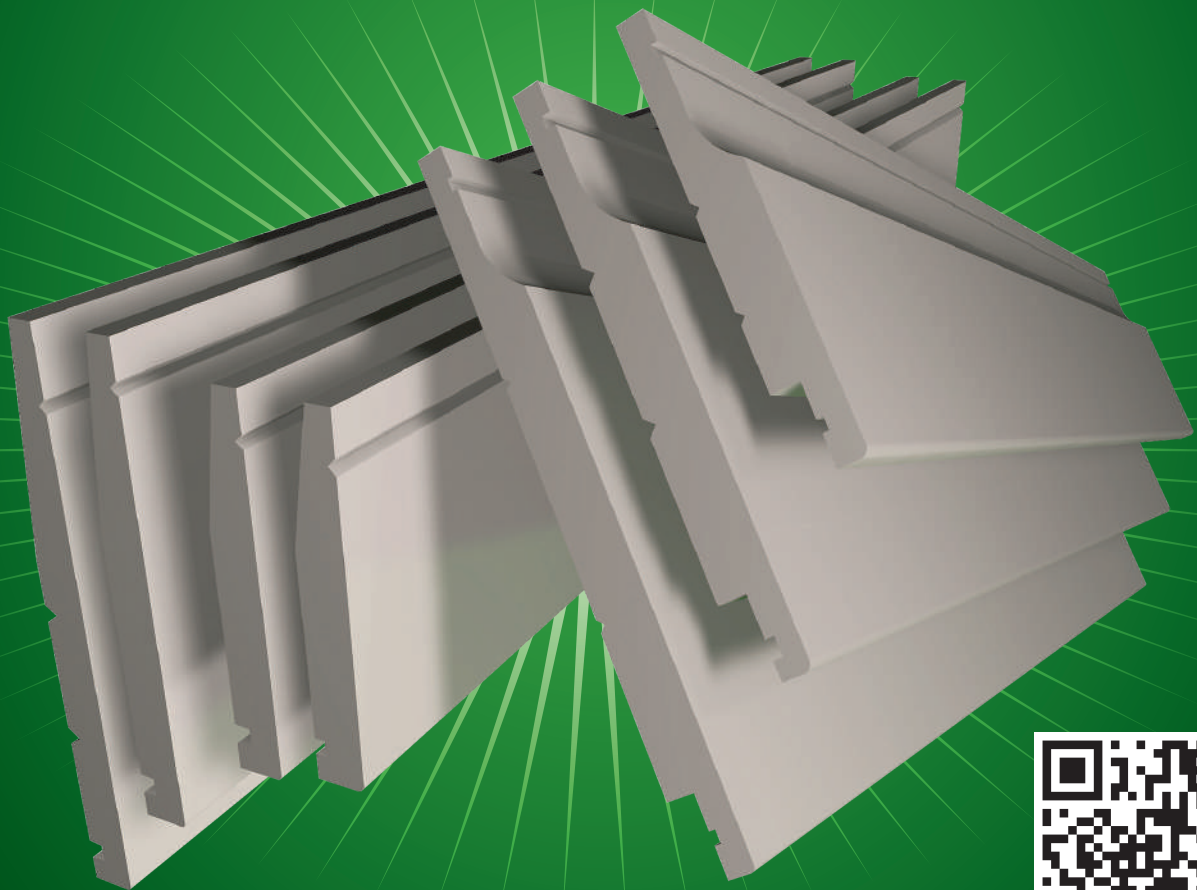


==== TARANAKIPINE ====

# STEEL FRAMING WEATHERBOARD SYSTEM

*Installation information and technical drawings*



 **Taranakipine™**

TIMBER WEATHERBOARDS – NATURALLY BETTER FOR MORE THAN A CENTURY

[www.taranakipine.co.nz](http://www.taranakipine.co.nz)

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# December 2014

For the latest version, go to [www.taranakipine.co.nz/weatherboards](http://www.taranakipine.co.nz/weatherboards)

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# GENERAL

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## a. Scope

This manual is specific to Taranakipine Weatherboard Systems. Taranakipine timber weatherboards can be used for steel framed buildings. The steel framing shall be in accordance with the NASH Handbook 'The Best Practice for Design and Construction of Residential and Low-Rise Steel Framing' and comply with the New Zealand Building Code. Although timber weatherboards can be used on buildings that have a maximum Weathertightness Risk Matrix of 20, you will need to use Acceptable Solutions E2/AS1 Table 3.0 to ascertain which is the correct product and application for your project.

When using introduced components such as flashings, sealants, paint etc please follow the manufacturer's instructions. Recommendations by Taranakipine are based on good building practice and are not a complete statement of all relevant data. As the installation of the products rely on factors outside the control of Taranakipine, Taranakipine assumes no responsibility for work/systems used in connection with the installation of our products and their suitability to satisfy relevant Building Codes and Regulations, Standards and Council Requirements.

## b. Product Information

- Manufactured from environmentally responsible Radiata Pine
- Engineered to produce long, defect free products
- Kiln dried to between 8%-15% for stability
- Treated with organic biocides and fungicides to H3.1 level
- Factory coated with an architectural primer (available also with a 2 coat primer and undercoat paint system)

## c. Storage & Handling

- Keep all Taranakipine Weatherboards dry and protected from the elements at all times before installation. Inside storage, under cover is best
- Schedule the delivery of Taranakipine Weatherboards to site as close to the time of installation as possible
- Unload Taranakipine Weatherboards either by hand or a lifting device – do not 'tip' them off a truck deck
- Carry individual boards on their edge
- Do not drag boards in a way that will damage the surface. If the primer has been damaged and bare wood is showing, sand the area to a clean, smooth finish and re prime with a quality primer
- Lay flat with bearers underneath at a maximum of 1 metre spacing
- Ensure Taranakipine Weatherboards are stored a minimum of 150mm off the ground
- If the surface underneath is damp, place a moisture resistant sheet (ie polythene) under the Taranakipine Weatherboards
- Check the moisture content and dimensions of Taranakipine Weatherboards. If these are not as per our factory specifications delay installation and contact Taranakipine for advice

## d. Thermal Break

- A thermal break is required on steel framing. This applies for both direct fix and cavity fix. This prevents rapid heat loss to the building exterior through the highly heat conductive steel frames. Suitable materials to use as a thermal break include 10mm thick XPS extruded polystyrene or another material which meet clause B2 (durability) of the Building Code and have an R-Value of 0.25 m<sup>2</sup> °C/W or more
- The thermal break must cover all steel frame surfaces which are facing the exterior
- Ensure the underlays meet all the requirements of E2/AS1 Table 23 and Section 9.1.7

## e. Flashings

- Ensure that these comply with the durability requirements as shown in NZS 3604 section 4 and E2/AS1 Table 20
- The design and fabrication needs to comply with E2/AS1 Section 9
- Window and door manufacturers are responsible for the supply of head flashings
- If the flashing is to be in alongside any copper based timber treatment, a layer of building wrap needs to be inserted between them as a barrier

## f. Sealants and Air Seals

- Sealants are only part of the system to keep buildings weathertight and should not be relied on as being the primary method of protection
- All sealants need to be suitable for exterior use
- Air Seals are required where a hole, penetration or void (ie windows, metre boxes, doors) occur
- Air Seals have two components being Backing Rod of a diameter to suit the gap and the Sealant (acrylic latex, silicon sealant or self expanding polyurethane foam)
- Any excess sealant needs to be trimmed

## g. Direct Fix / Drained and Vented Cavities

- In low risk situations, Taranakipine Weatherboards can be fixed directly to the studs. Check Acceptable Solutions E2/AS1 Table 3.0.
- For Bevel Back weatherboards when the risk score exceeds 12, cavity battens are required
- For Rusticated weatherboards when the risk score exceeds 6, cavity battens are required
- Taranakipine produces cavity battens (44x21mm treated to H3.1) for this purpose
- Cavity closures must be fitted to the bottom of the cavity to prevent vermin entry

