

## Naval glazing

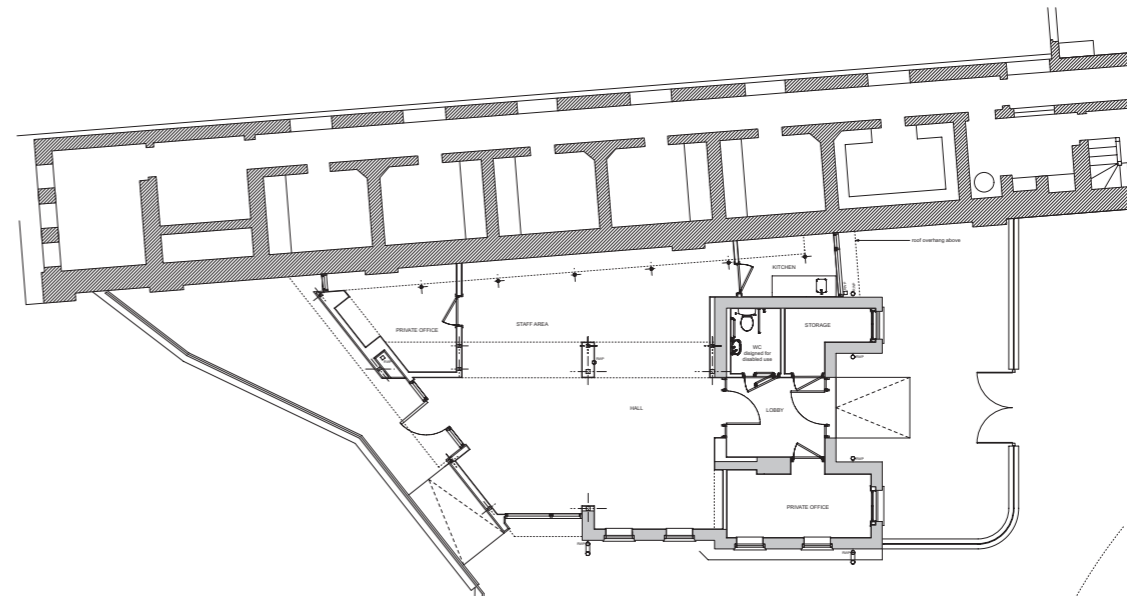
Richard Partington Architects has fused old and new to update Portsmouth dockyard's tourist information centre  
 BY SUSAN DAWSON. PHOTOGRAPHY BY PAUL RATIGAN

Portsmouth was the home of the British Navy for more than 500 years and the dockyard is its historic core. A paved walk, traditionally known as The Hard, leads the way to Nelson's flagship HMS Victory, the first iron-clad battleship, HMS Warrior, and the remains of Mary Rose, Henry VIII's warship, raised from the seabed in 1982. Flanking The Hard is the dockyard wall, a large Grade-I listed brick structure, and at its far end is a tourist information centre,

housed until recently in a tiny 19th-century Victorian cottage that was originally built as a police station for the harbour. The Hard is a popular place for tourists and in summer the information centre receives more than 3,000 visitors a day. A Victorian cottage was just not adequate to serve the needs of such a large number of visitors. In 2001, Portsmouth City Council commissioned Richard Partington Architects to renovate and extend it, upgrading

the offices and improving access and visitor circulation. The historic quality of the site required consultations with English Heritage and the Portsmouth Naval Base Property Trust.

As part of the project, the cottage was restored and repaired to act as a new main entrance, haphazard extensions were demolished and a single-storey extension was added. It contains the main reception hall, a counter where visitors can obtain information and an open-plan office space behind it, lit by a patent-glazed rooflight (which also gives glimpses of the full height of the dockyard wall). Visitors can walk through the hall and out, via glazed doors, to a terrace, newly open to the public, which has been covered with a cedar deck. The new centre is designed to be accessible to



Opposite page and above: the grey zinc cladding of the building reflects the colour of the stone harbour wall and the sea, while making a robust contrast to its historic brick neighbours. Left: the ground floor plan of the information centre. The dockyard wall flanks the cells of a former 19th-century naval prison

everyone; floors in cottage, extension and deck are all level to allow wheelchairs to be used.

The new extension has been carefully inserted between the dockyard wall and the Victorian cottage. In contrast to the massive load-bearing masonry of the wall, the construction is deliberately lightweight zinc-clad walls and a zinc-covered roof with large glazed openings.

'We designed the new extension to take the form of a series of planes,' explains Richard Partington. 'The horizontal roof plane projects as a canopy over the walls, except at the outer corner, where, in contrast, the wall becomes the dominant plane, rising above the roof'

The projecting roof emphasises the views to the sea and to HMS Warrior; the domi-

nant wall panel signifies a change in ground level and the approach to the entrance it is designed as a termination of the long view down The Hard.

