



Key Facts

Project:
450-Home Development

Product:
AquaCell Eco
AquaCell Prime
AquaCell Core
AquaCell Plus

Contractor:
Mulholland Contracts

New developments in flood prevention

At a glance

Built on the south shore of the Firth of Forth, a new 450-home development in South Queensferry, Edinburgh, required an underground drainage system that would address surface water run-off and alleviate flood risk. A combination of more than 6,000 AquaCell geocellular stormwater management units from Wavin proved the ideal solution.

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With numerous areas for car parking and road structures – including a key turning point for local buses – the AquaCell range of systems offered the perfect combination of performance, versatility and heavy loading capabilities.

– David Rough, Area Sales Manager, Wavin



The BBA approved AquaCell system is available in a range of four units of differing strengths, which include AquaCell Eco, Prime, Core and Plus. They can be mixed and matched to create the optimum installation for a range of applications, including landscaped or trafficked for either shallow or deep applications.

The challenge

The challenge with any area prone to excess surface water, or flood risk, is to provide a solution that is adaptable to the site's particular usage. In the case of the South Queensferry housing development, this meant managing surface water in an area that's predominantly a hard landscaped site, requiring the strength to support regular and heavy traffic loading.

Our approach

All AquaCell units have proven lateral and vertical loading performances and the ability to clip together or brick-bond different units in the range with different properties. This versatility meant that the perfect attenuation tank could be created for each area, making AquaCell the recommended solution for three tanks in the 35-acre site.

For the main bus turning point, 2,100 AquaCell Prime Units (manufactured from specially reformulated,

recycled material for trafficked and deep applications) were used, in conjunction with AquaCell Plus for the bottom layer (because of its inherent suitability for deep installations), AquaCell Eco for the top layer and AquaCell Core to provide the required strength.

Once wrapped in a geotextile sheet or geomembrane, the attenuation tanks provide effective flood protection and drainage, with the strength to support the activities of a community.

The benefits

AquaCell's ease and speed of installation make it ideal for busy, complex construction projects. The inherent strength and performance of the AquaCell system ensures that the new residents will benefit from a proven stormwater solution, delivering effective flood protection in both the short and long term.



For more information on this case study or if you have any questions please get in touch

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