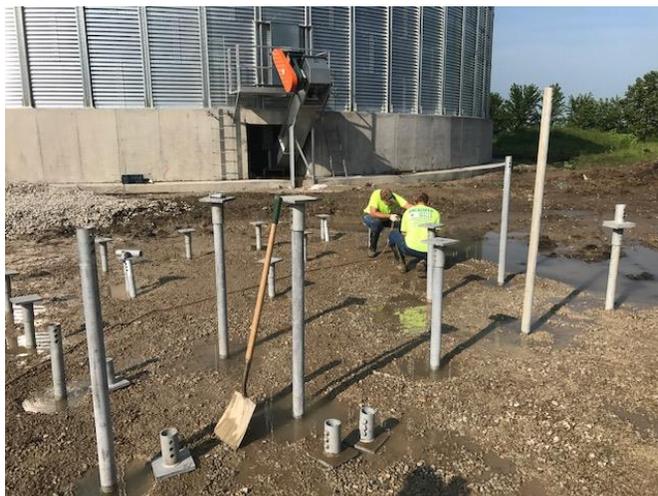




# CASE HISTORY

*SAFEBASE™ 2.875" STANDARD DUTY HELICAL PIERS*

## TOWER FOUNDATION CONSTRUCTION CONTINUED



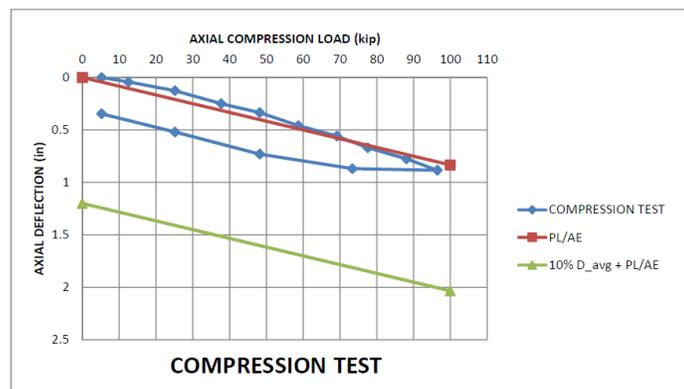
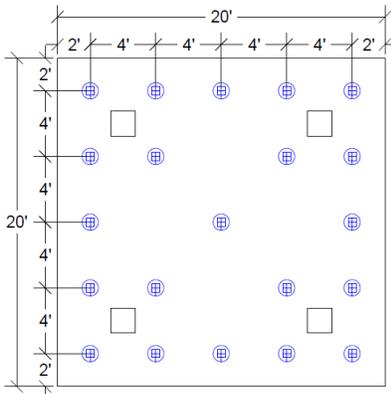
Anchored Walls was contacted regarding another new foundation to be designed for a tower in Nichols, Iowa using helical piers. SafeBasements created a set of plans which were approved for the project. The plan consisted of 21 SafeBase 2.875" OD Standard Duty Helical Piers to be poured into an approximately two foot thick reinforced concrete slab. The project started on July 17th, 2017 and was completed in three days.



A compression test was performed to verify the capacity of the piers. A load of 96,600 lbs was applied to the pier and the total vertical displacement was .880" most of which was elastic shortening of the pile shaft. The plot of the test shows the blue line representing the load test on the pier staying near the red line representing the elastic shortening of the shaft.



Below are the tower foundation plan showing the helical piers in blue and the columns of the tower in black, and a plot of the results from the axial compression test. The red line is the elastic shortening of the shaft, the blue line the load displacement curve, and the green showing the failure criterion, 10% the average plate diameter plus the elastic compression.



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