



PROJECT CASE STUDY

Location: St. John, Indiana
Engineer: Haas & Associates
General Contractor: Gariup Construction

Description

Expansion plans for the Town of St. John included construction of a new well house pumping station to replace an existing structure.

Requirements & Challenges

Soil borings were conducted and confirmed the site to contain very weak soils with low blow counts throughout the core to a depth of 20'. The foundation was designed as a grade beam with helical piers with 2.5'x2.5' concrete pile caps 11.5' and 9.67' o.c.

Limited site access and staging area required smaller machinery and efficient installation. Being a municipal facility also required a secure site with approved personnel and working hours.

Solution

Haas & Associates designed the foundation to include 10 Helical piles with a design load of 60kip ultimate each. 3D Structural was chosen with the submission of A.B. Chance Helical grouted pulldown piles with 6" grout column to achieve the desired capacity with an average pile depth of 42'.

Results

A post installation load test was conducted to verify the desired loading had been achieved during installation. The load test confirmed an applied test load of up to 88kips (with no sign of lateral or vertical deflection).

The construction of the well house foundation was able to commence on schedule with full assurance of a completely stability.

3D STRUCTURAL

20115 Jackson Rd.
South Bend, IN 46614
574-291-0771
888-321-7522

3dstructural.com

