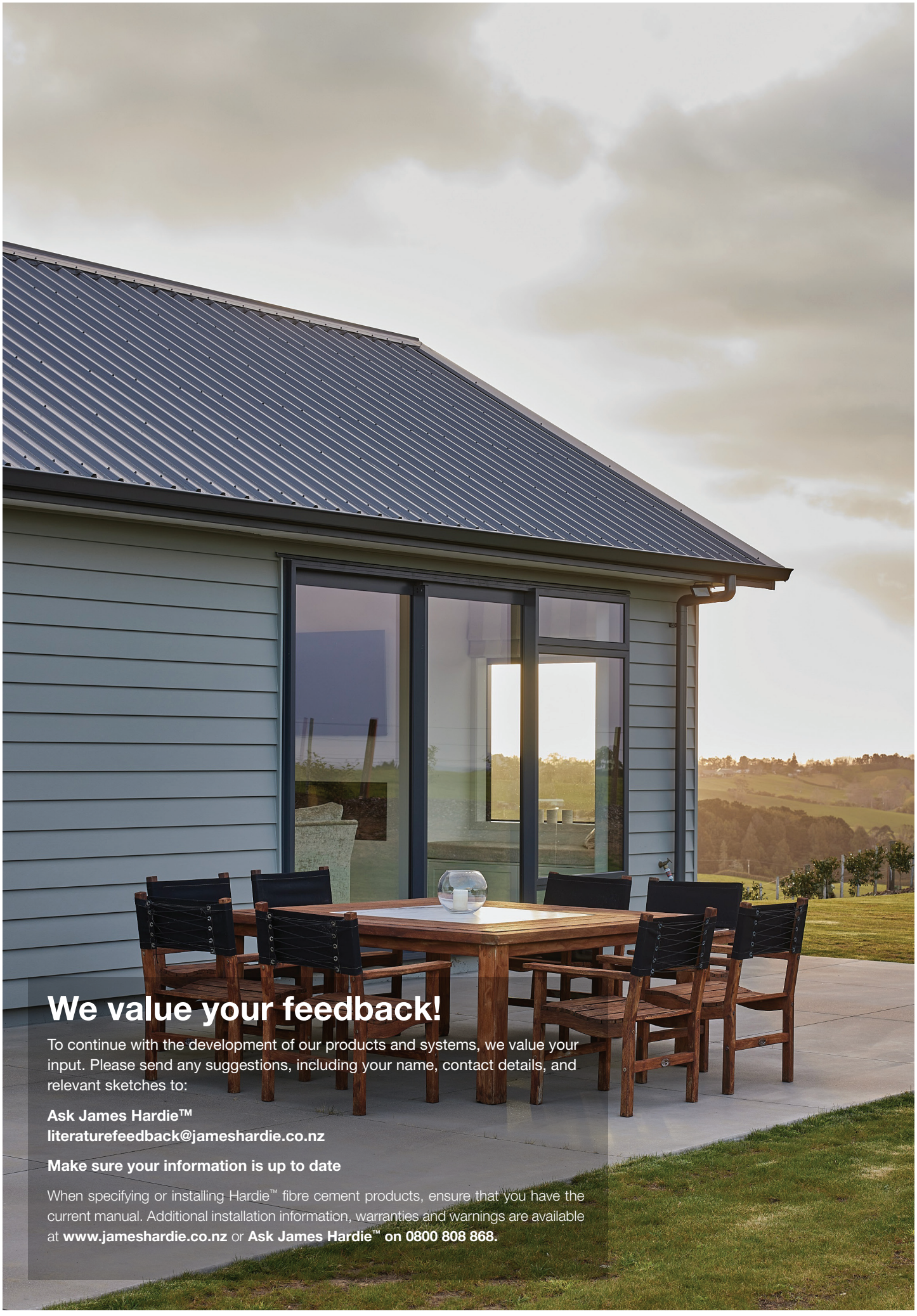
JamesHardie™

jameshardie.co.nz

# Linea™ Weatherboard Cavity Fix

Technical Specification

**August 2025** New Zealand



# We value your feedback!

To continue with the development of our products and systems, we value your input. Please send any suggestions, including your name, contact details, and relevant sketches to:

**Ask James Hardie™**
**literaturefeedback@jameshardie.co.nz**

**Make sure your information is up to date**

When specifying or installing Hardie™ fibre cement products, ensure that you have the current manual. Additional installation information, warranties and warnings are available at **www.jameshardie.co.nz** or **Ask James Hardie™ on 0800 808 868.**

# Contents

# 1 Product Overview

## 1.1 Product Information

Linea™ Weatherboard is an external cladding.

Linea™ Weatherboard is a 16mm thick, pre-primed bevel back fibre cement weatherboard. The bottom front edge of Linea™ Weatherboard is chamfered. It has tongue and groove ends for jointing and is classified as lightweight wall cladding for use in residential and light commercial buildings using timber or lightweight steel framed external walls. Linea™ Weatherboard is available in 150mm and 180mm widths.

James Hardie also has available:

- Hardie™ Axent™ Trim which is a 19mm thick, pre-primed fibre cement product available in three widths. For use as decorative trims around openings, for board and batten features and external corners.

For fixing to a steel frame. Ask James Hardie™ on 0800 808 868 for specific requirements. Or refer to the Cladding to Steel Framing Technical Supplement by James Hardie about the installation of Linea™ Weatherboard to steel frame.

**Table 1**

| Linea™ Weatherboard and Hardie™ Axent™ Trim sizes | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Coverage Information | | |
| **Product** | **Code** | **Length (mm)** | **Width (mm)** | **Thickness (mm)** | **End details** | **Effective cover (mm)** | **No. of planks/ metre height (approx.)** | **Mass kg/ lineal m (approx. at EMC)** | **Mass kg/m² (approx. at EMC)** |
| Linea™ Weatherboard 150 | 402533 | 4200 | 150 | 16 | T & G | 120 | 8.3 | 3.1 | 24.93 |
| Linea™ Weatherboard 180 | 401847 | 4200 | 180 | 16 | T & G | 150 | 6.7 | 3.57 | 23.92 |
| Hardie™ Axent™ Trim | 405260 | 3000 | 45 | 19 | Square | N/A | N/A | 1.1 | N/A |
| Hardie™ Axent™ Trim | 405257 | 3000 | 70 | 19 | Square | N/A | N/A | 1.6 | N/A |
| Hardie™ Axent™ Trim | 405258 | 3000 | 89 | 19 | Square | N/A | N/A | 2 | N/A |

The effective thickness of finished Linea™ Weatherboard on the wall at the lap is approximately 33 to 35mm

All dimensions and masses provided are approximate only and are subject to manufacturing tolerances.

Linea™ Weatherboard is categorised as a Light Weight Wall Cladding as described in the NZS 3604.

## 1.2 Manufacturing and Classification

The manufacturing process of Linea™ Weatherboard by James Hardie is ISO 9001 Certified.

Linea™ Weatherboard is an advanced lightweight cement composite cladding manufactured using a basic composition of Portland cement, ground sand, cellulose fibre, water and proprietary additives. The product is easily identified by the name 'Linea' printed on the back.

Hardie™ Axent™ Trim is an advanced lightweight cement composite cladding manufactured using a basic composition of Portland cement, ground sand, cellulose fibre, water and proprietary additives. The product is easily identified by the name 'Hardie Axent Trim' printed on the back and they come pre-sealed on all sides, ready for paint.

Linea™ Weatherboard and Hardie™ Axent™ Trim products are manufactured in Australia to the Australian/New Zealand Standard AS/NZS 2908.2 'Cellulose-Cement Products' (ISO 8336 'Fibre-Cement Flat Sheet').

Linea™ Weatherboard is classified Type A, Category 2 in accordance with the AS/NZS 2908.2 "Cellulose-Cement Products".

For Safety Data Sheets (SDS) visit **www.jameshardie.co.nz** and view them in the technical literature section or Ask James Hardie™ on **0800 808 868**.

## 1.3 Components and Accessories

**Table 2**

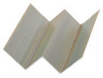
| Accessories/tools supplied by James Hardie | | | |
|---|---|---|---|
| **Accessories** | **Description** | **Size (mm)** | **Code** |
|  | **External corner soaker 90º for Linea™ Weatherboard 180mm**<br>• Aluminium | 200 long | **301186** |
|  | **External corner soaker 135º for Linea™ Weatherboard 180mm**<br>• Aluminium | 200 long | **301178** |
|  | **External corner soaker 90º for Linea™ Weatherboard 150mm**<br>• Aluminium | 170 long | **302820** |
|  | **External Slimline Box Corner Mould**<br>Etched primed aluminium extrusion used to create external corner | 2700 long<br>4000 long | **301195**<br>**305809** |
|  | **Linea™ 35mm Cavity Closer** | 3000 long | **306035** |
|  | **Internal 'W' Mould 90º**<br>Etched primed aluminium extrustion used to create 900 internal corner | 2700 long<br>4000 long | **301184**<br>**305807** |
|  | **Internal 'W' Mould 135º**<br>Etched primed aluminium extrustion used to create 135º internal corner | 2700 long | **301183** |
|  | **Hardie™ Corner Under Flashing 50 x 50mm**<br>PVC moulding used as under fashing for internal and external corners | 3000 long | **303745** |
|  | **Hardie™ Flex Galvanised nail - 5kg** | 60 x 3.15mm | **302784** |
|  | **Hardie™ Flex Stainless steel nail - 5kg** | 60 x 3.15mm | **302782** |
|  | **Hardie™ Blade Saw Blade**<br>Diamond tip fibre cement circular saw blade. Spacers not included | 4 tooth - 184mm | **300660** |
|  | **Hardie™ Blade Saw Blade**<br>Diamond tip fibre cement circular saw blade. Spacers not included | 6 tooth - 254mm | **303375** |

**Table 3**

## Accessories not supplied by James Hardie

James Hardie recommends the following products for use in conjunction with its Linea™ Weatherboard. James Hardie does not supply these products. There may also be some other accessories required depending upon the application. Please contact component manufacturer for information on their warranties and further information on their products.

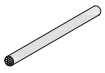
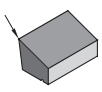
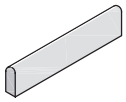
| Accessories | Description | Size (mm) | Material/ appearance |
|---|---|---|---|
|  | **Flexible Underlay**<br>To comply with Table C.2.1.1 of E2/AS1 | | |
|  | **D head or RounDrive Nail**<br>Gun nail for concealed fixing Linea™ Weatherboard. | 60 x 2.87mm<br>75 x 3.06mm | Hot Dip Galvanised/ Stainless Steel |
|  | **Hardie™ Flex Hot Dip Galv. Nails**<br>For concealed fixing by hand nail | 60 x 3.15mm<br>75 x 3.15mm | Hot Dip Galvanised/ Stainless Steel |
|  | **Jolt Head Nail** for face fixing Linea™ Weatherboard | 75 x 3.15mm<br>90 x 3.55mm | Hot Dip Galvanised/ Stainless Steel |
|  | **Titanium Coated High Speed Drill Bit.**<br>For pre-drilling prior to face fixing with jolt head. | 3.0mm<br>3.5mm | |
|  | **Brad Nail**<br>To tie boards together | 32mm | |
|  | **Joint sealant**<br>Paintable flexible sealants are recommended for filling the joints. Refer to Section 7.2 for information. | Tube | Sika®, Bostik® Soudal®, or similar |
|  | **CRC® ADOS® Builders Fill**<br>Two part exterior grade fill to finish over jolt head nails. | | |
|  | **PEF Rod** | Polyethylene foam | Sika® or similar |
|  | **Window flashing tape**<br>A flexible self-adhesive tape used in preparation of a window. Refer to the Window installation section in this manual for more information. | Proprietary tape to adhere to flexible underlay | Thermakraft,®, Marshall Innovations or similar |
|  | **Flashing Material**<br>as per Table C.1.1.1A, 'E2/AS1' | | Flashing Fabricator |
| Dimension to suit<br>  | **Planted Sill** | | H3.1 minimum Treated Timber Timber Merchant or cut on site |

**Table 3 contd.**

| Accessories not supplied by James Hardie | | | |
|---|---|---|---|
| **Accessories** | **Description** | **Size (mm)** | **Material/ appearance** |
|  | **Timber Scriber**<br>To scribe beside window, site cut to suit. | As required | H3.1 minimum Treated Timber Timber Merchant or cut on site |
|  | **Fibre Cement Cutting Blade**<br>Diamond tip 305mm diameter circular saw blade to fit drop saw. | 305mm | Diamond Tipped |
|  | **Cavity Closer - aluminium**<br>Used in walls taller than 10m for inter-tenancy fire separation. | | |
|  | Primers. Dulux® 1-Step Prep, Resene® Quick Dry etc. | | |
|  | **CladMate™**<br>This easy to use tool gauges and supports the weatherboard for a one person install. | | |

# 2 Application and Scope

## 2.1 Application

This specification includes the installation of Linea™ Weatherboard cavity construction where risk matrix is 13 or more assessed as per Part 3 of E2/AS1 and must be read in conjunction with the current CodeMark Certificate and BRANZ Appraisal. This installation method assessed as per Part 3 of E2/AS1 can also be used for buildings where the risk matrix score is 0 - 12 if desired.

The document also serves the purpose of an installation manual for this product.

For use of Linea™ Weatherboard outside this published scope, the architect, designer or engineer must undertake specific design. For advice on designs outside the scope of this specification, Ask James Hardie on 0800 808 868.

Refer to the Linea™ Weatherboard Direct Fixed Technical Specification when installing Linea™ Weatherboard without a cavity.

## 2.2 Scope

Linea™ Weatherboard cavity construction is suitable for use in timber framed buildings that fall within the scope limitations of the New Zealand Building Code (NZBC) Acceptable Solution E2/AS1, Subsection 1.1.1.

Linea™ Weatherboard cavity construction is also suitable for use in specific engineering design projects (SED) subject to a wind pressure of 3.2kPa (ULS) maximum for building heights up to 25m.

This specification covers the installation of Linea™ Weatherboard within the following scope:

- Linea™ Weatherboard must be installed horizontally
- An external wall framing that complies with the NZBC

## 2.3 Limitations

- Linea™ Weatherboard cladding must not be used on curved wall applications
- Linea™ Weatherboard cladding must not be installed vertically or angled
- The minimum clearances specified must be maintained
- Timber window joinery/recessed openings is subject to an alternative design by the designer
- Maximum SLS inter-story seismic deflections up to span/180 when used in specific design buildings (SED) buildings above 10m height. To accommodate higher inter-story drifts, a deflection should be used.

## 2.4 Details

Various typical Linea™ Weatherboard details are provided within this document. In addition to these, the construction details with HomeRAB™ Pre-Cladding/RAB™ Board have also been developed and are available on our website. These details are available in dwg, dxf, jpg and pdf file format and can be downloaded at **www.jameshardie.co.nz.**

All dimensions shown are in millimetres unless noted otherwise.

# 3 Compliance

## 3.1 NZBC Compliance

When installed in accordance with the conditions of CodeMark number GM-CM30018 Linea™ Weatherboard complies with all relevant requirements of the NZBC. Please refer to www.building.govt.nz or jameshardie.co.nz for a copy of the certificate.

CodeMark
CMNZ30018

Linea™ Weatherboard cavity fixed cladding also has a BRANZ Appraisal number 447 (2020) available at www.branz.co.nz or www.jameshardie.co.nz.

BRANZ Appraised
Appraisal No.447 [2010]

# 4 Design

## 4.1 Responsibility

The specifier or other party responsible for the project must ensure that the information and details in this specification are appropriate for the intended application and that additional detailing is performed for specific design or any areas that fall outside the scope of this technical specification.

All New Zealand Standards referenced in this manual are current edition and must be complied with.

### Specifier

If you are a specifier or other responsible party for a project ensure that the information in this document is appropriate for the application you are planning and that you undertake specific design and detailing for areas which fall outside the scope of these specifications.

### Installer

If you are an installer ensure that you follow the design, moisture management principles, associated figures and material selection provided by the designer and this technical specification by James Hardie. All the details provided in this document must be read in conjunction with the project specification.

