

Case Study 11

Hartcliffe childrens centre

February 2015

Location

Hartcliffe Children's Centre,
Hareclive Road, Bristol BS13 0JW

SuDS Used

Extensive sedum mat. Completed in 2006.

How it works

The sedum roof is medium sized, concave in shape and has a southerly aspect. It reduces and slows down runoff by providing attenuation.

Specific details

The green roof system at Hartcliffe Children's Centre was installed on top of a high performance bitumen felt waterproof liner system with high levels of thermal insulation bonded over it (180mm PIR giving U value of 0.09W/m²K). The vegetation is a specialist sedum mat provided by Erisco-Bauder, containing different varieties of sedum.

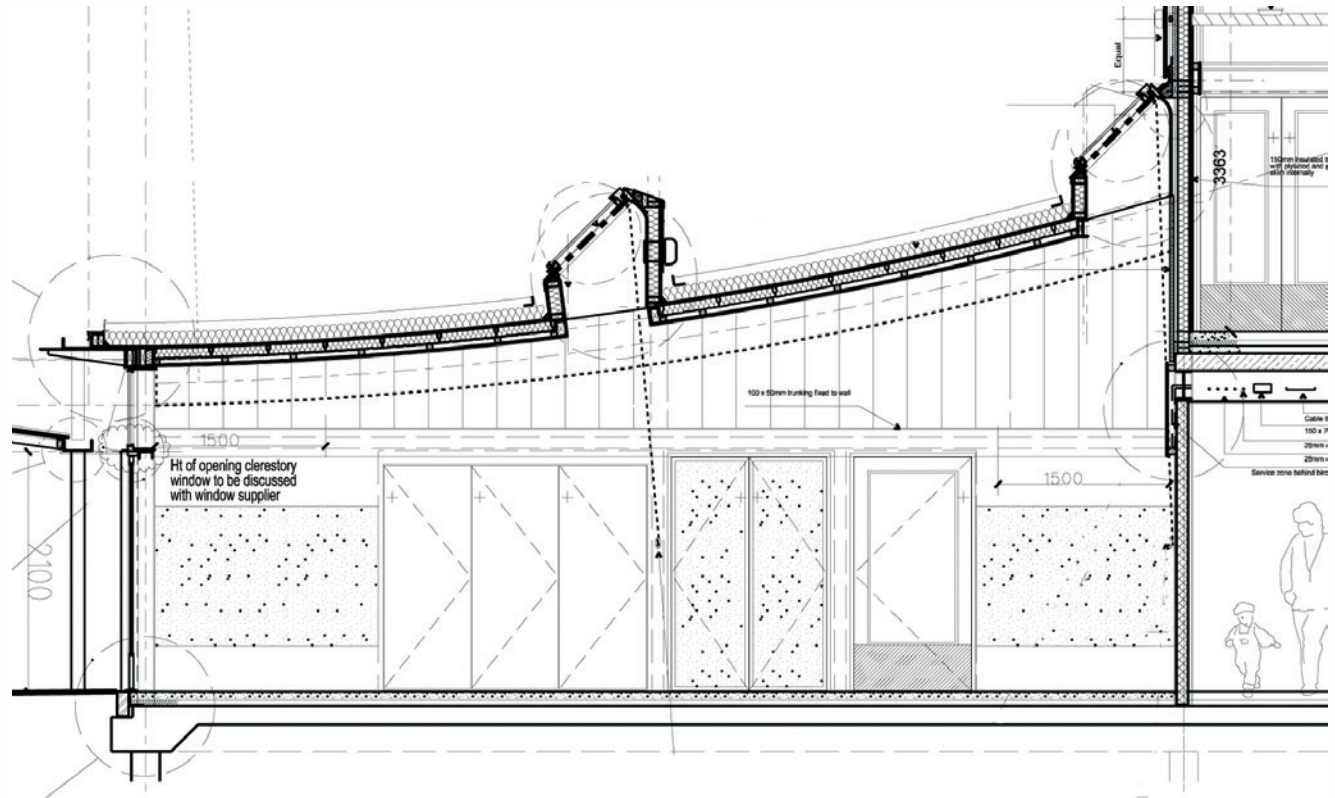
Design and Construction

Protection from heat build-up in the summer is important and the lightweight roof lacked thermal mass. A green roof was chosen because of its passive cooling properties.

Benefits and Achievements

The sedum roof and insulation layer provide protection from heat build-up. The sedum layer also provides attenuation during rainfall, reducing the peak runoff from the site. It also reduces the noise during rain storms which can affect lightweight roofs.





Challenges

The roof had to be lightweight, therefore could only support a sedum blanket rather than a more intensive green roof design.

Maintenance

Annual weed removal by hand is required, which is minimal cost and included in the general maintenance of the grounds.

Team and Details

Architects – John St Leger; Batterham Matthews Design Ltd

Green roof Provider – Erisco-Bauder

Main Contractor – Hemmings

Completion November 2006

Size – Approximately 380m²