## h. Painting and preparation

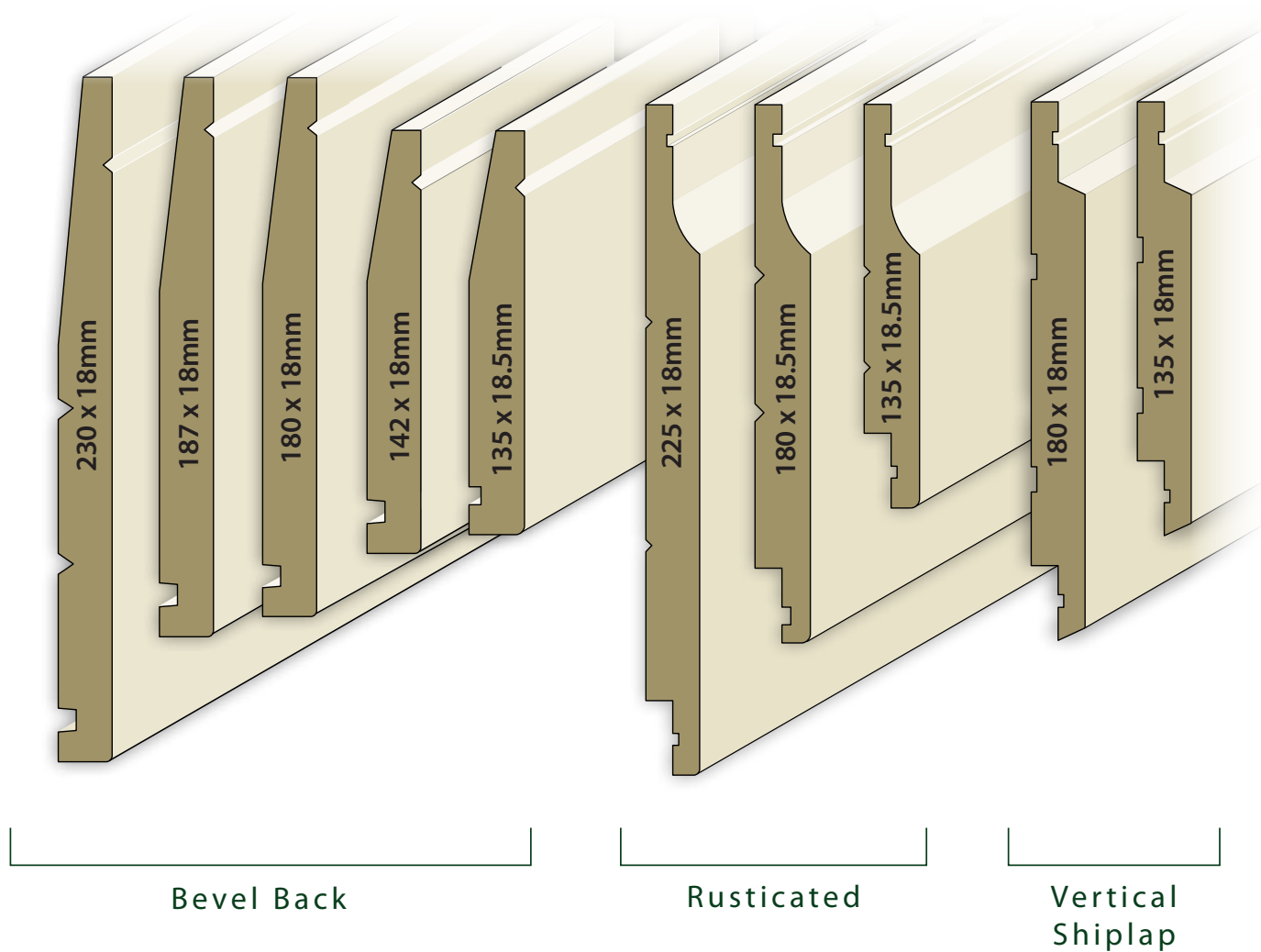
- Always check that Taranakipine Weatherboards are dry (no greater than 15% moisture content) and clean before applying any finishing coats of paint
- Preparation and painting must be carried out in a tradesman like manner and to the current requirements of AS/NZS 2311 Guide to Painting of Buildings
- If possible it is advisable to apply one coat of the finishing paint before installation. This will give the weatherboards an extra level of protection during the construction process as well as giving good cover at the laps that may move as the total building settles over time
- Fill all nail holes with an exterior grade filler as per the manufacturer's instructions - this should be done as soon as practical to reduce the chance of moisture intrusion. Then sand to a smooth finish and spot prime
- Seal all end cuts, mitres, notchings, borings or similar with a suitable good quality primer during the construction process
- If the primed surface has been exposed to elements for some time, the surface may have become chalky. If this happens, sanding will be required. Ensure any exposed timber is resealed using a good quality primer before application of the top coats
- Select a paint colour with a LRV (Light Reflectance Value) of 45 or more (where 0 = Black and 100 = white measured to ASTM C1549 or ASTM E903) and a gloss level of 10% or more
- Using darker than recommended colours will generate more heat in the board and can promote resin bleed
- Apply two top coats of a high quality exterior paint as per the manufacturers recommendations
- For a better quality, long term paint system a good quality undercoat can be applied before the topcoats

## i. Maintenance

- All products are affected by their surrounding environment. By maintaining your property to the level appropriate to its surrounding environment you will ensure its long term performance and beauty
- Paint generally requires up to 4 weeks to completely cure, so keep cleaning to a minimum until after this period to avoid any potential damage
- Maintenance is generally recommended to be carried out every 12 months, but in more corrosive environments (ie, coastal areas or industrial or geothermal atmospheres) every 6 months is recommended. Pay special attention to areas that do not get regular rain washing such as under soffits
- Wash down to remove salt deposits, dirt build up, mould and insect traces (do not use a water blaster)
- Moss, mould and lichen can cause long term damage to paint so special care needs to be taken in removing it. Consult your paint supplier for the appropriate cleaner
- Check sealants and replace them if they are showing signs of loss of edge adhesion or surface cracking
- Check flashings and replace any that have been damaged to the point of allowing water intrusion
- Check for missing attachments and loose fittings
- In areas of high Weathertightness risk take particular care and resolve any issues immediately to avoid a larger long term problem
- Maintain, and where required reapply paint finishes in accordance with the paint manufacturers recommendations

# PRODUCT RANGE

## a. Weatherboards – Bevel Back, Rusticated and Vertical Shiplap



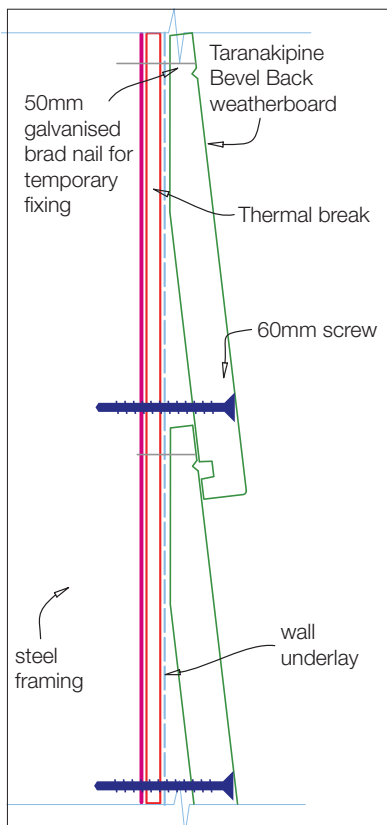
### c. Fixing Schedule

- Wingtek screws are to be used to fix Taranakipine timber weatherboards to steel framing. These have a countersunk head which are 8-10 gauge.
- The wingtek screws must be hot dip galvanised and must meet the requirements of AS/NZS 4680:2006
- In sea spray zones all fittings must be type 316 stainless steel
- Screws must be of sufficient length for the screw thread to bite onto the steel framing
- E2/AS1 Acceptable Solutions states that weatherboards are required to be fastened over a cavity when the risk score exceeds 6 for Rusticated profiles and exceeds 12 for Bevel Back profiles
- E2/AS1 Acceptable Solutions states that Vertical Shiplap weatherboards can be direct fix and on risk scores of 6 or less. For use in higher risk score applications, Vertical Shiplap can be used as an Alternative Solution with horizontal cavity battens up to a risk score of 20. Horizontal cavity battens can be castellated timber batten or Cavibat plastic extruded battens
- Vertical Shiplap requires fixing the nogs at 480mm centres maximum

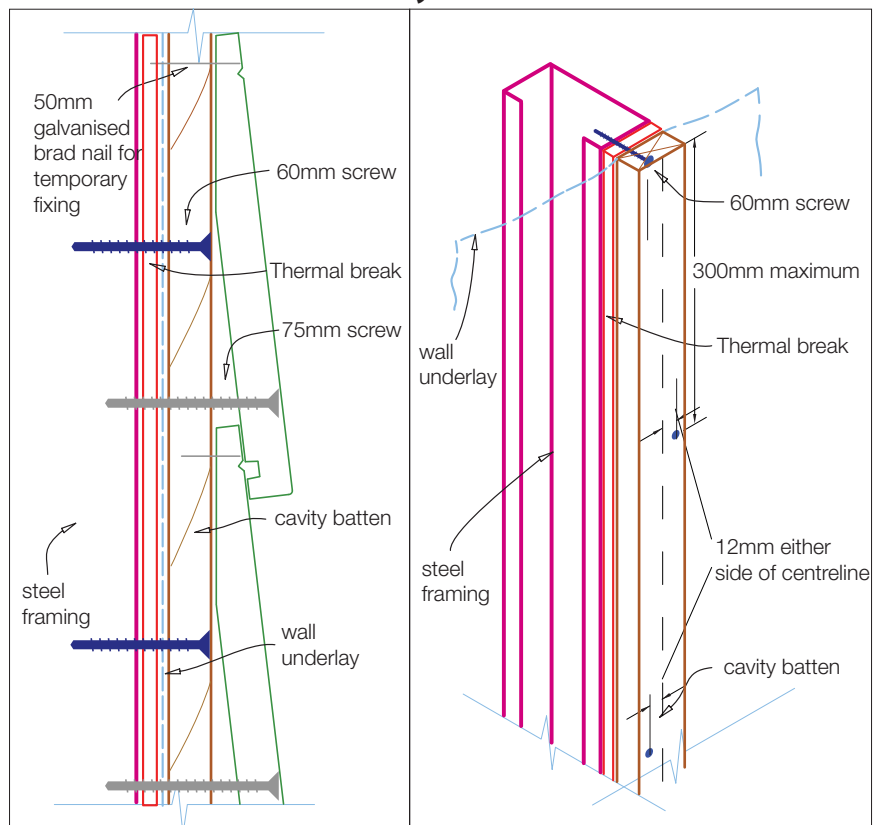
Profile	Application	Size mm	Nail size	Nail Position
Taranakipine Bevel Back	Direct Fix	135x18.5, 142x18, 180x18.5, 187x18, 230x18	8-10g x 60mm wingtek screws	Single screw on every stud 42mm from bottom of board
Taranakipine Bevel Back	Cavity Fix	135x18.5, 142x18, 180x18.5, 187x18, 230x18	8-10g x 75mm wingtek screws	Single screw on every stud 42mm from bottom of board
Taranakipine Rusticated	Direct Fix	135x18.5, 180x18.5, 225x18	8-10g x 60mm wingtek screws	Single screw on every stud 37mm from bottom of board
Taranakipine Rusticated	Cavity Fix	135x18.5, 180x18.5, 225x18	8-10g x 75mm wingtek screws	Single screw on every stud 37mm from bottom of board
Taranakipine Vertical Shiplap	Direct Fix	135x18, 180x18	8-10g x 60mm wingtek screws	Single screw on every nog 35mm from side of the lap
Taranakipine Vertical Shiplap	Cavity Fix	135x18, 180x18	8-10g x 75mm wingtek screws	Single screw on every nog 35mm from side of the lap
Cavity Battens	Only horizontal weatherboards	44x21	8-10g x 60mm wingtek screws	300mm centres maximum

