



MacLean Civil Products Teams with Rocky Mountain Steel Piering & Structural Services to Install (175) Helical Combo Piles for Distribution Center in Englewood, CO



MPS Civil Products

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Project Name & Location:	Red Bird Farms Distribution Center - Englewood, CO
Project Type:	Deep Foundation
Helical Pile Installation Contractor:	Rocky Mountain Steel Piering & Structural Services - http://www.rmssco.com
Structural Engineer:	KLP Consulting Engineers - Centennial, CO
Helical Pile Distributor:	Helical Technology - http://www.helicaltechnology.com/
Helical Pile Specifications:	Combo Pile 1.50" RCS Lead with 8",10" Helix Bearing Plates; 2.875" Round Shaft Extensions; Galvanized
Soils & Embedment Depth:	Stiff Sandy Clay; 50 ft. Average Embedment Depth
Project Timeline:	(2) Weeks
Helical Pile Manufacturer:	MacLean Power Systems - Civil Products Group - Fort Mill, SC

Red Bird Farms has been providing natural chicken products to Colorado since the 1940's and have expanded their market reach to include other areas of the United States. The company is now family owned and operated. Red Bird recently decided to expand and construct two additions to their existing facility. The project needed to be completed without any interruption of the existing operations already ongoing at the facility which is in operation 24 hours a day.

Once the decision was made to increase the size of the distribution facility in Englewood, Colorado two additions were planned. One was a 3,500 square foot dry storage area, and the other was an 11,000 square foot Cooler and Freezer Building facility.

Furthermore, the sandy clay soils were caving during drilling, requiring temporary casing be placed in order to complete drilling of concrete piers. Due to site access and ongoing business operations the drilling process would have been too invasive and cause too much disturbance to the facility that was in operation around the clock. Faced with these challenges the decision was made to utilize helical piles on the project.

The Helical Pile method was selected to be the sole method of foundation support for both additions.

One hundred seventy-five (175), 1-1/2" - 2-7/8" combo piles were installed to an average depth of 50 feet. The project installation was completed in two weeks, including mobilization and demobilization.

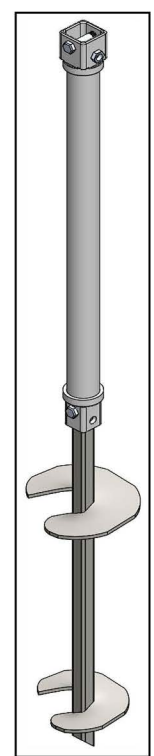


The proposed foundation support methods were:

- Footing (placed on over-excavated engineered controlled fill)
- Helical Piles
- Drilled Piers

Helical test piles were installed and a drilled test hole was excavated to develop a cost comparison to assist the owner in selecting the most economical method of foundation support for the project. In addition to cost, helical piles offered several advantages:

- Economical cost
- Increased production speed, faster project speed
- Project cleanliness
- Access advantages over the removal and reworking of the onsite soils
- Minimal noise, mud, and dust creation
- Ability for new support piles to be placed very close to existing structure
- The drilling operation would require temporary casing be placed and a large rig would be required to reach bearing soil depths



1.50" RCS MCP Model D15
Lead with 8"-10" Helix
Bearing Plates and 2.875"
Sch. 40 Pipe Pile Model P28
Extensions with Square on
Square Coupler