



Sector:
High School Gymnasium

Location:
Onawa, IA

Application(s):
Vibratory Stone Columns (VSCs)
/ Aggregate Piers, Helical Piles

PROJECT CASE STUDY VIBRATORY STONE COLUMNS

 EARTH SHORING

 GROUND IMPROVEMENT

 DEEP FOUNDATIONS

 VIBRATORY STONE COLUMNS

 MICROPILES

 GROUTING

Description

A new gymnasium addition was being constructed on the campus of a high school. As the result of the soft, compressible soils conditions ground improvement was required for support of the gymnasium foundation walls.

Requirements & Challenges

As the result of low density soils falling within the foot print of the proposed structure, this provided concerns and the Engineer of Record specified the ground to be improved along the exterior strip footings.

Solution

Helitech installed new construction helical piles within 16 feet of the adjacent structure and monitored capacities by recording installation torque values during the pile installations. We conducted a full-scale load test to field verify the vibro stone column (VSC) loads and deflection. Helitech installed VSC's along the exterior wall footings at various depths depending on in-situ soil strengths.

Results

Helitech completed the ground improvements in a couple of days. The tests performed extremely well and deflections were approximately 50% of the maximum deflection tolerances

Experienced
Geotechnical Contractors

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