**James Hardie conducts stringent quality checks to ensure that any product manufactured falls within our quality spectrum. It is the responsibility of the builder to ensure that the product meets their aesthetic expectations before installation. James Hardie will not be responsible for rectifying obvious aesthetic surface variations following installation. James Hardie will only offer a replacement product if the Linea™ Weatherboard supplied is found to be out of its manufacturing specification.**

## 4.2 Clearances

The clearance between the bottom edge of cladding and the paved/unpaved ground must comply with Subsection 9.1.2 of E2/AS1. On the roofs and decks the minimum clearance must be 50mm. These clearances must be maintained throughout the life of the building.

Linea™ Weatherboard must overhang the bottom plate on a concrete slab by a minimum of 50mm as per Table 9.1.2.1, and for timber sub floor framing as per Paragraph 9.1.2.8 of the NZBC Acceptable Solution E2/AS1.

## 4.3 Structure

### 4.3.1 Timber Framing

Timber framed buildings must either be in accordance with the NZS 3604 (Timber-framed buildings) or designed as per specific engineering design (SED) up to design wind pressures 3.2kPa (ULS).

A 90 x 45mm minimum framing size is required.

The information published in this specification has been assessed for a timber structural grade SG8 at minimum. Refer to the NZS 3604 for further information on structural grades and their application.

For timber frame walls longer than 12m, it is best practice to allow for construction joints to accommodate movements generated due to timber shrinkage or structural deflections.

### 4.3.2 Durability

Timber framing must be treated in accordance with Section 3.3 of B2/AS1 'Durability' Clause of the NZBC. For further timber treatment information refer to Section 3.5.1 of Building Product Specification (BPS). Framing must be protected from moisture at sites in accordance with the recommendations of framing manufacturers. Refer to the NZS 3602 for information about the allowable moisture content in timber framing.

## 4.4 Bracing

Bracing can be achieved by using HomeRAB™ Pre-Cladding or RAB™ Board installed direct to framing instead of a flexible underlay or by using the Villaboard™ Lining bracing system on the internal face.

## 4.5 Energy Efficiency

External walls constructed as per this technical specification, using Linea™ Weatherboard cladding must use suitable bulk insulation to meet the minimum thermal insulation requirements as per Clause H1/AS1 'Energy Efficiency' of the NZBC.

## 4.6 Fire Rated Walls

External walls with Linea™ Weatherboard cavity fix construction method can achieve fire resistance ratings up to 60/60/60 when constructed in accordance with the Fire and Acoustic Design Manual by James Hardie. Linea™ Weatherboard must be face fixed for fire rated applications. Nogs must be at 800mm centres maximum for fire rated walls

Refer to the Fire and Acoustic Design Manual by James Hardie for further information about fire rated systems.

## 4.7 Durability

Linea™ Weatherboard and HomeRAB™ Pre-Cladding/RAB™ Board installed and maintained as per this technical specification will meet the durability requirement for cladding as per the NZBC clause B2 Durability.

Linea™ Weatherboard is resistant to permanent moisture induced deterioration (rotting) and meets the requirements of the following tests in accordance with the AS/NZS 2908.2:

- Heat Rain (Clause 6.5)
- Water Permeability (Clause 8.2.2)
- Warm Water (Clause 8.2.4)
- Soak Dry (Clause 8.2.5)

## 4.8 Control of External Fire Spread

Linea™ Weatherboard is classified as 'Type-A' material when tested to the requirements of Section 8.4 of Building Product Specification (BPS) of the NZBC and is suitable for use where 'Non Combustible Material' or ' Limited Combustibility Material' is required for use on external walls close to boundary as per the requirements of Clause C/AS1 and C/AS2 of the NZBC.

- Where the upper floors contain sleeping uses or other property within the scope of Clause C/AS2, a horizontal flashed joint must be provided to block the top of lower cavity at each floor to stop fire spread within the cavities as per Subsection 5.5.3 of C/AS2 of the NZBC. Refer to Figure 38 and 39.
- On buildings greater than 10m in height a RAB™ Board must be used in conjunction with Linea™ Weatherboard.

## 4.9 Alpine Regions

In regions subject to freeze/thaw conditions, Linea™ Weatherboard must not stay in direct contact with snow or ice build up for extended periods, e.g. external walls in alpine regions subject to snow drifts over winter.

The Linea™ Weatherboard has been tested in accordance with the AS/NZS 2908.2 Clause 8.2.3.

## 4.10 Moisture Management

It is the responsibility of the specifier to identify moisture related risks associated with any particular building design.

Wall construction design must effectively manage moisture, considering both interior and exterior environments of the building, particularly in buildings that have a higher risk of wind driven rain penetration. The building should also be ventilated sufficiently to control moisture accumulation due to condensation, especially in artificially cooled/heated buildings.

Walls must include those provisions as required by the NZBC Acceptable Solution E2/AS1. In addition, all wall openings, penetrations, junctions, connections, window sills, heads and jambs must incorporate appropriate flashings for waterproofing. The other materials, components and installation methods used to manage moisture in external walls, must comply with the requirements of relevant standards and the NZBC. For further guidance on designing for weather tightness, refer to BRANZ Ltd, and the Ministry of Business, Innovation and Employment (MBIE) updates on the following websites respectively, www.branz.co.nz and www.building.govt.nz.

In addition, the following issues must also be considered:

- Sealant must be installed where detailed in this literature
- For buildings up to 10m high, a drained horizontal joint must be provided at every two floors as minimum. For buildings more than 10m high a drained horizontal joint must be provided at each floor to accommodate the interstory deflections.
- The installation of smoke chimneys, pipe penetrations and other fixtures etc. must not track moisture into the wall or restrict the drainage of moisture to the exterior

# 5 Safe Working Practices

**WARNING - DO NOT BREATHE DUST AND CUT ONLY IN WELL VENTILATED AREA**

**Hardie™ fibre cement products contain sand, a source of respirable crystalline silica may cause cancer if dust from product is inhaled. Causes damage to lungs and respiratory system through prolonged or repeated inhalation of dust from product.**

Intact fibre cement products are not expected to result in any adverse toxic effects. The hazard associated with fibre cement arises from the respirable crystalline silica present in dust generated by activities such as cutting, rebating, drilling, routing, sawing, crushing, or otherwise abrading fibre cement, and when cleaning up, disposing of or moving dust.

When doing any of these activities in a manner that generates dust, follow James Hardie instructions and best practices to reduce or limit the release of dust.

If using a dust mask or respirator, use an AS/NZS1716 P1 filter and refer to Australian/New Zealand Standard 1715:2009 Selection, Use and Maintenance of Respiratory Protective Equipment for more extensive guidance and more options for selecting respirators for workplaces. For further information, refer to our installation instructions and Safety Data Sheets available at www.jameshardie.co.nz.

**FAILURE TO ADHERE TO OUR WARNINGS, SAFETY DATA SHEETS, AND INSTALLATION INSTRUCTIONS MAY LEAD TO SERIOUS PERSONAL INJURY OR DEATH.**

### Crystalline Silica is

- Commonly known as sand or quartz
- Found in many building products e.g. concrete, bricks, grout, wallboard, ceramic tiles, and all fibre cement materials

### Why is Crystalline Silica a health hazard?

- Silica can be breathed deep into the lungs when present in the air as a very fine (respirable) dust
- Exposure to silica dust without taking the appropriate safety measures to minimise the amount being breathed in, can lead to a potentially fatal lung disease – silicosis – and has also been linked with other diseases including cancer. Some studies suggest that smoking may increase these risks
- The most hazardous dust is the dust you cannot see!

### When is Crystalline Silica a health hazard?

- It's dangerous to health if safety protocols to control dust are not followed when cutting, drilling or rebating a product containing crystalline silica and when cleaning up
- Products containing silica are harmless if intact (e.g. an un-cut sheet of wall board)

## Avoid breathing in crystalline silica dust

### Safe working practices

- ✕ NEVER use a power saw indoors or in a poorly ventilated area
- ✕ NEVER dry sweep
- ✓ ALWAYS use M Class or higher vacuum or damp down dust before sweeping up
- ✕ NEVER use grinders
- ✓ ALWAYS use a dust reducing circular saw equipped with a sawblade specifically designed to minimise dust creation when cutting fibre cement – preferably a sawblade that carries the Hardie™ Blade name or one with at least equivalent performance – connected to an M Class or higher vacuum
- ✓ Before cutting warn others in the area to avoid dust
- ✓ ALWAYS follow tool manufacturers' safety recommendations
- ✓ ALWAYS expose only the minimum required depth of blade for the thickness of fibre cement to be cut
- ✓ ALWAYS wear a properly-fitted, approved dust mask or respirator P1 or higher in accordance with applicable government regulations and manufacturer instructions
- ✓ Consider rotating personnel across cutting tasks to further limit respirable silica exposures.

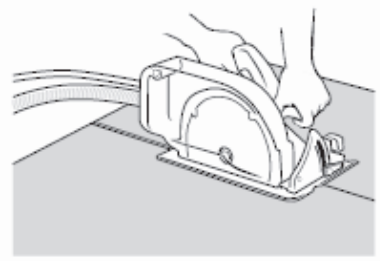
### When cutting

- ✓ Work outdoors only
- ✓ Make sure you work in a well ventilated area
- ✓ Position cutting station so wind will blow dust away from yourself and others in the working area
- ✓ Rotate employees across cutting task over duration of shift
- ✓ Cut products with a Hardie™ Blade Saw Blade (or equivalent) and a dust reducing circular saw connected to a M Class or higher vacuum
- ✓ When sawing, sanding, rebating, drilling or machining fibre cement products, always:
  - Wear your P1 or higher (correctly fitted in accordance with manufacturers' instructions), ask others to do the same.
  - Keep persons on site at least 2 metres and as far as practicable away from the cutting station while the saw is in operation
  - If you are not clean shaven, then use a powered air respirator with a loose fitting head top
  - Wear safety glasses
  - Wear hearing protection
- ✓ Make sure you clean up BUT never dry sweep. Always hose down with water/wet wipe or use an M Class or higher vacuum

**If concern still exists about exposure levels or you do not comply with the above practices, you should always consult a qualified industrial hygienist or contact James Hardie for further information.**

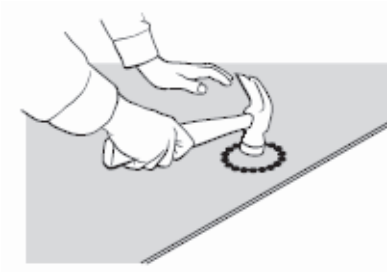
### Working Instructions

#### Hardie™ Blade Saw Blade



The Hardie™ Blade Saw Blade used with a dust-reducing saw is ideal for fast, clean cutting of Hardie™ fibre cement products. A dust-reducing saw uses a dust collector connected to a M Class or higher vacuum. When sawing, clamp a straight edge to the sheet as a guide and run the saw base plate along the straight edge when making the cut.

#### Hole-Forming



**For smooth clean cut circular holes:**

- Mark the centre of the hole on the sheet
- Pre-drill a 'pilot' hole
- Using the pilot hole as a guide, cut the hole to the appropriate diameter with a hole saw fitted to a heavy duty electric drill

**For irregular holes:**

- Small rectangular or circular holes can be cut by drilling a series of small holes around the perimeter of the hole then tapping out the waste piece from the sheet face
- Tap carefully to avoid damage to sheets, ensuring that the sheet edges are properly supported

## 5.1 Storage and Delivery

Keeping products and people safe

### Off loading

✓ Hardie™ fibre cement products should be off-loaded carefully by hand or by forklift

✓ Hardie™ fibre cement products should not be rolled or dumped off a truck during the delivery to the jobsite

### Storage

Hardie™ fibre cement products should be stored:

✓ In their original packaging

✓ Under cover where possible or otherwise protected with a waterproof covering to keep products dry

✓ Off the ground – either on a pallet or adequately supported on timber or other spacers

✓ Flat so as to minimise bending

Hardie™ fibre cement products must not be stored:

✕ Directly on the ground

✕ In the open air exposed to the elements

**James Hardie is not responsible for damage due to improper storage and handling.**

## 5.2 Tips for Safe and Easy Handling of Linea™ Weatherboard

- ✕ Do not lift planked products flat and in the middle
- ✓ Carry the products on the edge
- ✓ If only one person is carrying the product, hold it in the middle and spread arms apart to better support the product
- ✓ If two people are carrying the plank, hold it near each end and on edge
- ✓ Exercise care when handling weatherboard products to avoid damaging the edges/corners

# 6 Installation

The horizontal lap between the two Linea™ Weatherboard must be 30mm minimum. In certain scenarios you may require to creep up the lap, this must not exceed 33mm.

Linea™ Weatherboard must be kept dry whilst in storage prior to and during fixing. Site cut ends that are exposed such as slimline box corners, internal corners etc. and any sanded patches on the boards surface must be primed prior to installation. Dust and loose material must be removed before priming.

## 6.1 Framing

Framing to be in accordance with the NZS 3604. The following must be provided for fixing Linea™ Weatherboard:

- Studs at 600mm centres maximum up to and including EH wind zone, and 400mm centres maximum when in SED wind zones up to 3.2kPa (ULS)
- Double studs are required at internal corners
- Extra packers may be required at external corners
- Extra studs are required for aluminium internal 'W' corner sections

When Linea™ Weatherboard used in a fire rated wall system by James Hardie, post fire stability stud spacing maybe required to be at closer centres.  Refer to the Fire and Acoustic Design Manual by James Hardie.

### 6.1.1 Gable Ends

In case of gable end trusses sitting on top plates of the external wall frame, the frame size must be in accordance with truss design and specification supplied by the frame and truss manufacturer/supplier supported by independent design producer statement.

### 6.1.2 Tolerances

In order to achieve an acceptable wall finish, it is imperative that framing is straight and true. Framing tolerances must comply with the requirements of the NZS 3604 and the manufacturer's specifications. All framing must be made flush. The visual aspects of the finished cladding can differ between two different sites or the builders installing the product. It is recommended that you also refer to a building guidance document published by MBIE to understand an acceptable level of tolerances allowed in building materials and workmanship. The 'Guide to tolerances, materials and workmanship in new residential construction 2015', can be found at www.building.govt.nz.

## 6.2 Flexible Underlay or HomeRAB™ Pre-Cladding

Flexible underlay or HomeRAB™ Pre-Cladding must be provided to comply with the requirements of Table C.2.1.1 E2/AS1 up to and including very high wind zone. For further information refer to Subsection 9.1.6 of E2/AS1.

Walls which are not lined on the inside face (e.g. garage walls or gable ends) must include a rigid sheathing or an air barrier behind the cladding. HomeRAB™ Pre-Cladding is suitable for use as an air barrier and must be installed in accordance with the HomeRAB™ Pre-Cladding and RAB™ Board Installation Manual.

## 6.3 Intermediate Support

Where studs are at 600mm centres an intermediate means of restraining the flexible underlay and insulation from bulging into the cavity must be installed. An acceptable solution as per Paragraph 9.1.7.10 of E2/AS1 of the NZBC is using one of the following:

- Intermediate cavity batten between the studs; or

- 75mm galvanised mesh; or
- Polypropylene tape at 300mm centres fixed horizontally and drawn taut.

No intermediate supports are required:

- Where studs are at maximum 400mm centres; or,
- When rigid sheathings instead of flexible underlays are used.

## 6.4 Rigid Air Barrier or RAB™ Board

As per paragraph 9.1.6.2 of E2/AS1 in EH wind zone or for specific design wind zone, a rigid air barrier i.e. RAB™ Board, must be used instead of flexible underlay.

For buildings more than 10m, RAB™ Board must be used. To achieve the temporary weathertightness using HomeRAB™ Pre-Cladding and RAB™ Board, windows/doors need to be installed with required flashing tapes and seals etc. Refer to HomeRAB™ Pre-Cladding and RAB™ Board Installation Manual for information regarding its installation and to achieve temporary weathertightness.

## 6.5 Vent Strip

The Linea™ 35mm cavity closer vent strip must be installed at the bottom of all walls constructed using the drained and ventilated for cavity construction method. The Linea™ 35mm cavity closer vent strip has a ventilation area of 1000mm$^2$/m length. It is important that the openings in the vent strip are kept clear and unobstructed to allow free drainage and ventilation of cavities. Vent strip to be mitred at corners. Alternate cavity closer may be used ensuring compliance with Paragraph 9.1.7.7 of E2/AS1 and used with a cant strip.