### Bevel Back Weatherboard

#### Direct Fix

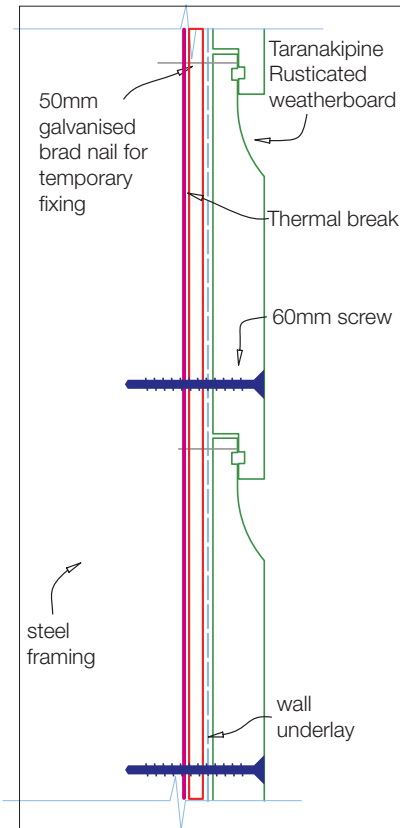


#### Cavity Fix

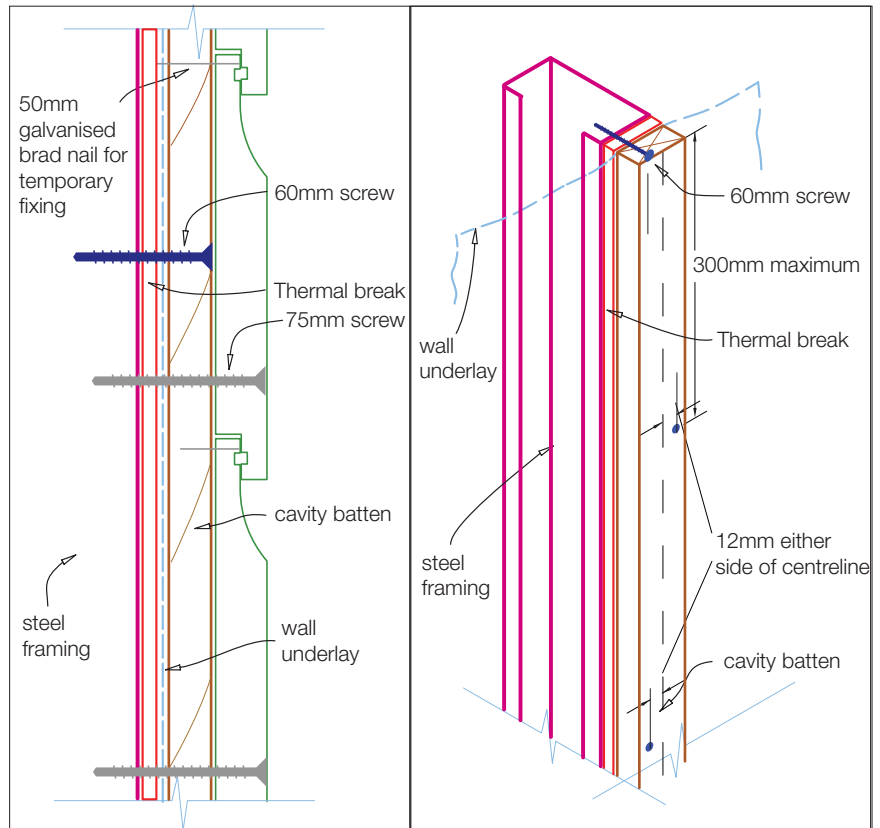


# Rusticated Weatherboard

## Direct Fix



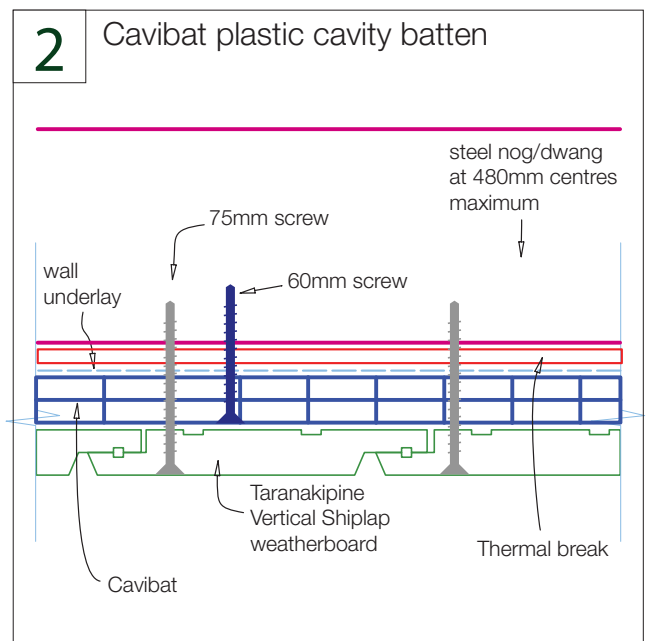
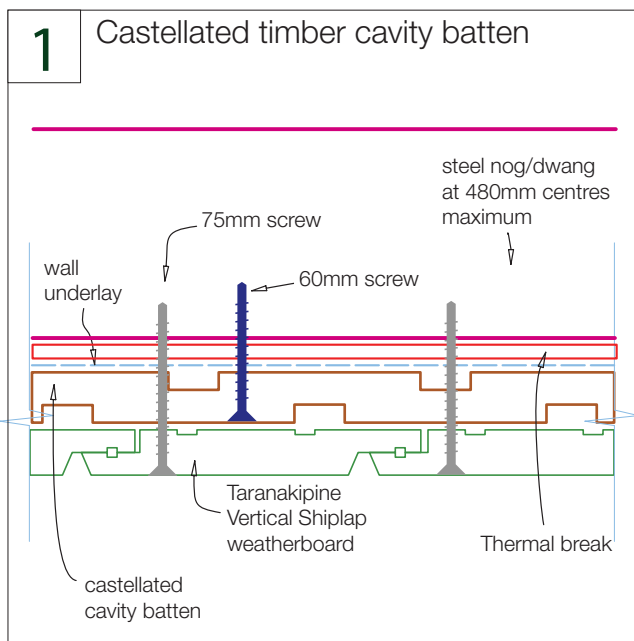
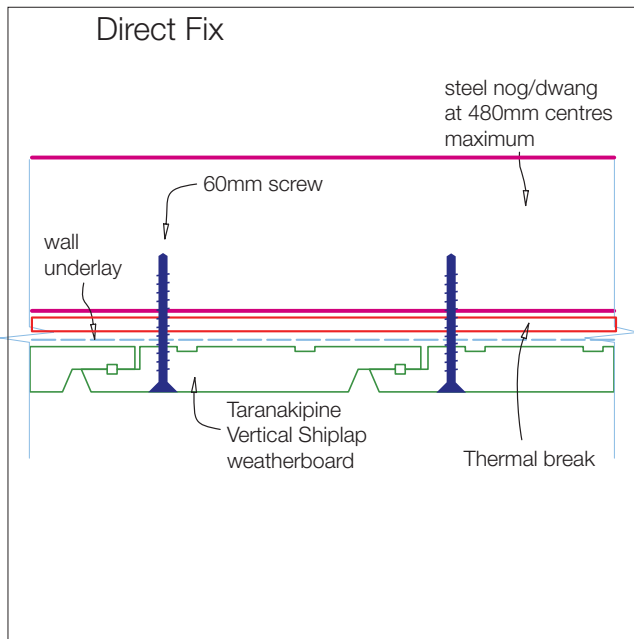
## Cavity Fix



## Vertical Shiplap Weatherboard

For Vertical Shiplap profiles, only direct fix applications are an Acceptable Solution in E2/AS1. However horizontal cavity battens can be used for cavity fix as an Alternative Solution. Two types of horizontal cavity batten can be used: castellated timber cavity batten and Cavibat. Regular timber cavity batten cannot be used as this prevents water drainage through the cavity. Castellated cavity battens and Cavibat both have gaps that allow water to drain

