



Challenging Boardwalk Project with Varying Above Grade Elevations and Cross Bracing Support

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Project Name & Location:	Wetland Area in Morrow, GA (near Atlanta)
Project Date:	January - April 2011
Project Type:	386 Helical Piles with cross bracing for above grade lateral support
Helical Pile Installation Contractor:	Extreme Technologys, Douglasville, GA
General Contractor:	Georgia Development Partners, Atlanta, GA - Josh Maner, Project Mgr.
Geotechnical Engineers:	Chattahoochee Consulting Group, Doraville, GA
Project Design Engineers:	Magnum Geo-Solutions, Fort Collins, CO
Helical Piles Specifications:	(386) 3.0" dia, Magnum 313B, with 10" and 12" Helicies, 6 KIPS Compression; .5 KIPS Tension; 1.2 KIPS Lateral Loads, Galvanized
Soils & Embedment Depth:	Clay Soils; Blow Counts Ranged from 12 to 15 b.p.f.; 15 ft. Average Embedment Depth
Project Timeline:	14 Weeks with Numerous Weather Delays
Helical Pile Manufacturer:	Magnum Piering, Inc., Cincinnati, OH

Project Overview

This challenging boardwalk project through a wetland region in Morrow, GA was originally specified for a mixture of square bar and round shaft helical piles with varying cross bracing solutions for the different piles. The reason for the variety of piles was due to elevation changes and the need for above grade lateral support with average elevations of approximately 3 feet with the highest elevation being 6 feet. The project was greatly simplified by means of a new design that called for all round shaft helical piles and a single cross bracing system. The project timeline was significantly dotted with numerous weather delays and high water.



The amount of standing water at the wetland job site varied significantly with periods of heavy rain which in turn caused challenges for equipment operators and laborers alike.



[Click here to view engineering drawing](#)

Elevation changes along the entire length of the boardwalk presented both design and construction challenges. An adjustable cross bracing system from Magnum Piering provided the necessary flexibility for consistent bracing at the various elevations.



The width of the boardwalk is 8 feet, and the unique design consists of 2x4's turned on their 2" edge and compressed together similar to a laminate.

