

CASE STUDY Jacksonville, FL



CANTSINK™
SUPPORTING
INNOVATION



WATERFRONT POOL AND SPA SUPPORT

HELICAL PILE INCONSISTENT INSTALLATION DEPTHS A CHALLENGE

SITUATION

A Jacksonville waterfront residence project called for a new helical pile foundation to support a pool and spa. The structural drawings, prepared by Ferrall Outdoors, LLC, show pile locations beneath the pool and spa with connections into the reinforced concrete foundation. The work order anticipated 21-foot pile depths for the helical piles.

CASE STUDY



SCOPE OF WORK

CANTSINK LLC FURNISHED AND INSTALLED 15 NEW-CONSTRUCTION HELICAL PILES FOR CLARKSON POOLS, TOTALING 497 LINEAR FEET. PILE LOCATIONS AND FOUNDATION CONNECTIONS FOLLOWED THE STRUCTURAL DRAWINGS - PILE RESISTANCE VARIED ACROSS THE INSTALLATION AREA. FIELD RECORDS SHOW THAT SEVERAL LOCATIONS REQUIRED ADVANCEMENT TO 42 AND 56 FEET TO REACH THE SPECIFIED TORQUE. THIS VARIATION REQUIRED THE CREW TO EVALUATE EACH PILE INDIVIDUALLY AND ADD EXTENSIONS AS INSTALLATION PROGRESSED.

ANCHOR SYSTEM

CANTSINK INSTALLED HELICAL PILES AT THE POOL FOUNDATION LOCATIONS USING SECTIONAL LEADS AND EXTENSIONS TO ACCOMMODATE THE VARYING DEPTHS. THE WORK ORDER ESTABLISHED A 4,500 FT-LB INSTALLATION TORQUE TARGET, AND THE INVOICE RECORDS 15 TENSION AND COMPRESSION TOP PLATES FOR THE PILE-TO-FOUNDATION CONNECTIONS. TORQUE WAS DOCUMENTED DURING ADVANCEMENT USING AN ESKRIDGE 77BD DRIVE HEAD.

RESULT

INSTALLATION RECORDS DOCUMENT 15 PILES TOTALING 497 LINEAR FEET. RECORDED DEPTHS RANGED FROM 14 TO 56 FEET, AVERAGING APPROXIMATELY 33 FEET PER PILE. FINAL TORQUE READINGS RANGED FROM 4,518 TO 5,307 FT-LB, EXCEEDING THE WORK-ORDER TARGET AT EVERY RECORDED PILE LOCATION. THE CANTSINK INSTALLER DOCUMENTED TORQUE READINGS DURING ADVANCEMENT. THE INSTALLATION DELIVERED A 15-PILE HELICAL FOUNDATION SYSTEM FOR THE POOL AND PA, AND EXTENDING INDIVIDUAL PILES AS NEEDED ALLOWED THE CREW TO ADDRESS VARYING INSTALLATION RESISTANCE ACROSS THE FOOTPRINT.