

# Helical Piers for New Residence

## Sea Island, Georgia



*Varying Diameters of Drive Rite Piles Were Used for this Project*

The architect and general contractor selected Drive Rite™ Hot-Dipped Galvanized Helical Steel Piers to support the footings of this 26,000 square foot residence in Sea Island, GA. Soil borings revealed single digit blow counts to a 20-25 foot depth on this beautiful marshland site.

The selection of helical piers over auger cast was based on the need to maintain a clean site, speed of installation, accessibility, no vibrations to adjacent homes, and the ability to determine the load capacity of each pier during installation. They were also less expensive. Design loads ranged from 10 to 75 kips and the loading was determined for each pier. Piers were sized in accordance with load. A total of 161 piers were installed with single 12”

Helix. Shaft sized varied from 2-7/8”, 3-1/2”, and 4-1/2” schedule 80 pipe with 10’-6” lengths. The depth of installation ranged from 38 to 52 feet. A 12,000 foot/pound capacity torque machine attached to a backhoe was used for installation. Because of the soil’s inability to provide lateral resistance to the shaft, a 3,000 PSI tested grout was installed which also provided additional stiffness at couplings.

The procedure for installation was as follows:

1. General Contractor marked footings on site.
2. Foundation Contractor marked each pier location with wood stakes/color coded each stake according to shaft



*Piles Depths Ranged from 38 to 52 ft size of piers on site.*

3. Piers were installed to pressure readings required for loads and filled with grout, with shafts extending above grade.
4. Footings were excavated, pile shafts were cut off, and pile caps were installed.



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### **Scope of Work:**

*Installation of Helical Piers for New 26,000 Square Foot Residence*

### **General Contractor:**

*Cliff Pease Construction  
Sea Island, Georgia*

### **Foundation Contractor:**

*Foundation Systems & Equipment Co., Inc.  
Jacksonville Beach, FL*

### **Headquarters**

1627 Columbia College Drive  
Columbia, SC 29203

### **Contact**

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