

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

Leon County, FL Retaining Wall



PROJECT:
Retaining Wall Repair

BACKGROUND:
An existing concrete retaining wall, located along a county-owned drainage easement, needed structural repair.

PROBLEM:
The county-owned drainage easement extended 20 ft. from the proposed location of the retaining wall repair. Therefore, the project needed a tieback system with predictable capacities, achievable within the 20 ft. easement and installed in a limited access area.

SOLUTION:
Allen's Excavation chose CHANCE® Helical Anchor System to tieback the steel sheets. This product allows various helical bearing plate sizes and quantities to be used on the central shaft of the anchor. The solution allowed for more torque and increased the capacity of the anchor system. The CHANCE Helical Design Software Program, HeliCAP®, determined the sizes and quantities of the helical bearing plates to achieve design capacities. It was a challenge to identify the appropriate helix configuration and length, allowing for the bearing plates to extend beyond the failure plain of the wall and keeping the anchor tip within the easement.

continued

CHANCE® DISTRIBUTOR
FOUNDATION TECHNOLOGIES, INC.
Lawrenceville, GA

CHANCE® CERTIFIED
INSTALLER
MASON GRADY FOUNDATIONS LLC
Cairo, GA

STRUCTURAL ENGINEER
MILNER AND JOHNSON
Tallahassee, FL

GEOTECHNICAL ENGINEER
EGS
Tallahassee, FL

GENERAL CONTRACTOR
ALLEN'S EXCAVATION
Tallahassee, 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.

CASE HISTORY

Mason Grady Foundations installed 15 CHANCE model SS5 square shaft helical anchors (1-1/2", 70 KSI) at a 30 degree batter with a 10"/12"/14"/16" helix configuration. The crew used a John Deere® 50G Mini-Excavator to install the anchors to overall lengths of 21-23 ft. and average installation torques of 3,000-4,000 ft.-lbs. over the final three feet of installation. They conducted a performance test on one anchor prior to anchor installation. Each anchor was then proof tested and locked off at 75% of the design load. They used a steel plate, beveled washer and hex nut to lock the anchor rod against the steel sheet. The contractor poured a concrete cap on top of the wall to tie the sheets together and encapsulate the end of the anchors. The anchor installation and testing took three days to complete. The concrete cap was formed and poured immediately after final anchor testing to prevent project delays.

KEY BENEFITS:

- Limited Access
- Time to install faster than concrete
- Standard equipment for installation
- Immediate loading
- All weather installation



Anchor with Thread Rod Adapter to allow for sheet connection



Anchor Installation through Steel Sheet



Performance Test



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CHANCE CERTIFICATION # 1912-009-3630



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