

Cloud has a silver lining for the future of green roofs

Green roofs, particularly in urban environments, offer a number of advantages – the capture and controlled release of rainwater into drainage systems, creating a habitat for wildlife and reducing urban air temperatures through evaporation.



Surface water management



Biodiversity



Placemaking

CASE STUDY

Project

Blue-Green Roof at Polypipe Terrain offices, Aylesford

Client

Polypipe Terrain

Application

Blue-Green Roof

Product

Cloud water control system, Permavoid, Capillary cones

 **Polypipe**

When Polypipe's offices in Aylesford, Kent, required roofing renovations, the decision to create a Blue-Green roof was an easy one, and provided the opportunity for the design and development of a new, intelligent water management system.

Recognising that the health and survival of a green roof can be dependent upon unpredictable weather patterns and require ongoing maintenance, we worked to create a system which automatically manages water supplies to provide optimum soil moisture conditions, allowing the green roof to flourish – maximising its benefits.

Controlled and monitored remotely online via a smartphone, tablet, or computer, the Cloud Water Control System combines monitoring sensors, remote valve operation technologies and cloud computing software to provide adaptive irrigation, creating the ideal conditions for plant life, while maximising water usage efficiency.

Using our Capillary Cones – which draw water upwards and are unique to Polypipe Geocellular systems – stored rainwater irrigates the green roof, while sensors within the cells monitor available water levels. If a pre-determined 'low set-point' is reached, the system will open a solenoid valve to add water from the Rainwater recovery tank until the correct level is reached.

During high-rainfall events, excess water in the wet cell spills over into the raft. When the tank reaches capacity this water overflows to the drain.

The result is a Blue-Green roof which can be more closely monitored and controlled than ever before, bringing together the best of nature, technology and engineered water management products, in **one streamlined system.**

