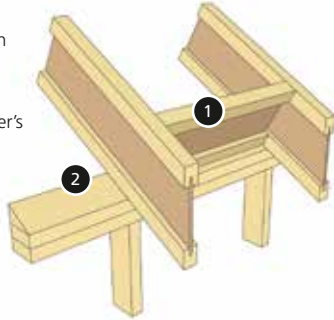


Masonite Beams Construction Details Roofs



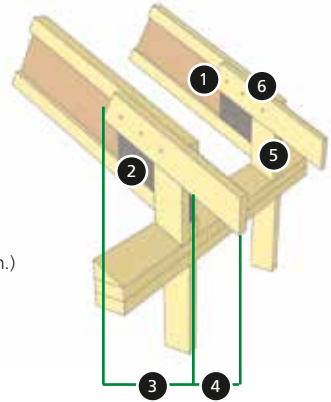
R1 BEVEL PLATE EAVES DETAIL

- 1 I-Joist blocking between each rafter
- 2 Bevelled plate fixed to wall to Building Designer's specification



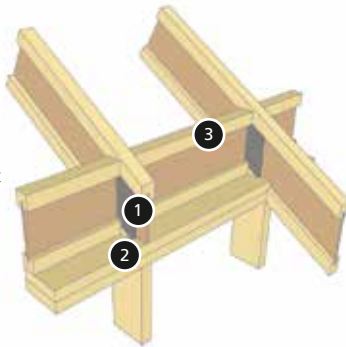
R1a BEVEL PLATE WITH RAFTER EXTENSION

- 1 3.75 x 75mm nails at 150mm centres
- 2 Fit backer block behind rafter extension (Fix as R7a)
- 3 1200mm Horiz.
- 4 750mm Horiz.
- 5 Timber block (38 x 89mm min.)
- 6 38 x 89mm rafter extension one side



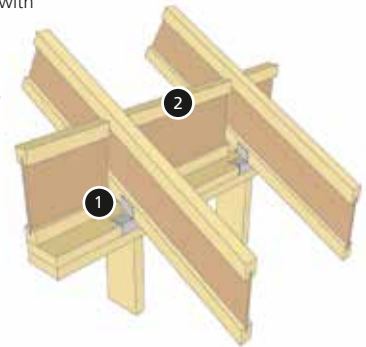
R2 BIRDSMOUTH EAVES DETAIL

- 1 Web stiffeners required at each side
- 2 Flange of I-Joists may be birdsmouth cut only at the low end of the joist. Birdsmouth cut I-Joist must bear fully on plate, rather than overhang the inside face of plate
- 3 I-Joist blocking



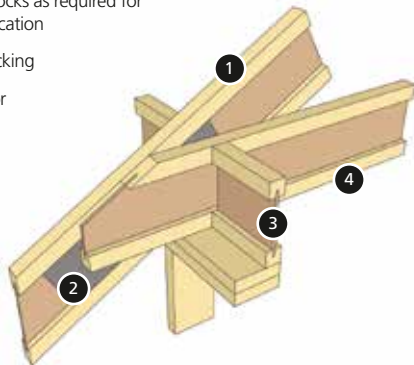
R3 METAL CONNECTOR EAVES DETAIL

- 1 Variable pitch metal connector fixed strictly in accordance with manufacturer's instructions
- 2 I-Joist blocking
- i Pitch limitations: 15° to 45°



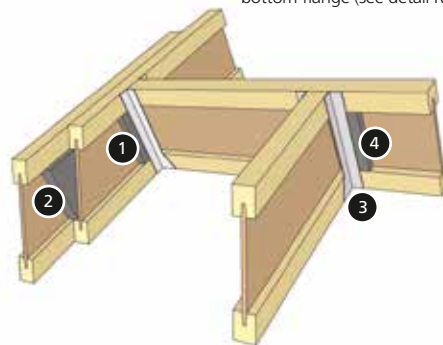
R4 ROOF EAVES & FLOOR JUNCTION

- 1 I-Joist rafter fixed to wallplate as detail R2 or R3
- 2 Timber blocks as required for specific location
- 3 I-Joist blocking
- 4 I-Joist floor

