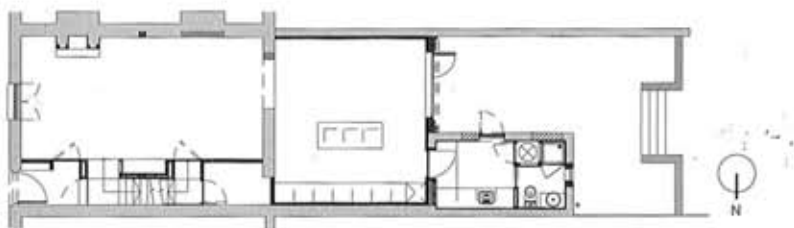
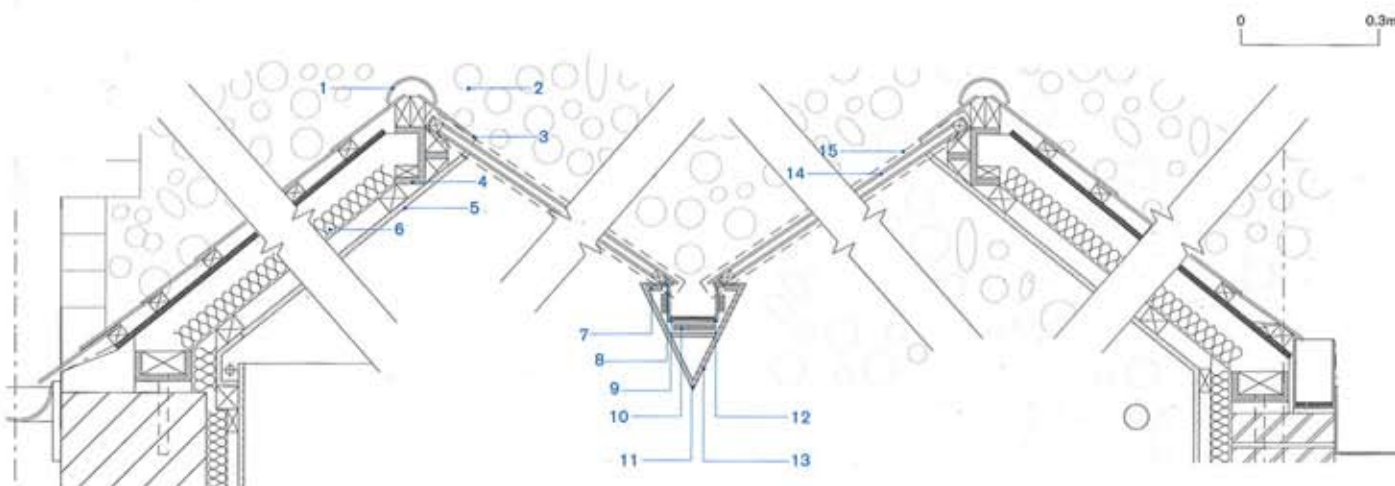


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|--|---|---|--|
| <ol style="list-style-type: none"> 1. Half-pipe ventilated ridge tiles 2. Existing flint and chalk wall to main house 3. Slate tile silicone jointed to glazed roof to conceal glazing supports 4. 125 x 65 x 15mm flange channel 5. 100 x 50mm | <ol style="list-style-type: none"> 6. C24 joist rafters at 400mm centres with 12mm birch plywood skin 7. Ceiling lining battened out to conceal structural steelwork 8. Steel support channel for glazing panel 9. Silicone joint 10. Lead flashing applied to top | <ol style="list-style-type: none"> 11. of 'V' beam lapping into gutter 12. Spray foam insulation applied to inside of 'V' beam cut to accommodate metal gutter 13. Butt weld ground flush 14. Pressed metal gutter formed to falls 15. Fabricated 10mm plate | <ol style="list-style-type: none"> 16. steel 'V' beam hit-and-miss welded to prevent distortion 17. Roof glazing 8mm/6mm heat soaked, sealed double-glazed units in three panels joined with silicone 18. Steel glazing support channels chased into flint wall |
|--|---|---|--|



Left Plan of extension
Below
Detail section



**PRIVATE HOUSE,
ARUNDEL, WEST
SUSSEX
WAIND GOHIL**

Start on site date

February 2009

Completion date

July 2009

Structural engineer

Webb Yates

Gross internal floor area

163m²

Glass supplier/contractor

Hartley Conservatories

The brief was to reconfigure and extend a Grade II-listed 18th-century cottage to provide a light, open plan, living space to support modern, expansive living.

The main technical challenge was to resolve the construction detailing of a modern frameless structural glass roof within the existing listed fabric of flint and chalk walls.

Convincing the local planning authority to agree to our solution was also a problem. The conservation officer responded positively to the introduction of a new, double-pitched

open roof structure, taking its form from the existing closet wing roof and gable, the 'valley' of which has been detailed from frameless structural glass, supported on a bespoke steel 'V' beam.

The 'V' beam was required to form a valley gutter externally and the new open roof structure was needed to prevent roof spread of the listed walls without the need for ties or rafters, and to maximise space and light.

The new wall forming the gable to the extension is from locally sourced bricks with the same cant reveal and

edging detail to match existing bricks.

An important element of the design has been to introduce light into a dark interior with glass screens, sliding doors and balustrades to subdivide the interior.

Taking the form of the extension from the existing closet wing yet detailing the roof valley using frameless, structural glass went beyond 'the norm' in terms of pastiche design guidelines but not beyond 'the acceptable' in the mind of the conservation officer. *Phil Waind, Waind Gohil Architects*