Elevation of Scenario 1: Plan Stud Wall Supporting Joists /Beams
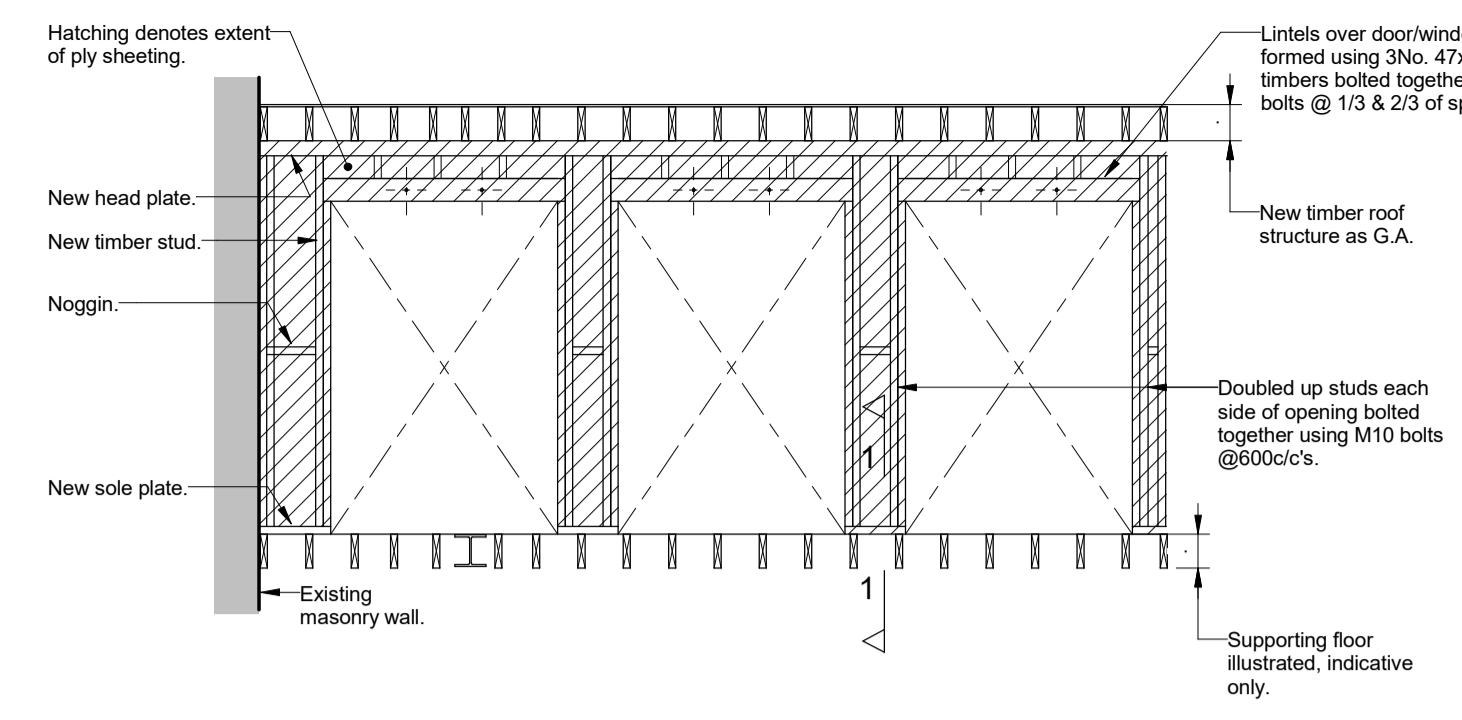scale 1 : 50

Refer to Detail 9-9.
Steel beam as G.A.
Hatching denotes extent of ply sheeting.
New head plate.
Timber stud.
Refer to Detail 4.
Noggin.
Trebled up stud below beam support.
Sole plate.
Existing masonry wall.
Refer to Details 1 or 2.
Supporting floor illustrated, indicative only.
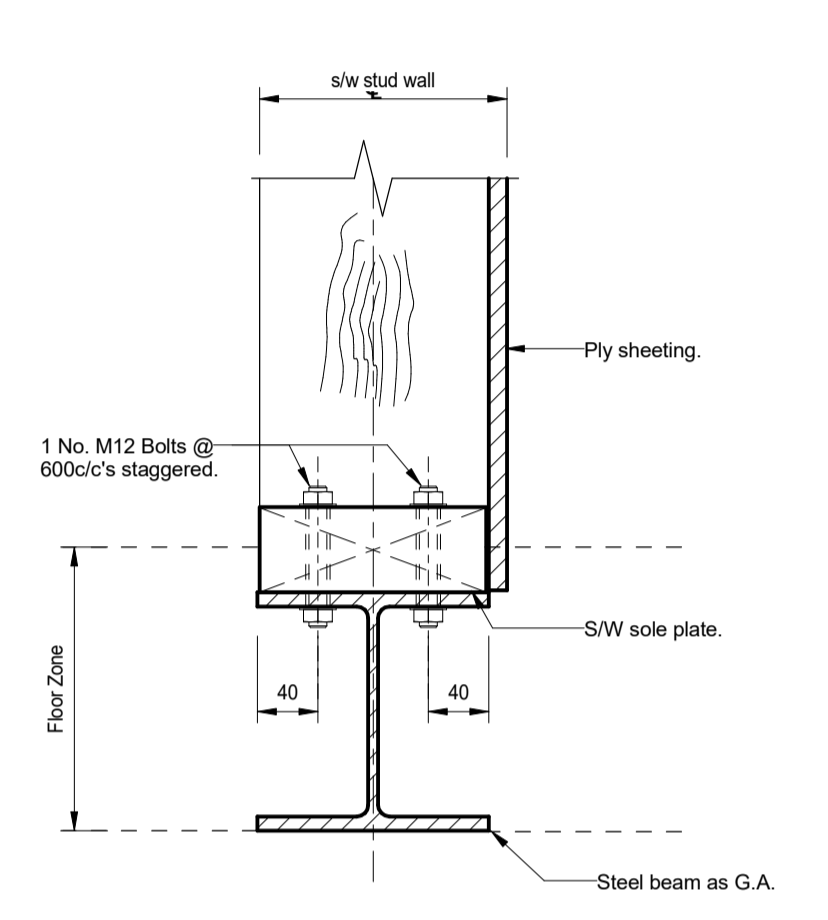Refer to Detail 3.

