Green Roof

Biodiverse, Regent Street, Piccadilly, London, UK

creative geosynthetic engineering

Case Study

Project Description

Part of The Crown Estate's £1 billion Regent Street regeneration, the new 46,000 ft^2 office building has set a new gold standard in the UK for sustainability in a regenerated historic building.

7 Air Street is the first listed building in the UK to receive a BREEAM outstanding rating (94.16%) – the highest award possible from the industry body which judges best practice for sustainability in the built environment.

The launch of the green roof marks the first pocket of new green space to be delivered by The Crown Estate as part of 'Wild West End', a partnership between London property owners to promote ecology.

The Challenge

The Green Roof Consultancy's Ecology Report looked to the provision of a green biodiverse roof to address the need to encourage additional species. This achieves an extra credit in category LE04 (Enhancing site Ecology) of the BREEAM Assessment. In order to maximise the local flora and fauna of the roof it was necessary to create as many biodiverse areas as possible, encouraging nature to make its home in specially designed areas. The PV arrays on the roof left limited space for the biodiverse roof and needed to be designed creatively in order to maximise the potential for the biodiverse areas and the BREEAM assessment criteria.

The Solution

The **ABG Green Biodiverse Roof System** included a mixture of plug-planted sedum, sedum cuttingsand seeded annual and perennial wildflowers, fitted around the PV arrays and other special features to encourage birds, bats, invertebrates and other wildlife.

Project Information

Client	The Crown Estate
Contractor	Cawston Specialist Roofing/Geogreen
Consultant	Barr Gazetas Architects
Products	Green Biodiverse Roof
Quantity	200m^2
Benefits	• Encourage bio diversity • Lightweight and versatile • Insulates heat and sound • Plants clean the air

ABG Green Biodiverse Roof System with carefully selected growing media and biodiverse features overlaying the ABG Roofdrain drainage composite

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ABG Roofdrain was used as the reservoir and drainage base layer to optimise water retention for the vegetation whilst preventing ponding. Geogreen met the challenge of installing the **Roofdrain** under and around the PV panels in this tight working environment. Special provisions were made to create hibernacula for the endangered Leisler's bat and Black Redstart bird.
The roof will benefit the whole life cost of the building by providing additional insulation and reducing noise pollution. The roof substrate will also filter dust and pollutants from the air and rainfall, which will help to improve the environment in the surrounding areas.

The versatile ABG Roofdrain geocomposite was fitted around footings of the PV arrays to form a continuous drainage layer

The ABG Service
We pride ourselves in our high level of knowledge and expertise when designing and installing green biodiverse roofs. Specialist products in bespoke sizes had to be designed to suit this site.

Jon Snow (BBC) and Alison Nimmo, (CEO of The Crown Estate) launch "The Wild West End" from the ABG roof

Nesting sites for birds and insects as part of the biodiverse design. (e.g. Hibernaculum above)

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

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