



# Case History

## Problem:

The Lewis and Clark Boat House is located along the Missouri River in St. Charles, Missouri. The construction of the new museum was confronted with the dilemmas of poor soil conditions and heavy foundation loads.

## Solution:

Helitech® installed (63) sixty-three Helical Micropiles to provide a deep foundation for the boathouse. The Micropiles, which are helical piers with grouted columns that surround the steel shaft, provided significantly higher load capacity due to the friction of the grout with the soil in addition to the bearing capacity of the helices. This project used a 2" square steel shaft with an 8" diameter grouted column surrounding the shaft to achieve capacities up to 168,000 lbs. per Micropile. The Micropiles achieved the necessary capacity at an average depth of 40' using an 8"-10"-12" helix configuration.

## Resolution:

The Helical Micropiles offered a timely and economical solution to the project. The project was completed in (7) seven working days. There were no spoils, no environmental issues, mobilization and material handling was easy, and the process was quiet, which was essential not to disturb adjacent businesses (ie.: casino, restaurants, offices). Also, the project required less material since going to bedrock (bedrock was 60'-0") was not required to achieve the load capacities.

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