Both the plan area and the height of the new extension are constrained by the surrounding buildings: it is squeezed between the dockyard wall and the Victorian cottage; the eaves height of the cottage roof, which could not be altered, established the maximum height of the roof. In order to achieve a reasonable ceiling height (a clear 2,300mm) in the reception hall, the roof construction was compressed within the narrowest possible zone.

A column and beam structure supports a lightweight steel frame with timber joists that support a ply roof deck covered with zinc. The walls are also steel-framed and

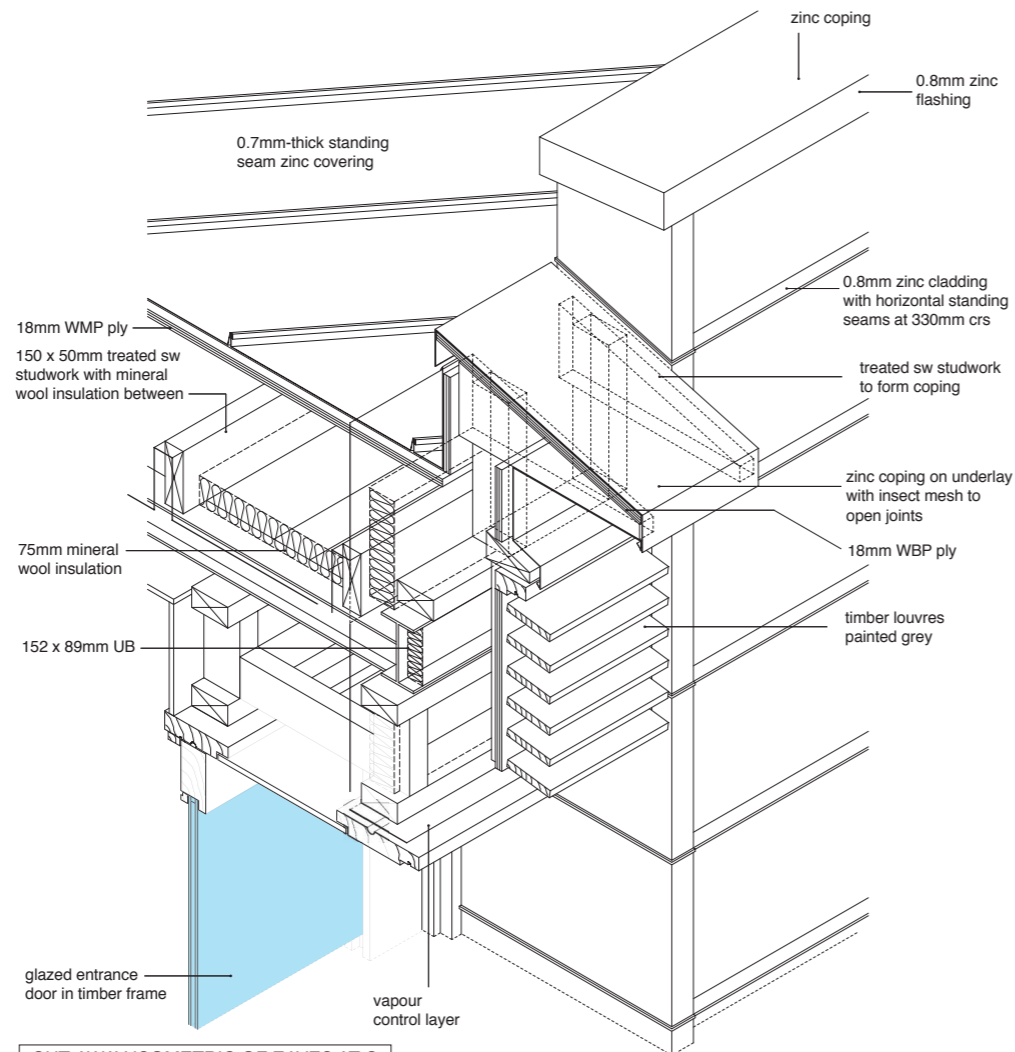
the zinc cladding is fixed to ventilated battens. As the building is seen from above, the same zinc sheet is used for the roof covering and as cladding for the walls (with 0.7mm thickness on the roof, 0.8mm thickness on the walls).

Despite being slotted into a narrow and confined space, the new extension, with its grey semi-reflective zinc cladding, manages to make a robust contrast to its historic neighbours, as well as a contribution to an understanding of the history of this historic place.