## 6.6 Cavity Battens

The cavity battens are provided in accordance with Paragraph 9.1.7.4 of E2/AS1.

The timber cavity battens must be minimum H3.1 treated to comply with the durability requirements of B2/AS1.

Cavity battens must comply with Paragraph 9.1.7.8 E2/AS1 and:

- Be minimum 18mm thick and 45mm wide
- Fix cavity battens to framing with 40 x 2.8mm nails at 600mm centres maximum

## 6.7 Fastener

### 6.7.1 Fastener for Linea™ Weatherboard – Size and Method

Linea™ Weatherboard must be fixed to timber with the types of nails specified in Tables 4 and 5, in accordance with the following requirements:

- Linea™ Weatherboard can either be face/exposed fixed or concealed fixed
- Linea™ Weatherboard must be fixed into studs at fixing centres to coincide with stud spacing, refer to section 6.1 and figures in section 9 of this manual for further information
- All concealed nails must be driven flush with the board surface
- When concealed fixing Linea™ Weatherboard, nails must be driven under the lap of boards, except at all corners and vertical edges of openings where Linea™ Weatherboard needs a face nailing, refer to figures in section 9 of this manual
- Nails must be fixed 25mm minimum from the end of the board when hand nailing. For gun nailing refer to Section 6.1.2
- When using concealed fixing method, any gaps that may appear under the lap due to site conditions can be minimised by fixing a **jolt head** or **brad nail** through the lap as per the exposed nailing method. Refer to figures in section 9 of this manual
- When face fixing Linea™ Weatherboard, the upper board must be pre-drilled before fixing with a jolt head nail

**Table 4**

This installation method can be used for non-fire rated walls and in wind zones up to and including VH maximum.

| Concealed Fixing Method (fixing under the lap) | | | |
|---|---|---|---|
| **Underlay** | **Wind Zone** | **Fixing Type** | **Instructions** |
| Flexible underlay | Up to and including VH wind zone | 60 x 3.15mm Hardie™ Flex nail, or 60 x 2.87mm 'D' head/round head gun nail<br>**Refer to Figure 1** | The nails finished flush with board surface |
| HomeRAB™ Pre Cladding or RAB™ Board | Up to and including VH wind zone | 75 x 3.06mm Hardie™ Flex nail, or 75 x 3.06mm 'D' head/round head gun nail<br>**Refer to Figure 1** | |
| RAB™ Board | EH wind zone and above up to 3.2kPa wind pressure | 75 x 3.06mm Hardie™ Flex nail, or 75 x 3.06mm 'D' head/round head gun nail<br>**Refer to Figure 1** | |

In addition to nailing as per table above, the weatherboards are also required to be face nailed at internal/external corners or at ends where they butt into another cladding or door/window jambs etc. Use a jolt head nail 75 x 3.15mm jolt head nail through a 3mm predrilled hole through face of weatherboard, or a ND 50 stainless steel Brad nail to lock the boards together.

The ND 50 stainless steel Brad nail may also be used elsewhere on the wall to lock the boards together, if required.

**Table 5**

This installation method is used when installing Linea™ Weatherboard in fire rated wall systems, or when in wind zones EH or SED wind zone where the wind pressures are maximum up to 3.2kPa (ULS).

| Face Fixing Method (fixing through the lap) | | | |
|---|---|---|---|
| **Underlay** | **Wind Zone** | **Fixing Type** | **Instructions** |
| Flexible underlay/ HomeRAB™ Pre-Cladding | All wind zones up to and including VH | 75 x 3.15mm<br>jolt head nail through a 3mm ø predrilled hole<br>**Refer to Figure 2** | The nails punched 2mm below the board surface |
| RAB™ Board | Wind zones EH or wind pressures up to 3.2kPa (ULS)) | 90 x 3.55mm<br>jolt head nail through a 3.5mm ø predrilled hole<br>For the 90 x 4mm jolt head nail through a 4mm ø predrilled hole<br>**Refer to Figure 2** | |

For fire rated wall applications the Linea™ Weatherboard must be face fixed. For more information Ask James Hardie on 0800 808 868.

**Table 6**

| Nail requirements for Hardie™ Axent™ Trim | |
|---|---|
| Single thickness | 60mm jolt head nails.<br><br>If fixing over Linea™ Weatherboard use 75 x 3.15mm jolt head nails through a pre-drilled hole, using a 3mm drill bit. |
| Single thickness plus packer | If fixing over Linea™ Weatherboard use 75 x 3.15mm jolt head nails through a pre-drilled hole, using a 3mm drill bit.<br><br>When fixing to timber support use 60mm jolt head nails. |

For fire rated wall applications the Linea™ Weatherboard must be face fixed. For more information Ask James Hardie on 0800 808 868.

### 6.7.2 Gun Nailing

Linea™ Weatherboard can be gun nailed with a D-Head or RounDrive nail when concealed fixing method is used.

- Nails must be no closer than 50mm from the ends of boards when gun nailing is used, double studs will be required.
- Be minimum length and nearest gauge as per Table 4.
- Be finished flush with surface of board.

### 6.7.3 Fastener Durability

Fasteners must meet the minimum durability requirements of the NZBC. Refer to Table 7 for fixing materials requirements to be used in relation to the exposure conditions.

**Table 7**

| Exposure conditions and nail selection prescribed by the NZS 3604 | | |
|---|---|---|
| **Zone** | **Application** | |
| D (sea spray) and geothermal hot spots | General | Stainless steel 304/316 |
| | Fire | |
| C* and B | General | Hot dip galvanised<br>Must comply with the AS/NZS 4680. |
| | Fire | |

* Zone C areas where local knowledge dictates that increased durability is required, appropriate selection shall be made Microclimatic conditions as detailed in the NZS 3604, Paragraph 4.2.4 require SED.

Also refer to the NZBC Acceptable Solution E2/AS1 Table C.1.1.1A and C.1.1.1B for information regarding the selection of suitable fixing materials and their compatibility with other materials.

## 6.8 Joints

### 6.8.1 Jointing

The ends of Linea™ Weatherboard are jointed off-stud by means of a tongue and groove joint. Tongue and groove joints may be located centrally between studs but no closer than 100mm from the edge of a stud. The joints must be staggered by 600mm minimum. Flexible sealant must be applied to the front of tongue before pushing into the groove at the time of installation. From a visual perspective, the joint line will be visible and must not be hard filled.

### 6.8.2 Drainage Joint

After every two floors a horizontal drainage joint flashing is required, refer to Figure 29 in section 9 of this manual.

For fire rated walls up to 10m in height for single tenancy the Linea™ 35mm cavity closer uPVC can be used. Over 10m in height or multiple tenancy an aluminium cavity closer must be used.

### 6.8.3 External Corner Joint

There are a number of options to select from when detailing external corners:

- 90º corner soaker in aluminium
- 135º corner soaker 180mm aluminium
- Aluminium boxed corners
- Box corners using Hardie™ Axent™ Trim

Refer to figures in section 9 of this manual.

### 6.8.4 Internal Corner Joint

There are a number of options to select from when detailing internal corners:

- 90º or 135º Aluminium W-mould
- Scribed corner

Refer to figures in section 9 of this manual.

## 6.9 Junctions and Penetrations

All windows and doors must be detailed as per the requirements of this specification. James Hardie has developed the window details for Linea™ Weatherboard which meet the performance requirements of E2 ‘External Moisture’, an approved document of the NZBC, refer to figures in section 9 of this manual.

# 7 Finishes

Protective coating of Linea™ Weatherboard is required in order to meet the durability requirements of the NZBC.

## 7.1 Preparation and Priming

The Linea™ Weatherboard must be dry before painting. Punch and fill all exposed jolt head nails a maximum of 2mm below the surface. Fill the hole with an exterior grade 2 part builders fill, eg CRC® ADOS® Builders Fill, allow to cure and sand using 60 grit sand paper smooth ready for painting. Prime any sanded patch on board surface or the site cut edges that will be exposed.

It is not recommended to seal gap under the lap of weatherboards as it helps in circulation of air behind the weatherboard cladding. However if sealing of the gaps is undertaken, the product warranty still applies.

## 7.2 Sealants

All sealants must demonstrate the ability to meet the relevant requirements of the NZBC. Application and use of sealants must comply with manufacturer's instructions. Sealants, if coated, must be compatible with the paint system.

## 7.3 Painting

All Linea™ Weatherboards are pre-primed on their face and bottom edge with a factory applied acrylic base coat.

Linea™ Weatherboard must be painted within 90 days of installation. Dark coloured paints can be used, i.e. there is no restriction on the Light Reflectance Value (LRV) of paint to be applied. All exposed faces, including the top edges under the sills and bottom edges of Linea™ Weatherboard and accessories must be finished with an exterior paint system.

For best aesthetic results a low sheen paint is recommended.

The dark colours in certain environments may fade quicker. Special paints/coatings are required in certain harsh environments.

Paint selection and the preparation required is dependent on paint chosen. Refer to the paint manufacturer for information before starting painting.

# 8 Care and Maintenance

The extent and nature of maintenance will depend on the geographical location and exposure of the building. Refer to Section 2.2 of E2/AS1 and Section 2.2 of B2/AS1 for essential maintenance requirements for claddings to achieve the required durability of materials and components etc. As a guide, it is recommended that basic normal maintenance tasks for Linea™ Weatherboard cladding shall include but not be limited to:

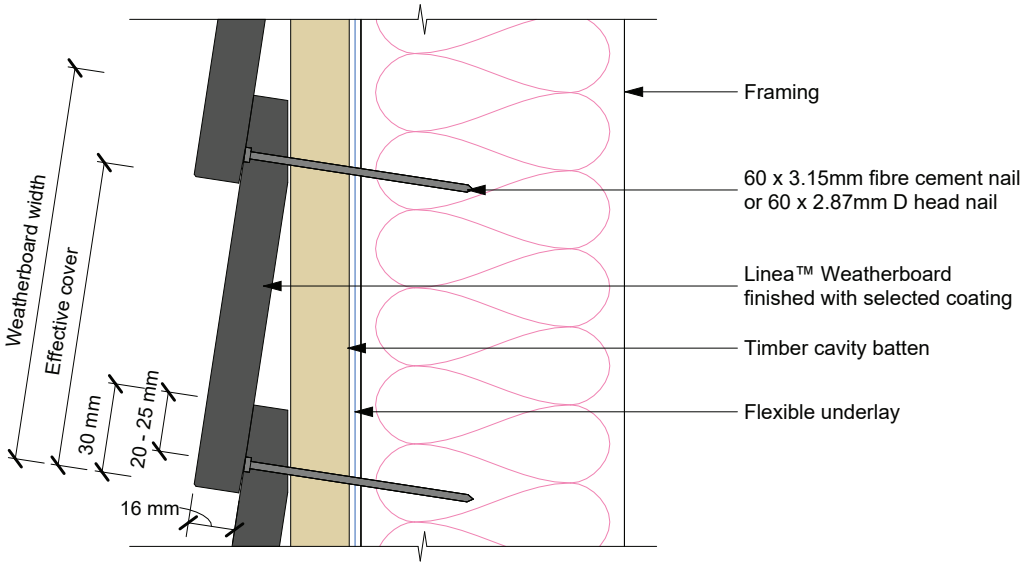
- Washing down exterior surfaces every 6-12 months using low pressure water and a brush, and every 3-4 months in extreme coastal conditions or sea spray zones. Do not use a water blaster to wash down the cladding. Refer to your paint manufacturer for washing down requirements.
- Re-coating exterior protective finishes.  Always refer to your paint manufacturer for re-coating requirements
- Regular inspection and repair if necessary of the cladding joints, sealants, fillers, flashings etc
- Cleaning out gutters, blocked pipes and overflow pipes as required
- Pruning back vegetation close to or touching the Linea™ Weatherboard
- Remove any snow or ice build up that is in direct contact with the cladding for extended periods
- The clearances between the bottom edge of Linea™ Weatherboard and the finished/unfinished ground must always be maintained eg around concrete paths/drives etc 100mm minimum and natural ground/pebbles etc 175mm minimum
- Stainless steel soakers used in extreme coastal conditions or in sea spray zones may show some signs of ‘tea staining’. It is an aesthetic issue and to minimise staining soaker must be washed/polished frequently

# 9 Details Section Index

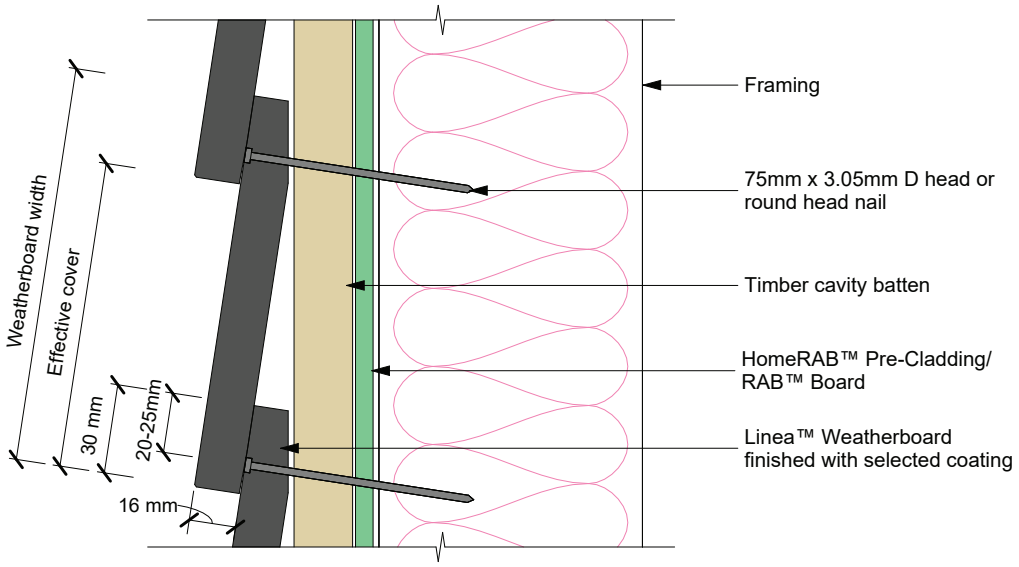


For more details please visit our website at **www.jameshardie.co.nz** or Ask James Hardie™ on **0800 808 868**.

