



The Print Shop Apartments

Las Vegas, Nevada

Keller's design-build Vibro Pier® ground improvement system was the first approved and used in Clark County, Nevada.



The project

Built on a parcel of land previously occupied by a screen printing and embroidery shop, the aptly named Print Shop Apartment Complex stands seven stories tall, including ground-floor retail spaces and over 180 rental units. Generally, ground conditions consisted of 8 ft of loose silty sand and clayey sand underlain by varying thicknesses of caliche. The geotechnical engineer recommended drilled shafts as a deep foundation solution to support the structure.

The challenge

The project team sought an alternative solution to the drilled shaft design to reduce cost and overall schedule time.

The solution

Using their local experience and expertise, Keller recommended a ground improvement solution using Vibro Piers® that was accepted by the client and geotechnical engineer. Pilot holes were drilled around the site to evaluate the caliche thickness and refine the design depth of the Vibro Piers. Two modulus load tests were performed to confirm the design assumptions.

In total, Keller installed 518 Vibro Piers® to depths ranging from 24 ft to 32 ft. As a result of the design-build, value-engineered solution, Keller completed the project ahead of schedule and provided significant cost savings to the owner.

Project facts

Owner(s)

Fore Property Company

Keller business unit(s)

Keller

Main contractor(s)

Fore Construction, LLC

Engineer(s)

Western Technologies, Inc.
Keller

Solutions

Ground improvement

Markets

Residential
Commercial

Techniques

Vibro (aggregate) piers®

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