Whiteford Burrows, Swansea

Building Design Guide

- mobile environment
- exposed coastal position
- wildlife habitat
- creative solution

Whiteford bird hide

Repairs to wooden structure with sledge base
October 2004
In the 1960s, an asbestos bird hide was installed at Whiteford Burrows by the Nature Conservancy Council. It was popular with bird watchers to view the birds that fed on the mud flats exposed at low tides. When this hide degraded in 2000, it was replaced with a wooden hide.

The new wooden hide was built using funds given in memory of Sir William Wilkinson. This hide was built to last, but changing patterns of the tide and sand bars meant that it became unstable and was eventually closed for a year in 2003, when it became unsafe.
Project brief

The Wilkinson family had funded the bird hide and also its maintenance, therefore a solution was necessary that would allow the hide to be rejuvenated.

The brief would have to take into account:

- the extreme exposure and changing landscape of the location
- the fact that the habitats where the birds fed had moved around the spit and could no longer be seen from the hide
- the need to relocate the hide
- that a section of the wood to the rear had rotted, as had the floor

Stakeholders

- Countryside Council for Wales (CCW)
- Forestry Commission
- Gower Ornithological Society
- The Wilkinson family
- Whiteford Burrows Advisory Committee

Key factors

- The bird hide was a fixed structure in a mobile environment.
- As the ground beneath shifted, the back of the hide disintegrated, causing the whole structure to overturn.
Site issues

The area was a Second World War firing range, which contained unexploded ordnance.

At high tide, the access road to the bird hide could become flooded.

Access
The site was only accessible via a forestry track. Therefore, before work could begin, the access track had to be widened to accommodate large vehicles. This necessitated the removal of several trees.

Nature conservation
- The project had to be completed in the autumn to minimise impact on bird life around the site, ie it had to take place after the breeding season and before the wintering birds settled.
- The hide itself was home to swallows. These could not be disturbed while they were still nesting.
- As the feeding patterns of birds are not strict, their feeding habitats can change without notice. The hide had to be able to relocate to more advantageous viewing positions.
- The sand dunes where the bird hide was situated are unstable. During extreme winters, the dunes reposition themselves. The ever-shifting ground creates a difficult environment for static structures.
- A forestry licence was required to carry out the felling, in order to remove individual trees and enable suitable access to the site along the forestry track.

Designations
- Area of Outstanding Natural Beauty
- Heritage Coast
- National Nature Reserve
- Ramsar Site
- Special Area of Conservation
- Special Protection Area

Above right Warning notices at the entrance to Whiteford Burrows National Nature Reserve

Right Several trees were removed from the narrow forestry track so that the sledge could be transported to the site
Design approach

A creative approach was needed to find a solution which would take into account the changing environment.
- The hide had to be transportable because of the movement of the sand spits, and consequent shift in bird habitats.
- It had to be located in the optimum position to view birds.
- The hide should be in keeping with the landscape, and be as unobtrusive as possible.
- It had to stand up to the elements, high exposure, and the high risk of saline corrosion.
- After some lateral thinking, the project team decided that the answer was to repair the wooden hide and give it a sledge base. This could then be towed to different positions as the changing habitat dictated.

Interpretation
At the end of the project, the interior of the bird hide was decorated with bird identification posters and a plaque in memory of Sir William Wilkinson.

Above right Erosion starting under the sledge base - the hide can be towed to a new position to avoid this problem

Right Plaque in memory of Sir William Wilkinson inside the hide
The sledge was built by a local steel fabricating contractor called The Fabrication Shop. Once built (and following galvanisation in Telford), it was transported by tractor to the site along the prepared route.

The bird hide was lifted out of the hole into which it had fallen. Chains were put around the hide, and a JCB craned it out. Once the hide had been lifted it was then transferred straight on to the sledge.

The floor of the bird hide had disintegrated. It was attached to a new plywood floor, which also functioned as a cover for the sledge base.

Once on the sledge, it was then possible to assess the remaining damage. The reverse sections of the hide had failed and required repair. New wooden sections were replaced.

Once these repairs had been carried out, the hide was painted green to blend with the surroundings.

Ongoing roof repairs are necessary owing to the hide’s exposed position. The felt has to be replaced most years.

Building structure and finishes

The sledge itself (6.3m x 2.7m, 1.4 tonne) is made from three sections of galvanized steel.

Once galvanized, it was painted with michacious iron oxide paint.

The wooden repairs to the hide were painted with two coats of Sadolin One Coat.
Funding

- Donations from the Wilkinson family endowment
- Maintenance – property operational budget

Project duration

- It was repaired and reinstated in October 2004.
- The project was completed roughly six months after the first meeting took place.

Above left The interior of the hide provides information to bird watchers, as well as a great view of the mudflats

Left View towards the Carmarthenshire coast from the hide

Post project review

Best practices

- The key to the project’s success was thinking outside the box and coming up with a creative solution to deal with the various landscape issues.
- After a few years in its new position, the weather once again exposed the hide, with the ground below it starting to fall away. The hide can now easily be towed to a more stable position.
- The roof felt has now been replaced by longer-lasting, more durable, plastic-coated steel roofing sheets

Lessons learnt

- Perhaps with hindsight, timber could have been used in place of steel for the sledge base, making the project more sustainable.

End user feedback

- The bird hide has had nothing but praise from local bird watchers who are delighted, not only with the new location, but with the novel idea of being able to tow the hide to different sites whenever necessary. The birds are also happy, with the swallows continuing to nest in the roof.
Further information

If you require this information in alternative formats, please telephone 01793 817791 or email buildingdesignguide@nationaltrust.org.uk

Whiteford Burrows is on the North Gower coast: www.the-gower.com/beaches/whitfordsands/whitefordsands.htm

Acknowledgements
Content: Hazel Wheatley, Sian Musgrave, Carl Morgan images: Hazel Wheatley, Sian Musgrave, Ingrid Chesher

Design by Inkcap Design

The Building Design Guide concept was devised by Rory Cullen and developed by Jonathan Howard with acknowledgements to Jacky Ferneyhough, Ingrid Chesher and Angela Collins.

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Right Forestry track through Whiteford Burrows leading to the bird hide