## Figure 1: Concealed fixing detail




### Concealed Nailing over flexible underlay

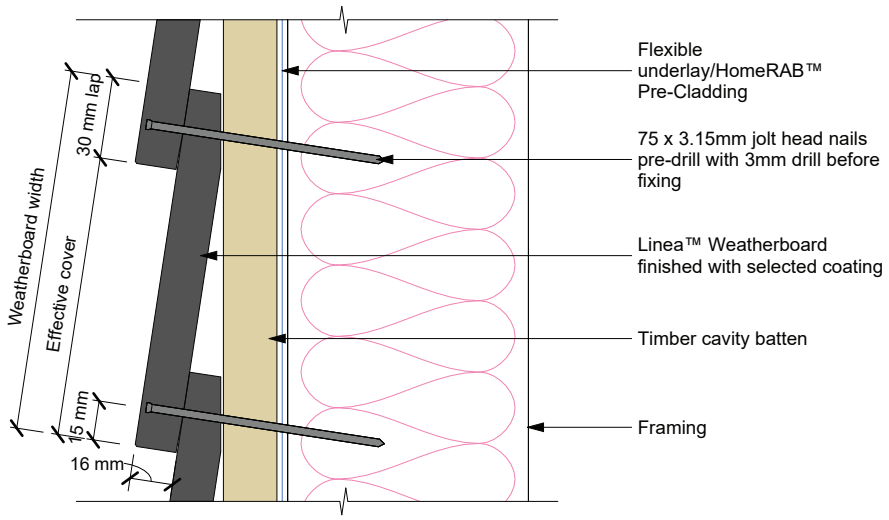



### Concealed Nailing over HomeRAB™ Pre-Cladding/RAB™ Board

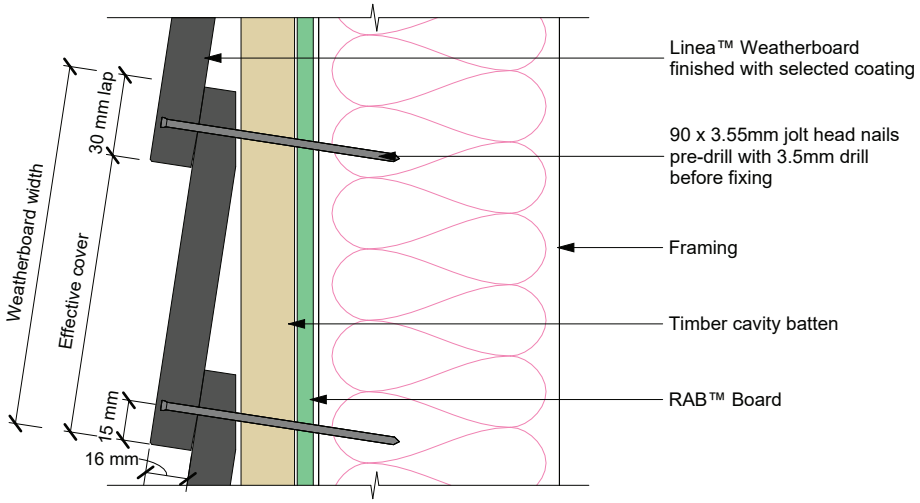
**Important Notes:**

- In addition to concealed fixing, Linea™ Weatherboards must be face fixed at corners and down window and door openings using either:
  a) Jolt head nails at 90° to face, punch 2mm below surface and fill.
  **or;**
  b) ND50 stainless steel brad nails at 90° to face, punch 2mm below surface and filled.
- In wind zones EH or wind pressures up to 3.2kPa (ULS) Linea™ Weatherboards must be face fixed with 90mm jolt head nails. Refer to Table 5 and Figure 2.
- In fire rated wall systems Linea™ Weatherboards must be face fixed. Refer to Table 5 and Figure 2.

## Figure 2: Face/Exposed fixing for up to 3.2 kPa wind pressure and fire rated walls



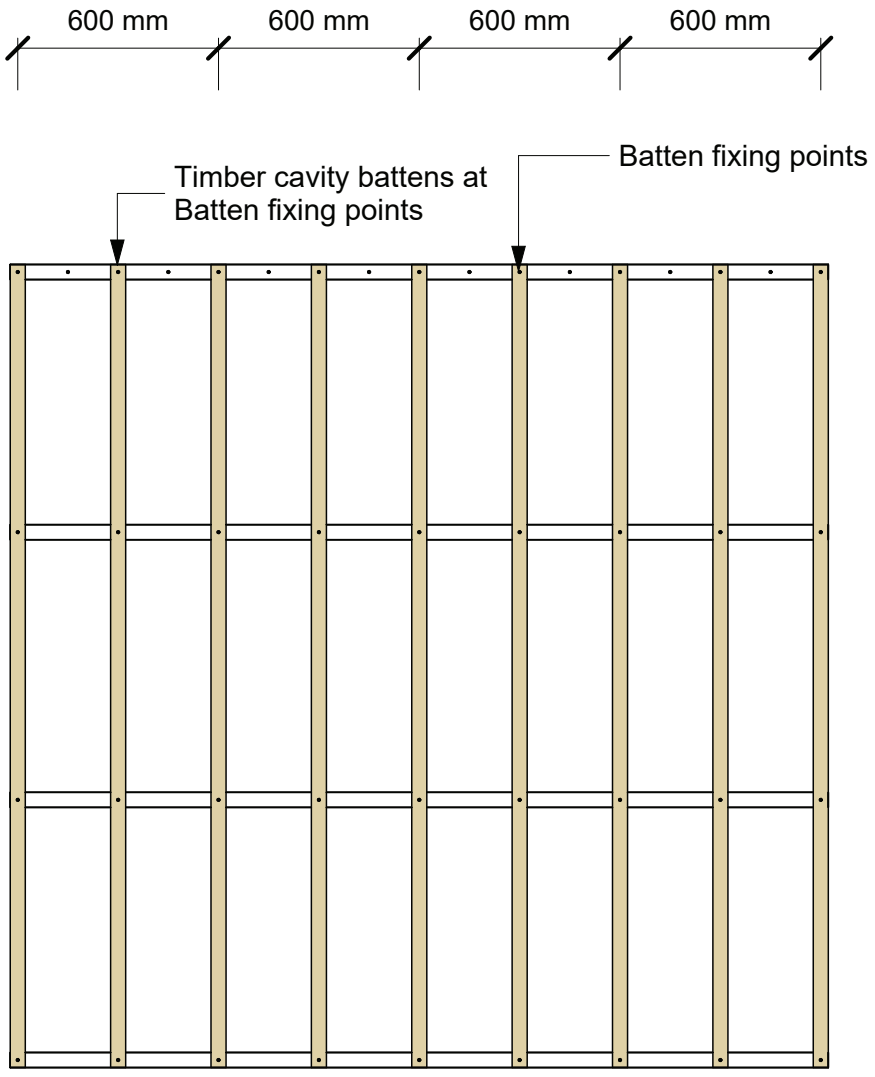

### Face/Exposed Nailing over flexible underlay/HomeRAB™ Pre-Cladding




### Face/Exposed Nailing over RAB™ Board

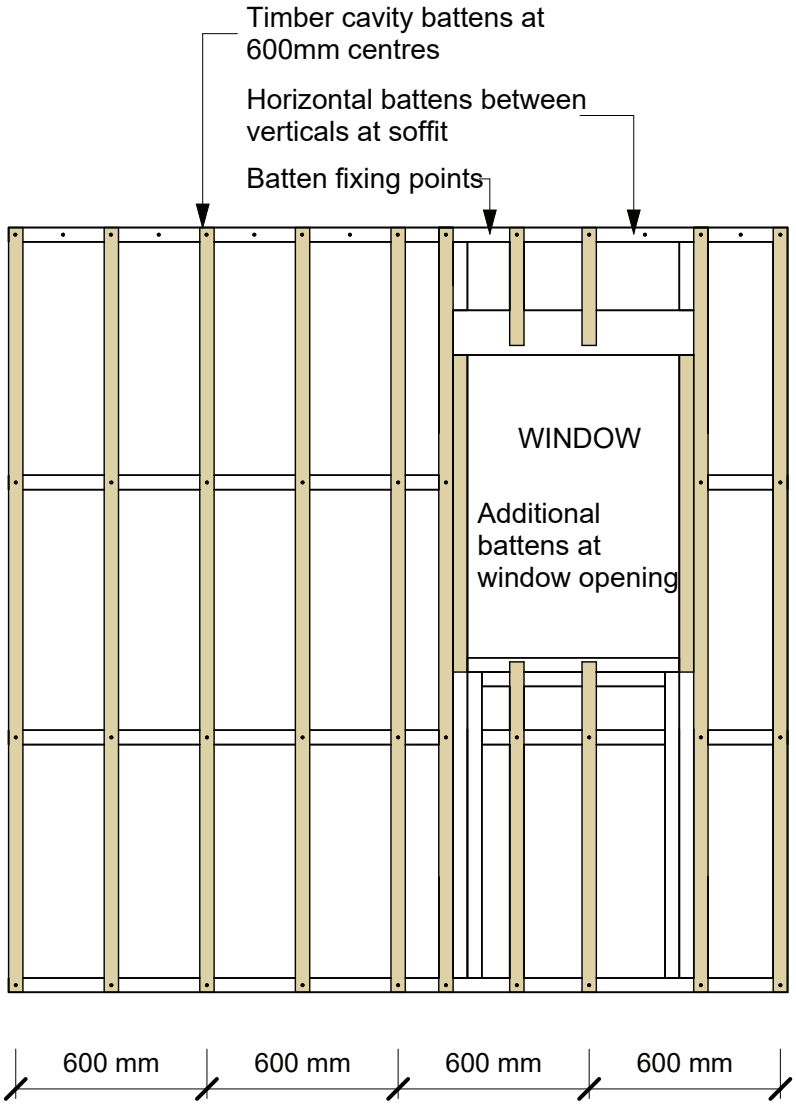
**Notes:**
- Linea™ Weatherboards may be fixed with 90 x 4mm jolt head nail through 4mm ø pre-drilled hole. Refer to Table 5.
- Jolt head nails are punched 2mm below the surface and filled with CRC® ADOS® Builders Fill. Refer to Section 7 of the technical specification.

## Figure 3: Framing setout



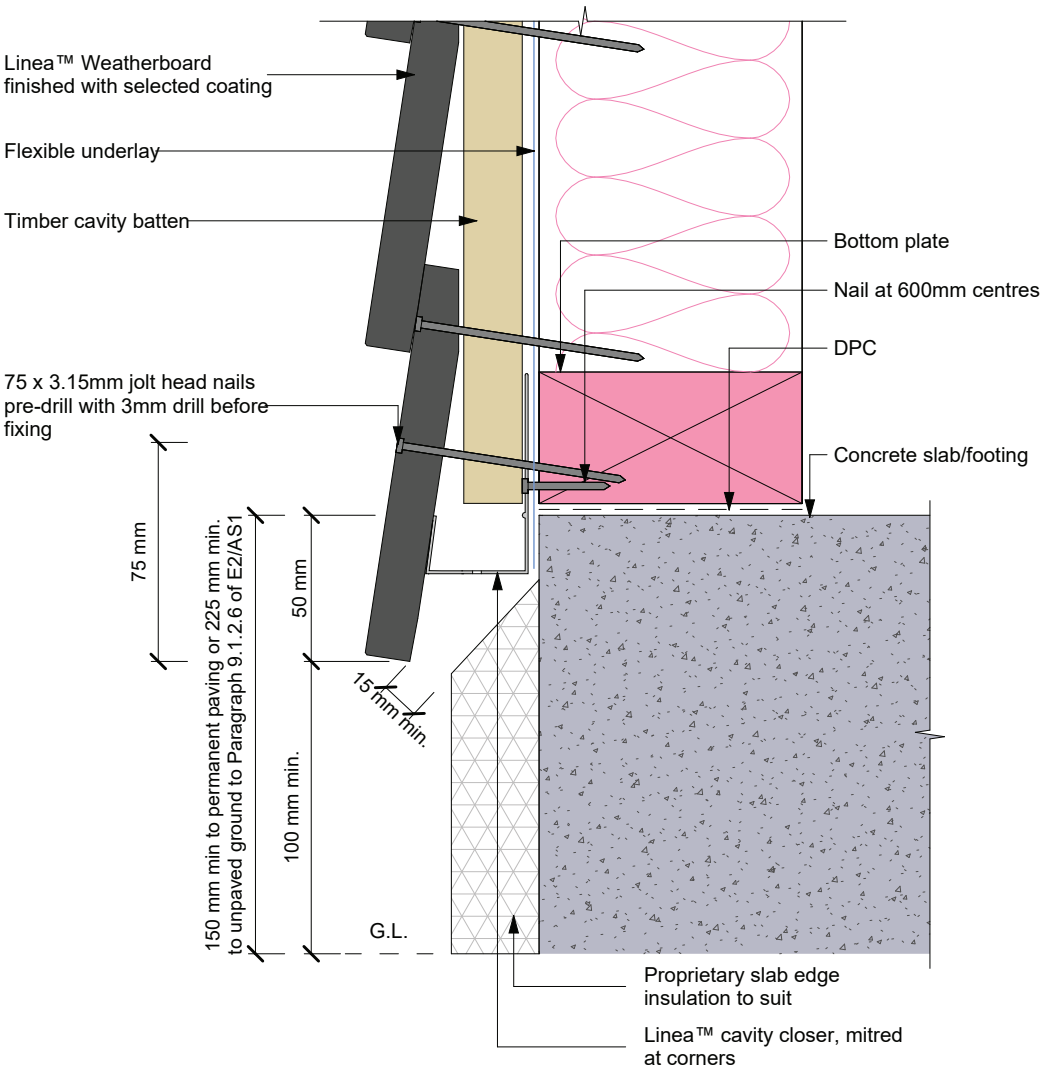

The intermediate support for insulation between the studs could be a timber cavity batten, polypropylene tape or 75 mm galvanised wire mesh. Refer to E2/AS1 Paragraph 9.1.7.10 Polypropylene tape must be fixed horizontally and drawn taut at 300 mm centres.

## Figure 4: Batten setout

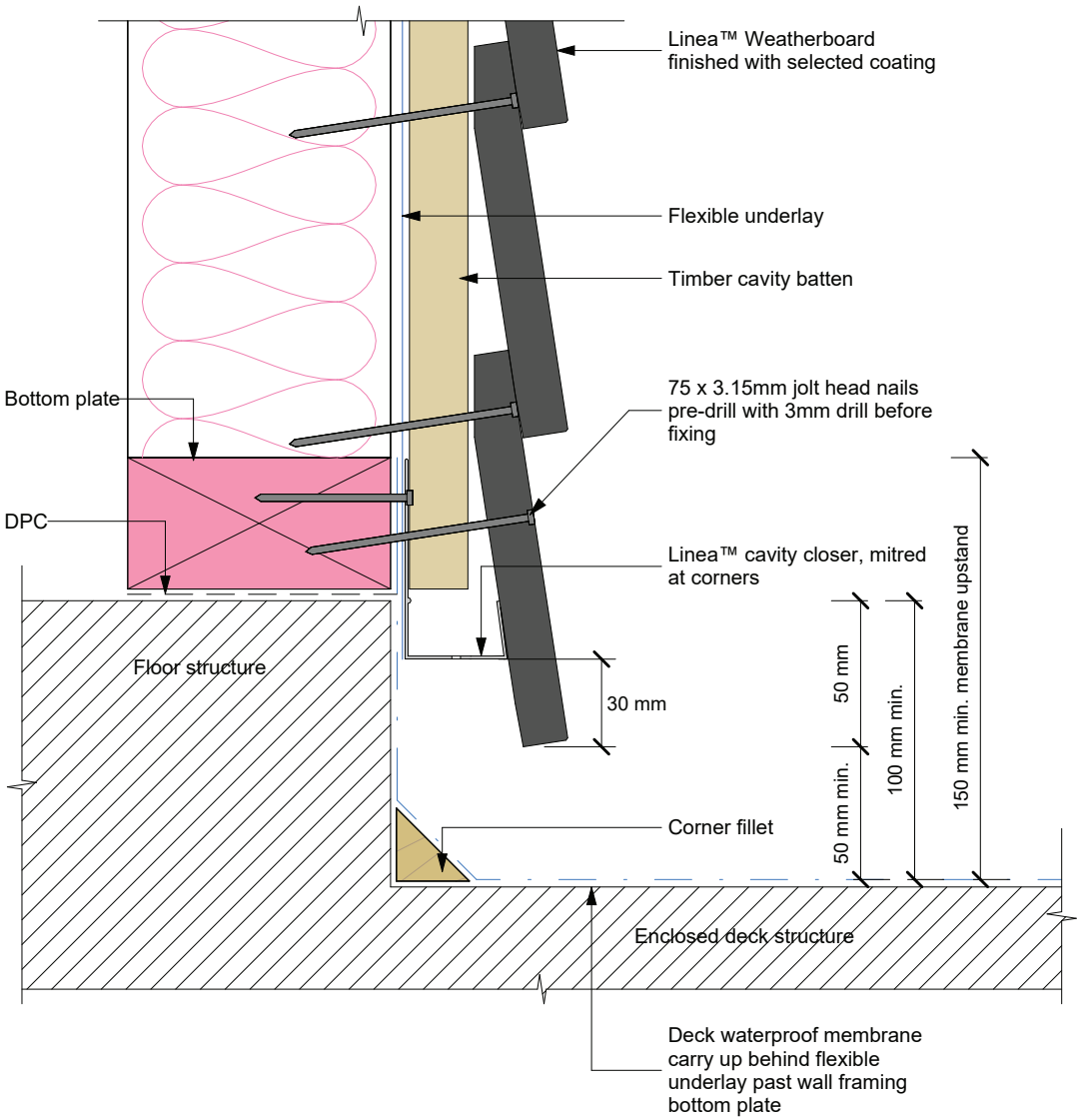



-The intermediate support for insulation between the studs could be a timber cavity batten, polypropylene tape or 75 mm galvanised wire mesh. Refer to E2/AS1 Paragraph 9.1.7.10 Polypropylene tape must be fixed horizontally and drawn taut at 300 mm centres.