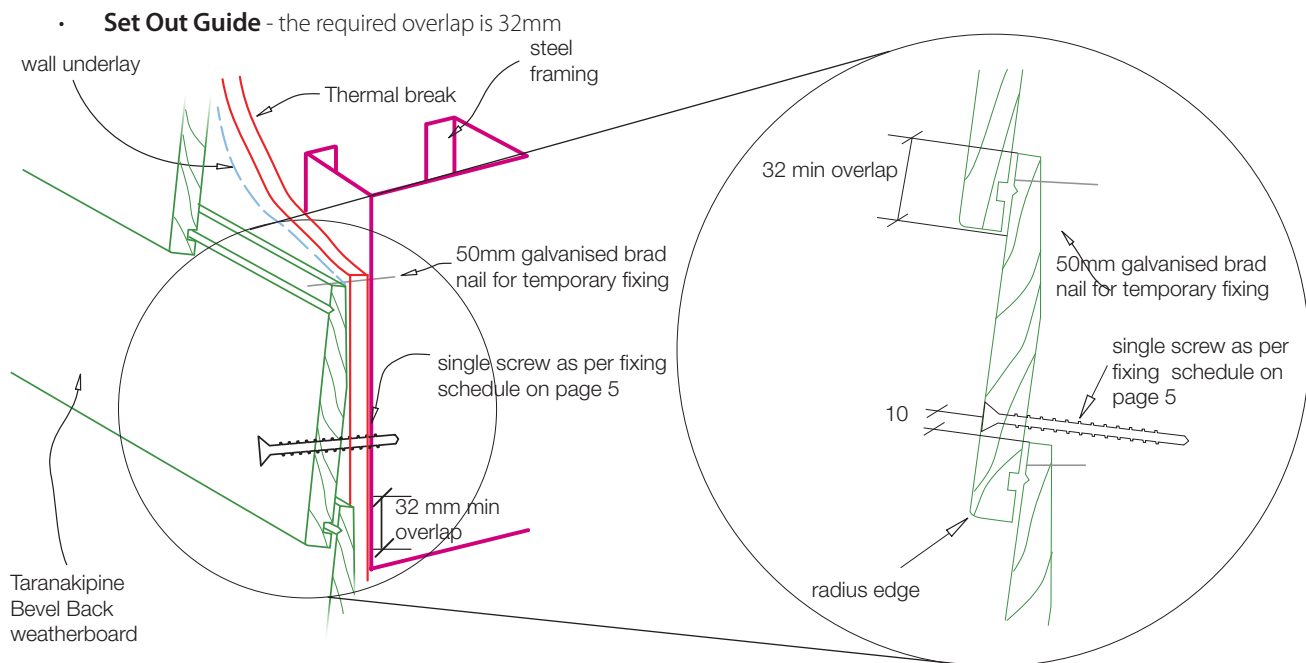
1. Castellated timber cavity battens are H3.1 or H3.2 treated and have gaps machined into it at approximately 100mm centres. They have a downward slope on the top at a 20° angle to assist draining water. They are to be fixed onto every nog/dwang using 60mm galvanised wingtek screws or 50mm galvanised brad nails at 400mm centres
2. Cavibat is an extruded polypropylene fluted cavity batten. Cavibats are installed with 60mm galvanised wingtek screws or 50mm galvanised brad nails at 400mm centres. Please refer to Cavibat's technical guide for full installation details





# INSTALLATION

## a. Bevel Back



### • **Fixing Method**

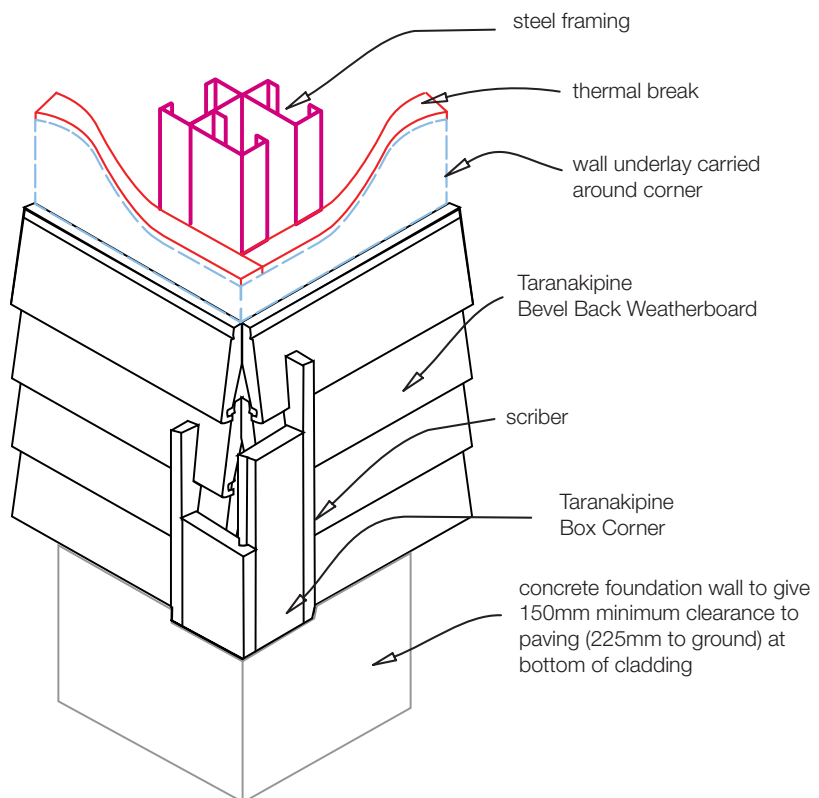
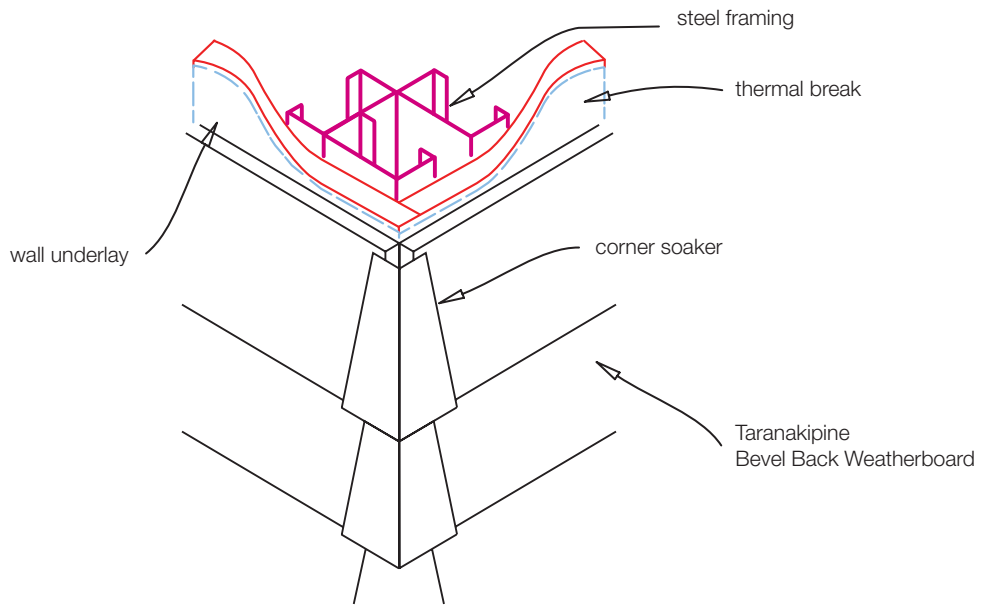
1. The bottom weatherboard should overlap the bottom plate or bearer by a minimum of 50mm
2. Make sure the bottom of the weatherboard is no closer than 150mm from a paved/concrete ground surface or 225mm from an uncovered ground surface
3. Use only one screw per board at each fixing point
4. Locate screws approximately 42mm above the bottom edge of the board. Take care to not screw through the board underneath
5. Screw below the surface and fill with an exterior grade filler as soon as is practical
6. Start fixing weatherboards near the centre of the board and work your way outwards
7. The weatherboards can be brad nailed at the top above the water groove to temporarily fix the weatherboard in place before face screwing. The brad nail is to be fixed on the minimum number of studs necessary to hold the weatherboard in the proper position and no more than one brad nail per stud
8. The top board may have to be cut to neatly fit under the soffit

### • **Cuts / Joins**

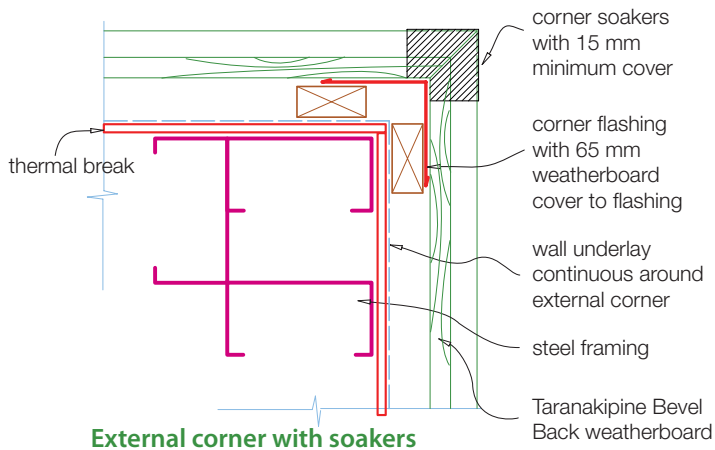
1. Minimise joins by planning your cutting to use full lengths where possible
2. Where joins are necessary they must be done over studs or battens. Cut the joint at a 45° angle and face this away from the prevailing weather
3. Stagger the joins so that no two joins are directly overlapping. Avoid placing the join over water drip lines, for example under the side edge of a window
4. Prime the cut ends and allow the paint to dry
5. For extra protection an exterior grade silicon can be used in between the joining pieces
6. Use one screw through the overlapping board to join
7. A flat soaker can be used over this join

• **Corners – External**

1. Either Taranakipine Box Corners with scribers, or soakers can be used (see below diagrams)
2. Box corners must cover the weatherboards by a minimum of 50mm
3. Assemble the box corners with 50x2.5mm galvanised or stainless steel jolt head nails at approximately 250mm centres – pre drill holes where needed
4. Position the Taranakipine Box Corners and screw over Taranakipine Weatherboards using 75mm wingtek screws at approximately 450mm centres, taking care to not screw through two layers of weatherboard
5. Fit a tightly cut scribe over the weatherboard against the box corner and nail at 450mm centres using 60x2.8mm (for 40/60x18 scribers) or 50x2.5mm (for 40x10 scribers) galvanised or stainless steel jolt head nails. Pre drilling the nail holes is required through the scribers
6. Ensure that all cut ends are primed and all screw holes are filled with an exterior grade filler

