

Green Roof

Intensive Green Roof, Roofdrain, Education City, Qatar



Project Description

Education City is an initiative of the private, non-profit organization, the Qatar Foundation for Education, Science and Community Development, which was founded in 1995 by the Emir of Qatar. It is set on a 2,500-acre campus on the outskirts of the capital, Doha. Education City hosts branch campuses of five American universities and is also home to educational institutions for children and research institutions. Part of Qatar Foundation's promotion of a 'culture of excellence' required designers to provide innovative solutions throughout the many buildings sited across the Education City complex. A podium deck finished with an intensive green roof was selected to create an aesthetically pleasing walk way through from the metro station to the main building complex.

The Challenge

With external planting in the Middle East there is always a challenge to irrigate and preserve water for maintaining healthy plant growth especially through the hot summer periods. The specification called for the planting of ornamental grasses and sedums in multi-shaped planters. A five layer roof detail was devised where the waterproofing layer was protected from mechanical damage and root damage; a water collection reservoir to encourage root growth and carefully selected growing media. The window for installation was very tight to avoid planting in the middle of the summer and a quick lay solution was required. The multiple layers posed a time consuming installation problem.

Project Information

Client	Qatar Foundation for Education, Science and Community Development
Contractor	Al Jaber & Partners
Consultant	Parsons
Products	Roofdrain and Rootline
Quantity	25,000m ²
Benefits	<ul style="list-style-type: none">• Pre-fabricated composite product allowed rapid installation to meet tight project timescales• Easy handling and installation on roof areas• Reduced load on structure due to lightweight components



ABG Roofdrain underneath the growing media

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The Solution

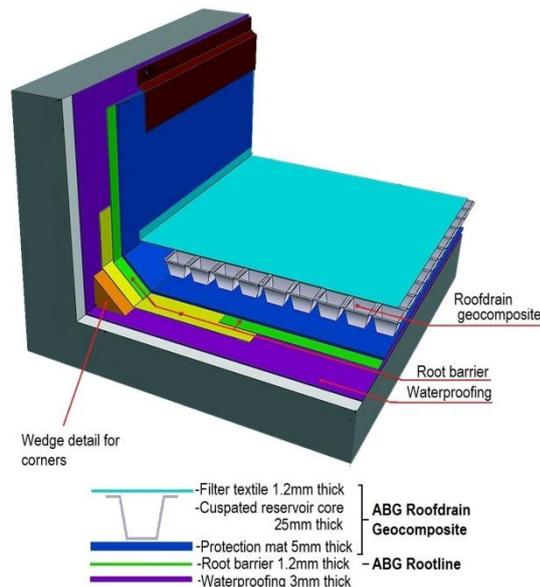
ABG working with WT Burden offered **ABG Roofdrain geocomposite system** which combined three of the separate layers in one product. Working with the main contractor, Al Jaber, ABG helped detail all edge and overlap details including a wedge to carry the multiple layers through 90 degrees and provided a supervisor on site to ensure rapid installation.

The 25mm thick **Roofdrain** is supplied in rolls with overlaps to ensure growing media does not fill the reservoir voids below. The geocomposite is highly versatile and can be easily cut to suit the complex multi-shaped planters on the podium deck. **Roofdrain** includes a protection geotextile which protects the waterproofing membrane from damage during construction.

With the help of ABG, the green roof and irrigation system installation was undertaken quickly and successfully. The **Roofdrain** captures the irrigation water in a reservoir optimising reuse of the water.

The ABG Service

Assistance with design detailing, staged delivery along with site supervision at the start of installation.



Roofdrain geocomposite combined three previously separate components into one minimising installation time



Hardy plants on Roofdrain water reservoir



Roofdrain overlap detailing

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