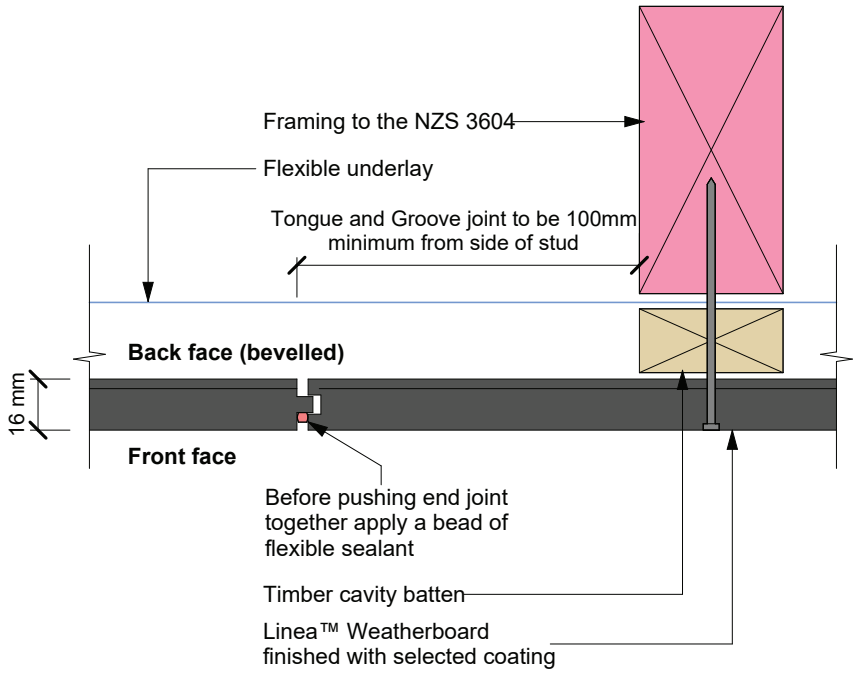
## Figure 5: Foundation detail



## Figure 6: Enclosed deck

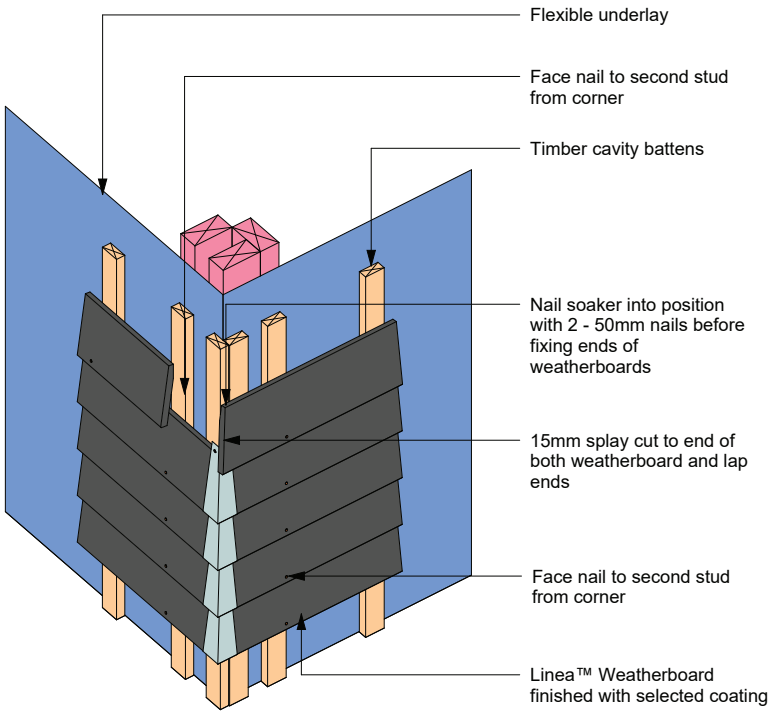


## Figure 7: Jointing off stud



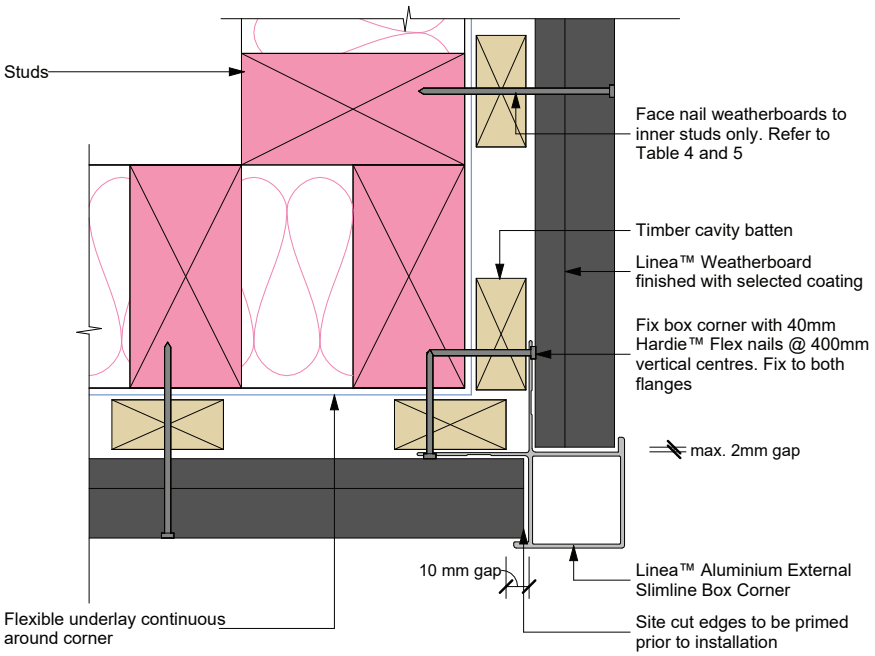

## Figure 8: External corner soaker

interactive assembly instructions available
http://wksp.nz/jh-lin-excs
Get **WORKING**SPEC from Apple App Store/Google Play



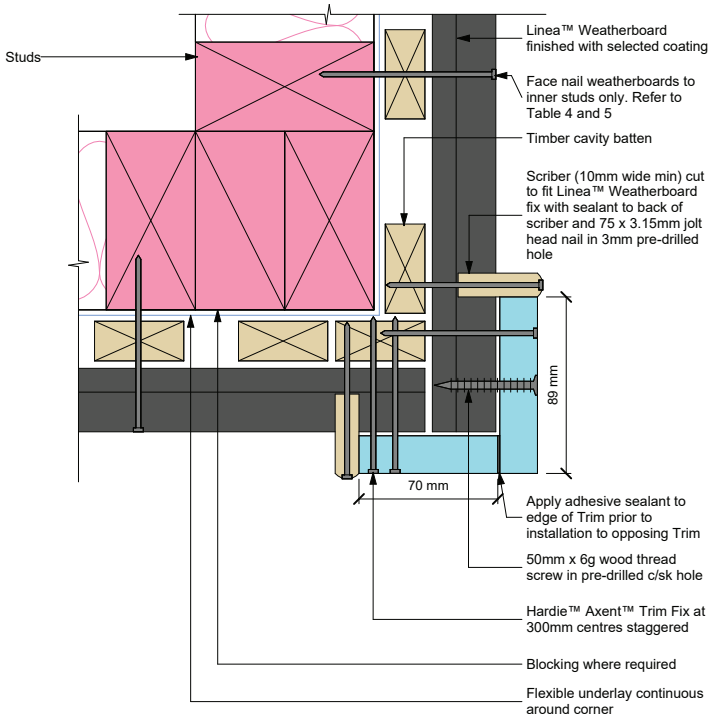
## Figure 9: External aluminium box corner

interactive assembly instructions available
http://wksp.nz/jh-lin-excb
Get WORKINGSPEC from Apple App Store/Google Play