Elevation of Scenario 2: Plan 150mm Wide Stud Wall with Openings
scale 1 : 50

Hatching denotes extent of ply sheeting.
New head plate.
New timber stud.
Noggin.
New sole plate.
Existing masonry wall.
Lintels over door/window openings formed using 3No. 47x150 s/w timbers bolted together using M10 bolts @ 1/3 & 2/3 of span.
New timber roof structure as G.A.
Doubled up studs each side of opening bolted together using M10 bolts @600c/c's.
Supporting floor illustrated, indicative only.

Elevation of Scenario 3: Plan Bracing Stud Wall Below Roof Structure
scale 1 : 50

Hatching denotes extent of ply sheeting.
Head plate.
Timber stud.
Noggin.
Where stud wall abuts masonry wall adopt Detail 4.
Sole plate.
Roof structure to be braced shown indicatively.
Doubled up studs as at point where head plate cranks down.
Trebled up joists below new stud walls.
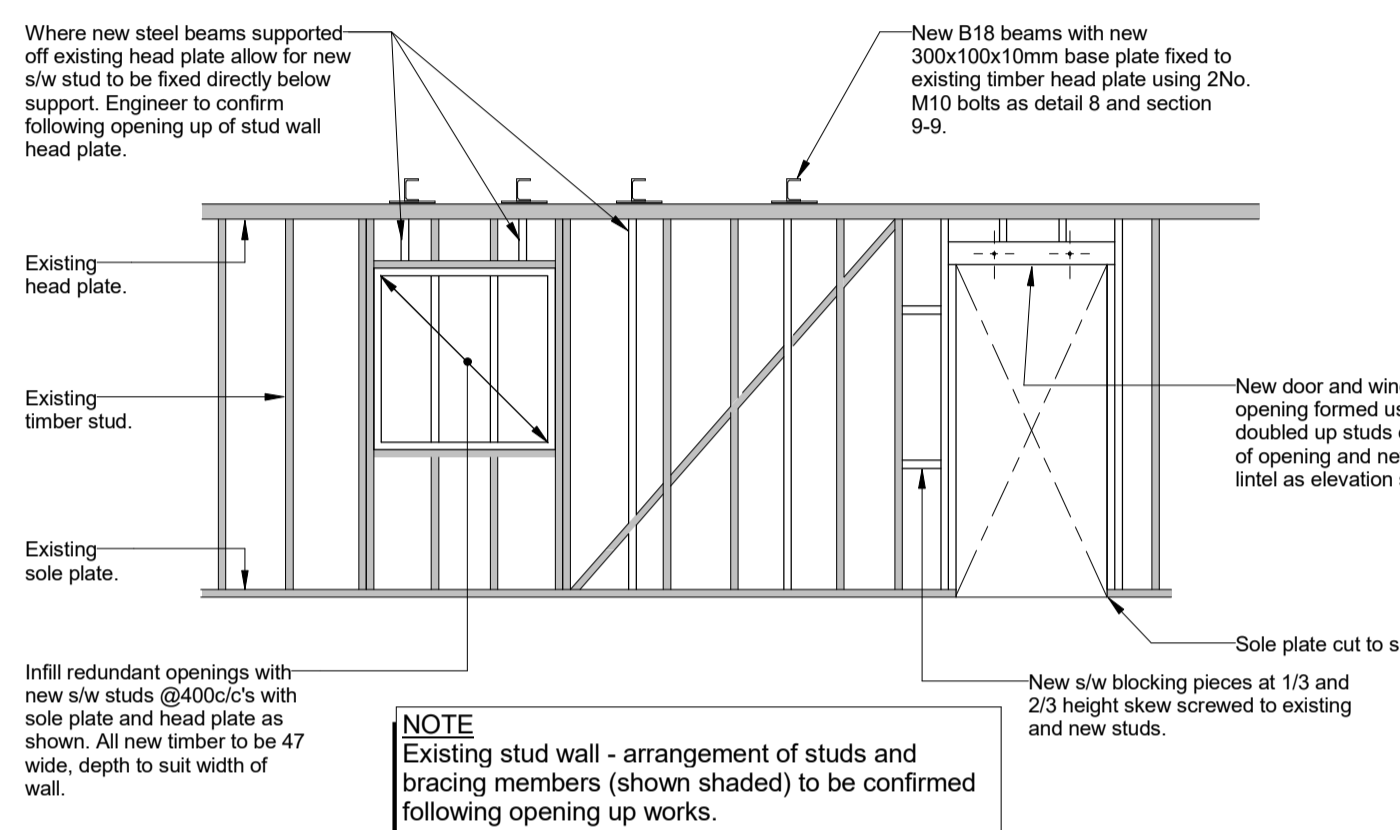
Elevation of Scenario 4 Alterations to Existing Load Bearing Stud Wall
scale 1 : 50

Where new steel beams supported off existing head plate allow for new s/w stud to be fixed directly below support. Engineer to confirm following opening up of stud wall head plate.
Existing head plate.
Existing timber stud.
Existing sole plate.
Infill redundant openings with new s/w studs @400c/c's with sole plate and head plate as shown. All new timber to be 47 wide, depth to suit width of wall.
New B18 beams with new 300x100x10mm base plate fixed to existing timber head plate using 2No. M10 bolts as detail 8 and section 9-9.
New door and window opening formed using new doubled up studs each side of opening and new timber lintel as elevation scenario 2.
Sole plate cut to suit.
New s/w blocking pieces at 1/3 and 2/3 height skew screwed to existing and new studs.

NOTE
Existing stud wall - arrangement of studs and bracing members (shown shaded) to be confirmed following opening up of works.

