CASE HISTORY

Life Care Center of Stonegate

The Life Care Center of Stonegate in Parker, Colorado is a one-story building approximately 310 by 470 feet. Deep foundation support was required to carry column loads up to 200 kips while limiting settlement to 1 inch.

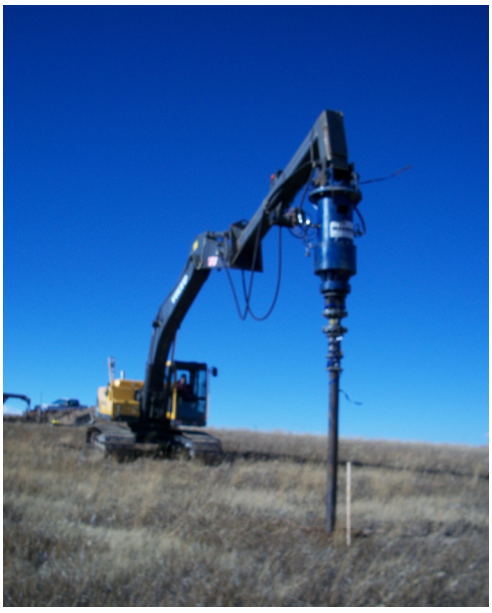


The Challenge

The project needed a foundation system for a large building footprint with column loads ranging from 60 to 200 kips, wall loads of 2.5 klf, and slab loads of 100 to 150 psf (max). Allowable settlement was limited to 1 inch for columns and 1 inch over 40 feet for walls, driving the need for a dependable, constructible solution across the site.

The Solution

MAGNUM® Helical Piles were selected. Non-galvanized MH325BR and MH530B helical piles were installed by Waldo Excavating and Construction. A total of 409 helical piles with 100-kip ultimate capacity were installed to 24 feet, and 154 helical piles with 200-kip ultimate capacity were installed to 30 feet. Terracon provided geotechnical services, and pile design was provided by Magnum - Geo Solutions. Two compression load tests and two tension load tests were completed on site.



Results

The project was successfully completed in 25 working days with the helical piles installed to the documented depths and capacities and both compression and tension load tests completed.

Highlights

Location: Parker, Colorado, Application: One-story building (~310 ft x 470 ft), Loads: Columns 60–200 kips; Walls 2.5 klf; Slabs 100–150 psf (max), Allowable Settlement: Columns 1 inch; Walls 1 inch over 40 feet, Pile Type: MAGNUM® Helical Piles – MH325BR and MH530B (Non Galvanized), Installation: 409 helical piles (100-kip ultimate)



CASE HISTORY

to 24 ft; 154 helical piles (200-kip ultimate) to 30 ft, Installer: Waldo Excavating and Construction, Geotech: Terracon, Pile Design: Magnum - Geo Solutions, Load Testing: 2 compression tests and 2 tension tests, Schedule: Completed in 25 working days

MAGNUM® Piering

This project demonstrates how MAGNUM® Helical Piles and Magnum - Geo Solutions design support deliver practical deep foundation solutions for large building footprints with defined load and settlement criteria. The combination of MH325BR and MH530B piles provided the required capacities with efficient installation and verifiable performance.