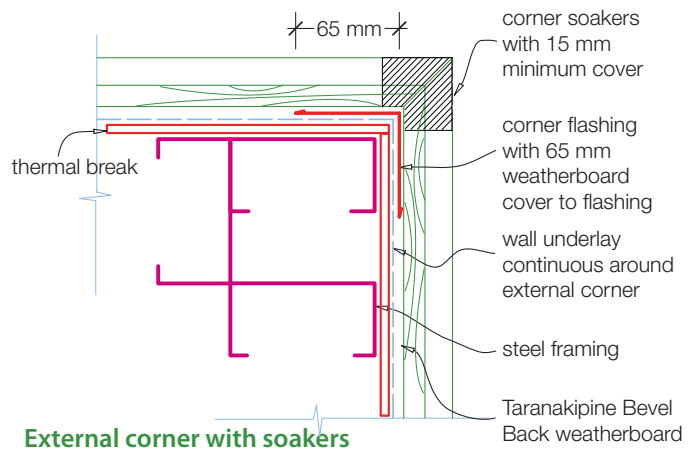


### External Corners for Bevel Back Cavity Fix

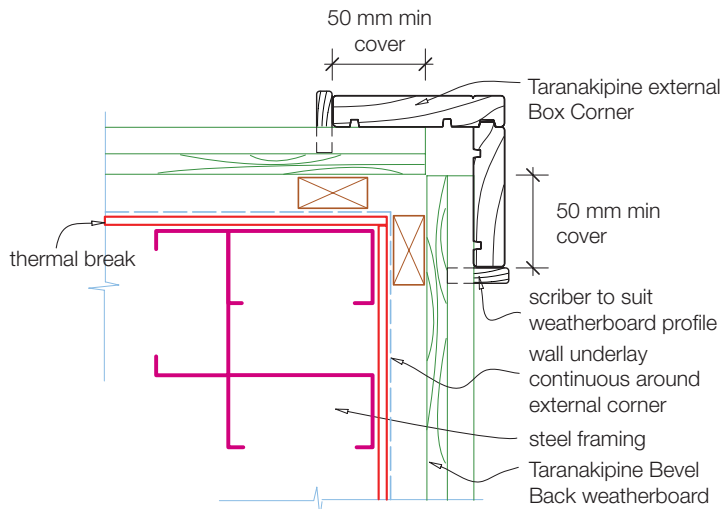


External corner with soakers

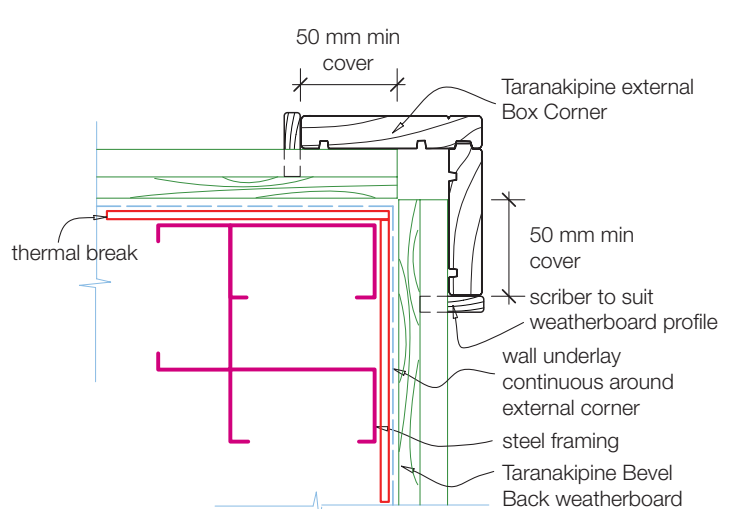
### External Corners for Bevel Back Direct Fix



External corner with soakers



External Box Corner

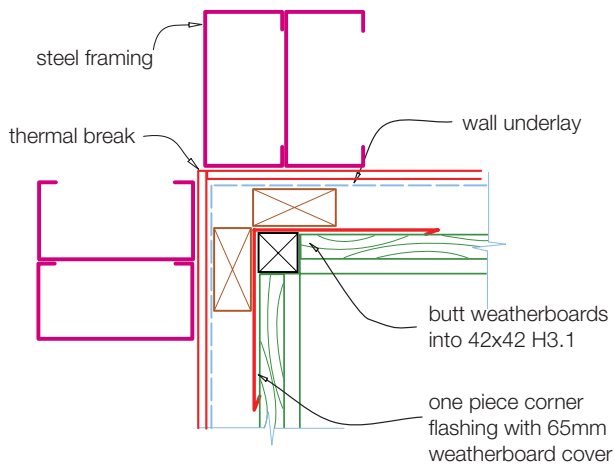


External Box Corner

• **Corners – Internal**

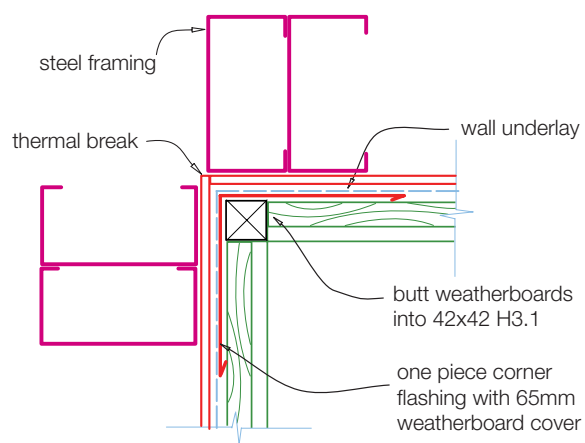
1. Taranakipine Box Corners with scriber can be used or the weatherboards can be butt joined (see below diagrams)
2. Box corners must cover the weatherboards by a minimum of 50mm
3. Assemble the Box Corners with 50x2.5mm galvanised or stainless steel jolt head nails at approximately 250mm centres – pre drill holes where needed
4. Position the Taranakipine Box Corners and screw over Taranakipine Weatherboards using 75mm wingtek screws at approximately 450mm centres, taking care to not screw through two layers of weatherboard
5. Fit a tightly cut scriber over the weatherboard against the Box Corner and nail at 450mm centres using 60x2.8mm (for 40/60x18 scribers) or 50x2.5mm (for 40x10 scribers) galvanised or stainless steel jolt head nails. Pre drilling the nail holes is required through the scribers
6. Ensure that all cut ends are primed and all screw holes are filled with an exterior grade filler

**Internal Corners for Bevel Back Cavity Fix**

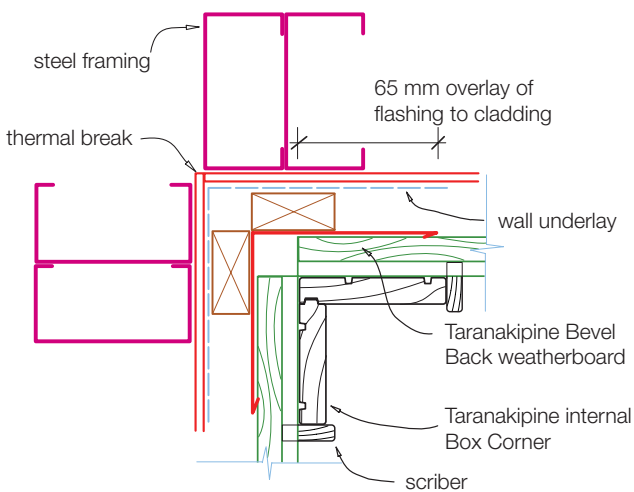


**Butted internal corner**

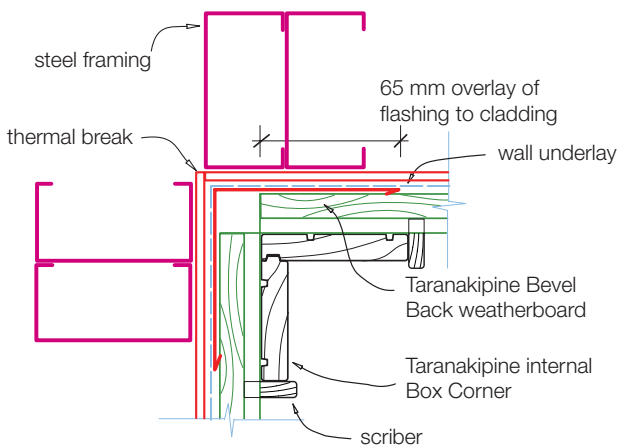
**Internal Corners for Bevel Back Direct Fix**



