

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

# Texas Backyard Pool



CHANCE® DISTRIBUTOR

**HELICAL CONCEPTS, INC.**  
Wylie, TX

CERTIFIED CHANCE®  
INSTALLER

**HARGRAVE & HARGRAVE, INC.**  
Wylie, TX

GENERAL CONTRACTOR

**RIVERBEND-SANDLER POOLS**  
Plano, TX

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.

**PROJECT:**

Building a large backyard pool located in Allen, TX where expansive clay soils cause uplift that can lead to cracks in the pool.

**PROBLEM:**

The soil type in Allen, TX is predominantly clay. Clay tends to present an uplifting force due to cyclical moisture content of the soil that require foundations to withstand both compression and tension loads. This cycling of forces translates to cracks which lead to leaks for pools. The pool construction site located in the backyard of a residence did not allow for access of large construction equipment.

**THE SOLUTION:**

Riverbend-Sandler Pools, a swimming pool contractor located in the Dallas-Ft. Worth area, was selected by a homeowner in Allen, TX, to build their backyard pool. The homeowner decided on a rock lined slide and an attached fish pond as accessories for their swimming pool. Combining the additional weight of the decorative rock and the lateral loads introduced by the slide, the CHANCE® Helical Pile System was selected due to its proven performance and versatility. The soil strata has very dense material but the introduction of lateral loads at the surface posed a unique problem. Because of these issues, the CHANCE® Combo Pile was chosen. The lead section was a CHANCE Type SS5 transitioned to RS2875.203.

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CHANCE® Helical Piles were installed around the perimeter of the pool on 10' centers and were installed to the required ultimate capacity of 25,000 lbs. Once installed, rebar was passed through the existing bolt hole at the top of the extension and tied into the pool's rebar cage. The ability to link the pool rebar cage to the helical piers is the solution to overcome the compression and tension forces caused by cyclical moisture content in the soils.

Standard construction equipment was used in the installation process for this pool. The agility and size of the bobcat was ideal for installing piles close to the back of the home. Twenty five piles were installed using standard CHANCE SS5 leads that transitioned to RS2875.203 extensions to depths of 18 to 22 feet. The experienced installation crew of Hargrave & Hargrave, Inc, were able to complete the project in a day and a half. Josh, who assisted on this project due to its unusual size, explained, "This is a very large swimming pool. Most swimming pools have anywhere between 8 to 12 piles in it. This one had 25 (piles)."

Helical piles are the obvious choice for ensuring pool stabilization for homeowners in the Dallas/Ft. Worth area. Concrete piles are not effective in these types of soils as they

tend to move. Movement in a pile will lead to cracks and eventual leaks in the pool. In addition to helical's ability to eliminate movement, Josh summarized another benefit when explaining why helical piles were selected, "It's clean and it's fast. It doesn't delay the construction of the swimming pool. It's more about the speed of it." With experienced crews installing superior product, the customer will have confidence they built on a firm foundation.

#### KEY BENEFITS:

- **LIMITED ACCESS**  
Spacing between homes and proximity to rear of home dictated the use of small equipment
- **TIME TO INSTALL FASTER THAN CONCRETE**  
Homeowner wanted to keep the project moving forward
- **STANDARD EQUIPMENT FOR INSTALLATION**  
A bobcat had already been on site to dig the hole
- **LABOR SAVINGS - SMALLER CREWS**  
Single crew installed 25 piles in 1 1/2 days
- **REACH COMPETENT SOIL BELOW ACTIVE ZONE**  
Secure pool to stable soil below active zone
- **LOW TO NO VIBRATION/NOISE**  
Respect for neighbors through minimal construction noise pollution



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