

New Build Visitor Centre Llandegfedd Reservoir Monmouthshire, South Wales

Client: Architects Practice

Completed: 2015

Case Study No: 251

- New Build Waterproofing
- Type C (Drained) Protection
- External Depressurising Drainage Layer

The Project:

A new Visitor Centre at the popular Llandegfedd Reservoir as part of a £2.5m investment in the tourist site which attracts over 150,000 visitors each year.



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Llandegfedd Visitor Centre - The Problem

A new Visitor Centre at the popular Llandegfedd Reservoir was commissioned by Welsh Water as part of a £2.5m investment in the tourist site which attracts over 150,000 visitors each year.

The reservoir itself is the principle water supply for the city of Cardiff and can supply up to 80 million gallons of water per day if required.

The new Visitor Centre will service guests who wish to enjoy the excellent water sports, angling, bird watching and walking facilities around the 434 acre site.

Protectahome were contacted as Waterproofing specialists to provide expert installation of a pre-designed combined waterproofing system to the earth retaining rear and side elevations.



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Llandegfedd Visitor Centre - The Solution

The pre-designed waterproofing system combined a Type C (Drained) protection with an external depressurising drainage layer.

Externally, a specially designed two component drainage membrane was installed along the earth retaining side and rear elevations. As part of the specification, a land drain and clean, free draining stone were installed by the main contractor to supplement the external drainage layer.

8mm Cavity Drain Membrane was installed to the internal wall surfaces and the floor slab to capture any free water that may penetrate the structure.

A drainage channel was formed in the perimeter of the floor slab at the wall/floor junction to accommodate the installation of periphery drainage channel that would redirect any free water from behind the membranes to a safe point of disposal.

The sloping site negated the need for a sump and pump chamber as the periphery drainage channel was able to freely drain safely away from the front of the building.

The system was installed on time and within budget.



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