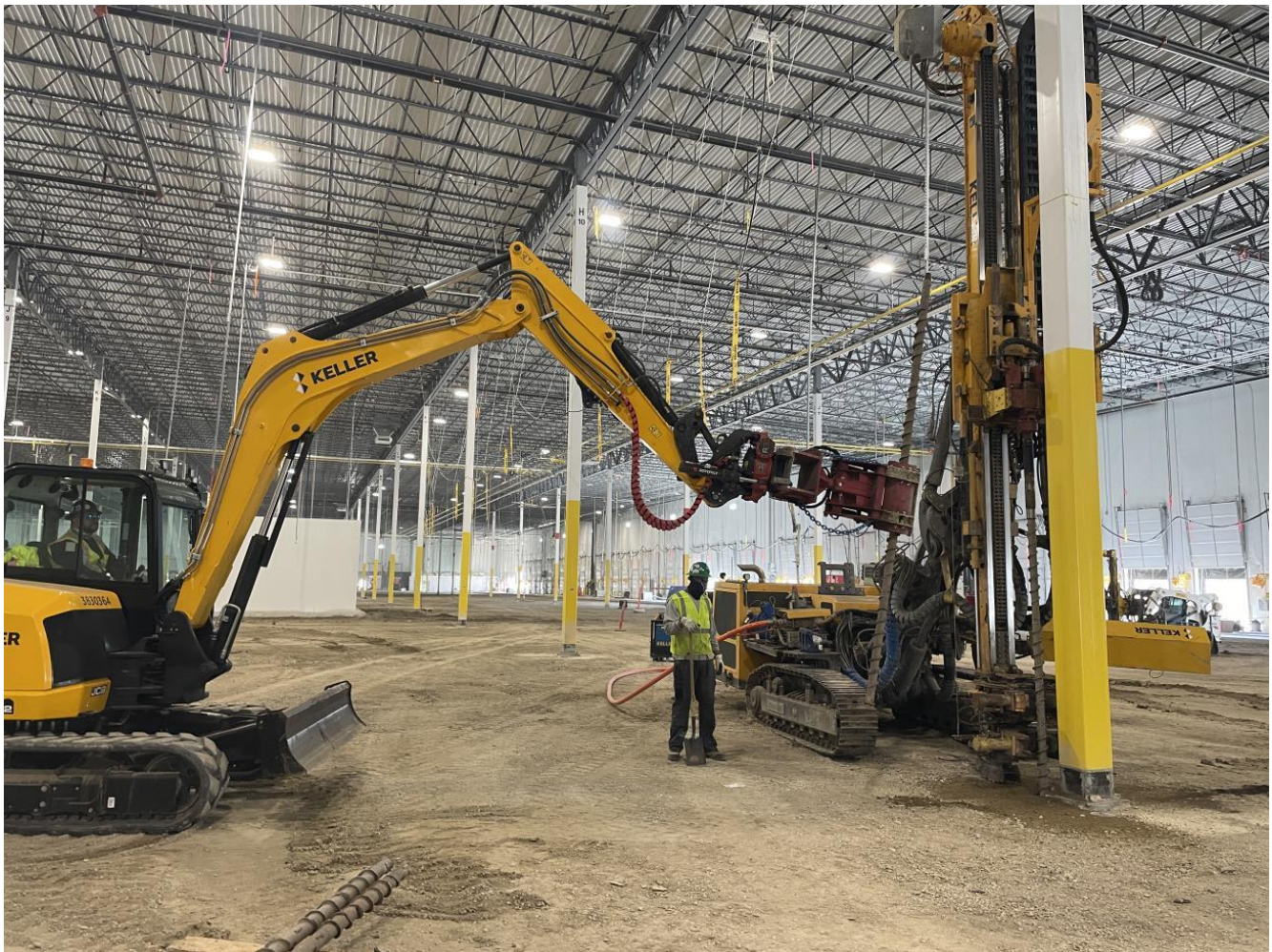




## Warehouse retrofitting

Aurora, Colorado, USA

With an accelerated timeline, Keller designed, mobilized, and installed approximately 300 micropiles from the first call from the client to demobilization of the last piece of equipment in four weeks.



# The project

Keller provided a deep foundation solution to retrofit an existing 750,000 sq. ft. warehouse near Denver International Airport. The ground conditions comprised 10 ft of lean clay with sand, overlaying 40 ft of moderately soft claystone.

Although the final layout of the client’s heavy equipment and racking systems was undetermined, the existing floor slab and column foundations were known to be inadequate to support the planned loads the client expected. Therefore, the solution was to replace the existing slab and retrofit the existing isolated column footings with micropile underpinning.

The client established a four-week construction schedule for the foundation work. Based on previous experience, the geotechnical engineer recommended that Keller design and construct the micropile underpinning solution. Keller was able to design and mobilize the site within two weeks.

Keller’s design consisted of coring through 99 existing column footings and installing three micropiles per column, for a total of 297 micropiles up to 50 ft deep. The coring was completed by a Keller subcontractor, and then Keller quickly followed with micropile installation equipment, labor, and materials. Keller enlisted crews and equipment from surrounding branches and completed the micropiles within the four-week schedule.

## Project facts

**Owner(s)**

Confidential client

**Keller business unit(s)**

Keller

**Main contractor(s)**

Confidential client

**Solutions**

Deep foundations

**Markets**

Commercial

**Techniques**

Micropiles

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