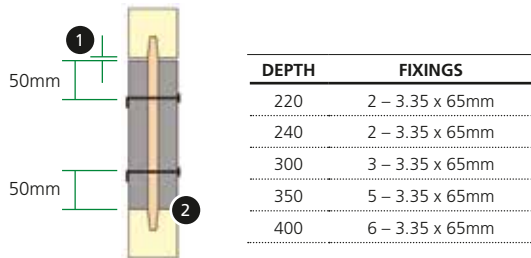


R5 ROOF-LIGHT TRIMMING

- 1 Backer block
- 2 Filler block (see detail R8)
- 3 Face mount hangers
- 4 Backer block required on both sides of web. Install tight to bottom flange (see detail R7a)



R6 WEB STIFFENER ATTACHMENT



DEPTH	FIXINGS
220	2 – 3.35 x 65mm
240	2 – 3.35 x 65mm
300	3 – 3.35 x 65mm
350	5 – 3.35 x 65mm
400	6 – 3.35 x 65mm

- 1 Small gap: 3 to 50mm
- 2 Tight fit to bottom

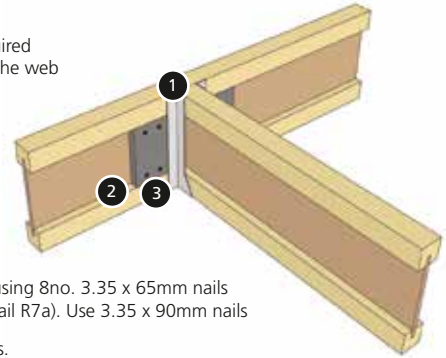
i For web stiffener sizes, please refer to Floor Technical Guide.

Web stiffeners are not required unless used with hangers that do not extend up to restrain the top flange of the joist, or as required by design.

Use 3.75 x 90mm nails for HB series Joists

R7 BACKER BLOCK APPLICATION

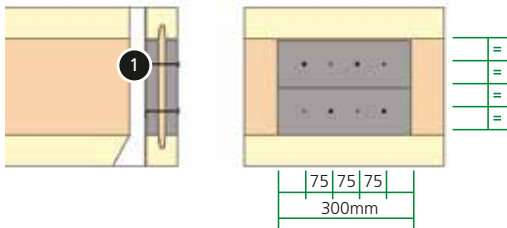
- 1 Face mount joist hanger
- 2 Tight fit
- 3 Backer block required on both sides of the web



Fix backer block using 8no. 3.35 x 65mm nails clenched (see detail R7a). Use 3.35 x 90mm nails for HB series joists.

R7a BACKER BLOCK (FIXING & SPECIFICATION)

- 1 3.35 x 65mm nails clenched (3.35 x 90mm nails for HB Joists)



SERIES	FILLER BLOCK THICKNESS	DEPTH	FILLER BLOCK DEPTHS
HL/H	18mm wood panel	220	120mm
HM	25mm wood panel	240	140mm
HI	30mm wood panel	300	200mm
HB	44mm wood panel	350	250mm
		400	300mm

i Total thickness may be made up of 2 panels.

R8 FILLER BLOCK APPLICATION

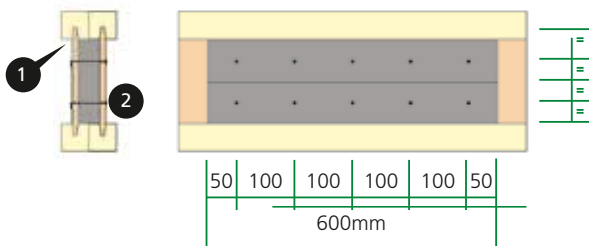
- 1 Fix 2-ply I-Joists together using filler blocks at all bearing points, at incoming load positions and at max. 3.6m centres

i See detail R8a for fixing details.



