



# 2015 CASE STUDY

Type: Residential | Issue: SC201505

Ram Jack Helical  
Piles Stabilize Hilton  
Head Home Built on  
Poor Soil



**RAM JACK LOCATION:**

**Ram Jack South Carolina**  
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Ridgeway, SC



Crew installs helical piles in crawl space

## SIGNIFICANT FOUNDATION SETTLEMENT

### RAM JACK SOUTH CAROLINA

RIDGEWAY, SC

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Hilton Head Island boasts stunning scenery, gorgeous homes, and wonderful weather for much of the year. Unfortunately, not as much can be said for the soil on which many of the homes rest, as it varies in quality despite the overwhelming beauty of the structures it lies below. A stunning home with a pool in the heart of Hilton Head Island, had developed major structural issues due to this problematic soil, and Ram Jack South Carolina was brought in to take care of it.

#### Situation

The residence had significant foundation settlement throughout the entire home. The main rear wall had settled as much as 4 in. in some areas. This drastic settlement put the home in serious danger of severe damage. The home desperately needed a permanent repair to prevent further damage.

#### Proposed Solution

Working with Applied Building Sciences Inc., an architectural engineering company located in Charleston, SC, Ram Jack South Carolina proposed using helical piles to permanently lift and stabilize the home to its original position. The structure was strategically mapped out based on geography and the severity of settlement, and helical piles were assigned positions as needed.



Installed helical pile and bracket

## Proven Engineered Solutions.

#### Outcome

After encountering some obstacles and coordinating with Applied Building Sciences, the original plan was adjusted, as it was discovered during demolition that the underlying foundation did not match what was expected. With a foundation deeper than expected, and the nearby pool and deck, continuing with the original plan would have been incredibly expensive, so that plan was scrapped for a more prudent one. All in all, 31 helical piles were used to underpin the existing interior, 42 helical piles were installed to support the existing perimeter footing, and five helical piles were used to bolster portions of the exterior walls. The structure was stabilized; no lift was attempted, as it was not feasible or practical. Working underneath the entire structure in damp, close conditions, Ram Jack South Carolina completed the repair in just four days.