**Butted internal corner**



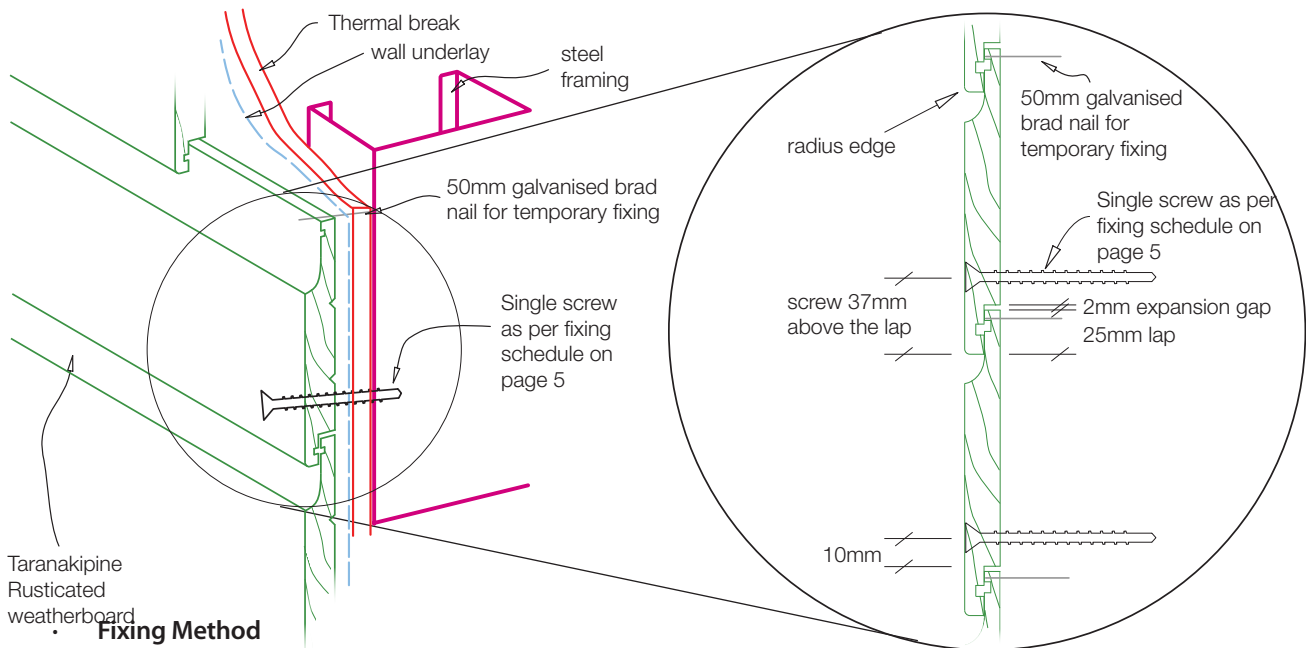
**Internal Box Corner with scriber**



**Internal Box Corner with scriber**

## b. Rusticated

- **Set Out Guide** - the required overlap is 27mm (25mm lap of the board below and a 2mm expansion gap)



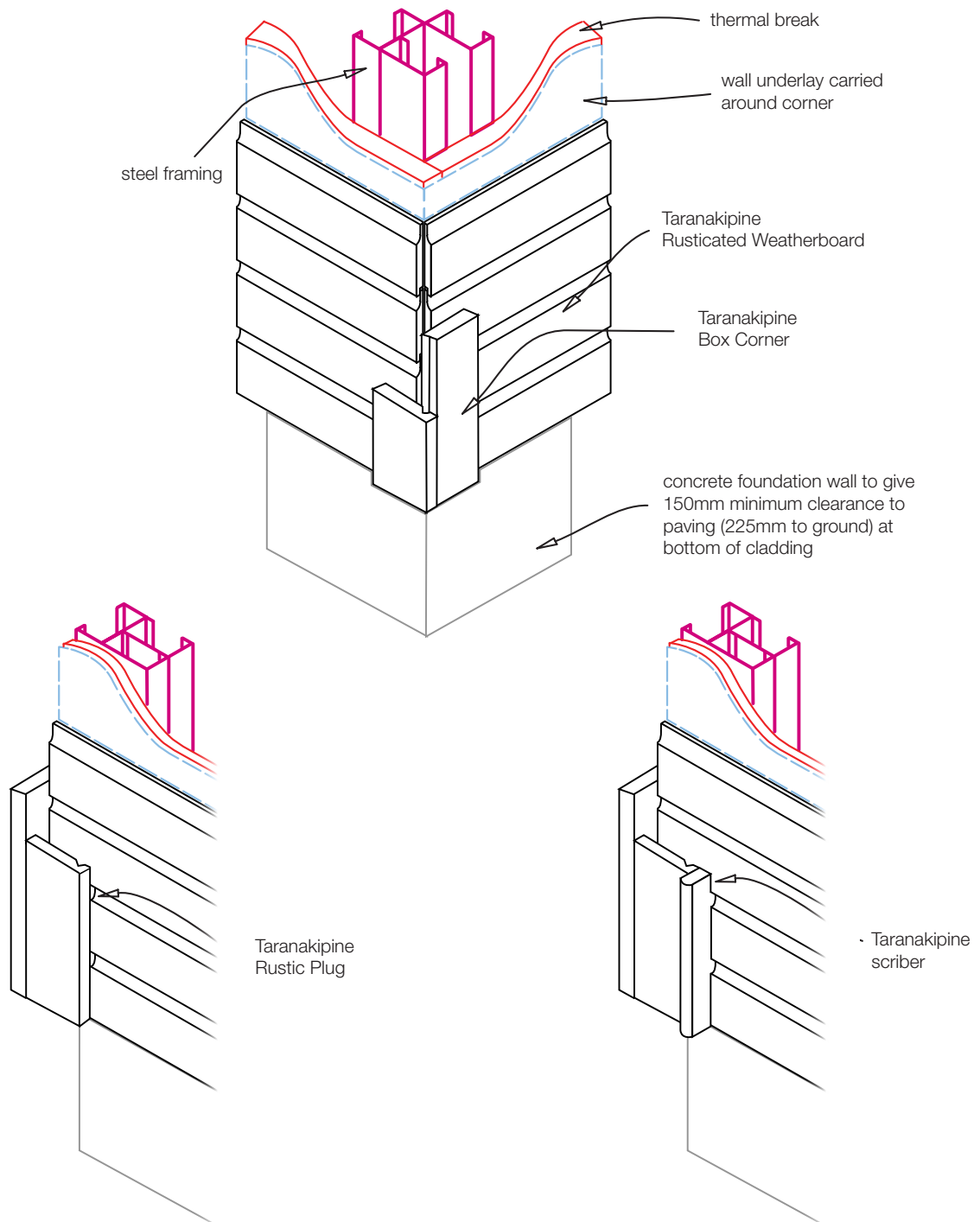
1. The bottom weatherboard should overlap the bottom plate or bearer by a minimum of 50mm
2. Make sure the bottom of the weatherboard is no closer than 150mm from a paved/concrete ground surface or 225mm from an uncovered ground surface
3. Use only one screw per board at each fixing point
4. Locate screws a minimum 37mm above the bottom edge of the board. Take care to not screw through the board underneath
5. Screw below the surface and fill with an exterior grade filler as soon as is practical
6. Start fixing weatherboards near the centre of the board and work your way outwards
7. The weatherboards can be brad nailed at the top above the water groove to temporarily fix the weatherboard in place before face screwing. The brad nails must be galvanised or stainless steel, 50mm long or less, and 2mm width or less. The brad nail is to be fixed on the minimum number of studs necessary to hold the weatherboard in the proper position and no more than one brad nail per stud
8. The top board may have to be cut to neatly fit under the soffit

- **Cuts / Joins**

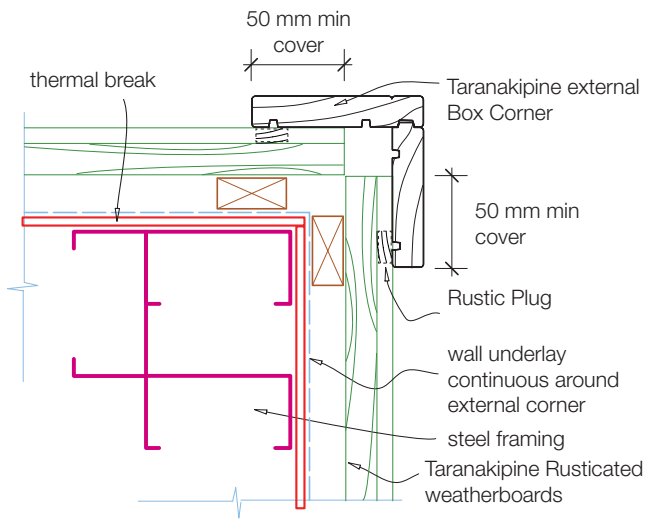
1. Minimise joins by planning your cutting to use full lengths where possible
2. Where joins are necessary they must be done over studs or battens. Cut the joint at a 45° angle and face this away from the prevailing weather
3. Stagger the joins so that no two joins are directly overlapping. Avoid placing the join over water drip lines, for example under the side edge of a window
4. Prime the cut ends and allow the paint to dry
5. For extra protection an exterior grade silicon can be used in between the joining pieces
6. Use one screw through the overlapping board to join

• **Corners – External**

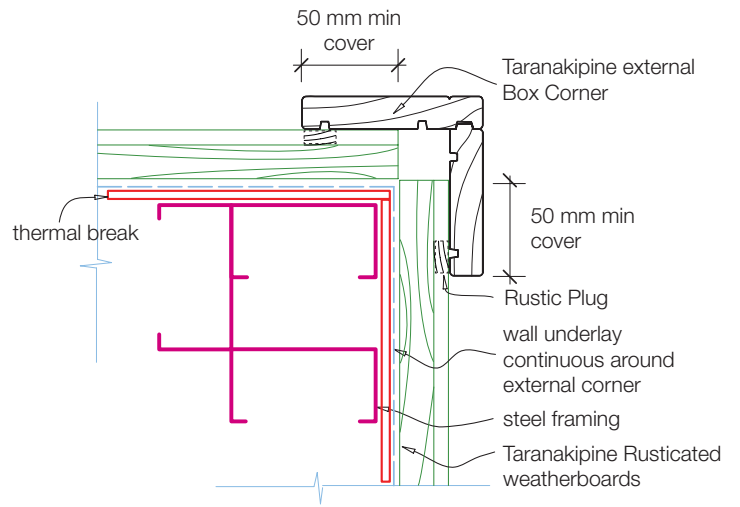
1. Taranakipine Box Corners with scribes or Rustic Plugs are recommended (see below diagrams)
2. Box corners must cover the weatherboards by a minimum of 50mm
3. Assemble the box corners with 50x2.5mm galvanised or stainless steel jolt head nails at approximately 250mm centres – pre drill holes where needed
4. Position the Taranakipine Box Corners and screw over Taranakipine Weatherboards using 75mm wingtek screws at approximately 450mm centres, taking care to not screw through two layers of weatherboard
5. Fit a tightly cut scribe over the weatherboard against the Box Corner and nail at 450mm centres using 60x2.8mm (for 40/60x18 scribes) or 50x2.5mm (for 40x10 scribes) galvanised or stainless steel jolt head nails. Pre drilling the nail holes is required through the scribes. Alternatively, use Taranakipine Rustic Plugs to slide in to the coved cavity at the top of each weatherboard.
6. Ensure that all cut ends are primed and all screw holes are filled with an exterior grade filler



