

# ASHZIP™



## fixing AshZip to timber structures

flexible standing seam roofing systems

[www.ashandlacy.com](http://www.ashandlacy.com)

  
ASH•LACY

# Introduction



With the ever changing requirements of building designers for flexibility, high quality aesthetics and environmentally friendly materials, more & more projects are constructed from timber & timber framework.

Ash & Lacy have completed numerous projects where the Ashzip system has been constructed above timber decks, timber roof trusses with plywood or Glulam beams.

Our technical department is able to offer assistance to the building designer from an early stage to cover aspects ranging from perimeter detailing to acoustic design.

There are several options for fixing the Ashzip roofing system to timber structures these include fixing direct to plywood – subject to thickness and pull out tests, Ashjack purlins fixed through to timber rafters & solid timber decks. In addition Glulam frames are widely used with structural decking positioned above.





# Fixing



## Fixing directly to plywood & timber deck

Depending on the thickness of the plywood or timber deck and of course the quality of material, the halter can be fixed directly to the plywood to enable a much quicker and easier installation.

Normally if a plywood deck is used the minimum thickness would be 18mm to ensure that reasonable pull out values are achieved. We would require a sample of the timber material being installed to be sent to our West Midlands Depot for pull out tests to be conducted under laboratory conditions. Pull out tests can also be carried out on site, but we can achieve more accurate results in the controlled environment of a laboratory.

In the image to the right the halter is fixed directly through the VCL into the timber/ply deck with no additional spacer.

## Secondary support requirement

Where poor pull out values are found a secondary top hat section, acting as a purlin can be introduced as shown below. This component is fixed through the ply directly into the supporting rafter frames. In such cases the embedment of the fixing must be 40mm plus the depth of the plywood. The type of fixing will depend upon the pull out values achieved during the tests – our technical department can advise on the correct fixing.

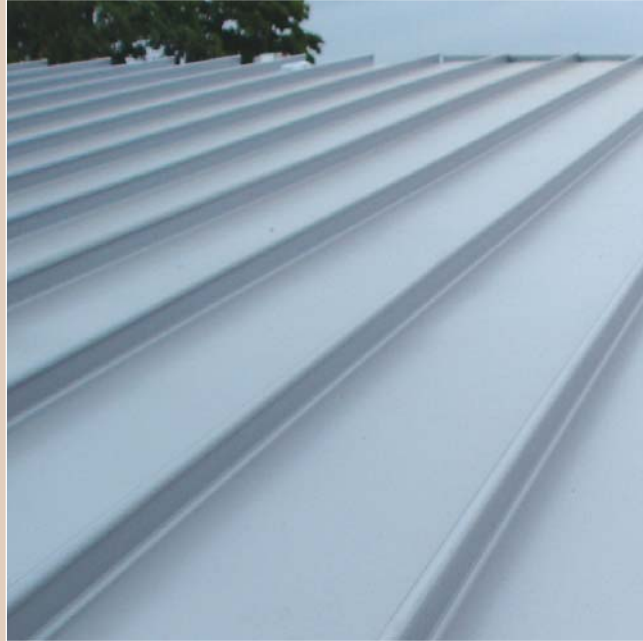


# Aesthetics & Acoustics

## Aesthetics

The Ashzip product can be produced in a number of finishes and materials including Plain Stucco Aluminium, Painted Aluminium, Coated Steel, Zinc & Copper. In addition to this Ashzip can be produced with the main ribs removed. This profile was chosen for part of the 8000m<sup>2</sup> of Ashzip 400 profile specified on the RNIB Coventry project with a PVdF Metallic Silver finish as pictured right.

The benefit of this profile is that it gives the appearance of a traditional flat troughed standing seam and superior aesthetics compared to other standing seam profiles.



## Acoustics

A concern of the project architect on the RNIB project was the use of Ashzip as a single skin construction above the plywood deck. The issue was raised due to the sensitivity and acute hearing ability of residents and pupils at the school. To reduce the impact of rain noise a project specific halter clip (95mm deep) was extruded to enable a standard 30mm deep Rockwool RW3 acoustic board to be positioned directly above the plywood deck and below the Ashzip sheet.

The acoustic slab acts as a dampening component to the underside of the Ashzip sheet. Combined with the plywood board it provides a high level of sound attenuation and assists with reducing the effects of rain generated noise.

