

Oasis Lagoon - Phase 3

Dubai, UAE

The Oasis Lagoon project is a unique project. An old lagoon, with a huge quantity of water inside, needed to be backfilled with ground improvement.



The project

EMAAR is developing a residential community in Me'aisem, Dubai, UAE, consisting of three phases. The Oasis will be a unique residential development featuring an exclusive residential community of low-density mansions, villas, and townhouses. It will be set in a rich environment of water canals, lagoons, beaches and continuous ribbons of parks and green spaces. All residents will have access to the water and green amenities, with most enjoying direct frontage to these features.

The challenge

The project site was previously a lagoon, requiring Keller to improve the fill material after backfilling by the main contractor. A key challenge was managing the equipment and executing soil improvement while addressing the consistently high groundwater pressure from the lagoon. Keller implemented specialized ground improvement techniques to meet the project's design criteria, ensuring stability and performance.

The solution

Keller employed three advanced ground improvement techniques: Vibro Compaction, Dynamic Compaction, and Rapid Impact Compaction. Ensuring a suitable working platform that met our standards was a priority. The designated areas were successfully improved, followed by post-testing to verify compliance with project criteria before being handed over to the main contractor for the next phase of work.

Keller improved the 425,000m² area within the agreed time frame, maintaining Keller standards for quality and safety. We received a special HSE appreciation certificate from the client in addition to a perfect customer feedback form.

Project facts

Owner(s)

EMAAR

Keller business unit(s)

Keller Foundations Contracting

Main contractor(s)

Concord Contracting LLC

Solutions

Ground improvement

Markets

Residential

Techniques

Dynamic compaction
Rapid impact compaction (RIC)
Vibro compaction