

GWTa – Structural batten, screw and tape

Two fixing options are available dependent upon wind zone, wall framing stud centres and the exterior cladding system.

The GWTa system is the default fixing option and is suitable for use with a drained and vented cavity cladding system that incorporates a structural cavity batten. The GWTb system must be used for masonry veneer and vertical cladding.

FRAMING

All timber framing sizes and set out must comply with NZS 3604 or be specifically designed to NZS 3603 and AS/NZS 1170. Timber framing preservative treatment and moisture content must comply with the NZBC and any relevant NZ Standard.

All wall framing studs must be at a maximum of 400mm or 600mm centres (as set out in Table 1) and must be true and plumb. The minimum framing width is 45mm.

FASTENERS

Screw fix GIB Weatherline® sheets to the exterior wall framing with GIB® Grabber® 41mm x 6g Ceramic Coated High Thread Screws.

GIB® Grabber® 41mm x 6g Ceramic Coated High Thread Screws can be used for all sheet fixings when covered with GIB Weatherline® Rigid Air Barrier Systems Flashing Tape or a structural cavity batten for NZS 3604 Exposure Zones B, C and D.

STRUCTURAL CAVITY BATTENS

Structural cavity battens are to be 45 x 18mm minimum H3.1 treated timber or 70 x 19mm minimum James Hardie CLD structural cavity battens. Fixings for structural cavity battens shall be either 75 x 3.15mm jolt head galvanised nails or 75 x 3.06mm D Head power-driven galvanised nails or as required by specific cladding types.

Timber batten fixings must be at a maximum of 300mm centres vertically staggered 12mm either side of the batten centre line. James Hardie CLD batten fixings must be at a maximum of 200mm centres vertically on the batten centre line.

SHEET LAYOUT

GIB Weatherline® sheets must be installed with the purple branded face outwards. Ensure the sheets are in good condition with no damage prior to installation and are dry and free of sawdust, dirt or any other contaminants.

Sheets must be installed vertically with the long side of each sheet in line with the wall framing studs. Sheets should be touch fitted at vertical joints on the mid-line of the stud. Sheet lengths should be selected to ensure that a horizontal movement control joint is achievable at any mid or intermediate floor and at any other horizontal sheet joints. Sheets may be installed horizontally across gable ends of buildings. All sheet edges (vertical, horizontal and raked) must be fully supported by wall framing.

Bottom edges of the sheets at the ground floor bottom plate junction must overhang by 15mm minimum. Cavity closers, as required, must be installed in conjunction with structural cavity battens.

Soffit framing should be fixed over the GIB Weatherline® Rigid Air Barrier Systems, once all sheets have been installed and joints have been taped.

HANDLING AND CUTTING

Position the sheet with the purple side of the sheet facing up. Mark and cut the sheet as required with a straight edge and utility knife, cutting through the face and the core.

Break the sheet core by snapping the sheet back along the cut line. Turn the sheet over and cut along the back liner to complete the cut. For further information on cutting, refer to page 60.

FIXING SHEETS

All GIB Weatherline® sheet edges must be fixed to vertical and horizontal framing. The mid-sheet must be fixed to studs at either 400mm or 600mm maximum (as set out in Table 1). Screw fixings are also required to wall framing at any raked sheet edges. There is no requirement to screw fix sheets to any nogs or any other horizontal mid-sheet framing.

Edge fixing for screws must be a minimum distance of 12mm from bound sheet edges and 18mm from unbound sheet edges (or cut sheet edges).

Ensure screws are not over driven and that the head of the screw finishes flush with the face of the sheet. Where screws have been over driven (and the face liner has been damaged and the core exposed), install a new screw fixing 25mm away and adjacent to the over driven fixing.