Perimeter components were then manufactured to suit this special depth. These included 95mm verge clips and two piece shadow line fabrications



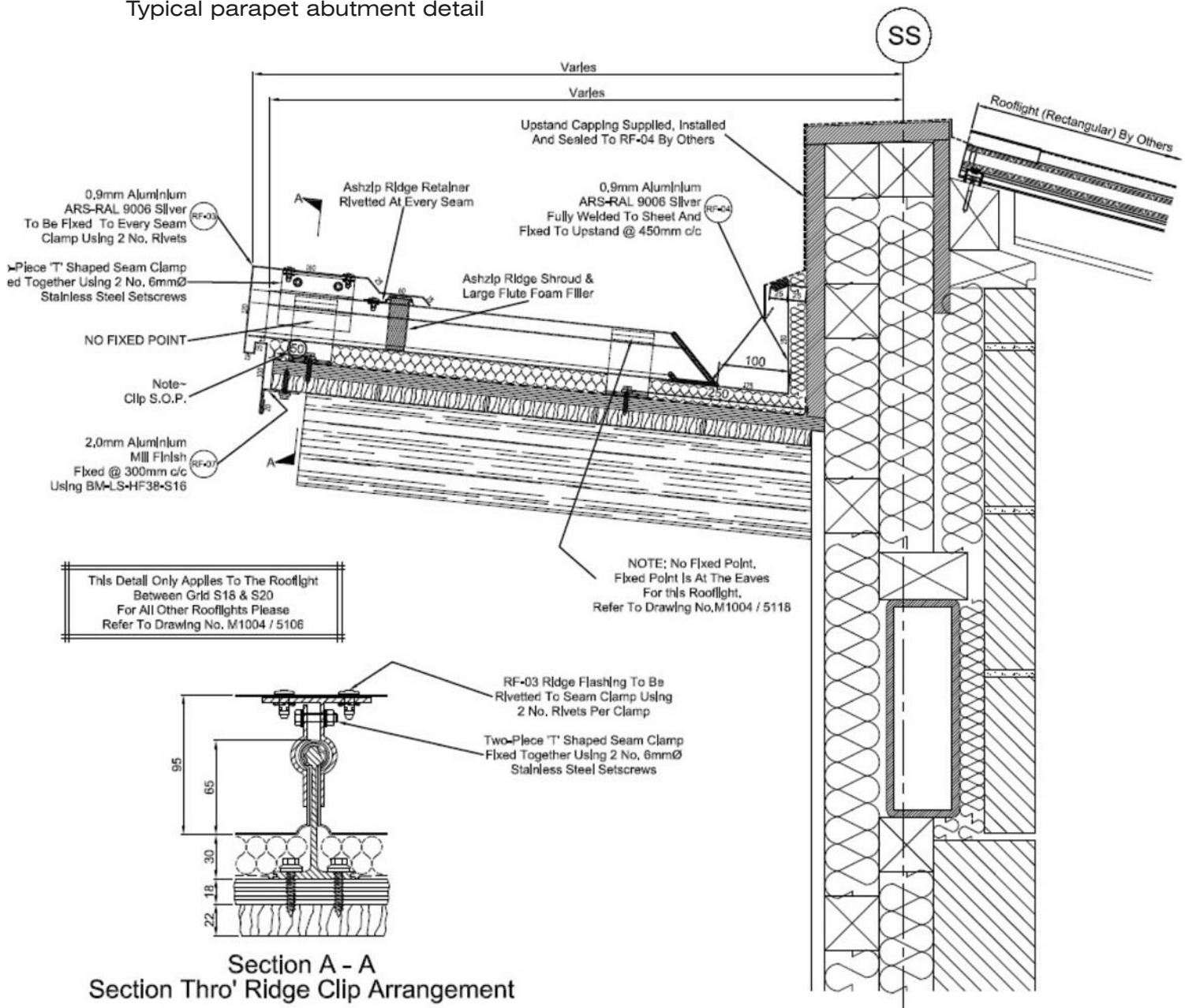
# Abutment Detailing



Assistance with perimeter detailing and developing a roofing specification is available to include Ashfab perimeter fabrications. Our technical department and technical representatives are available to discuss your project requirements at an early stage.

Along with the assistance of our technical department, the Ashzip system is installed and detailed by our network of experienced roofing contractors.