Detail 1:Sole Plate to Steel Beam Support
scale 1 : 5

s/w stud wall
Ply sheeting.
1 No. M12 Bolts @ 600c/c's staggered.
S/W sole plate.
Floor Zone
40 40
Steel beam as G.A.
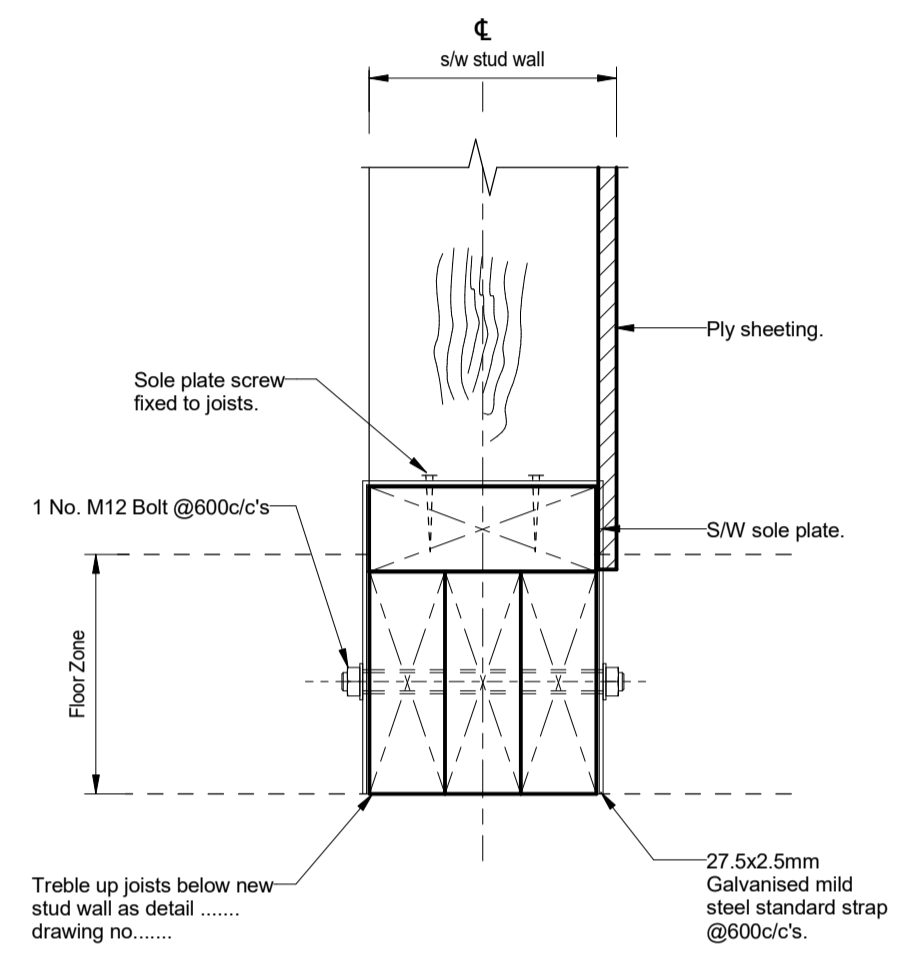
Detail 2:Sole Plate to Joist Support
scale 1 : 5

s/w stud wall
Ply sheeting.
Sole plate screw fixed to joists.
1 No. M12 Bolt @600c/c's
S/W sole plate.
Floor Zone
Treble up joists below new stud wall as detail .... drawing no........
27.5x2.5mm Galvanised mild steel standard strap @600c/c's.
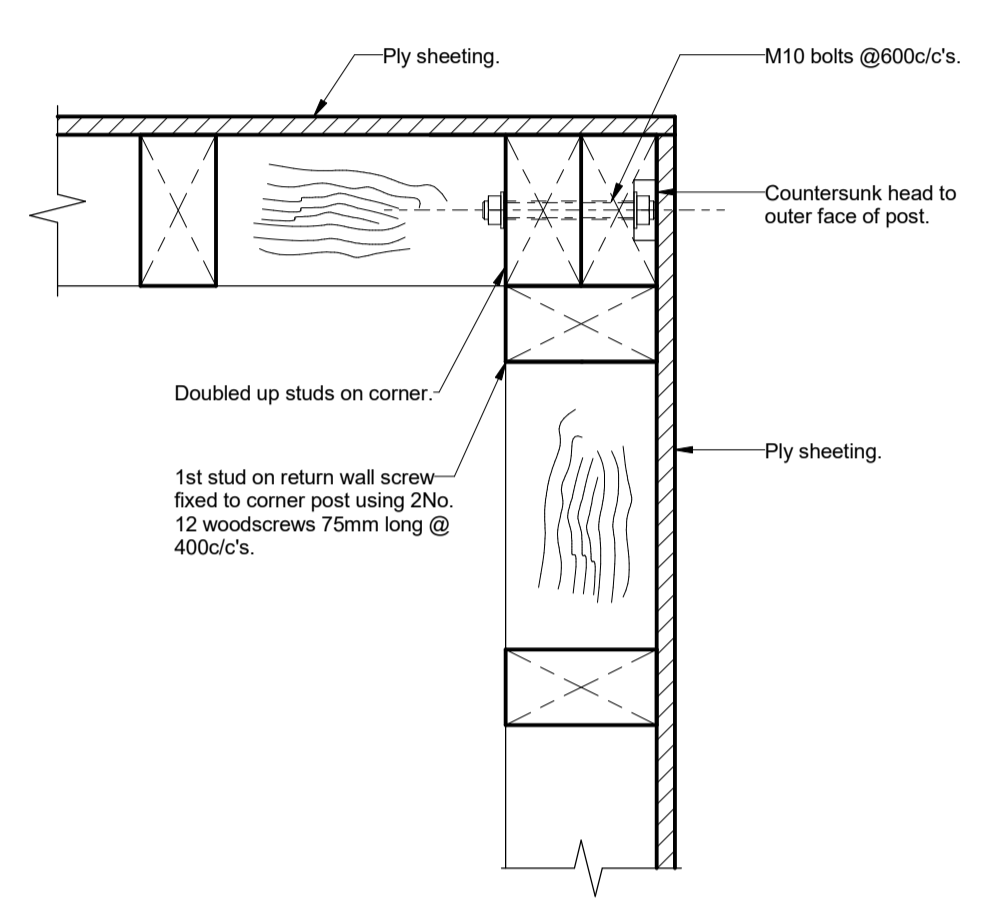
Detail 3: For 100 Wide Stud Wall
scale 1 : 5

M10 bolts @600c/c's.
Countersunk head to outer face of post.
Doubled up studs on corner.
Ply sheeting.
1st stud on return wall screw fixed to corner post using 2No. 12 woodscrews 75mm long @ 400c/c's.

