

GROUND IMPROVEMENT

Nareel Island, Abu Dhabi Soil Improvement Works

HOTELS & LEISURE • RESIDENTIAL • VIBRO COMPACTION • VIBRO REPLACEMENT (STONE COLUMNS)



Client

Aldar Properties PJSC

Consultant

National Projects & Construction LLC

Main Contractor

KEO International Consultants

Location

Abu Dhabi, UAE

Start Date

January 2017

Completion Date

March 2017

Project Details

Ground improvement works employing both vibro compaction and vibro replacement (stone columns) methods were carried out. The scope of works included improving the reclaimed land in order to increase bearing capacities and mitigate risk of liquefaction. CPT and Zone Load Tests were also carried out to verify compliance with performance specifications.

Vibro Compaction

Depth	: 7 to 9 m
Volume	: 323,130 m ³
Area of treatment	: 40,392 m ²
Equipment used	: 2 sets, one B42 in tandem and one single

Vibro Replacement

Method	: Wet Top Feed
Stone columns	: 3,435 nos.
Stone columns diameter	: 0.8 m
Depth	: 7 to 8 m
Total linear metre	: 18,915.46 m
Volume	: 196,830 m ³
Area of treatment	: 26,244 m ²
Equipment used	: 1 no. B27