



Location

Barton Hill School, Queen Anne Road, Barton Hill, Bristol, BS5 9TX

SuDS Used

Extensive sedum roof, seeded and plug planted.

How it works

The two adjacent green roofs covering the primary school have a large visual impact in an area dominated by high-rise flats. Plug planted and seeded in October 2007, the plants flourished within a 6 to 12 month period.

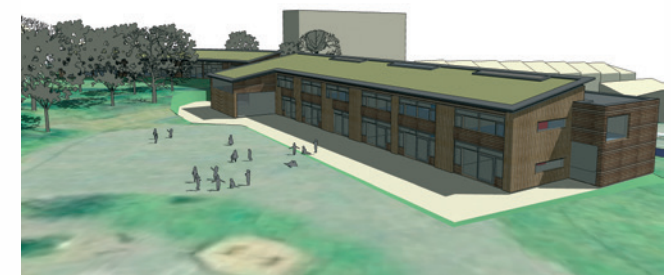
Specific details

The roof was timber decked, over which a Rhepanol root resistant membrane was laid, followed by the green roof system. The green roof consists of a recycled HDPE drainage layer, 70mm substrate and is both seeded and plug planted with sedums. The saturated weight of the roofs is 95kg/m². The growing medium is 70mm of Blackdown Horticultural extensive substrate formulation, over the drainage layer. The green element of the roof cost £56k. This included the sedum

planting, protective membrane on the single ply timber battens and the cost of installation.

Design and Construction

Community at Heart (the New Deal for Communities in Bristol) who funded and coordinated the project wanted the building to be used as a learning tool for the pupils. The roofs are visible to a large number of local residents who occupy the adjacent tower blocks. A sedum roof was chosen over a meadow or grass roof because of lower maintenance demands. Other SuDS used include porous paving, to allow a proportion of the surface water to infiltrate the ground, and a swale to attenuate surface water runoff from the playground before discharging to the sewer. It was a client group decision to include a green roof, with advice from the architect.





Benefits and Achievements

The Barton Hill Primary School was part of an initiative called Community at Heart, funded by the New Deal for Communities. The two adjacent roofs covering the primary school have a big visual impact in an area of Bristol dominated by high-rise flats. It is an innovative, environmentally sensitive and aesthetically pleasing design for a school and is intended as a learning opportunity for the pupils.

Maintenance

Maintenance has proven to be minimal with cost incorporated into the general ground keeping of the site.

Team and Details

Green roof Provider – Blackdown Horticultural Consultants

Main Contractor – Pearce Group

Completion October 2007

Size – Approximately 900m², split between two adjacent roofs

Architects – Architype (www.architype.co.uk)