



2016 CASE STUDY

Type: Residential | Issue: IL201601



New Foundation for Sinkhole- Damaged Garage

RAM JACK LOCATION:

Ram Jack Illinois

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Franklin Park, IL

CASE STUDY 2016

RAM JACK ILLINOIS

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Installation of helical piles to remedy sinkhole damage to basement

MULTI-HELIX PILES SUPPORT NEW GARAGE FOUNDATION

INSTALLATION OVERVIEW

Total # of Piles • 8

Products Used • #4368

Product Type • New Construction - Helical

Typical Applications • Ram Jack's 2 7/8" helical lead sections can be used in either tension or compression due to its unique internal threaded connection



Discovering an opening due to a sinkhole in a garage meant to keep you and your belongings safe and warm in the winter weather can be devastating. Professionals who understand soil and foundation issues can ease some of the stress by performing a thorough evaluation of your property to assess if other areas are susceptible to sinkhole damage.

PROBLEM

A sinkhole opened in the garage floor of a home in Barrington, IL, that backs up to Cuba Marsh, which is affected by poor soil conditions. The Structural Shop LTD investigated the initial damage. They contacted Ram Jack Illinois to remove debris and take elevations and measurements for an engineer to design a repair plan.

PROPOSED SOLUTION

The Structural Shop LTD proposed installing helical piles for

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the garage foundation and pouring a reinforced structural slab. Guide sleeves would be used due to soft soils. Ram Jack was hired to install four (4) helical piles with a multi-helix configuration on the existing foundation. Four (4) additional multi-helix piles were to be installed with new construction brackets to support a new slab.

OUTCOME

All eight (8) piles were installed as planned to an average depth of 40 ft. with guide sleeves used for the full depth. After pile installation, 80 tons of CA-6 granular material was placed in lifts and compacted to prepare the soil for the new reinforced slab with grade beams. While helical piles can accept loads immediately, the newly poured slab required a week to cure. The homeowner was pleased to be able to use the garage just in time for the cold winter months.



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