NOTE
New 150mm wide load bearing timber stud walls to be formed using 47mm wide by 150mm s/w studs at max 400mm c/c with 72x150mm head plate and sole plate screw-fixed together, with 47x150mm s/w blocking pieces at mid height of studs. 18mm marine ply sheeting to be screw fixed to outer face using No.12 woodscrews, 50mm long at 400mm c/c to all elements.
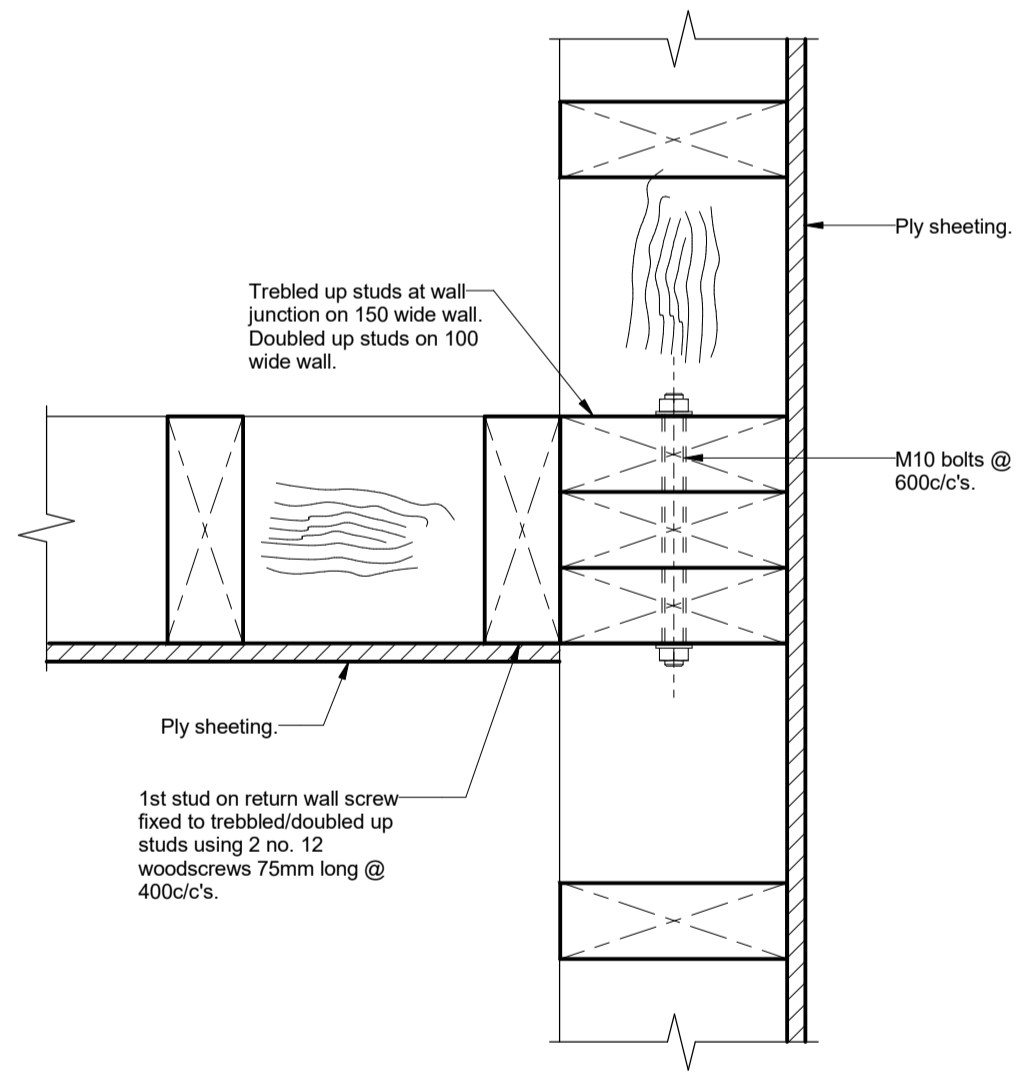
NOTE