FLASHING TAPES

Once all GIB Weatherline® sheets have been screw fixed in place, install GIB Weatherline® Flashing Tape to all horizontal and vertical sheet joints and all other screw fixings. Mid-sheet vertical screw fixings do not need to be covered with flashing tape when covered with a vertical cavity batten. It is recommended that horizontal flashing tape be installed before vertical flashing tape. Ensure all tape is firmly pressure fitted using a plastic paddle.

Exterior joinery, window and door openings must be sealed with GIB Weatherline® Flashing and Sill Tapes.

External penetrations must be sealed with proclima Kaflex or Reflex sealing grommets.

Refer to Section 4 for tape installation.

FIXING STRUCTURAL BATTENS

Structural cavity battens must then be nail fixed vertically to the studs behind, to fix the sheets securely in place. These battens must be placed at a maximum of 400mm or 600mm centres (as set out in Table 1), or as required for specific cladding support.

COMPLETION AND EXPOSURE

GIB Weatherline®, including tape and structural batten installation, must be completed in a timely sequence when the sheet material is dry. Installed sheets must not be left without tape and battens when extreme wet or windy conditions can be reasonably expected.

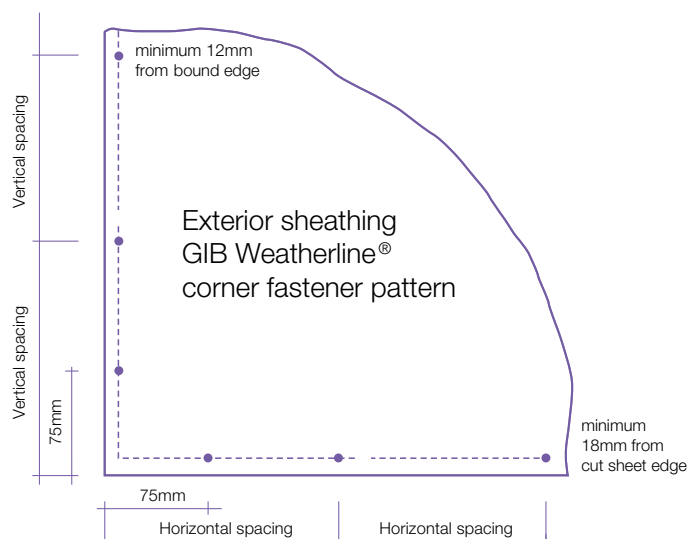
The cladding system must be installed within 90 days of the GIB Weatherline® installation.

Table 1: GWTa screw fixing centres for NZS 3604 applications

GIB Weatherline® – GWTa		
Wind Zone	Stud Centres	
	400mm	600mm
VERTICAL SCREW FIXING CENTRES (MAXIMUM)		
L	600mm	600mm
M	600mm	600mm
H	600mm	600mm
VH	600mm	600mm
EH	600mm	SED
SED	SED	SED
HORIZONTAL SCREW FIXING CENTRES (TOP AND BOTTOM OF SHEETS)		
ALL	200mm	200mm

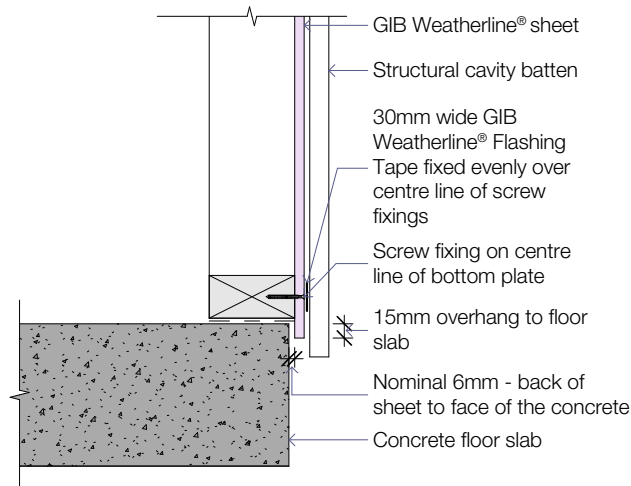
SED = Specific Engineering Design

1. All screw fixings to be taped, apart from mid-sheet vertical screw fixings when covered by a structural cavity batten.
2. Screw fixings to commence 75mm in from sheet corners.
3. H3.1 treated timber structural cavity battens to be fixed at 300mm centres. CLD structural cavity battens to be fixed at 200mm centres.



