

SuDSPlanter case study

Project: Tongwynlais Zero Discharge Housing Development

Location: Tongwynlais, Cardiff

Client: Cecil Homes Ltd

Date: November 2019



This project entailed the production of a complete design package for a large single house development on the outskirts of Cardiff in Tongwynlais. The development is located on a brownfield site with no access to any sewer for surface water discharge due to capacity issues and apparent poor surrounding permeability.

As a result, SuDSPlanter Ltd was asked to design a proposal providing zero discharge to sewer to meet the planning conditions set by Cardiff City Council.

Following completion of the site percolation tests, SuDSPlanter Ltd proposed a solution with a mixture of SuDS techniques including permeable paving, underground storage utilising a geocellular system, rainwater harvesting and infiltration trenches.

In addition, 3 all-timber SuDSPlanter units were included delivering an additional level of attenuation to the roof water runoff as well as providing the required treatment prior to discharge into the below ground system.

The completed project can cope with the expected volumes from a 1 in 100 year storm event + additional 40% for climate change and would meet all the current requirements for SAB compliance/approval.



P.1. SuDSPlanter



P.2. SuDSPlanter