New 100mm wide load bearing timber stud walls to be formed using 47mm wide by 100mm s/w studs at max 400mm c/c with 47x100mm head plate and sole plate screw-fixed together, with 47x100mm s/w blocking pieces at mid height of studs. 18mm marine ply sheeting to be screw fixed to one face using No.12 woodscrews, 50mm long at 400mm c/c to all elements.
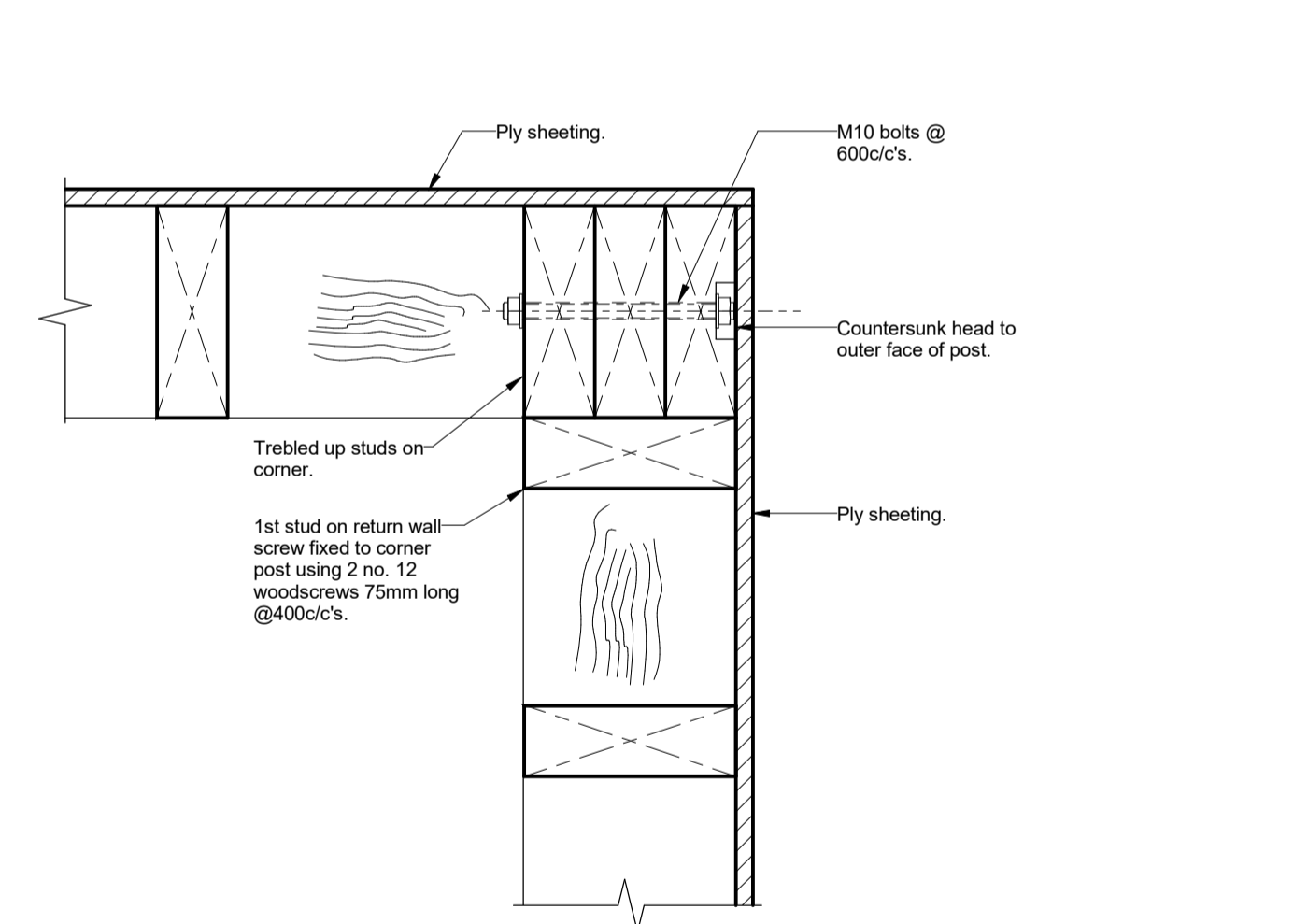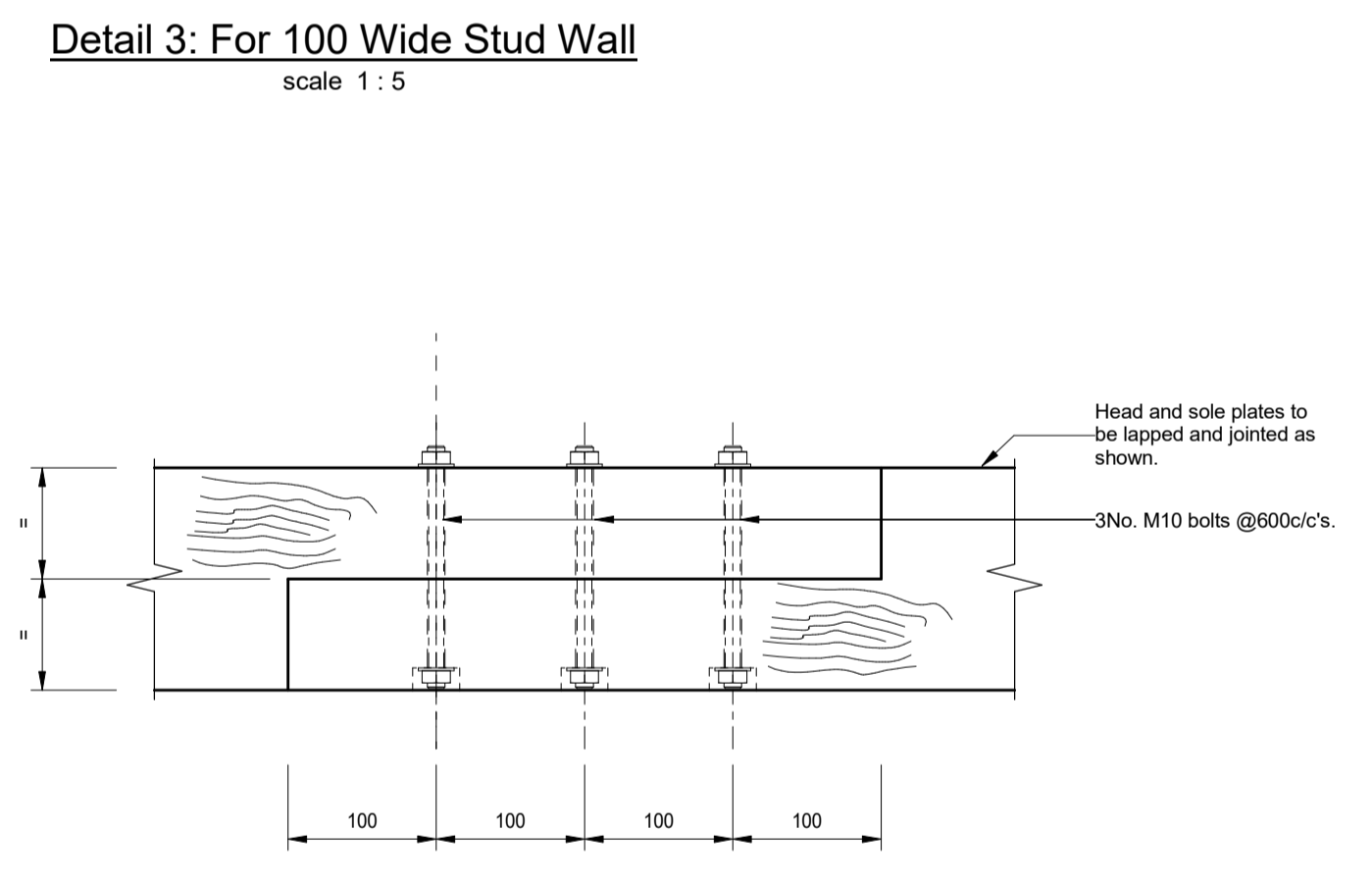
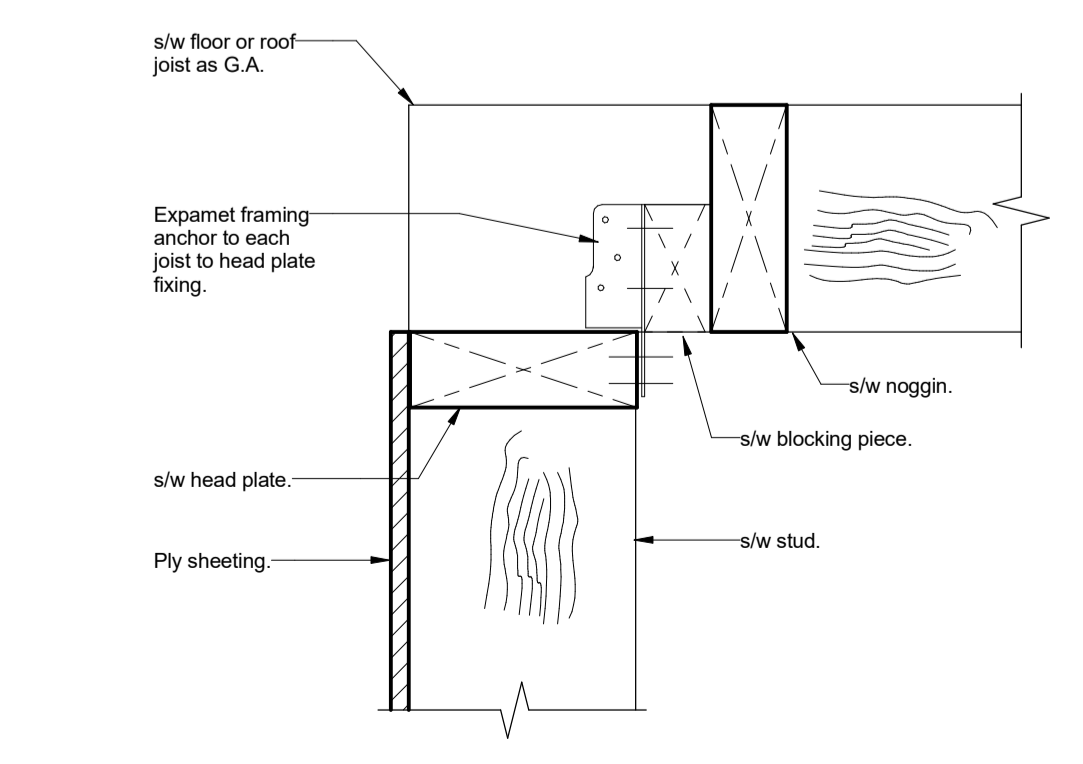## Detail 3: For 150 Wide Stud Wall
scale 1 : 5

