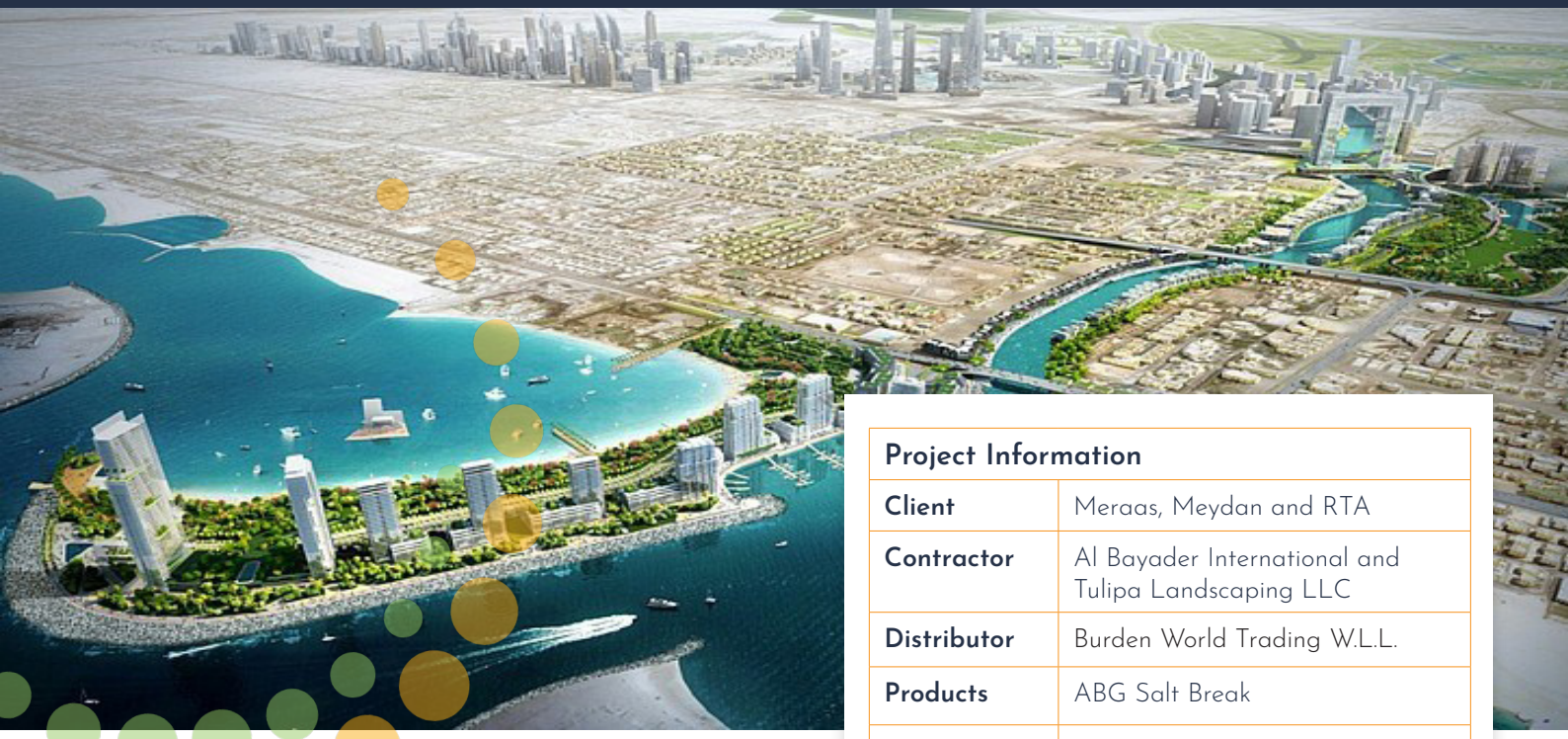
Capillary Break

Salt Barrier, Dubai Water Canal, UAE



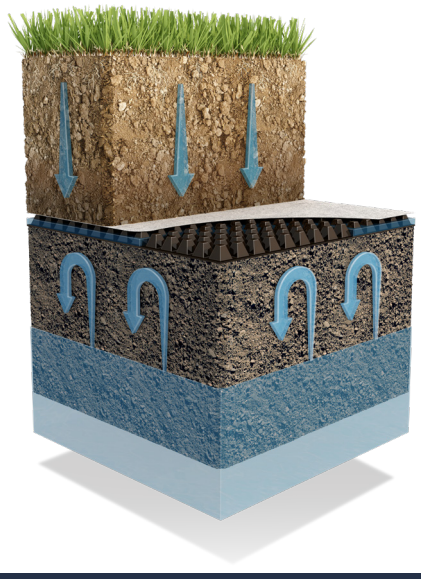
Project Information	
Client	Meraas, Meydan and RTA
Contractor	Al Bayader International and Tulipa Landscaping LLC
Distributor	Burden World Trading W.L.L.
Products	ABG Salt Break
Quantity	30,000 m^2
Benefits	• Fast installation over large areas • Eliminates drainage stone • Reduces excavation requirements • Provides a true capillary break against the rise of saline moisture

Project Description

The canal connects the Business Bay to the Arabian Gulf via a canal, creating the development of the Dubai Water Canal Project. The artificial canal was unveiled on 2 October 2013 and inaugurated on 9 November 2016. Included in the design of the Canal Project are various green networks. These networks allow pedestrians complete autonomy from vehicular traffic. The green networks connect through the parks, residential buildings, shopping and boardwalks.

The Challenge

The brief of the designers was to create a seamless flow for pedestrians allowing for more interaction with the water surface, as well as providing an uninterrupted walking path for pedestrians. AE7 designers recognised the need to provide and maintain a perfect green destination that local residents could enjoy without the landscaping being affected by saline ground water problems. There are a very narrow range of plants that are salt resistant and salt is a major factor limiting plant growth.



ABG Salt Break

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Areas close to the sea where water tables can fluctuate due to tides and other ground conditions can cause a build-up of soluble salts in the soil. Capillary action within finer grades of soil can cause the salty ground moisture to rise, which then damages the plants. A simple impermeable barrier could be a solution in preventing capillary rise, except when rainfall is heavy it also prevents either drainage or infiltration into the surface. A crushed stone breaklayer with multiple interval spaces could be a solution, but this can be expensive and hard to maintain. The ideal would be an impermeable barrier which was also a spacer which could drain water away very quickly in a storm event.

The Solution

ABG, working with the local distributor WT Burden Middle East, proposed the use of ABG's Salt Barrier (Salt Break) within the landscape build up along the canal perimeter.

This forms an impermeable barrier to the rise of the saline moisture, whilst allowing collection and drainage of any surface water percolating down through the soils and paving above.

Salt Break is designed specifically as a drainage void layer installed to protect the imported clean soils from the rise of saline moisture through capillary action. It comprises a high strength cuspated core with a geotextile filter fabric bonded.

The ABG Service

ABG offered assistance with cost comparisons, drawings and installation advice. ABG Manufactured and shipped from the UK to meet a tight deadline

ABG Salt Barrier installed underneath landscaping running along the side of the canal

Salt Break prevents the salty moisture from the canal from damaging the planted areas along the canal walkways

Installing the Salt Break ensuring the overlaps of filter geotextile prevent cover soil entering the capillary break void and causing tracking

Contact ABG today to discuss your project specific requirements and discover how our past experience and innovative products can help.

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