

CASE HISTORY

SITE PREPARATION

» NEW CONSTRUCTION

REMEDIAL REPAIR

» HELICAL PULLDOWN® MICROPILE

ATLAS RESISTANCE® PIERS

HELICAL UNDERPINNING

EARTH RETENTION

RETAINING WALLS

HELICAL TIEBACK

SOIL SCREW®

PIPELINE STABILIZATION

TELECOM/SUBSTATION

UTILITY/SOLAR

CHANCE® DISTRIBUTOR
FOUNDATION TECHNOLOGIES, INC.
 Lawrenceville, GA

CERTIFIED CHANCE®
 INSTALLER
MASON GRADY FOUNDATIONS
 Cairo, GA

PROJECT ENGINEER
STRUCTURAL SOLUTIONS
 Tallahassee, FL

GENERAL CONTRACTOR
GREENHUT CONSTRUCTION
 Pensacola, FL

Hubbell Power Systems, Inc. is the world's leading helical pile/anchor manufacturer. The CHANCE® brand offers a technically advanced, cost effective solution for the Civil Construction and Electric Utility and Telecommunications markets.

YMCA Pool Foundations



PROJECT:

Installing CHANCE® Helical Pulldown® Micropiles for two pools at a YMCA in downtown Pensacola, Florida.

BACKGROUND:

The YMCA building and pool foundations were designed on CHANCE Helical Pulldown Micropiles due to a layer of organic clay found approximately 25 ft. below grade.

THE PROBLEM:

The project faced a tight production timeline with complex soil counts. The site had a soft layer of sand for the first 10-15 ft. and below that was approximately 20 ft. of extremely dense clay. Mason Frasca, with Mason Grady Foundations, shared, “(The density) was enough to almost max out the SS225 material which is why we had to go with the larger material to get through that layer and the soft layer below, reaching the 75 ft. depth. There wouldn’t have been another way to penetrate that dense layer.” Also, they were working with a high water table at approximately 4 ft., which combined with weather, could create a large excavation full of water and delay the whole project.

continued



THE SOLUTION:

CHANCE Helical Pulldown Micropiles provided the best solution for this project. A load test was conducted prior to the installation of production piles to verify the pile capabilities. Even at 200 kips, pile movement was less than 1/2 in. During the project, the piles were installed with a 28,000 lb. excavator and 30,000 ft-lb Digga drive head. There was limited access to the site, and the excavator entered the work area through a 10 ft. wide by 18 ft. high opening. The working load was as high as 97 kips in compression and 54 kips in tension. They installed SS225 piles with a 8/10/12/14 helix and a 7 in. grout column to a depth of approximately 75 ft. and torque values from 10,000 ft-lbs. to 20,000 ft-lbs.

The General Contractor wanted to minimize the amount of time needed work around the pool excavation. Therefore, they installed the pool foundation piles near the end of the project, after the roof was complete.

The contractor estimates the time saved to be six to eight weeks on production and prevented project delays due to weather. The pile installation was the third Helical Pulldown Micropile project that the installers completed, and they found the piles easy to work with. Ultimately, the lesson they learned from this project is to make sure the piece of equipment that is being used is appropriate for the size drive-head and material being used, to ensure that the proper penetration rate and crowd can be maintained during installation. In total, there were 36 CHANCE Helical Pulldown Micropiles installed across the two YMCA pool locations and the installation took only eight days to complete.

KEY BENEFITS:

- LIMITED ACCESS
- QUICK INSTALLATION
- PENETRATION THROUGH DENSE SOIL COUNT
- EASY TO USE
- LOW TO NO VIBRATION/NOISE
- STANDARD EQUIPMENT FOR INSTALLATION
- IMMEDIATE PROOF TESTING AND LOADING



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