BOTTOM PLATE OVERHANG

Ensure that sheet set out allows for the bottom edge of the sheet to overhang the ground floor bottom plate to floor junction by 15mm minimum. Cavity closers, as required, must be installed in conjunction with structural cavity battens.

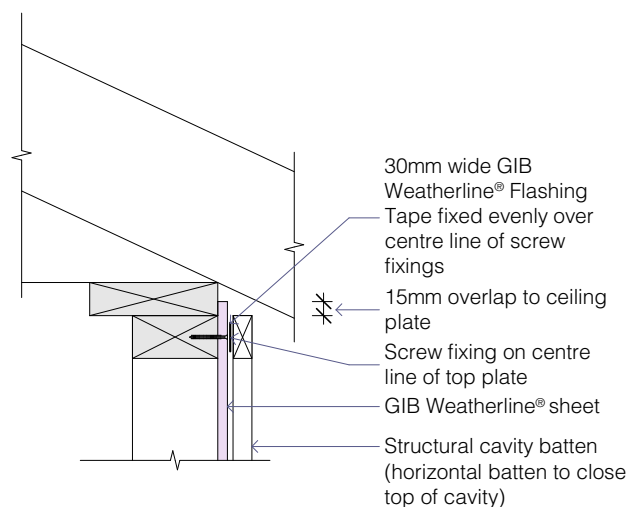


It is recommended that horizontal flashing tape be fixed prior to fixing the vertical flashing tape - refer to Section 4 for tape installation.

GWL010

TOP PLATE OVERHANG

Where applicable, ensure that sheet set out allows for the top edge of the sheet to overhang the top plate to ceiling plate junction by 15mm minimum.



It is recommended that horizontal flashing tape be fixed prior to fixing the vertical flashing tape — refer to Section 4 for tape installation.

GWL012

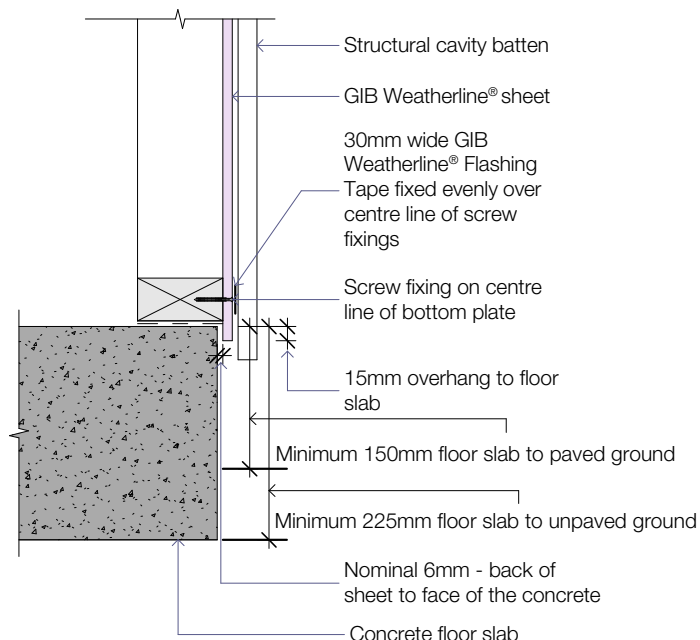
CLADDING GROUND CLEARANCE

Minimum ground clearances must be maintained for the cladding system being installed. Cavity closers, as required, must be installed in conjunction with structural cavity battens.

Cladding ground clearances must comply with E2/AS1 Clause 9.1.3, Table 18 and Figure 65 together with the cladding

clearances for timber floors in NZS 3604. The ground adjacent to the cladding must slope away from the cladding.