R8a FILLER BLOCK (FIXING & SPECIFICATION)

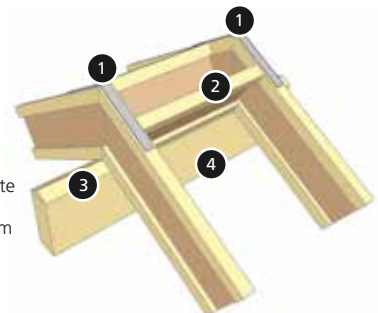
- 1 Gap required to avoid forced fit
- 2 3.35 x 65mm nails clenched (3.35 x 90mm nails for HB Joists)



SERIES	FILLER BLOCK THICKNESS	DEPTH	FILLER BLOCK DEPTHS
HL/H	36mm timber	220	120mm
HM	50mm timber	240	140mm
HI	60mm timber	300	200mm
HB	80mm timber	350	250mm
		400	300mm

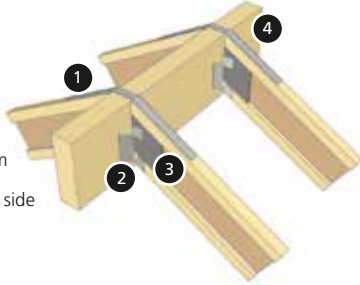
R9 DOWNSTAND RIDGE BEAM

- 1 Simpson LSTA24 or similar strap as required by design
- 2 I-Joist blocking required on each side of ridge
- 3 Double bevelled timber plate
- 4 LVL or Glulam support beam



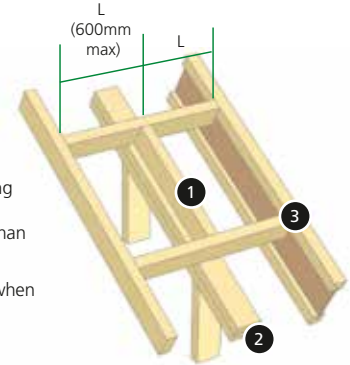
R10 FLUSH RIDGE BEAM

- 1 LSTA or similar strap as required by design
- 2 LSSU hanger or equivalent
- 3 LVL or Glulam support beam
- 4 Bevelled web stiffener each side



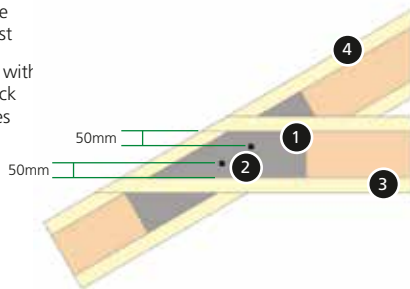
R11 GABLE LADDER

- 1 Blocking as required
 - 2 End wall
 - 3 Nail outrigger ladder nogging through web
- i** 50mm outrigger ladder nogging notched around top flange. Outrigger spacing no greater than 600mm centres. Double Joist may be required when L exceeds rafter spacing.



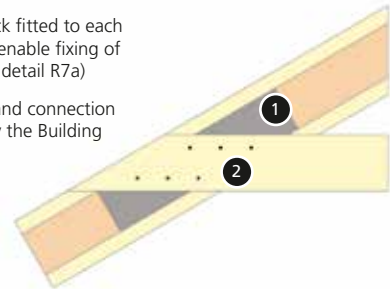
R12 RAISED CEILING JUNCTION

- 1 Ply packs on each side of both rafter and joist
- 2 2no. 12mm dia bolts with 36mm dia x 3mm thick washers on both faces
- 3 I-Joist ceiling joist
- 4 I-Joist rafter



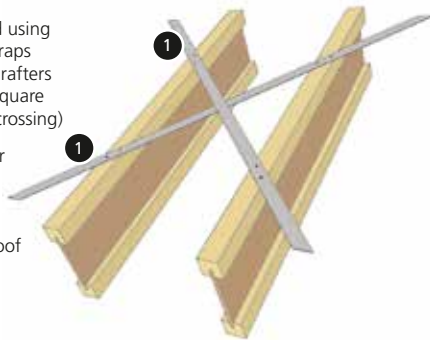
R12a RAISED CEILING JUNCTION (TIMBER)

- 1 Plywood backer block fitted to each side of the rafter to enable fixing of ceiling member (see detail R7a)
- 2 Ceiling joist design and connection detail as specified by the Building Designer