Ply sheeting.
M10 bolts @ 600c/c's.
Countersunk head to outer face of post.
Trebled up studs on corner.
1st stud on return wall screw fixed to corner post using 2 no. 12 woodscrews 75mm long @400c/c's.
Ply sheeting.
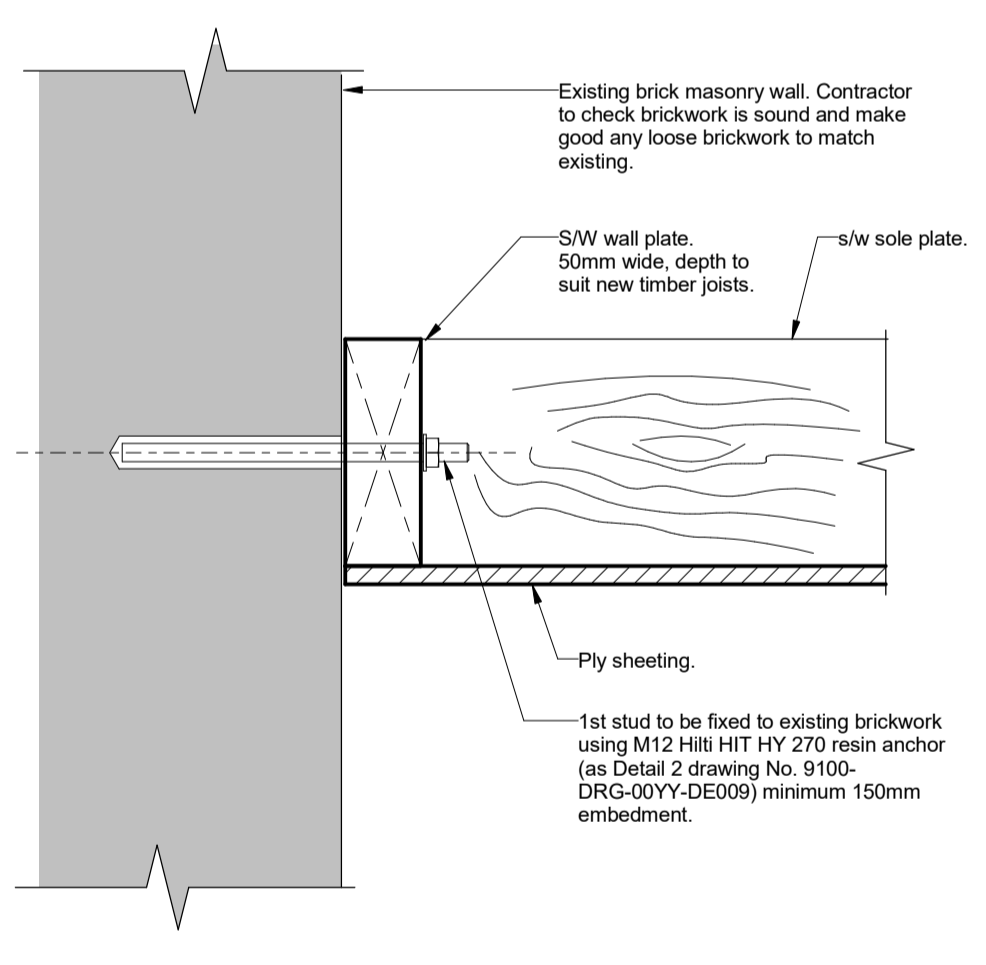
Detail 4: New Stud Wall to Existing Brick Wall Junction
scale 1 : 5

