

Wyvern Hotel

101 East Retta Esplanade
Punta Gorda, FL

Project Description:

The Wyvern Hotel is a 63 room facility which is being constructed across from the new Laishley Marina in Punta Gorda, Florida. The hotel is located at the corner of Tamiami Trail and E. Retta Esplanade.

Rapid Impact Compaction (RIC) was chosen to improve the soils in the upper 13 ft. in order to limit settlement of the new structure. RIC was performed on an area of about 12,000 square feet covering the building footprint and 10 ft. beyond the building footprint where possible.



Problem: Improving the sands down to 13 ft. in order to provide support for the lightly loaded structure to be constructed on a reinforced mat foundation.

Solution – Through the use of the RIC on-board monitoring system, the optimum number of RIC passes was determined as well as the best material to be used to fill in the craters between RIC passes. Standard Penetration Tests (SPT) were used to verify that the soils were improved as needed for the mat foundation. RIC increased the N-values to greater than 15 bpf to depths of 13 ft. with some areas reaching greater than 50 bpf.

THE RIC ADVANTAGE

- RIC improved the insitu sands from $N = 5$ to 10 bpf to greater than 15 bpf.
- The RIC onboard computer allowed for correlations between tamper deflection and SPT to be made quickly in the field thereby increasing efficiency and saving time.

General Contractor: Burkhard Corporation, North Port, FL

Structural Engineer: Robert Haug, Inc., Lakeland, FL

Geotechnical Engineer: Ardaman & Associates, Inc., Sarasota, FL

G Structures, Inc.

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