

Hesters Way Social Housing

SWIG Award 2013 entry from Rainharvesting Systems Ltd: Domestic New Build

The Scheme – a communal system with multiple header tanks.

The Hesters Way Social Housing Scheme is a new development of affordable housing built to Code for Sustainable Homes standards. Rainharvesting Systems Ltd, in partnership with specialist installers Natural Power UK, devised and supplied the rainwater harvesting scheme for this development in Cheltenham.

The system is designed around a single 18,000-litre tank supplying all 13 properties on the site. The harvested water is pumped to a small individual header tank in each dwelling. The header tanks are designed to always take water from the rainwater store as long as it is available, but will then automatically revert to running from mains water if needed.

The central controls for the system are securely housed within an external, insulated and lockable enclosure and run from the landlords' power supply.

This provides an ideal solution for such a situation, as each property has its own independent back-up from the mains water supply, the header tanks require no power, and the controls are tamper proof and are only accessed by the landlord or the maintenance contractor.

Why chose a Rainwater Harvesting System?

The inclusion of the rainwater harvesting enabled the client, Cottsway Housing Association, to achieve Level 4 of the Code for Sustainable Homes. It also provides a significant reduction in stormwater run-off, thus reducing flood risk.

Benefits of the Rainwater Harvesting System

For the residents, the inclusion of rainwater harvesting will result in significantly lower water bills. For the client, achieving Level 4 CSH is mandatory but also fits in with their environmental ethos.

Figures

Cottsway Housing Association, with the help of the residents and in partnership with the Thames Valley Energy Centre, are monitoring and recording the energy efficiencies that rainwater harvesting is achieving.

Roof area: 600 m²

Usage: WCs in 11 houses and 2 flats

Estimated WC water usage: 740/litres per day

Expected annual rainwater usage: 237,000 litres

We estimate that the rainwater harvesting system will provide 88% of the WC water required annually.

Capital Cost: £8200

Photos:



Hesters Way,
Cheltenham



Example of cabinet for
housing controls:



Individual 18L header
tank: