of the site varied greatly due to disturbances from previous development.

## The challenge

Traditional spread footings bearing on the existing disturbed soils would experience excessive settlement. The owner considered a deep foundation system which would safely support the structural loads (up to 600 kips), but the cost was too high.

## The solution

A foundation system of spread footings bearing on soil improved with vibro piers was designed and constructed meeting the project schedule and performance requirements. The vibro piers treated the upper 10 to 25 ft of compressible soils, allowing for an increased allowable bearing pressure.

“ The Keller team was very professional and committed to the success of the overall project, which certainly had complicated and unique parameters. It would be great to see them on future projects.

**Jimmy Tometich**

Vice President of Construction Operations, Beal Derkenne Construction

## Project facts

### Owner(s)

Core Campus

### Keller business unit(s)

Keller

### Main contractor(s)

Beal Derkenne Construction

### Engineer(s)

Partner Engineering and Science, Inc.

### Solutions

Bearing capacity / settlement control

### Markets

Institutional  
Education

### Techniques

Vibro (aggregate) piers®

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