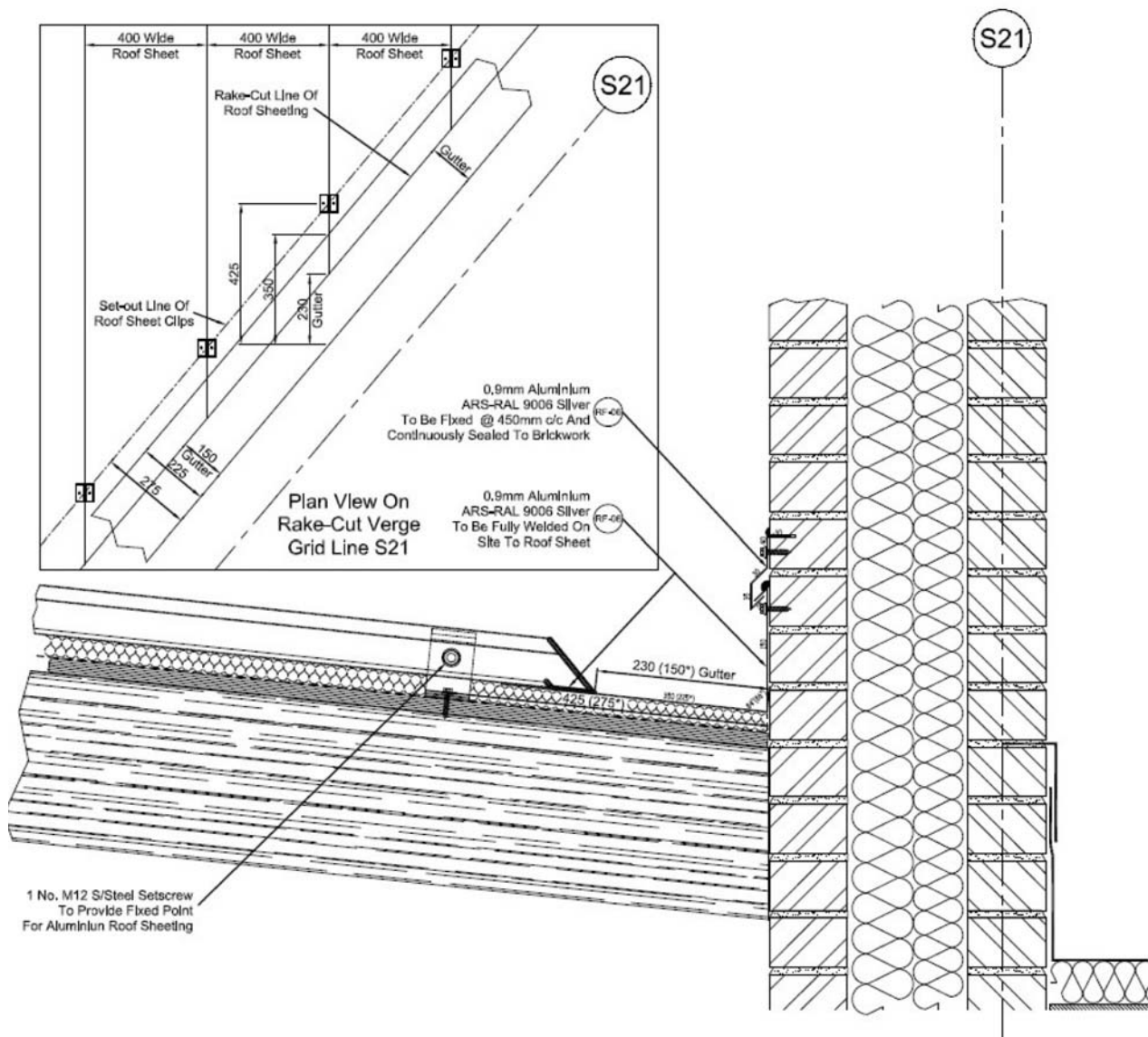
Typical parapet abutment detail



# Abutment Detailing



Typical brickwork abutment detail

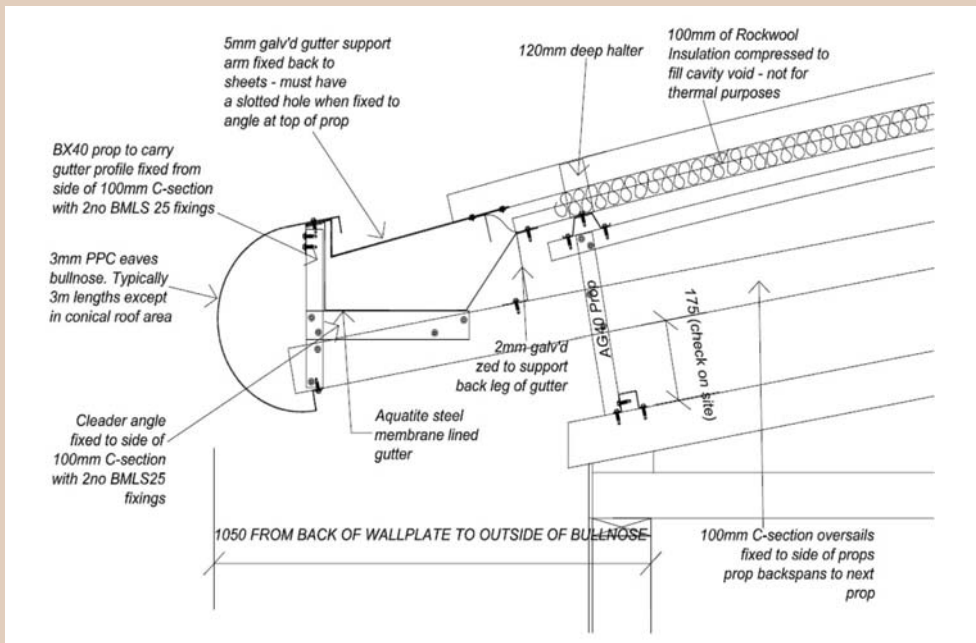




# Cantilever perimeter detailing

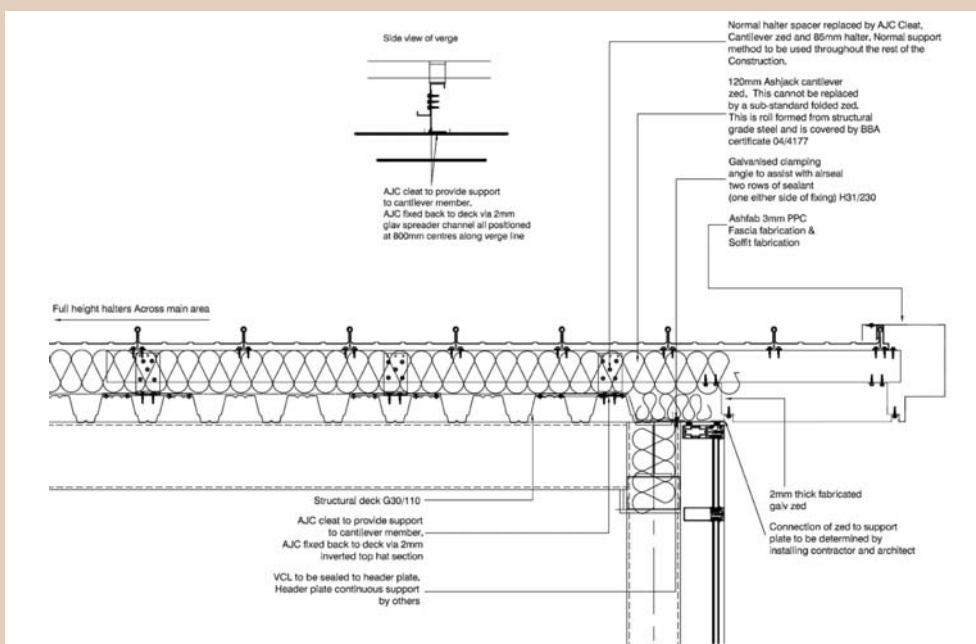
A wide range of bespoke fabrications is available to suit the requirement of the building designer to include bullnoses, soffits & gutter fabrications.

Design assistance is available from our technical department to help with development of slim line details with Ashthetics cantilever components.



## Valletort Road, Plymouth - Eaves detail

Ashjack and Ashzip were supplied to form a curve above a pitched truss. A shallow eaves cantilever was provided through connection to the Ashjack system. The Ash & Lacy Bullnose Fabrication was then supported by Ash & Lacy Ashthetics eaves support props



## Abercrombie School Derbyshire - Verge oversail

Ashthetics cantilever components were provided to form a slim line cantilever oversail. An Ashjack 140mm Zed was cleated up off the structural decking profile and cantilevered out 900mm to carry the verge fabrication and soffit support

# Systems & Profiles



## Structural deck

Long span structural decking profiles can be incorporated to span between main steels or glulam beams. Using a long span structural decking profile means that secondary support purlins are not required. Deep profile decks can span in excess of 8m depending upon the loading requirements and can be a cost effective alternative to purlins.

When fixing a long span deck to a timber support 2no fixings per trough may be required. This is due to lower pull out values and applying a higher factor of safety and the number of fixings per m2 being lower.



## Pitched to Curved

Ash & Lacy's Ashjack system can be used on new build as well as its traditional use of flat to pitched on existing roofs.

The Ashjack frame work can be provided with curved rafters to provide an efficient method of forming the curved roof over standard traditional or trussed rafter roofs.

A plywood deck is laid over the pitched rafters to provide a working platform for site operatives. The Ashjack framing is then provided and installed accordingly to form the curved roof.



## Fixing Through to rafters

In some instances it may be necessary to use a secondary support section fixed directly through the plywood into the timber rafters.

Care and attention should be taken during installation to ensure that the fixing is reasonably central over the rafters to ensure that splitting of the timber does not occur and reduce fixing pull out.

When fixing a top hat to act as a purlin, it should be fixed in both flanges at every rafter support. The fixing into the rafters should have a minimum embedment of 40mm excluding the plywood deck





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Ash & Lacy reserve the right to amend product specifications without prior notice.  
The information, technical details and fixings advice are given in good faith but are intended  
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