GIB Weatherline® sheets must not be installed where they will remain in contact with non-draining water, damp ground, or soil.



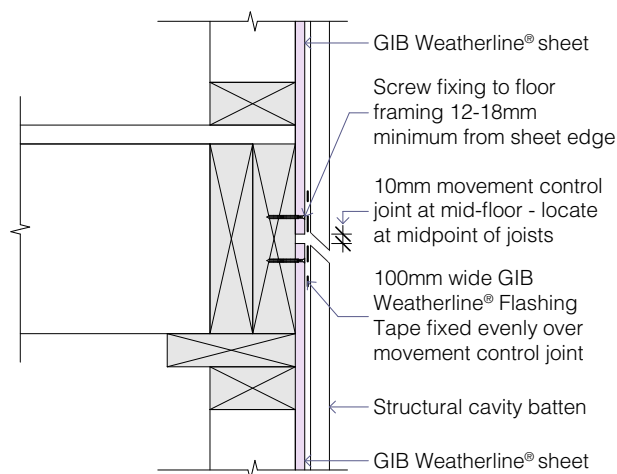
GWL013

It is recommended that horizontal flashing tape be fixed prior to fixing the vertical flashing tape — refer to Section 4 for tape installation.

HORIZONTAL SHEET JOINT AT MID FLOOR

For buildings of two or more storeys, a horizontal sheet junction is required at the building's mid or intermediate floors, to allow for any potential floor structure movement. The sheets can be screw fixed to the mid-floor framing.

Ensure the sheets are positioned to allow a 10mm gap between the upper and lower sheet edges, at mid-floor horizontal junctions. It is recommended to form a break in the cavity batten at mid-floor.



GWL014

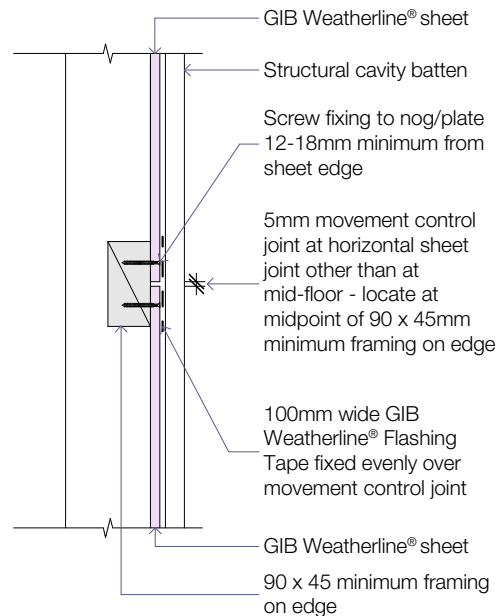
It is recommended that horizontal flashing tape be fixed prior to fixing the vertical flashing tape — refer to Section 4 for tape installation.

HORIZONTAL SHEET JOINT

For buildings with stud heights requiring more than one sheet length (i.e. where horizontal joints are located other than mid or intermediate floor locations), position sheets to allow for any potential wall structure movement.

Ensure the sheets are positioned to allow a 5mm gap between the upper and lower sheets.

To achieve the required screw fixing edge distances, the joint must be positioned over 90 x 45mm minimum framing on edge, at the horizontal junction.