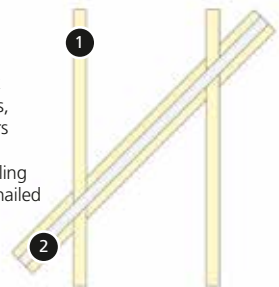
R13 METAL STRAP CROSS BRACING

- 1 Cross bracing formed using 1.0mm steel fixing straps fixed to top of I-Joist rafters using 3.75 x 32mm square twist nails (2no. per crossing)
- i** The Building Designer is responsible for the arrangement and quantity of bracing required to provide roof stability.



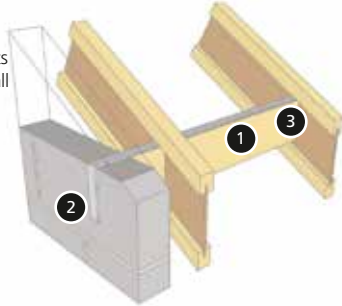
R14 SINGLE RUN BRACING

- 1 I-Joist rafter
 - 2 35 x 72mm nogging
- i** Roof stability provided by installing 35 x 72mm timber noggings between rafters, cut to ensure a tight fit. Secure to rafters using 1no. 3.35 x 65mm nail per end. Continuity of bracing provided by installing 1.0mm MS Fixing Strip over noggings, nailed continuously. Bracing to be installed at approx. 45° to rafters on the roof slope.
- The Building Designer is responsible for the arrangement and quantity of bracing required to provide roof stability.



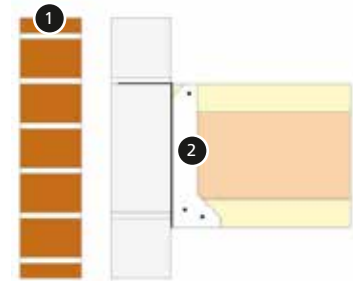
R15 MASONRY WALL RESTRAINT

- 1 35 x 145mm C16 noggings to be fixed tightly between I-Joists and also between joist and wall
- 2 Restraint strap to be fixed to block
- 3 Strap to pass through slot carefully cut in joist web (joist flanges must NOT be cut)



R16 FLAT ROOF PARAPET EAVES

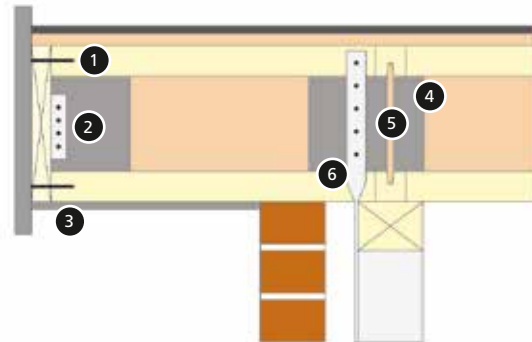
- 1 Parapet wall
- 2 Masonry hanger installed into wall in accordance with manufacturer's instructions
- i Roof covering and gutter details as specified by the Building Designer



The Builder is to ensure that there is sufficient masonry above the hanger to meet the manufacturer's specifications.

R17 FLAT ROOF OVERHANGING EAVES

- 1 Rimboard fixed to each joist using 1no. 3.35 x 65mm lg galv (or approved) wire nail to each joist flange
- 2 Additional fixing to rimboard at max. 2.0m centres comprising 2no. framing anchors and plywood backers
- 3 LVL or glulam rim board
- 4 Plywood web stiffener
- 5 I-Joist Blocking required if masonry does not restrain the top flange
- 6 Holding down strap by Builder to Building Designer's specification
- i Roof covering and gutter details as specified by the Building Designer.



THESE CONDITIONS ARE NOT PERMITTED UNDER ANY CIRCUMSTANCES

If in doubt, please ask for advice before you cut.

NO holes close to joist ends

Use hole chart for max. size & min. distance to wall.



NO notches in flanges of Masonite joists



NO bevel cuts beyond the inside face of wall



NO notches or holes in Glulam

Except as advised in hole chart for the product.



BS5268 Version

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