# Atlantis Hotel Palm Jumeirah



### **Project Location:**

Dubai, United Arab Emirates

#### Main Contractor:

APCC Vibrofoundations JV.

Client:

Kerzner - Istithmar

**Project period** 

Nov. 2004 – Mar. 2005

#### Method Applied:

470,000 m2 Vibro Compaction, up to 14 m deep, installed in a triangular grid of 4.70 m (15 ft 6 inch). The grid was chosen after an extensive trial program with CPT testing and measurement of subsidence settlements due to compaction (usually in the range of 6 5 to 9%).

### **Technical Requirements:**

The man made originally loose sand fill had to be compacted to prevent soil liquefaction for an earthquake of Mw = 6.0 and amax = 0.15 g. Furthermore compaction was required to reduce total and differential settlements under building loads.



View of a 3D model of the finished Atlantis Hotel on the Palm Jumeirah.

## **Quality Control Testing:**

Cone Penetration Tests (CPTs), supported by digital process data from Vibro rigs.

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