

# Ocean Reef Island II

## Punta Pacifica, Panama



Works area planned for vibro compaction works



Aerial view of the second Ocean Reef Island

3 m x 3 m. Due to the improvement of the vibro equipment it was now possible to achieve the same compaction result utilizing a 3.2 m x 3.2 m triangle grid system. Approximately 9,000 densification points were required to improve the second island. Work on the second island was executed with four (4) vibro compaction units and completed in April 2017.

The artificial island is the second reclamation project off the Pacific coast of Panama City. Bauer Fundaciones Panama executed already the soil improvement works of the first island in 2012.

By incrementally pulling the vibrator, a densified zone emerges.

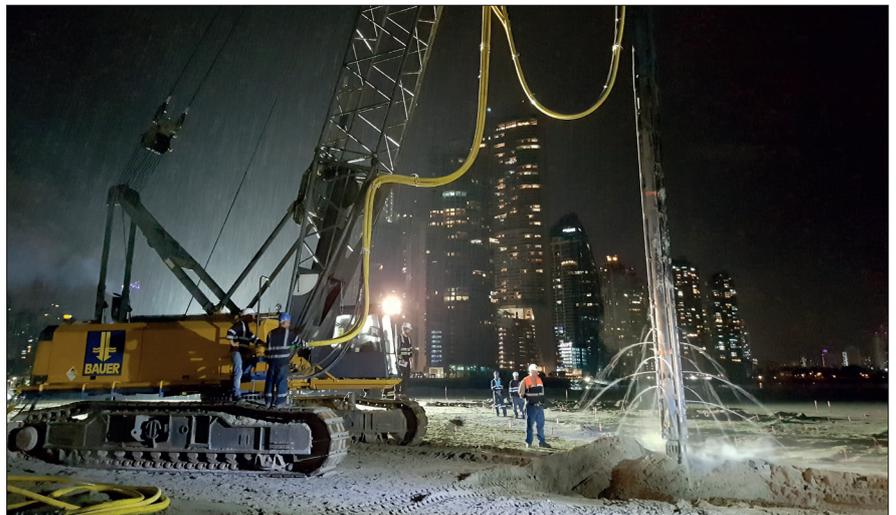
Vibro compaction of the first island was performed in a triangular grid of

The compaction of the reclamation fill was controlled by SPT and CPT testing under consideration of the maximum specified fine content for the used Marine Sand.

The Marine Sand was dredged from the seabed and transported by ship to the coast. Using a pipeline system, the Marine Sand was pumped to its final destination, allowing for 190,000 m<sup>2</sup> of new land (both islands) to be reclaimed for the artificial islands.

In order to prepare the ground for development, Bauer Fundaciones Panama was appointed by Boskalis Panama to carry out vibro compaction of the sand down to a depth of 15 m.

During this compaction process, the sand is "suspended" by water or air flushing, the vibrator is submerged and a settlement funnel forms on the ground surface, which is filled with material.



Vibro compaction works with modified TR 75 vibro unit

<b>Client:</b>	Grupo Los Pueblos
<b>Employer:</b>	Boskalis Panama S.A.
<b>Execution:</b>	BAUER Fundaciones Panamá S.A.
<b>Scope of works:</b>	<ul style="list-style-type: none"> <li>▪ Soil Improvement for an artificial island with vibro compaction.</li> <li>▪ Island surface approx. 90,000 m<sup>2</sup></li> <li>▪ Approx. 11,000 compaction points with a compaction depth of 15 m</li> </ul>
<b>Construction period:</b>	October 2016 – April 2017