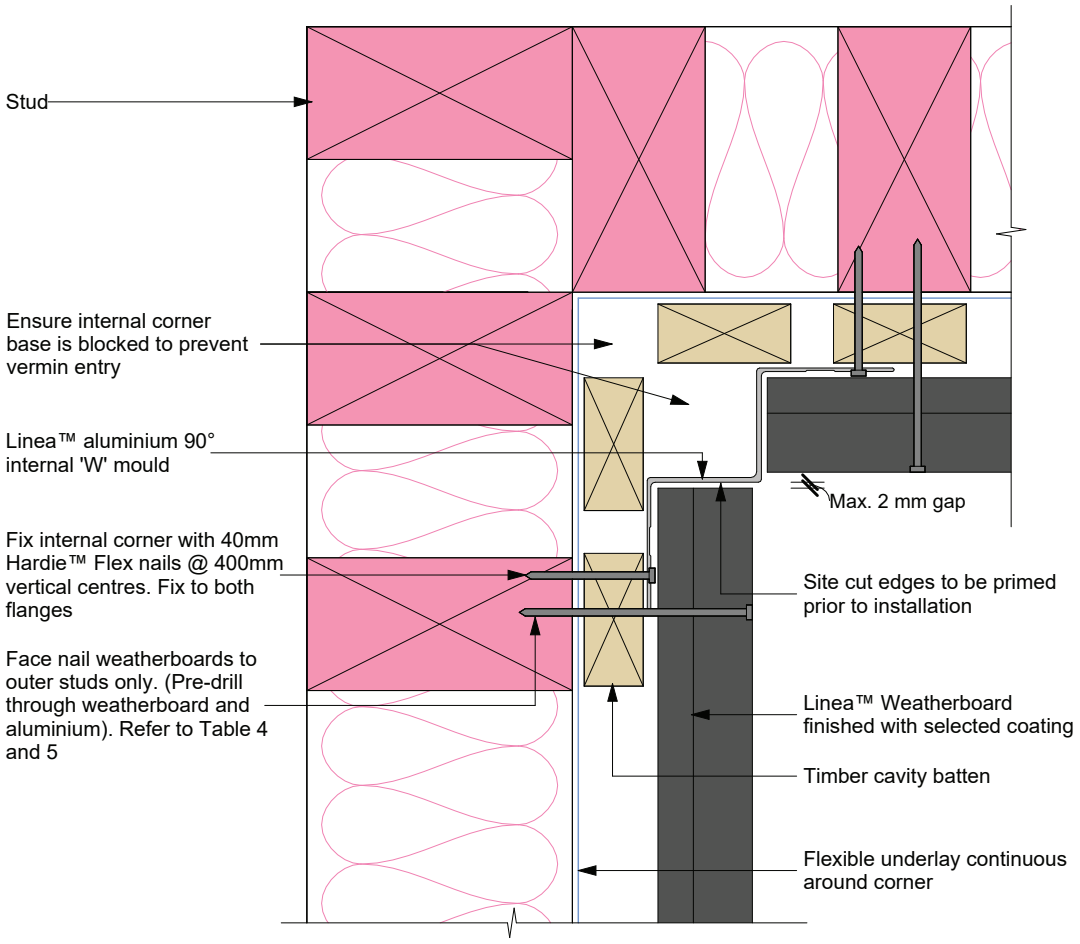



Note: Site cut edges to be primed

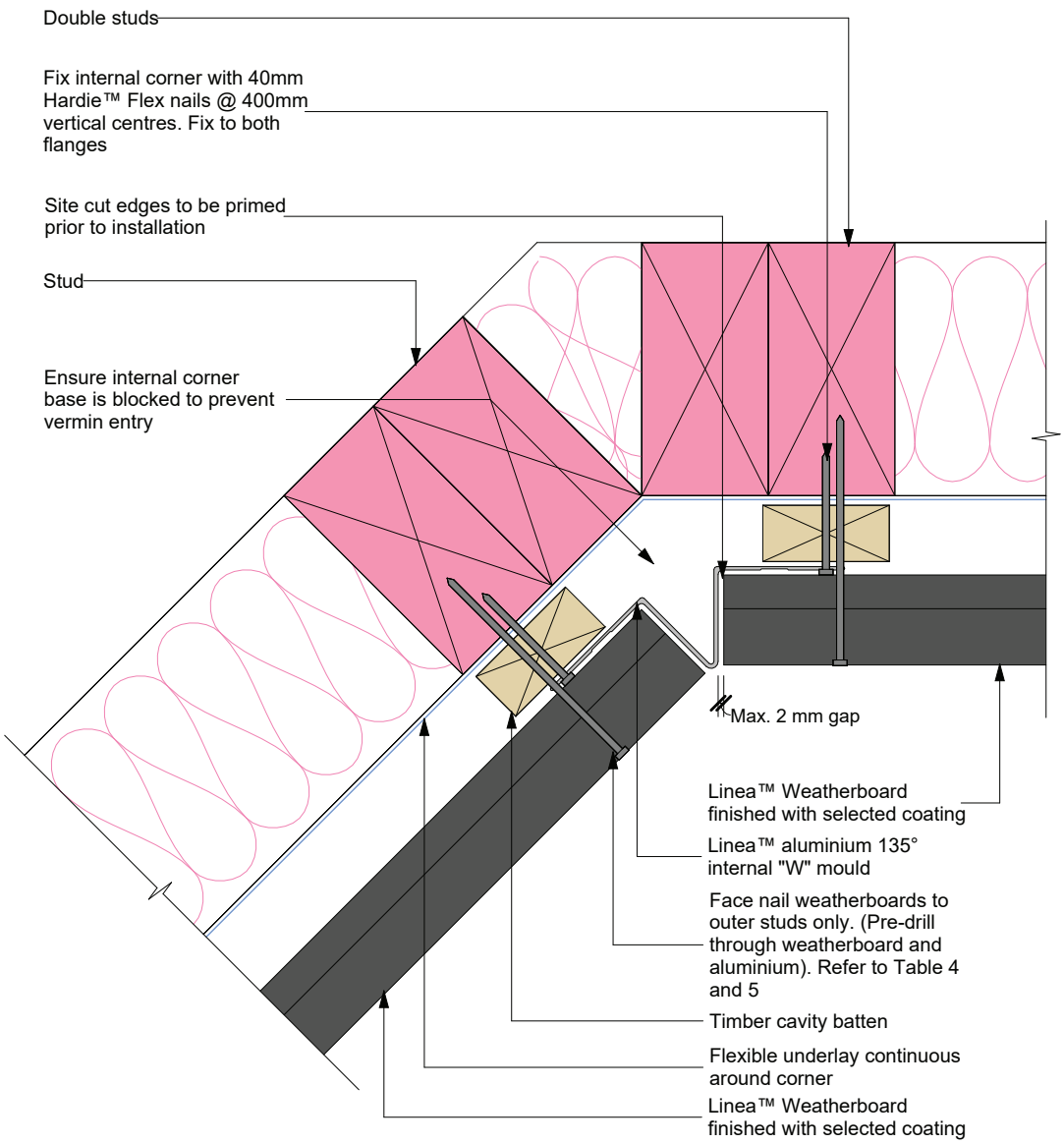
## Figure 10: External box corner



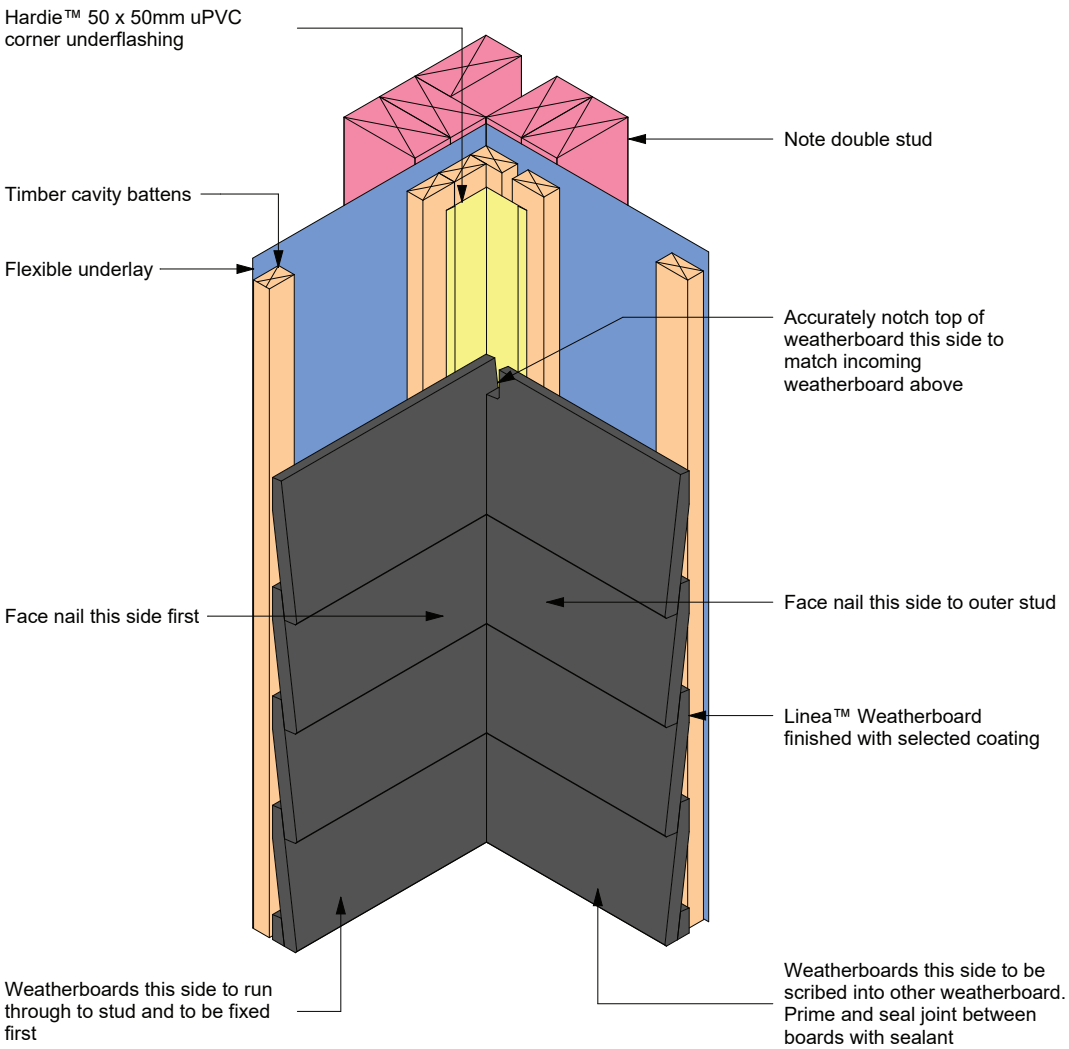
## Figure 11: Internal aluminium corner



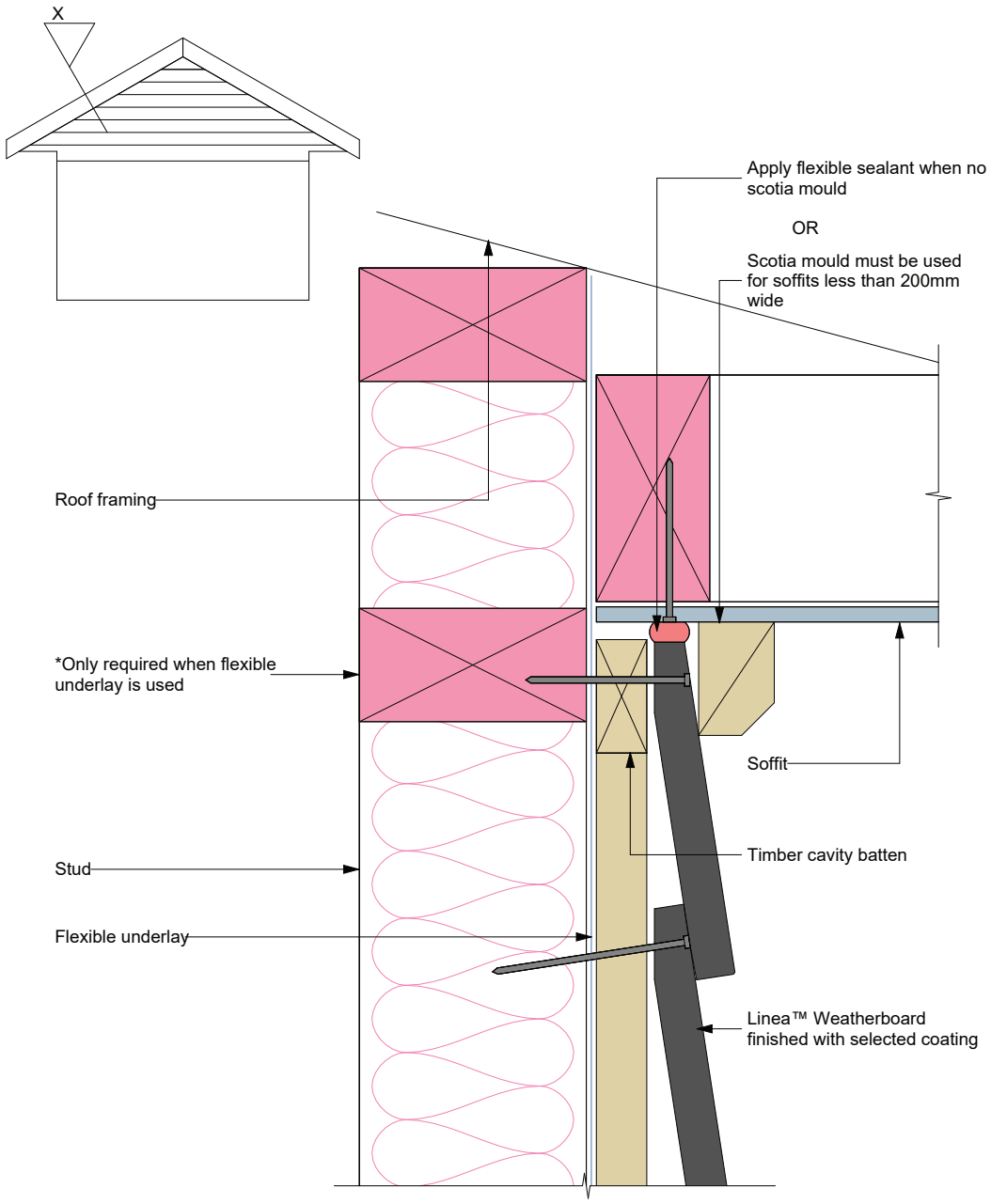
## Figure 12: Internal 135° aluminium corner



## Figure 13: Scribed internal corner

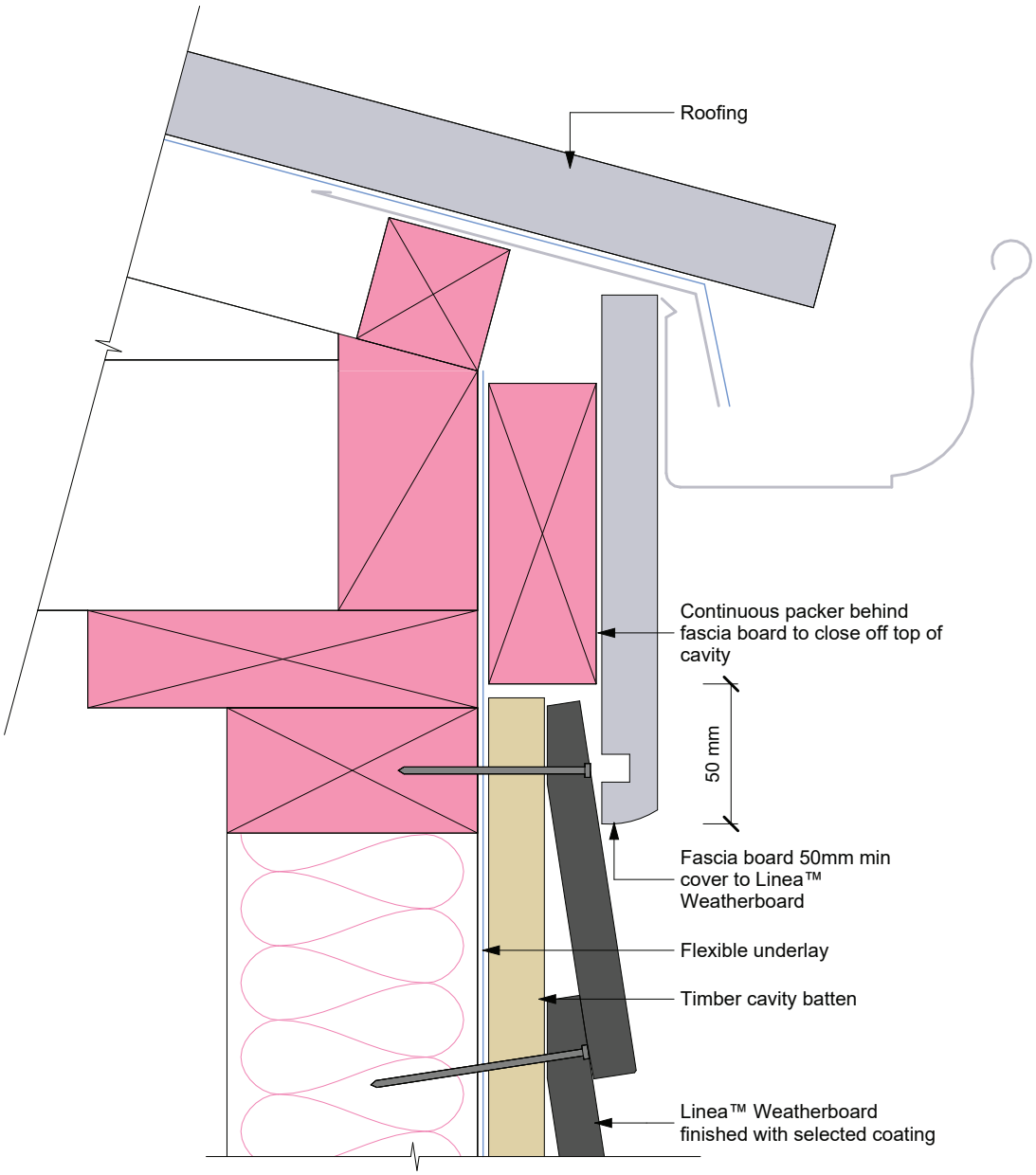


## Figure 14: Wall to soffit/gable junction




Note:
- Alternatively the scotia can be scribed and sealed to Linea™ Weatherboard and the soffit lining

## Figure 15: Nil soffit detail

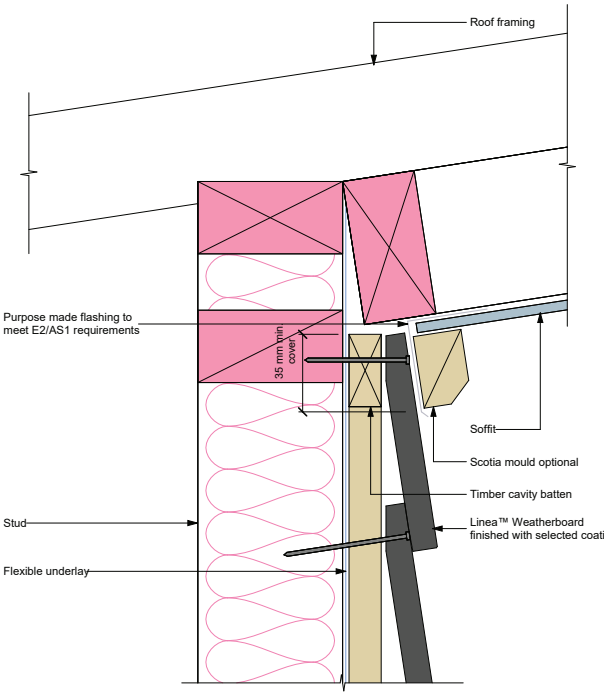


## Figure 16: Sloping soffit and wall junction

interactive assembly instructions available

http://wksp.nz/jh-lin-sof

Get **WORKING**SPEC from Apple App Store/Google Play



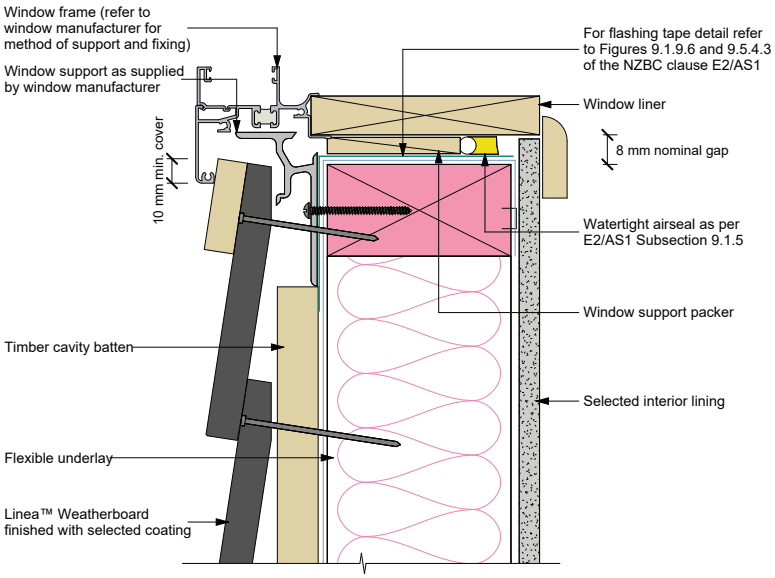

Note: Site cut edges to be primed

## Figure 17: Window sill

interactive assembly instructions available

http://wksp.nz/jh-lin-win

Get **WORKING**SPEC from Apple App Store/Google Play

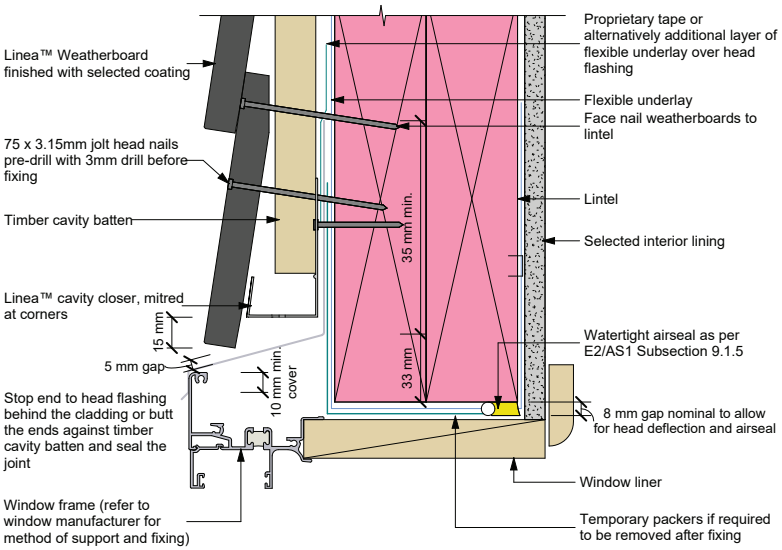



General notes for materials selection

1. Flexible underlay must comply with acceptable solution E2/AS1
2. Flashing tape must have proven compatibility with the selected flexible underlay and other materials with which it comes into contact

Refer to the manufacturer or supplier for technical information for these materials