Existing brick masonry wall. Contractor to check brickwork is sound and make good any loose brickwork to match existing.
S/W wall plate. 50mm wide, depth to suit new timber joists.
s/w sole plate.
Ply sheeting.
1st stud to be fixed to existing brickwork using M12 Hilti HIT HY 270 resin anchor (as Detail 2 drawing No. 9100-DRG-00YY-DE009) minimum 150mm embedment.

Detail 5: New Stud Wall to Stud Wall Junction
scale 1 : 5

Ply sheeting.
Trebled up studs at wall junction on 150 wide wall. Doubled up studs on 100 wide wall.
M10 bolts @ 600c/c's.
Ply sheeting.
1st stud on return wall screw fixed to trebled/doubled up studs using 2 no. 12 woodscrews 75mm long @ 400c/c's.

Detail 6: Lapped Joint to Sole/Head Plate
scale 1 : 5

Head and sole plates to be lapped and jointed as shown.
3No. M10 bolts @600c/c's.
100 100 100 100

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Detail 7: Joist support detail
scale 1 : 5

s/w floor or roof joist as G.A.
Expamet framing anchor to each joist to head plate fixing.
s/w head plate.
s/w noggin.
s/w blocking piece.
s/w stud.
Ply sheeting.
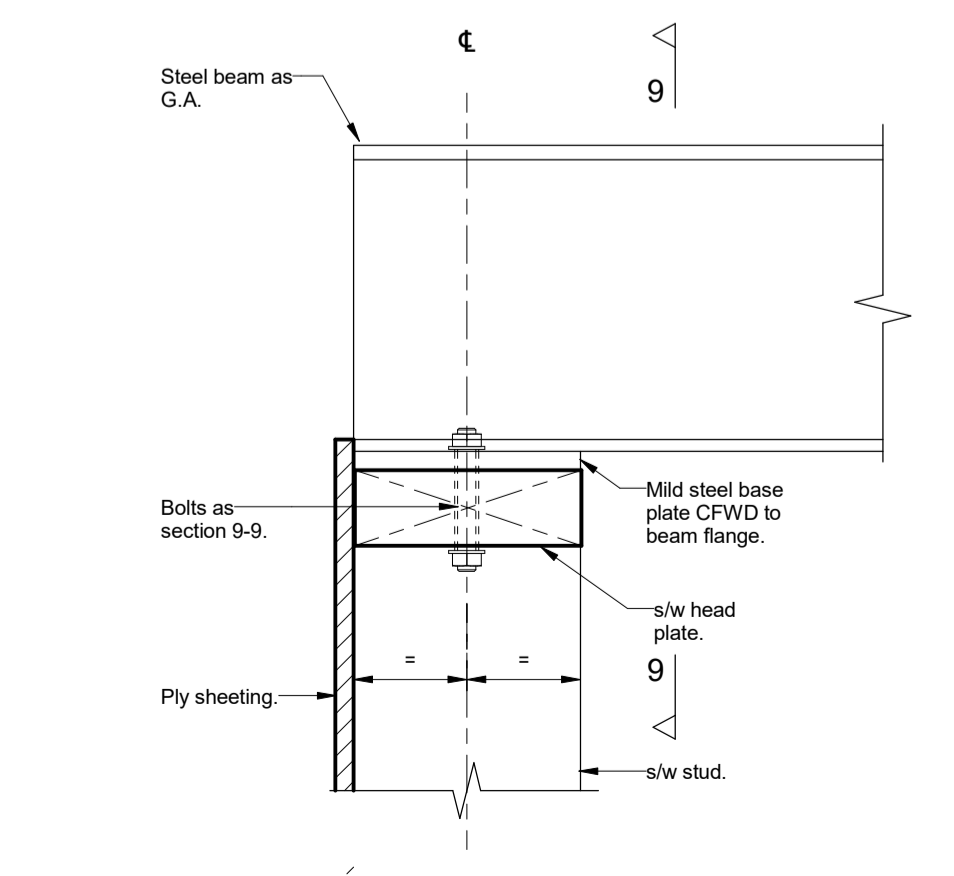
Detail 8: Steel Beam Support Detail On New Timber Stud.
scale 1 : 5

Steel beam as G.A.
9
Bolts as section 9-9.
Mild steel base plate CFWD to beam flange.
s/w head plate.
Ply sheeting.
9
s/w stud.