### External Corners for Rusticated Cavity Fix



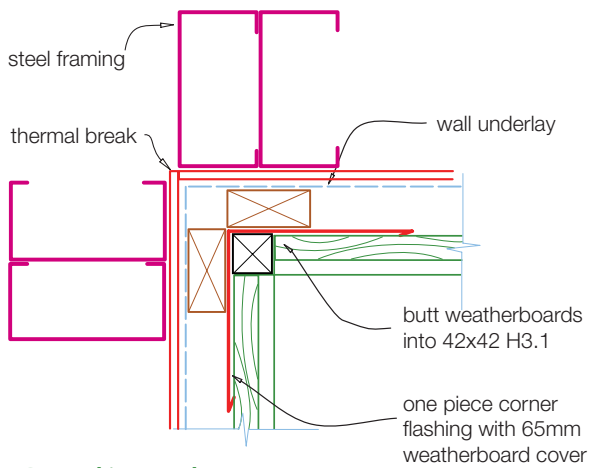
### External Corners for Rusticated Direct Fix



• **Corners – Internal**

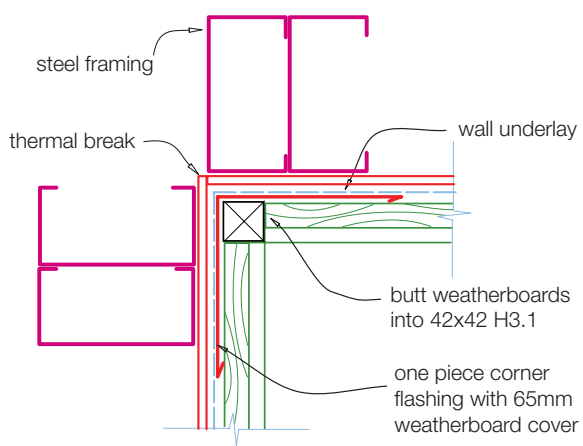
1. Taranakipine Box Corners with scribers or Rustic Plugs can be used (see below diagrams)
2. Alternatively the Rusticated weatherboard can be butted against 42x42 H3.1 treated timber (see below diagrams)
3. Box corners must cover the weatherboards by a minimum of 50mm
4. Assemble the Box Corners with 50x2.5mm galvanised or stainless steel jolt head nails at approximately 250mm centres – pre drill holes where needed
5. Position the Taranakipine Box Corners and screw over Taranakipine Weatherboards using 75mm wingtek screws at approximately 450mm centres, taking care to not screw through two layers of weatherboard
6. Fit a tightly cut scriber over the weatherboard against the Box Corner and nail at 450mm centres using 60x2.8mm (for 40/60x18 scribers) or 50x2.5mm (for 40x10 scribers) galvanised or stainless steel jolt head nails. Alternatively use Taranakipine Rustic Plugs to slide in to the coved cavity at the top of each weatherboard. Pre drilling the nail holes is required through the scribers
7. Ensure that all cut ends are primed and all screw holes are filled with an exterior grade filler

**Internal Corners for Rusticated Cavity Fix**

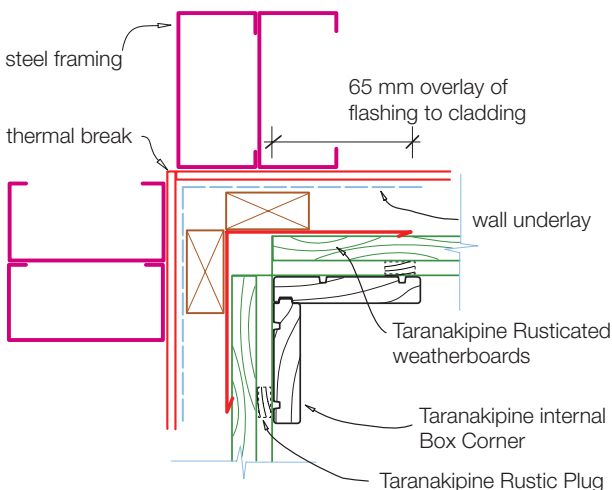


**Butted internal corner**

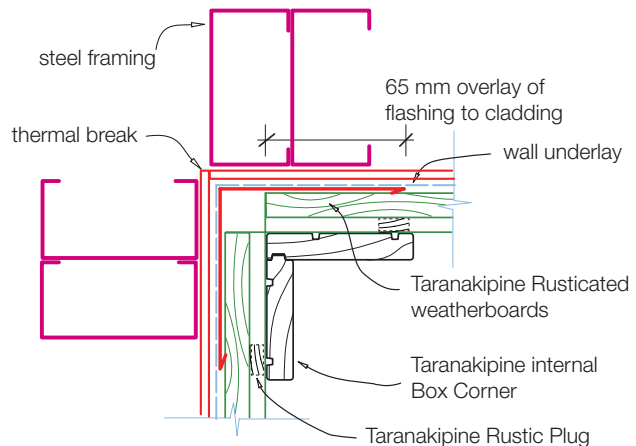
**Internal Corners for Rusticated Direct Fix**



