

# CASE STUDY

OCT 2023

13 HELICAL PILES STABILIZE  
LAGUNA NIGUEL HILLSIDE  
HOME THAT SETTLED 7 INCHES



FIND MORE CASE STUDIES AT:  
[DALINGHAUSCONSTRUCTION.COM](http://DALINGHAUSCONSTRUCTION.COM)

NEVERSETTLE



## HELICAL PILES & TIEBACKS STABILIZE SETTLING HILLSIDE HOME IN LAGUNA NIGUEL, CA

### PROJECT BACKGROUND

An HOA contacted our team to take a look at one of the homes in their community showing signs of settlement. Our specialist, Phil Laney, performed the initial inspection and immediately knew the home's foundation was moving. There were cracks visible throughout the first and second floor drywall along with a sloping feeling in the kitchen and living room located towards the back of the home.

### PROJECT DESIGN PHASE

During his inspection Phil measured as much as 6.6 inches of settlement across spans as short as 20 feet. He teamed up with **Engineering Services & Design of SoCal** to design a repair plan that would consist of 13 helical piles and 4 helical tiebacks to not only stabilize the structure but also attempt to lift and recover some of that settlement. After lifting the home we would need to stabilize the slab with polyurethane void fill injections.

### INSTALLATION OVERVIEW

TOTAL HELICALS

17

HELICAL PRODUCT

**TAF288 & TAF150**

PRODUCT MANUFACTURER

**ECP**

### DALINGHAUS SOLUTION

With very tight access around the home our project foreman, Joaquin Salazar, and his crew were forced to install all of the helical piles with handheld equipment. During excavations they found loads of expansive clay soils and ended up finding competent, load-bearing soils at depths of about 30'.

While taking his floor elevation measurements before the crew attempted to lift, Joaquin measured the home had settled an additional inch in several areas since the initial foundation evaluation with Phil!