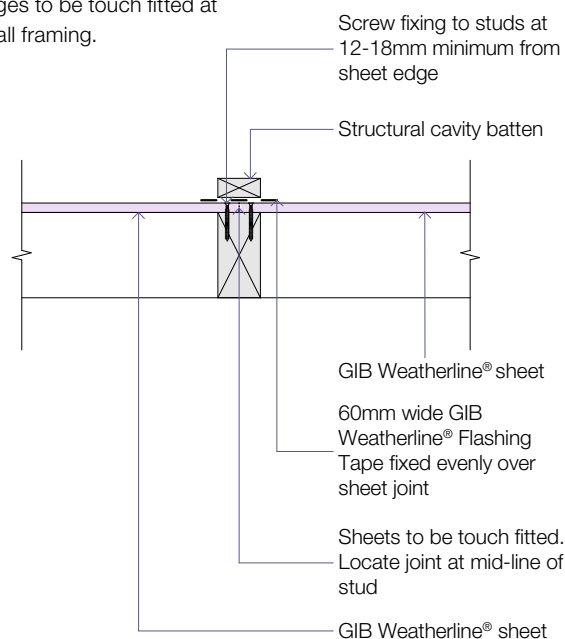


GWL015

It is recommended that horizontal flashing tape be fixed prior to fixing the vertical flashing tape — refer to Section 4 for tape installation.

VERTICAL SHEET JOINT

Setout should allow for vertical sheet edges to be touch fitted at vertical joints, on the centre line of the wall framing.

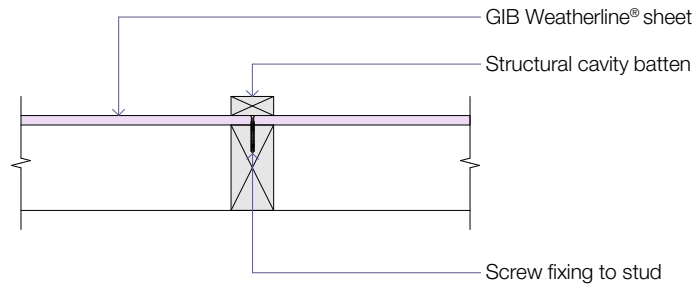


GWL016

It is recommended that horizontal flashing tape be fixed prior to fixing the vertical flashing tape — refer to Section 4 for tape installation.

VERTICAL MID-SHEET FIXING

Vertical mid-sheet fixings to be covered by a structural cavity batten. No flashing tape required to vertical mid-sheet fixings.

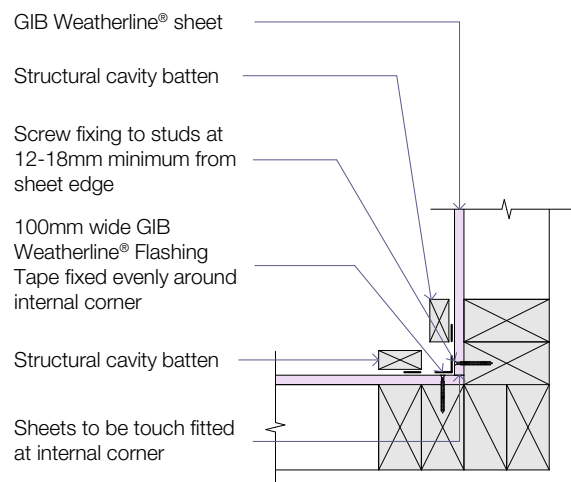


GWL025

INTERNAL CORNER

At internal corners install the sheets so that they are touch fitted to each other (or to the face of the wall framing), into the corner.

Structural cavity batten layout at corner may vary depending upon cladding.



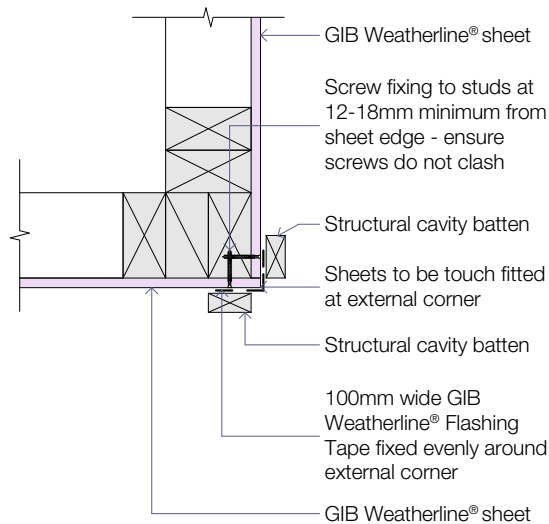
GWL017

It is recommended that horizontal flashing tape be fixed prior to fixing the vertical flashing tape — refer to Section 4 for tape installation.