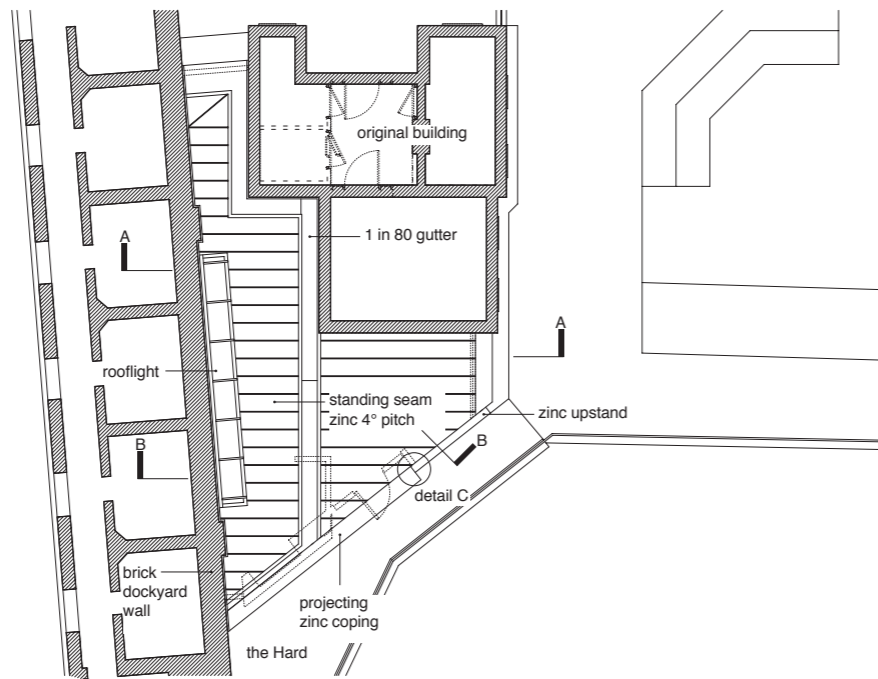
CREDITS	
<b>ARCHITECT</b>	<b>MAIN CONTRACTOR</b>
Richard Partington Architects	Eclipse Construction
<b>STRUCTURAL ENGINEER</b>	<b>SUPPLIERS</b>
Stephen Penfold Associates	Zinc roofing and cladding
<b>PROJECT MANAGER</b>	Rheinzink
Parker Torrington	Patent Glazing
	Solaglas

The structure consists of exposed 89mm-diameter CHS columns supporting primary steel beams running parallel to the dockyard wall and just below the eaves of the cottage (they support the roof where the cottage's flank wall has been removed). The structure of the roof is independent of the dockyard wall; the meeting point of new and old is articulated by a long strip of patent glazing, which introduces natural light above office workspaces in the hall. The glazing is supported on a series of cantilevered steel brackets held back from the wall by 50mm. Roof and walls are clad with Rheinzink, a zinc-copper-titanium alloy. It is supported on a continuous plywood deck substrate on timber rafters. Between the sheet and the deck is a proprietary ventilated separating layer. It provides ventilation to the underside of the sheet and separates it from the ply (bonding agents in ply have been known to cause minor corrosion on the zinc). The void under the substrate is ventilated so that the substrate will dry out if minor seepage occurs through the seams of the shallow-pitched (four degree) roof. Zinc alloy is a long-lasting and corrosion-resistant material but it is vulnerable to 'white rust corrosion' on its underside, where moisture is permanently trapped between sheet and support. The roof falls towards a central, stepped, zinc-lined gutter whose depth and fall are contained within the space created between paired 254mm-deep universal beams. A single down-pipe is concealed within the external wall. The perimeter is edged with a projecting sloping coping that is formed of treated softwood cloaked with zinc sheet.

