

Location

Ashley Vale, Self-build/Self-finish
Mina Road, St Werberghs, Bristol, BS2 9YP

SuDS Used

Sedum mat green roof.

How it works

The green roofs cover six self-finish units at the centre of the Ashley Vale self-build site. The self-finish bungalows form a crescent shaped terrace so the slope of each individual roof faces from North to North-West.

Specific details

The roofs were covered in three layers of special roofing felt, impregnated to inhibit root growth (supplied by Axter). The green roof system was supplied in pre-compiled tile-like units that were installed by Ashley Vale Action Group volunteers. Each green roof “tile” consisted of a 40mm layer of recycled egg-box shaped sponge, covered in a 40mm layer of reclaimed crushed building aggregate (both impregnated with nutrients) and covered in a layer made up of five varieties of sedum plants. No additional growing medium was used. The units were designed and built by the residents on the site.

Design and Construction

The site is very close to the St Werberghs City Farm, the Narrowways Nature Reserve and a Council-run allotment, so preservation and enhancement of the natural environment influenced the decision to include green roofs on the buildings. The self-builders also wanted to include green roofs because they look visually interesting, promote biodiversity and provide extra insulation.



A light-weight sedum mat option was used to avoid the need to reinforce the structures.

Benefits and Achievements

The green roof provides insulation, retaining heat in winter and keeping the building cool in summer. It also provides some attenuation during storms and is aesthetically pleasing.

Challenges

The self-builders at Ashley Vale chose a roof system with very little substrate for structural reasons but this also reduced the scale of benefits achieved.

Maintenance

Maintenance is low, with weeding carried out once or twice a year.



Team and Details

Designer – Mike Harvey, a local carpenter plus self-build volunteers

Green roof provider – Green Roofs Naturally, based in West Yorkshire

Completion October 2007

Size – Approximately 420m² (70m² per roof)