EXTERNAL CORNER

At external corners install the first sheet, vertically overlapping the corner framing by the thickness of the sheet. Touch fit the adjacent sheet vertically to the back face of the previously installed overlapping sheet.

Structural cavity batten layout at corner may vary depending upon cladding.

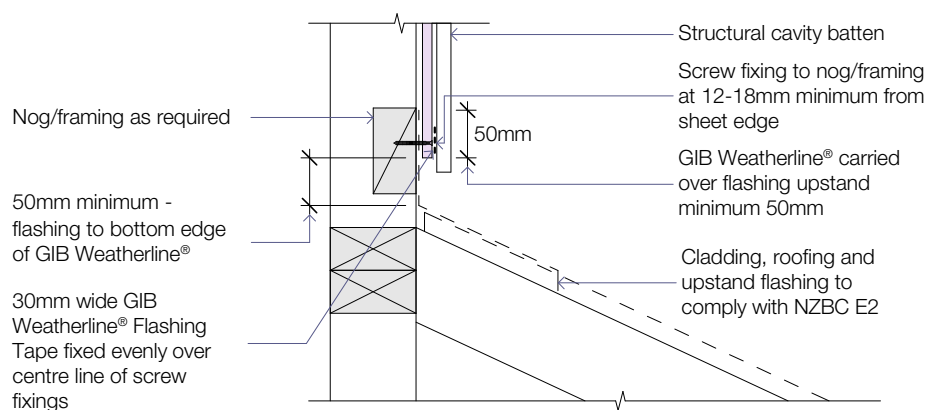


It is recommended that horizontal flashing tape be fixed prior to fixing the vertical flashing tape — refer to Section 4 for tape installation.

GWL018

SKIRT ROOF JUNCTION

For GIB Weatherline® Rigid Air Barrier Systems terminating at roof flashing upstand, cavity closers, as required, must be installed in conjunction with structural cavity battens.

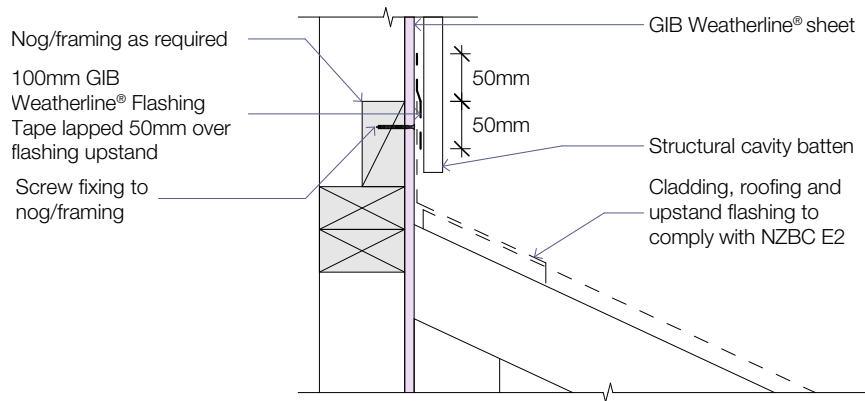


It is recommended that horizontal flashing tape be fixed prior to fixing the vertical flashing tape — refer to Section 4 for tape installation.

GWL023

SKIRT ROOF JUNCTION

For GIB Weatherline® Rigid Air Barrier Systems continuing past roof flashing upstand, cavity closers, as required, must be installed in conjunction with structural cavity battens.



It is recommended that horizontal flashing tape be fixed prior to fixing the vertical flashing tape — refer to Section 4 for tape installation.

GWL021