Section 9-9
scale 1 : 5

Steel beam as G.A.
150x400x10mm thk. mild steel base plate cfwd to beam flange.
s/w head plate.
6mm CFWD.
50 150 150 50
1No. M12 bolts.
1No. M12 bolts.
Trebled up studs below beam.
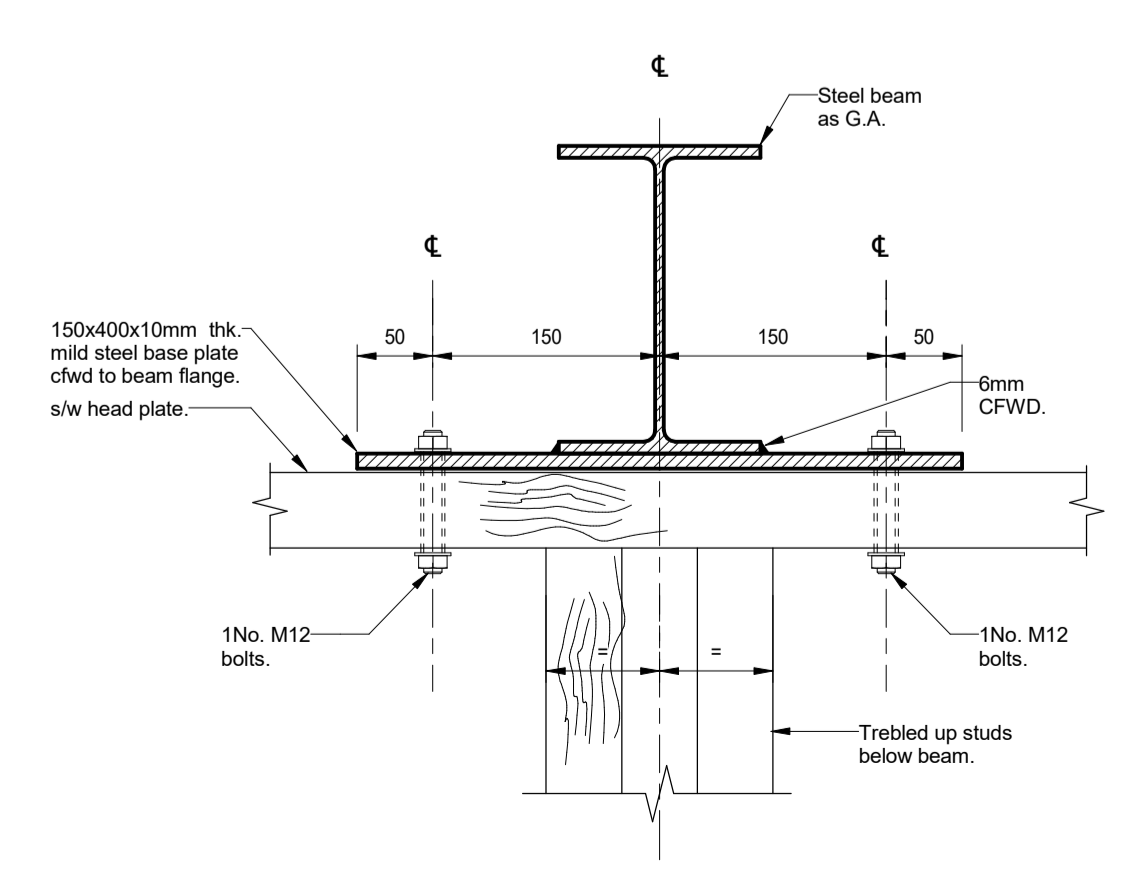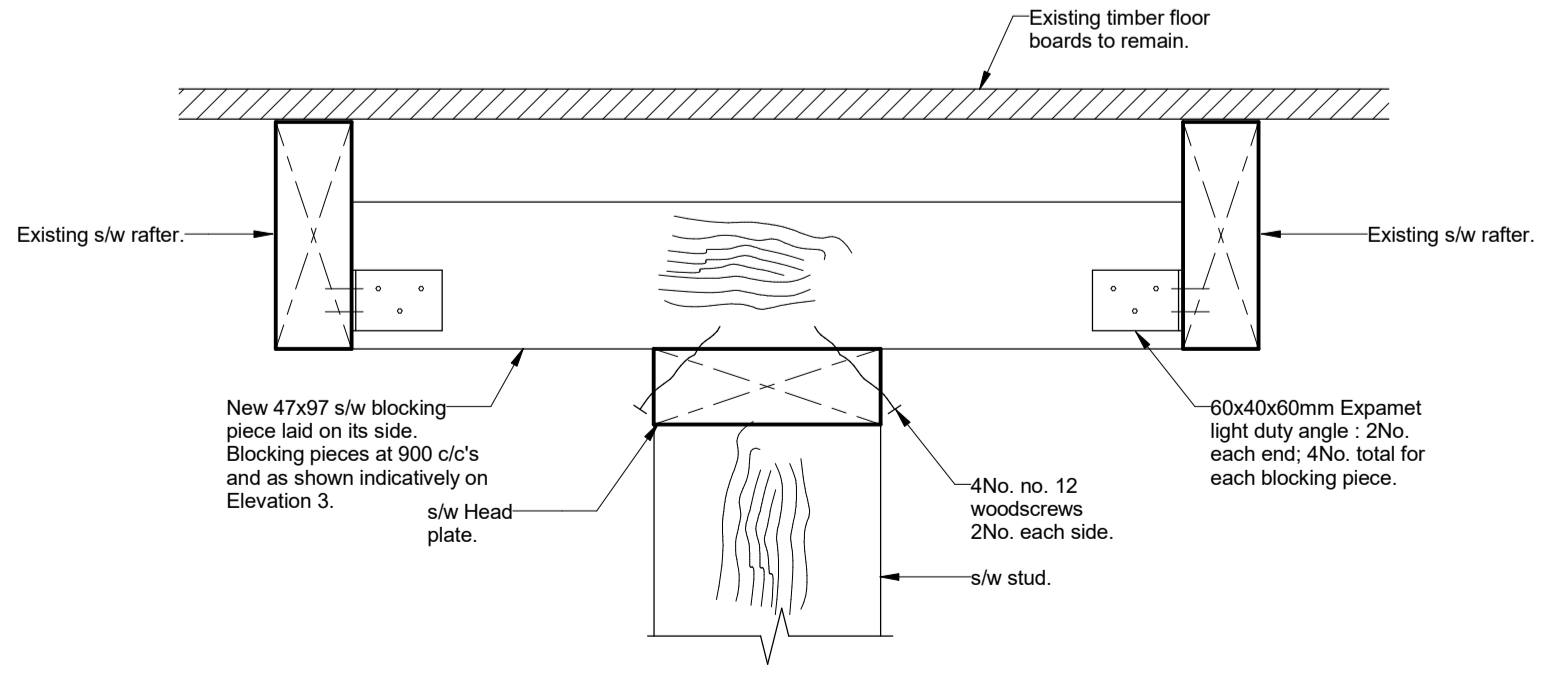
Detail 10: New Stud Wall to Existing Roof Junction
scale 1 : 5

Existing timber floor boards to remain.
Existing s/w rafter.
Existing s/w rafter.
New 47x97 s/w blocking piece laid on its side. Blocking pieces at 900 c/c's and as shown indicatively on Elevation 3.
4No. no. 12 woodscrews 2No. each side.
s/w Head plate.
s/w stud.
60x40x60mm Expamet light duty angle : 2No. each end; 4No. total for each blocking piece.