## Figure 18: Window head with cladding cut around head flashing




interactive assembly instructions available

http://wksp.nz/jh-lin-win

Get **WORKING**SPEC from Apple App Store/Google Play

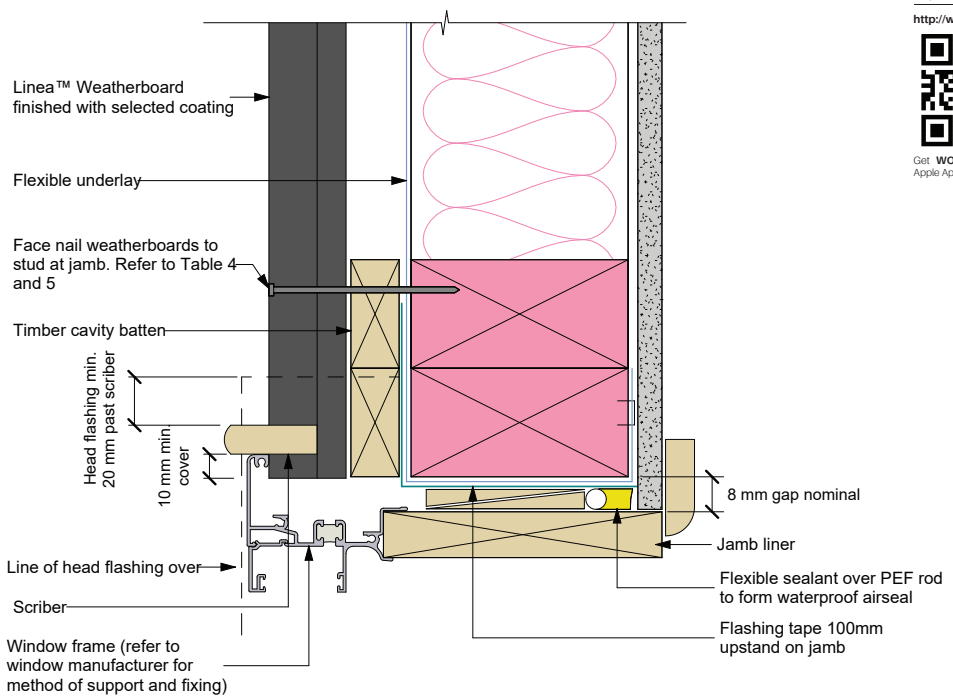
Note:
- Sealant must be installed between head flashing and window flange in VH and EH wind zones and SED pressures
- Alternatively, the head flashings can be formed with stop ends as per E2/AS1
- Refer to Figure 20 for sealing end battens to head flashing
- Site cut edges to be primed

## Figure 19: Window jamb

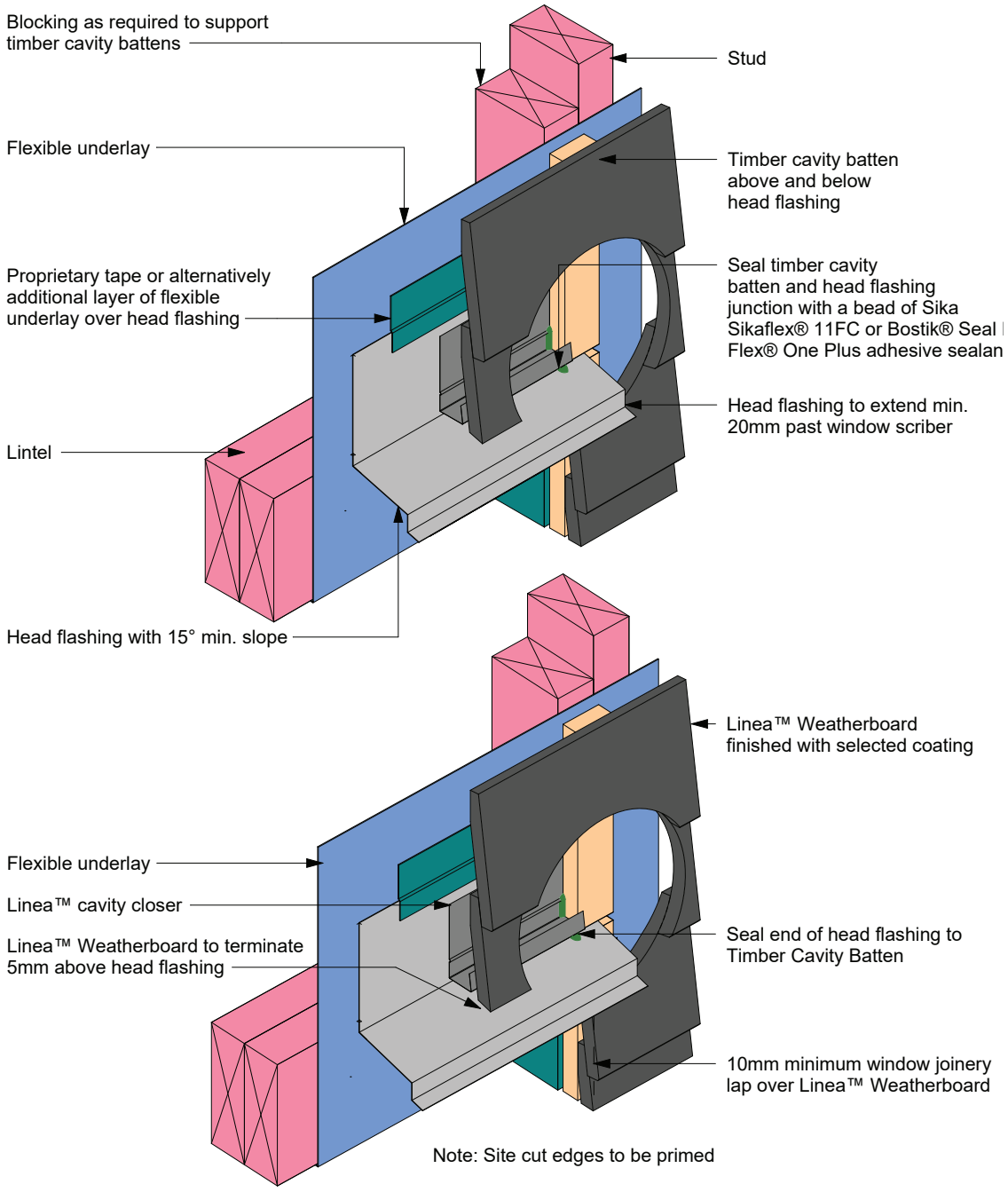
interactive assembly instructions available

http://wksp.nz/jh-lin-win

Get **WORKING**SPEC from Apple App Store/Google Play



## Figure 20: Window head stop end



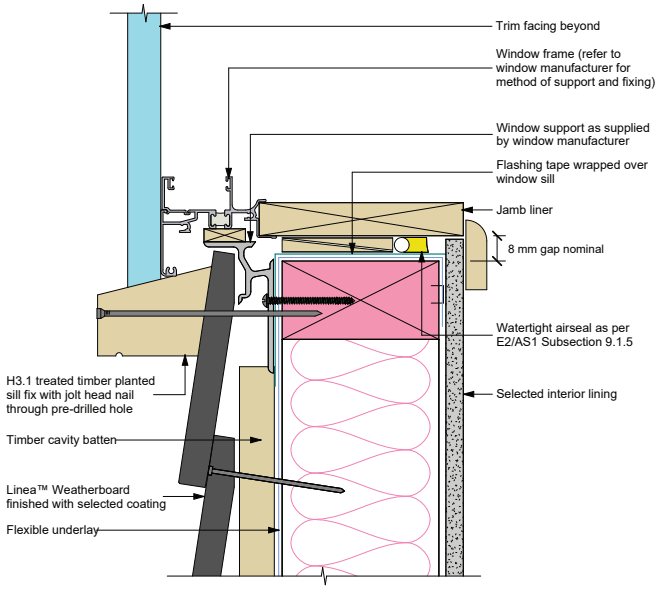

Note: Site cut edges to be primed

interactive assembly instructions available

http://wksp.nz/jh-lin-win

Get **WORKING**SPEC from Apple App Store/Google Play

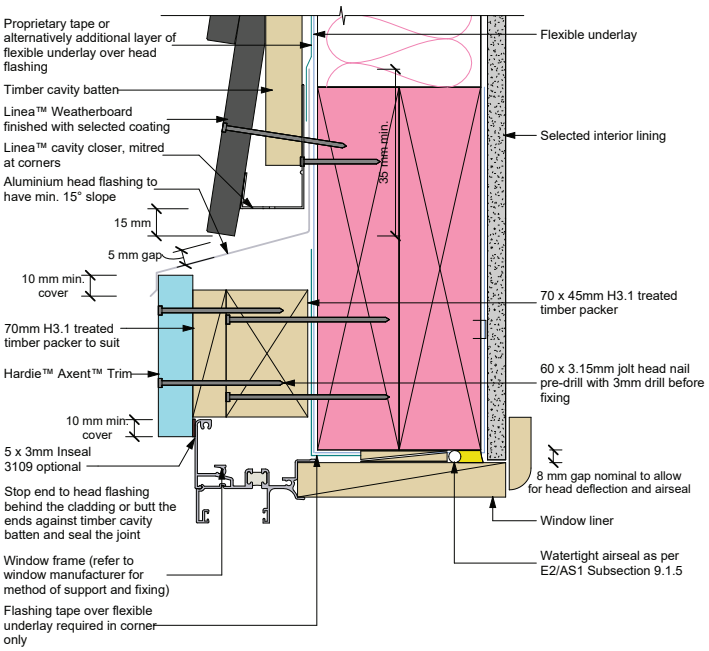
## Figure 21: Window sill with facing




General notes for materials selection
1. Flexible underlay must comply with acceptable solution E2/AS1
2. Flashing tape must have proven compatibility with the selected flexible underlay and other materials with which it comes into contact

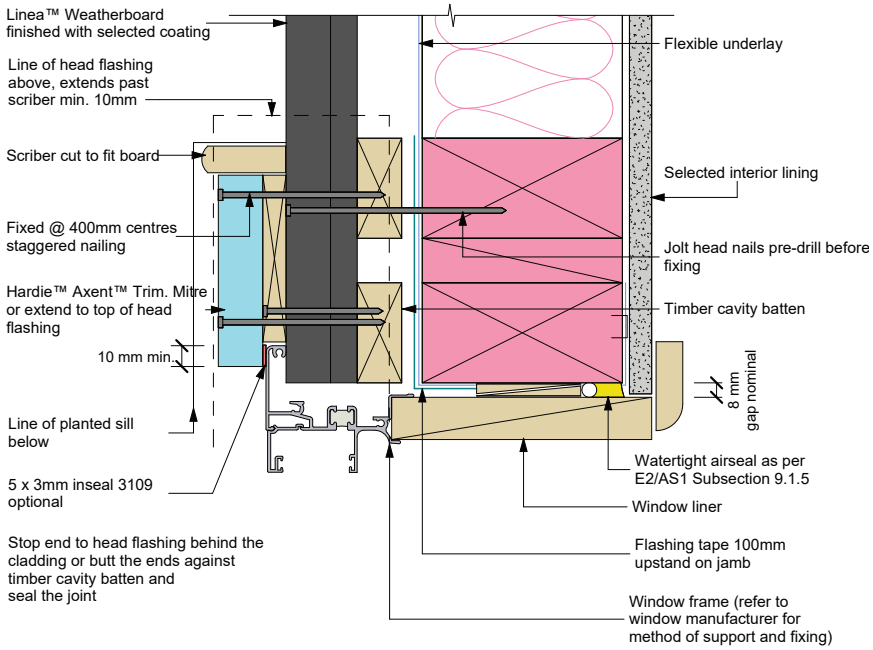
Refer to the manufacturer or supplier for technical information for these materials

## Figure 22: Window head with facings



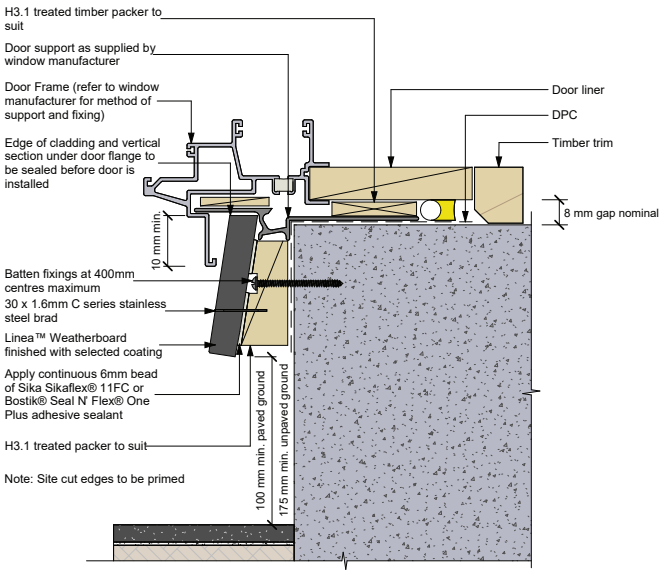

Note:
- Sealant must be installed between head flashing and window flange in VH and EH wind zones and SED pressures
- Alternatively, the head flashings can be formed with stop ends as per E2/AS1
- Refer to Figure 20 for sealing end battens to head flashing

## Figure 23: Window jamb with facings




Note:
- Site cut edges to be primed

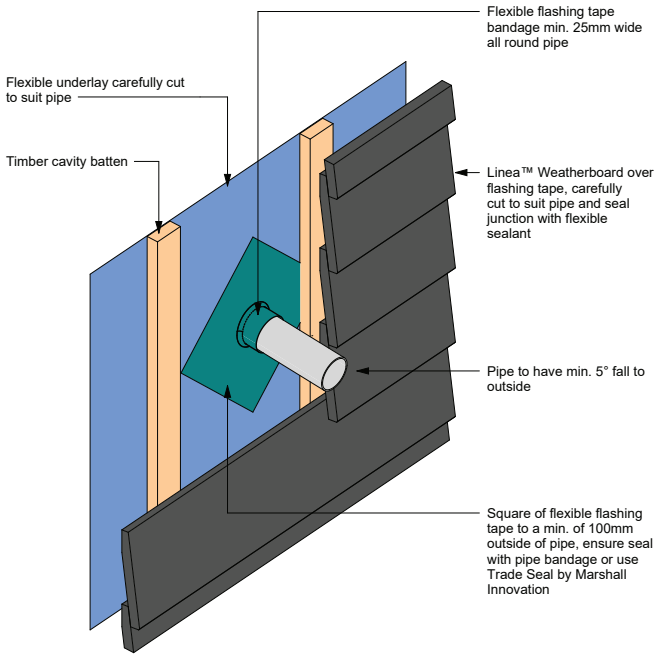
## Figure 24: Door sill support detail




Refer to the manufacturer or supplier for technical information for these materials

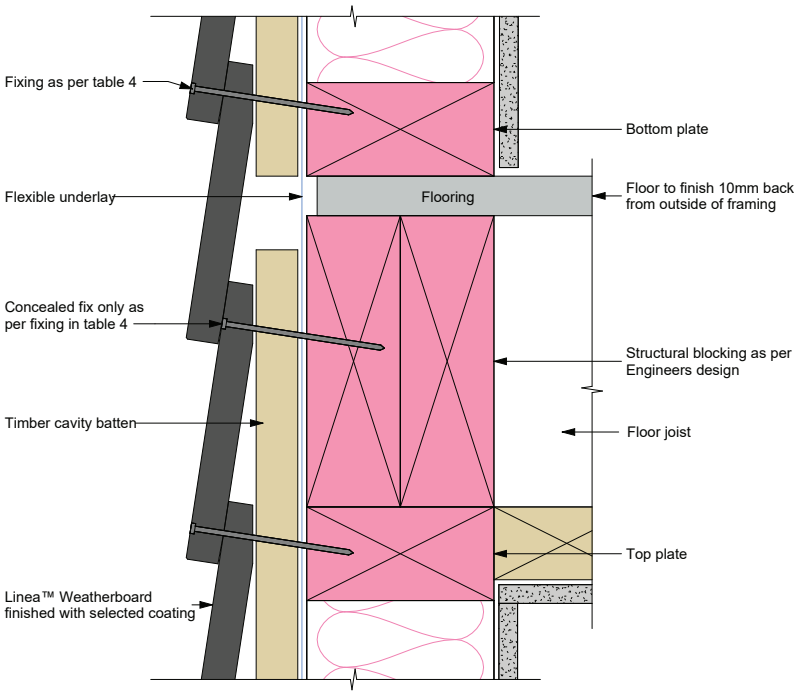
General notes for materials selection
- Flexible underlay must comply with acceptable solution E2/AS1
- Flashing tape must have proven compatibility with the selected flexible underlay and other materials with which it comes into contact
- Linea™ Weatherboard to have sealed butt joint over batten at each corner of opening

