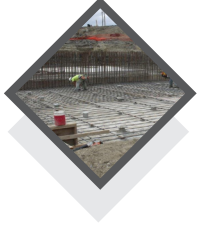




PierTech Systems
Driven by Innovation



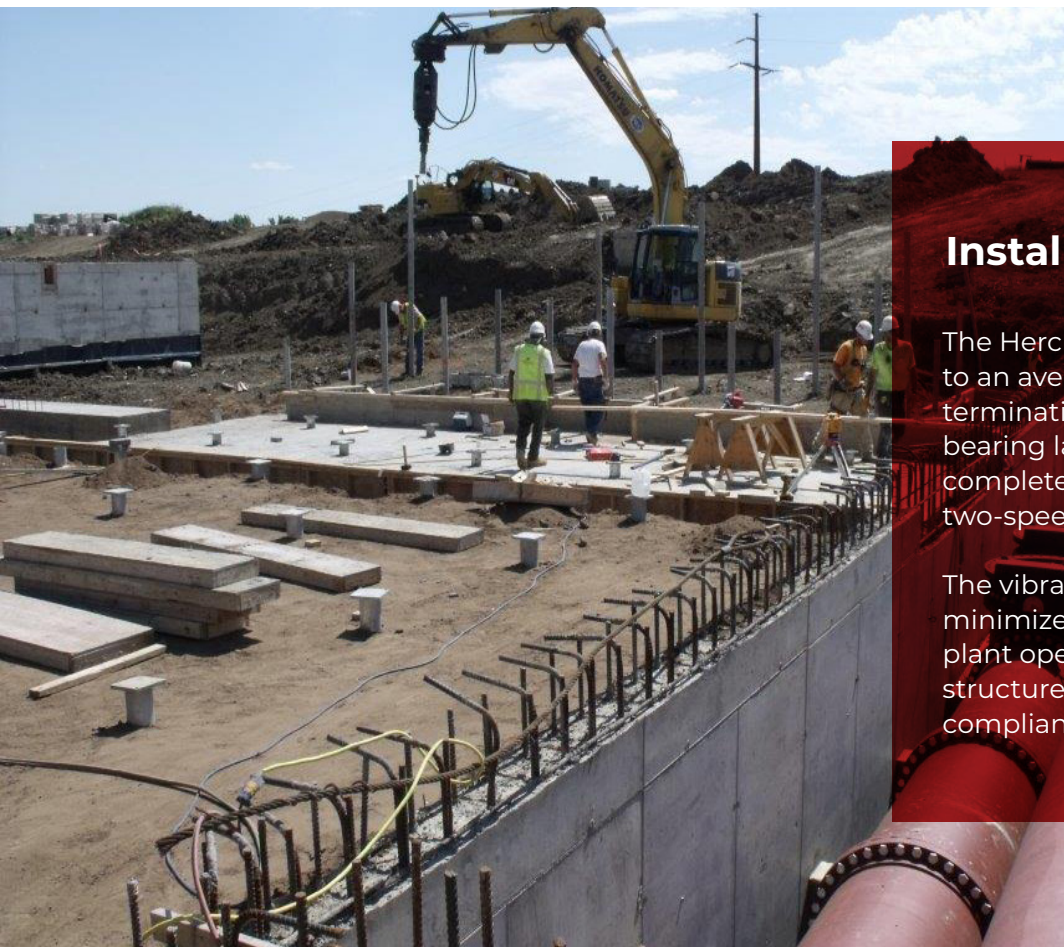
WILLISTON WATER TREATMENT PLANT

HIGH-CAPACITY HELICAL FOUNDATION SOLUTION
FOR CRITICAL INFRASTRUCTURE EXPANSION

PROJECT OVERVIEW

The Williston Water Treatment Plant in Williston, North Dakota, underwent a major expansion to double its capacity and better serve the growing community. The site's poor soil conditions required a vibration-free foundation system that could deliver high load capacity without disturbing surrounding infrastructure.

To meet these strict requirements and keep the project on schedule, the contractor selected PierTech's Hercules™ Pile system—a proven deep foundation solution designed for strength, speed, and low-impact installation.



Installation

The Hercules™ piles were advanced to an average depth of 45 feet, terminating on the claystone/shale bearing layer. The installation was completed using a PierTech 40K two-speed drive head.

The vibration-free process minimized disruption to nearby plant operations and surrounding structures, ensuring a smooth and compliant installation.

Foundation Design

The foundation plan called for:

- 300 PierTech Hercules™ Piles
- 4.5-inch outer diameter
- 10", 12", and 14" helices
- Allowable compression capacity: 65 kips per pile

The piles were designed to transfer loads into a stable claystone and shale strata, ensuring long-term structural reliability despite the site's upper soil challenges.



RESULTS

Results

65-kip allowable capacity per pile, verified through installation torque.

Zero vibration and low disturbance, protecting existing infrastructure during construction.

Fast installation, completing 300 high-capacity piles on schedule.

A stable, long-term foundation system for a critical municipal expansion project.

Why PierTech Piles Were the Right Choice

For the Williston Water Treatment Plant, traditional driven piles would have created unacceptable vibration, noise, and risk to surrounding infrastructure. PierTech's Hercules™ system provided a quiet, efficient, and high-capacity foundation solution—helping the project move forward quickly while safeguarding nearby facilities.

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