**Butted internal corner**



**Internal Box Corner with Rustic Plug**

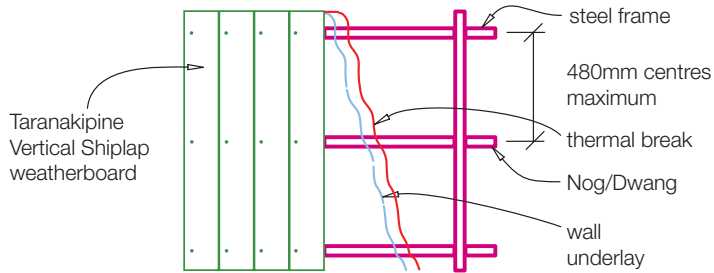


**Internal Box Corner with Rustic Plug**

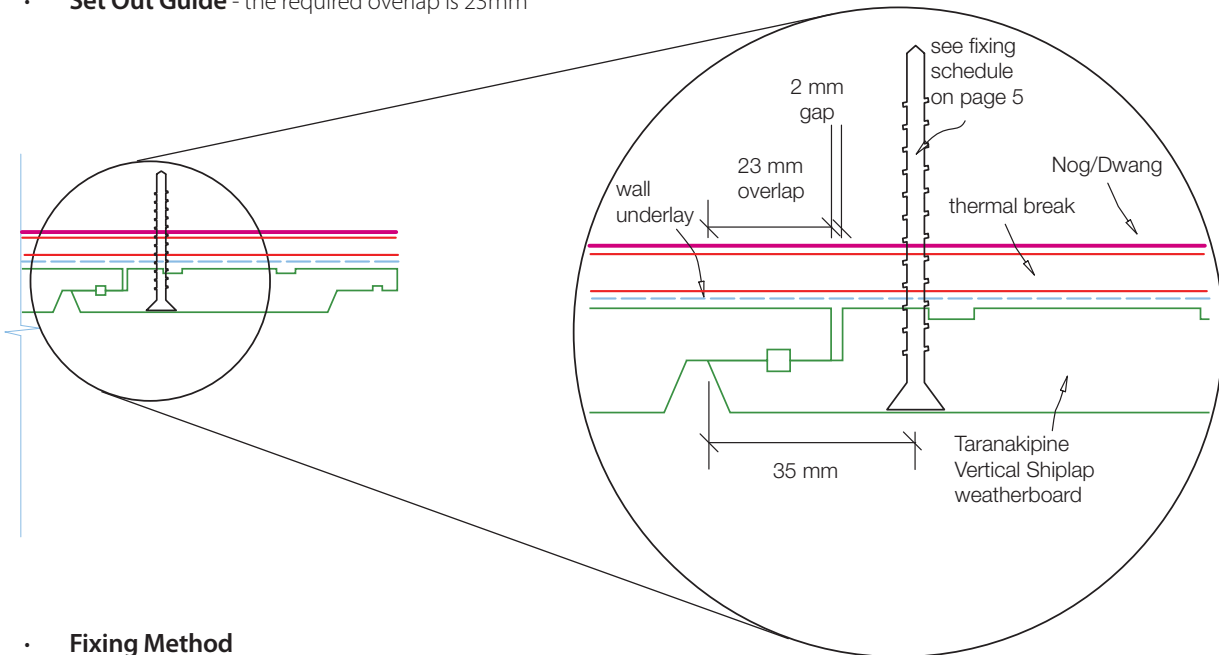


## c. Vertical Shiplap

- **Preparation** - 480mm centre maximum nog spacing



- **Set Out Guide** - the required overlap is 23mm



- **Fixing Method**

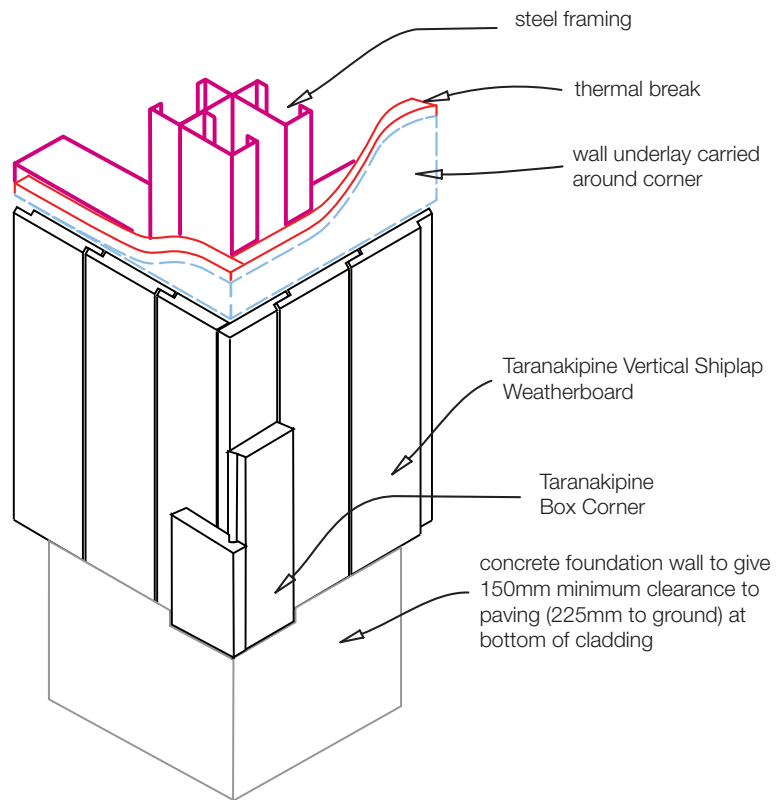
1. Fixing Taranakipine Vertical Shiplap weatherboards requires nogs at 480mm centres maximum
2. The exposed wood of the weatherboard (top and bottom) must be primed
3. The bottom of the Vertical Shiplap weatherboards should overlap the bottom plate or bearer by a minimum of 50mm
4. Make sure the bottom of the weatherboard is no closer than 150mm from a paved/concrete ground surface or 225mm from an uncovered ground surface. Ensure the end is completely sealed with a quality primer
5. Use only one screw per board at each fixing point
6. Locate screws approximately 35mm to the side edge of the board. Take care to not screw through the board underneath
7. Screw below the surface and fill with an exterior grade filler as soon as is practical

- **Cuts / Joins**

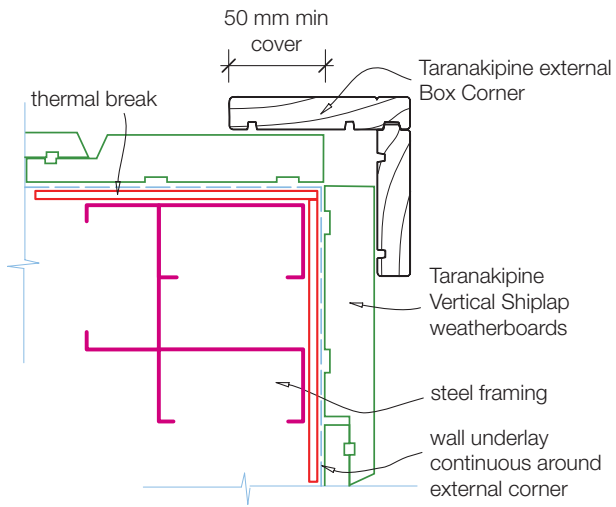
1. Minimise joins by planning your cutting to use full lengths where possible
2. Where joins are necessary they must be done over nogs. Cut the joint at a 45° angle with the top board overlapping the bottom board
3. Prime the cut ends and allow the paint to dry
4. For extra protection an exterior grade silicon can be used in between the joining pieces
5. Use one screw through the overlapping board to join

• **Corners – External**

1. Taranakipine Box Corners are recommended (see below diagram)
2. Box corners must cover the weatherboards by a minimum of 50mm
3. Assemble the Box Corners with 50x2.5mm galvanised or stainless steel jolt head nails at approximately 250mm centres – pre drill holes where needed
4. Position the Taranakipine Box Corners and screw over Taranakipine Weatherboards using 75mm wingtek screws at approximately 450mm centres and all screw holes are filled with an exterior grade filler

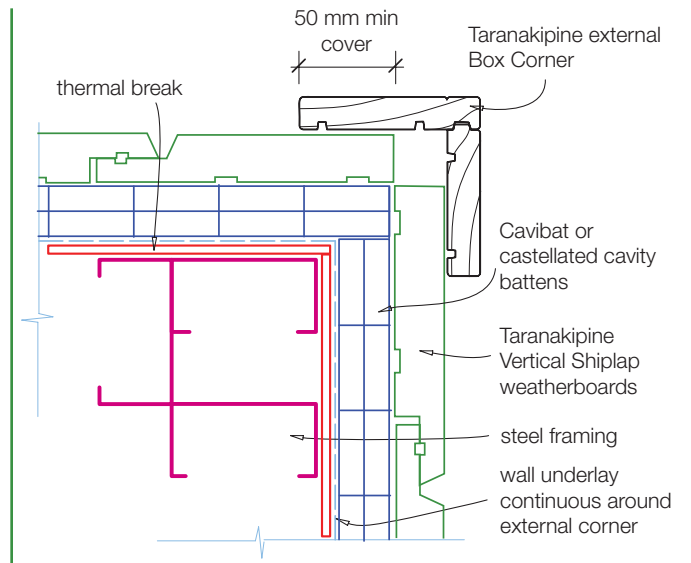


### External Corners for Vertical Shiplap Direct Fix



External corner with Box Corner

### External Corners for Vertical Shiplap Direct Fix

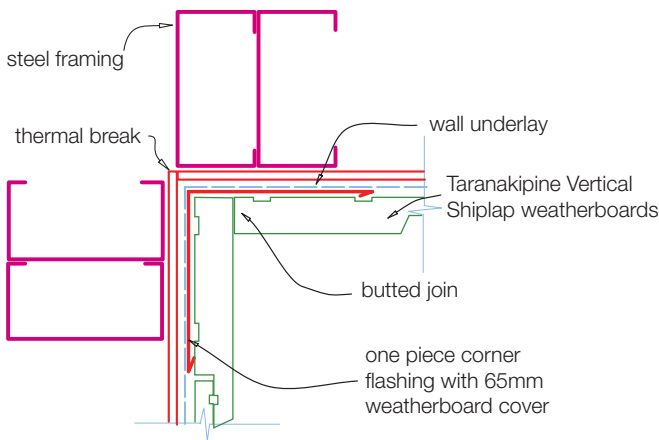


External corner with Box Corner

• **Corners – Internal**

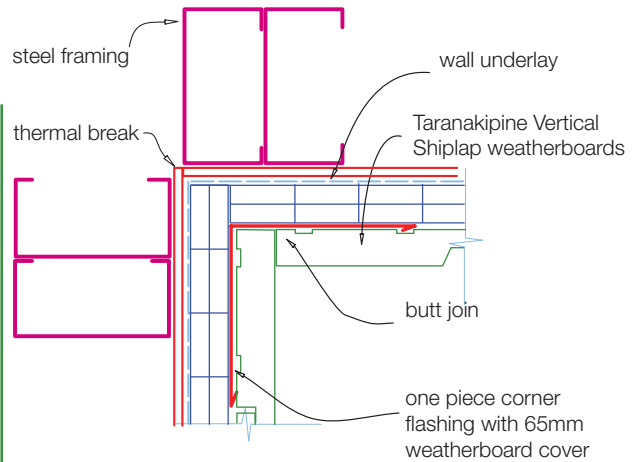
1. Taranakipine Box Corners or butt joints are recommended (see below diagrams)
2. Box corners must cover the weatherboards by a minimum of 50mm
3. Assemble the Box Corners with 50x2.5mm galvanised or stainless steel jolt head nails at approximately 250mm centres – pre drill holes where needed
4. Position the Taranakipine Box Corners and screw over Taranakipine Weatherboards using 75mm wingtek screws at approximately 450mm centres
5. When butt joining, use an external corner flashing. An exterior grade sealant can also be used as extra protection
6. Ensure that all cut ends are primed and all screw holes are filled with an exterior grade filler

**Internal Corners for Vertical Shiplap Direct Fix**

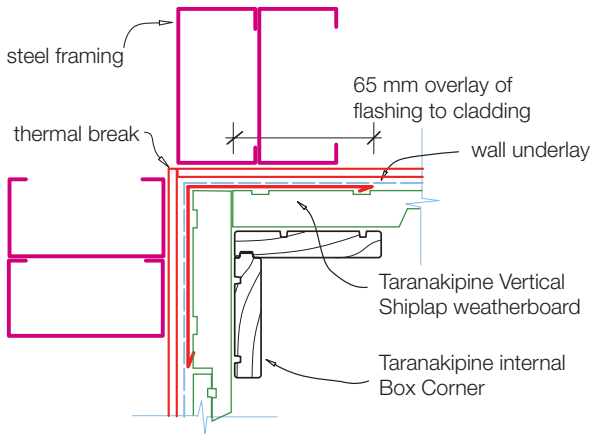


**Butted internal corner**

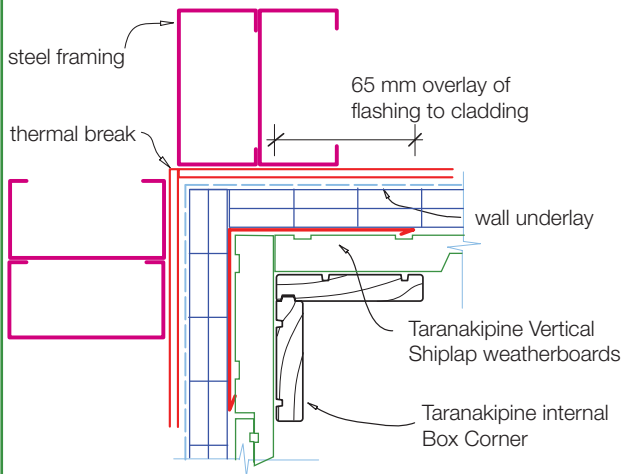
**Internal Corners for Vertical Shiplap Cavity Fix**



**Butted internal corner**



**Internal Box Corner**



**Internal Box Corner**