

Dubai Healthcare City looks to healthier solutions



CASE STUDY

Project

Dubai Healthcare City
(DHCC) Phase 2

Client

DHCC

Application

Stormwater Soakaway

Products Used

Polystorm Deep

For the first time in the region, Polystorm Deep is applied to reduce the risk of flooding and create a safer environment for occupants and visitors.

Dubai Healthcare City (DHCC) is a premier health and wellness development in Dubai, U.A.E. The free zone is home to a variety of core healthcare service providers, attracting renowned global and

regional healthcare professionals as well as a large network of businesses in the healthcare, hospitality and retail sectors.

To enhance stormwater management in DHCC and ultimately create a healthier and safer environment, Polypipe Middle East worked closely with lead consultant, Parsons, and main contractor, Dutco Construction

Polypipe Middle East believes in early engagement to ensure more sustainability in every project from conception to delivery.





Co. (L.L.C), to conceive and install a specialised solution that would have the capability to integrate with the area's existing water network level and flow rates that discharge to the network.

All partners on this project were invited to the client's office for a comprehensive technical presentation and material testing session prior to the conception of a bespoke solution. Polypipe Middle East provided further support by contributing design improvements to match the network levels and depth requirements of the site. The improvements even included special measures to avoid failure caused by heavy traffic or pumping out points that remove water from tanks after the rain.

After a detailed inspection of the site and a thorough technical analysis, Polypipe Middle East determined that for this project, infiltration tanks which need to be buried very deep into the ground, were required. The site contained possible heavy loading areas with weak ground conditions and a low percolation rate of soil. Fortunately,

Polypipe Middle East delivered a fit-for-purpose, engineered solution to enhance stormwater management in DHCC and significantly reduce the risk of flooding.

As a result, Polystorm Deep was applied for the first time in the region.

Due to loading capacity and flexible design, a Polystorm Deep infiltration tank was installed and integrated into the current water network at DHCC. The tank has a capacity of 1,128m³. Polystorm is used to create a void underground for stormwater collection, which then allows it to percolate into the ground. Polystorm Deep has been designed specifically for use in highly trafficked areas. It offers an extremely high level of compressive strength and can therefore be buried deeper than any other Polystorm cell at a depth of up to 8m. Additionally, it can also be value engineered as part of a hybrid system.

Polystorm Deep was also selected for its compliancy with local civil infrastructure requirements. Polypipe Middle East met with Dubai Municipality for design approval prior to installation. After initial concerns about the system's predicted infiltration rate, Polypipe Middle East was able to confirm that the rate will be low and with discharge to the network, the system will work well and maintain a healthy environment in DHCC.

Through sustainable solutions, Polypipe Middle East is committed to preserving the health of our planet and its people. Working on a project that put health and wellbeing at its core was a natural fit for Polypipe Middle East, allowing them to contribute to creating increased benefits in a health-focused community.

Polypipe Middle East was able to deliver a reliable, compliant and spec-driven solution, backed by technical expertise and outstanding customer service, in order to overcome the challenging site conditions and create a healthier, happier environment for DHCC.