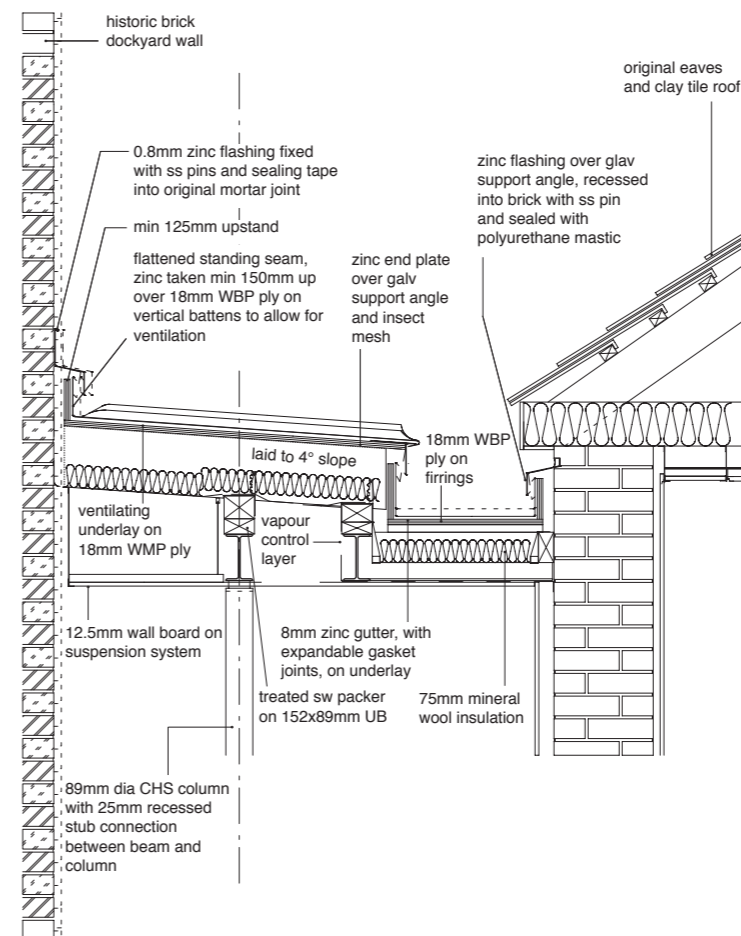
Susan Dawson



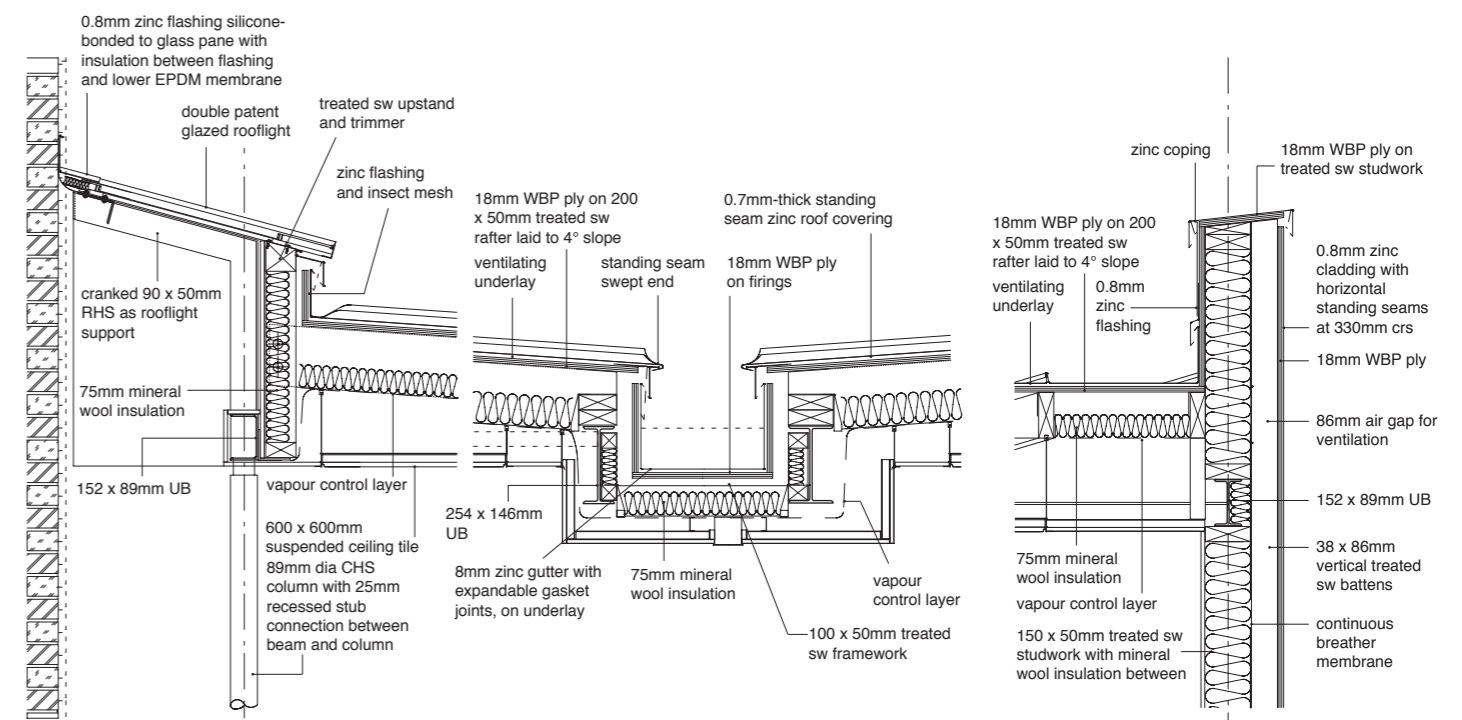
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KEY ROOF PLAN



DETAIL SECTION THROUGH ROOF AT A-A



DETAIL SECTION THROUGH ROOF AT B-B