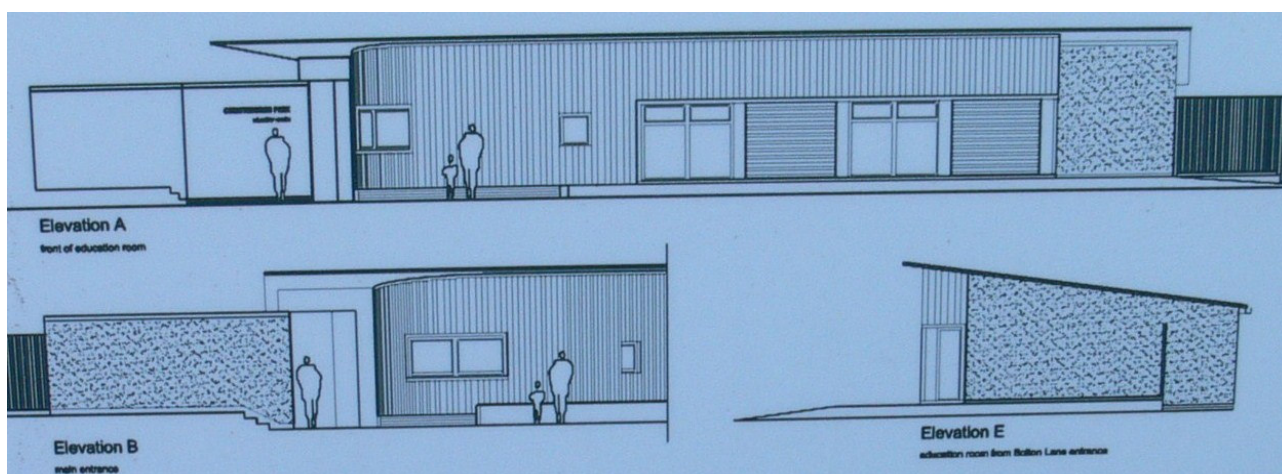


## Ecozi Rainwater Harvesting Case Study Christchurch Park Restoration Project, Ipswich

Client:	Ipswich Borough Council
Building Type:	New Management Facility and Depot
Roof:	70% mono pitch with sheet cover and 30% sedum
Area:	400m <sup>2</sup>
Rainwater Apps:	8 toilets for public and staff use
Sustainability:	RWH, sun pipes, ground source heating, timber cladding, living roof
Built:	2007
Design:	Randall Shaw Billingham
Main Contractor:	V.A. Marriott (Ipswich)
M&E:	Burmech (Burwell)



### Rainwater Harvesting Requirements

To provide as much toilet flushing water as possible. The estimated demand was 200m<sup>3</sup> and the estimated rain yield was 130m<sup>3</sup> per year. During the summer period of heavy demand and less rainfall the toilets would require mains water. A single 6,000L PE tank was located under the buildings garage forecourt in sandy soil with no concrete base or backfill. All the buildings roof areas were connected to the tank and overflow was to soakaway.

The sedum roof area was also connected to the rain harvesting system. The yield from this part of the roof is low, at about 30% and due to the living aspect of the roof and soil layer the collected water is clean but not clear. With dilution from clear water from the main roof areas the water retains a slight brown colour that is not easily removed. The client accepted this at design stage and placed labels on each toilet to inform each user why the water is slightly coloured.



### **Rainwater Harvesting System**

A factory built and tested wall mounted appliance provides central control and all major system components. A 5.4 bar Wilo multi-stage centrifugal pump with electronic flow switch provides enough power to refill all toilets simultaneously, if required, in 30 seconds. The management appliance, shown without its cover, is simple to hook-up and maintain.



*"As the M&E contractor we had not used Ecozi before this prestigious project. We found the equipment simple to install and commission using our own staff. We made a couple of phone calls to Ecozi who provided all the information we required at the planning stage through to client hand over. We particularly like the factory built management appliance used to control and pump water to the toilets on demand."*

**Roger Case- Managing Director, Burwell Mechanical Services**



rainwater harvesting systems

Ecozi Ltd  
Unit 54 Myton Crescent  
Warwick  
CV34 6QA

01926 403 442  
info@ecozi.com