

# Green Roof

Extensive, Steep Curved Timber Roof, Erosaweb, Recycling & Energy Facility, Cross Green, Leeds, UK



Case Study

## Project Description

The iconic Leeds RERF (Recycling and Energy Recovery Facility) is the flagship development at the heart of Leeds Integrated Waste Strategy over the next 25 years. The energy from waste plant is designed to treat the 214,000 tonnes of household waste generated in Leeds in one year. The landmark 42m high glulam timber framed building (the largest timber framed building in the UK and the largest green wall in Europe) which houses the incinerator was shortlisted for a RIBA 2016 award. The associated domed timber roofed structure used to store the incinerator bottom ash has a green roof finish and was a finalist in the 2016 UK Roofing awards.

## The Challenge

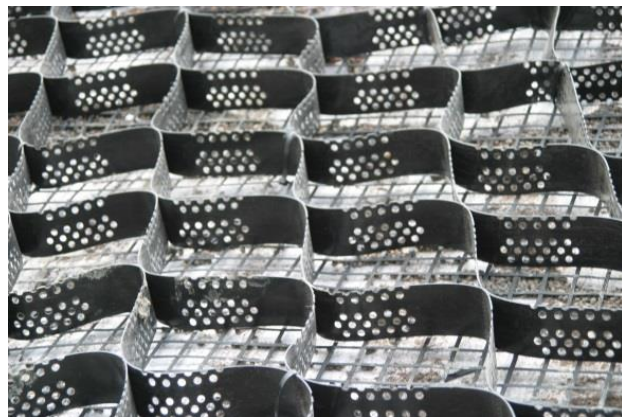
ABG were asked for a solution to cover the domed facility with a green roof. Creating an attractive low maintenance green roof on a steep light weight domed structure. For plants to grow successfully the right environment needs to be created. Plants need stable soil conditions, light, moisture and nutrients. To hold sufficient growing media in stable conditions on a steep slope requires a skin surface retention system which is structurally strong enough to prevent the whole mattress from sliding off the smooth roof.

## The Solution

The **ABG Erosaweb** was the ideal solution to retain pockets of the growing media over the whole surface preventing soil movement.

## Project Information

Client	Leeds City Council
Contractor	F K Roofing/Geogreen Solutions
Consultant	ABG Technical Services
Products	Roofdrain, Trigridd, Erosaweb, Growing Media, DF irrigation, Sedum blanket
Quantity	1,800m <sup>2</sup>
Benefits	<ul style="list-style-type: none"><li>• Aesthetics - Green Look</li><li>• Biodiversity</li><li>• Sound Insulation</li></ul>



**ABG Erosaweb tied to ABG Trigridd laid on ABG Roofdrain anchored to roof**

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The smooth surface of the dome meant that the **ABG Erosaweb** needed to be reinforced by tying it to the **ABG Trigrid** geogrid suspended in sheets from carefully positioned anchor point using sealed bolts into the roof structure, through the waterproofing membrane. Geogreen placed a layer of **ABG Roofdrain** under the soil retention system to drain excess rain water away whilst acting as a reservoir board to retain irrigation water. For the steeper parts of the slope an additional DF irrigation hose system was installed to prevent drying in hot conditions. The green roof combined with Europe's largest artificial living wall provided a biodiverse and aesthetically pleasing finish to this facility.

### The ABG Service

ABG provided a turnkey solution for this part of the project, which was a particularly difficult dome shaped green roof, taking it from design right through to installation. The whole project was finished 3 months ahead of schedule.



**Geogreen Solutions working from harnesses to install the three layers bolting them to the timber structure to provide a stable surface to encourage growth**



**Finished lightweight ABG Green Roof System**



**Largest green wall in Europe using ABG Deckdrain**

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