

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

CHANCE CERTIFIED  
INSTALLER  
**MASON GRADY FOUNDATIONS, LLC**  
 PENSACOLA, FL / CAIRO, GA

GENERAL CONTRACTOR  
**EMERALD COAST BUILDING**  
**CONTRACTORS**

GEOTECHNICAL ENGINEER  
**SOUTHERN EARTH SCIENCES, INC.**

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.

# Private Residence in Okaloosa County, Florida



View of the work area in relation to adjacent structure.

**PROJECT:**

Installing CHANCE® helical pipe piles for a private residence in Okaloosa County, FL.

**BACKGROUND:**

A two-story residence was scheduled for construction on Choctawhatchee Bay in Southern Okaloosa County, FL. Prior to construction, a Geotechnical Investigation was performed by Southern Earth Sciences that revealed a layer of loose sand that extended to approximately 33-feet below existing grade. Below this layer, suitable load bearing material was present in the form of dense to very dense sand.

**PROBLEM:**

In order to adequately support the structure, a deep foundation was needed to transfer the loads below this loose layer into a more competent load bearing soil layer. Ultimately, each pile would need to support a compressive load of 24-kips.

Access to the site, however, was limited as the project site was located in a densely populated neighborhood. There were neighboring structures on three sides of the work site, therefore, the need for a deep foundation that could be installed without generating vibrations, and could be installed with relatively small construction equipment, and without producing spoils would be key for this project.

*continued*

# CASE HISTORY

## SOLUTION:

CHANCE Model RS2875.203 Round Shaft Helical Pipe Piles were selected as the helical foundation of choice for this project. The Model RS2875.203 pile is a 2-7/8" pipe pile with .203" wall thickness that can be installed to a maximum 5,500 ft-lbs. of torque. Using the industry standard torque factor of 9 for this type of material, installed to 5,500 ftlbs. of torque will provide a pile with an ultimate capacity of 49.5-kips, or 24.75-kips working capacity with a factor of safety of two. Each pile lead section consisted of two helical bearing plates, a 10" helix, followed by a 12" helix. The pile lead sections and plain extension sections were hot-dipped galvanized for corrosion protection. In total there were 64 piles installed to an average depth of 40'. Piles were installed with a CAT Model 308e2 mini-excavator equipped with a Digga 12K drive-head, and installation took 3 days to complete.



Completed pile system with new construction cap to allow for connection to the concrete grade beams.



Top view of completed helical pile installation prior to installing the new construction cap.



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CHANCE® Certification #1912-0009-3630

*Mason Grady Foundations specializes in CHANCE Helical Pile Systems primarily for foundations and retaining walls. The company is a certified CHANCE installer, we are family owned and operated, and we are a member of the CHANCE Alliance Network.*

