

PROJECT SUMMARY Hebron 121–Station Boardwalk

Project Description: In 2010, Power Lift began discussions with developer Huffines Communities, Inc., concerning boardwalk construction at their planned development Hebron 121 Station Luxury apartment complex. A conventional boardwalk design was offered by the EOR and a cost estimate developed. As the boardwalk estimated cost exceeded the planned budget, Power Lift was asked for alternative ideas.

Subsurface Conditions: As the boardwalk was to be constructed along and over a drainage canal, usual foundation support methods were not practical. The soils were generally loose sandy/silty clays to a depth of about 15'. Below

that depth, stiff to very stiff clays extended to depths of approximately 30'. Power Lift's specialty engineer, Brian Smith, P.E., determined the structure would best be supported by founding Power Lift Helical Steel piles in the stiff to very stiff clay at a minimum depth of 25'.

Design Details: Conventional boardwalk design utilizing helical piles typically calls for the installation of piles with very low capacity on a small grid spacing, with the deck running transverse. Because of the budget concerns and our ability to provide piles with larger capacities, Power Lift redesigned/reconfigured the boardwalk. The new design utilized steel wide flange beams running in the longitude



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direction spanning from pile to pile. The piles were spaced at 20' on center greatly reducing the number of piles required. Treated lumber was affixed to the wide flange beams to receive conventional treated lumber framing. The boardwalk was constructed utilizing Trek Transends 2" x 6" material. The joist framing was designed perpendicular to the support beams such that the deck material could be

installed parallel to the support beams in 20' lengths.

The redesign substantially reduced the cost of the deck construction and allowed the boardwalk to be constructed within the owner's budget.