## Figure 25: Pipe penetration

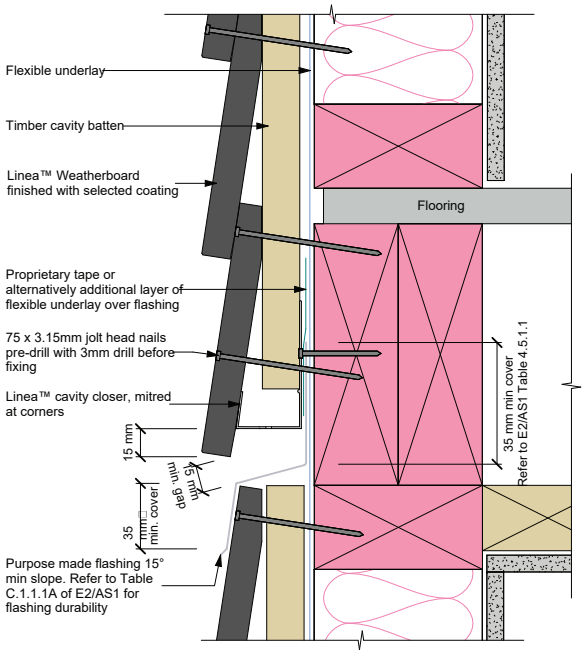



Note: Site cut edges to be primed

## Figure 26: Continous cladding over floor joist

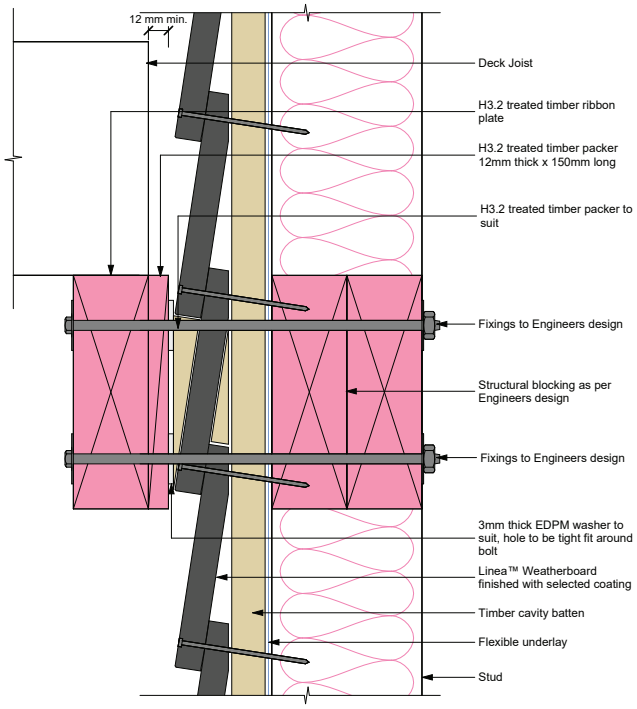


## Figure 27: Drained flashing joint at floor level

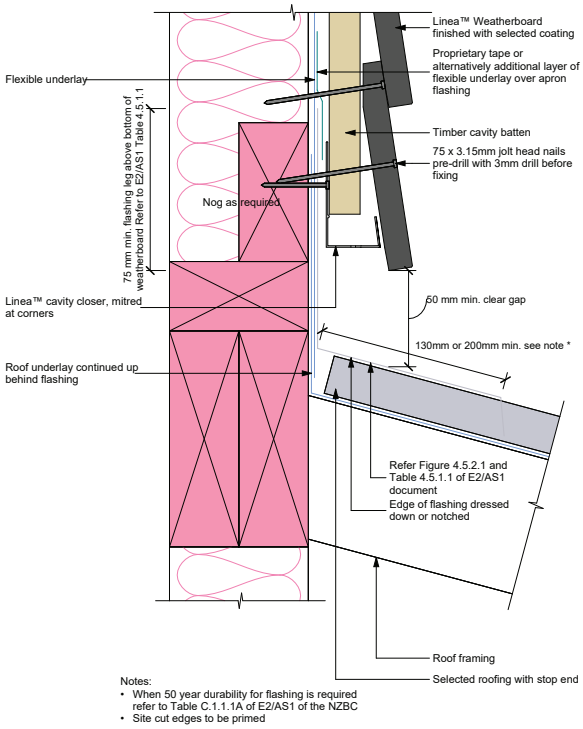



Note:
This detail is required to limit cavities to a maximum of 2 stories or 7 metres. Refer to E2/AS1 Paragraph 9.1.8.4

## Figure 28: Timber cavity timber deck junction



## Figure 29: Apron flashing detail



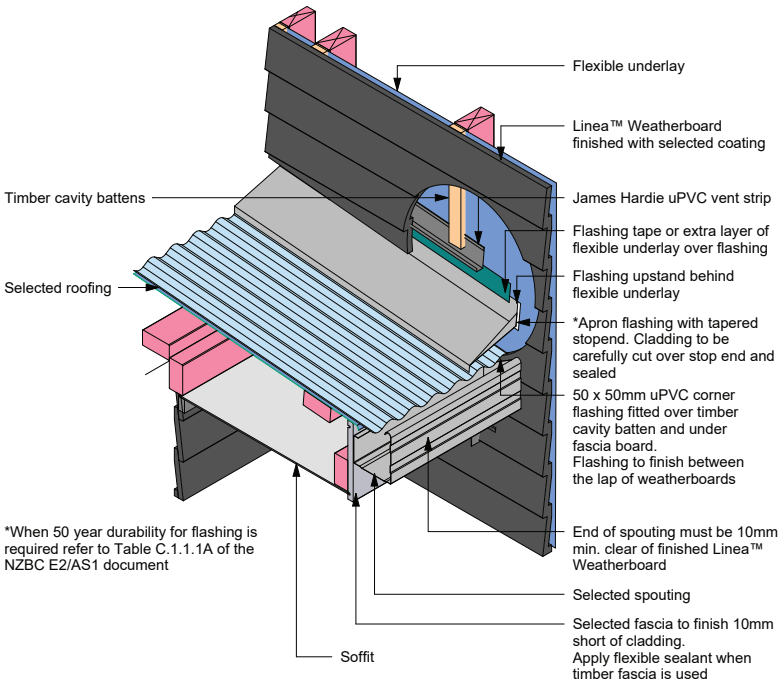

Notes:
- When 50 year durability for flashing is required refer to Table C.1.1.1A of E2/AS1 of the NZBC
- Site cut edges to be primed

## Figure 30: Roof to wall junction detail

Interactive assembly instructions available

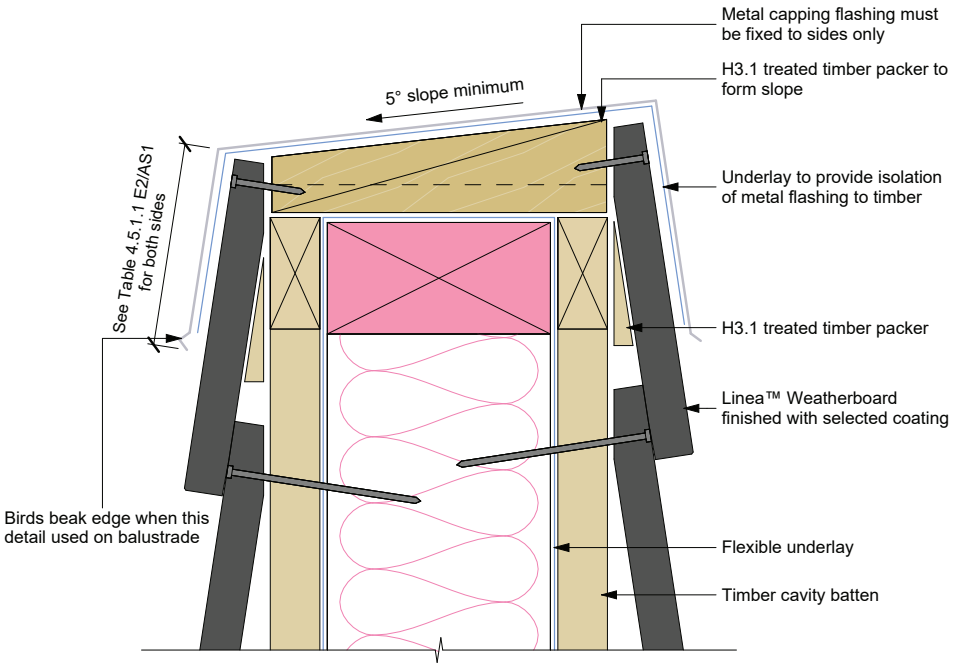
http://wksp.nz/jh-lin-rfw

Get **WORKING**SPEC from Apple App Store/Google Play

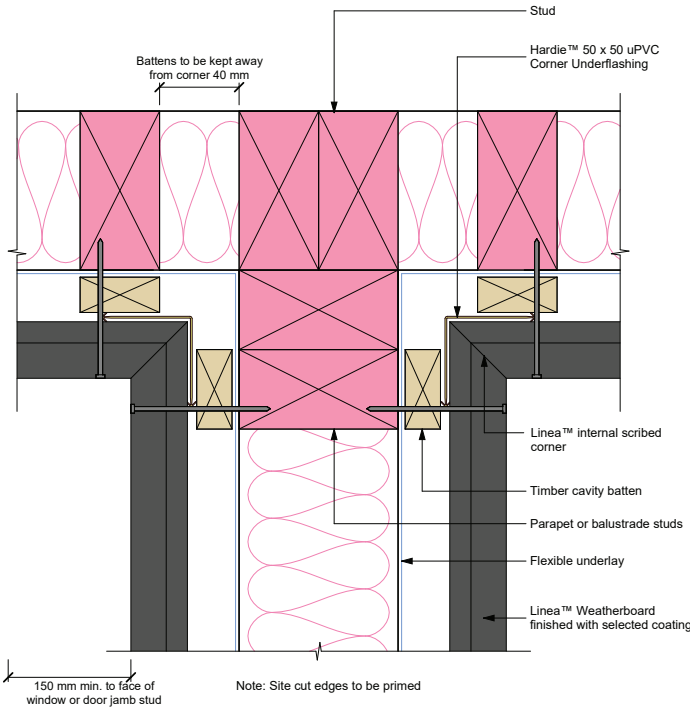



Note: Site cut edges to be primed

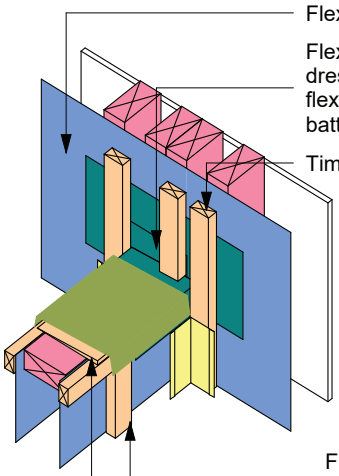
## Figure 31: Parapet flashing



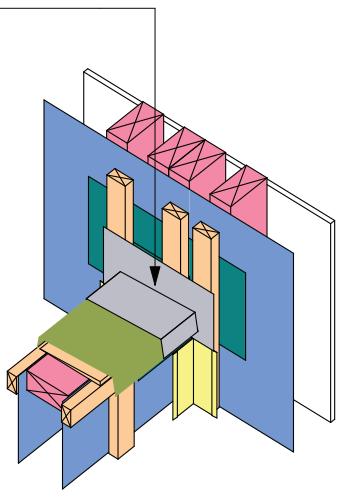

## Figure 32: Balustrade to wall junction



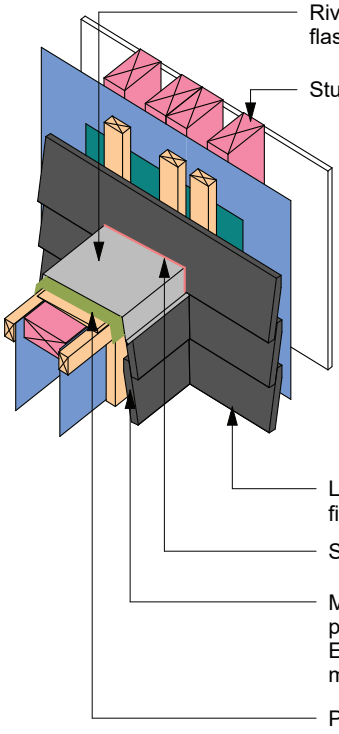
## Figure 33: Timber cavity enclosed balustrade to wall



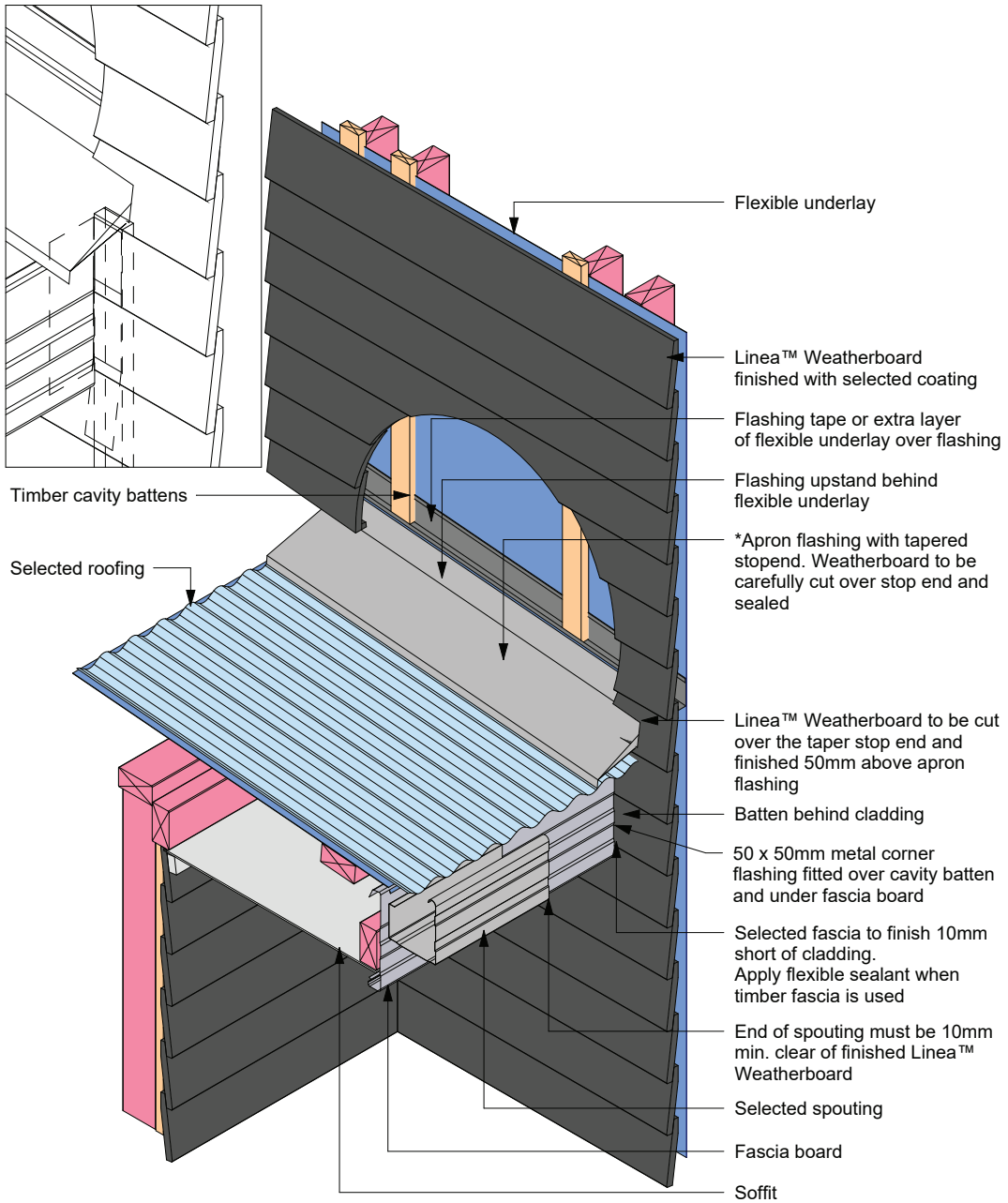

Batten and Flashing Tape Application Prior to Metal Flashing Fixing




Saddle Flashing Application Prior to Cladding and Cap Flashing Fixing



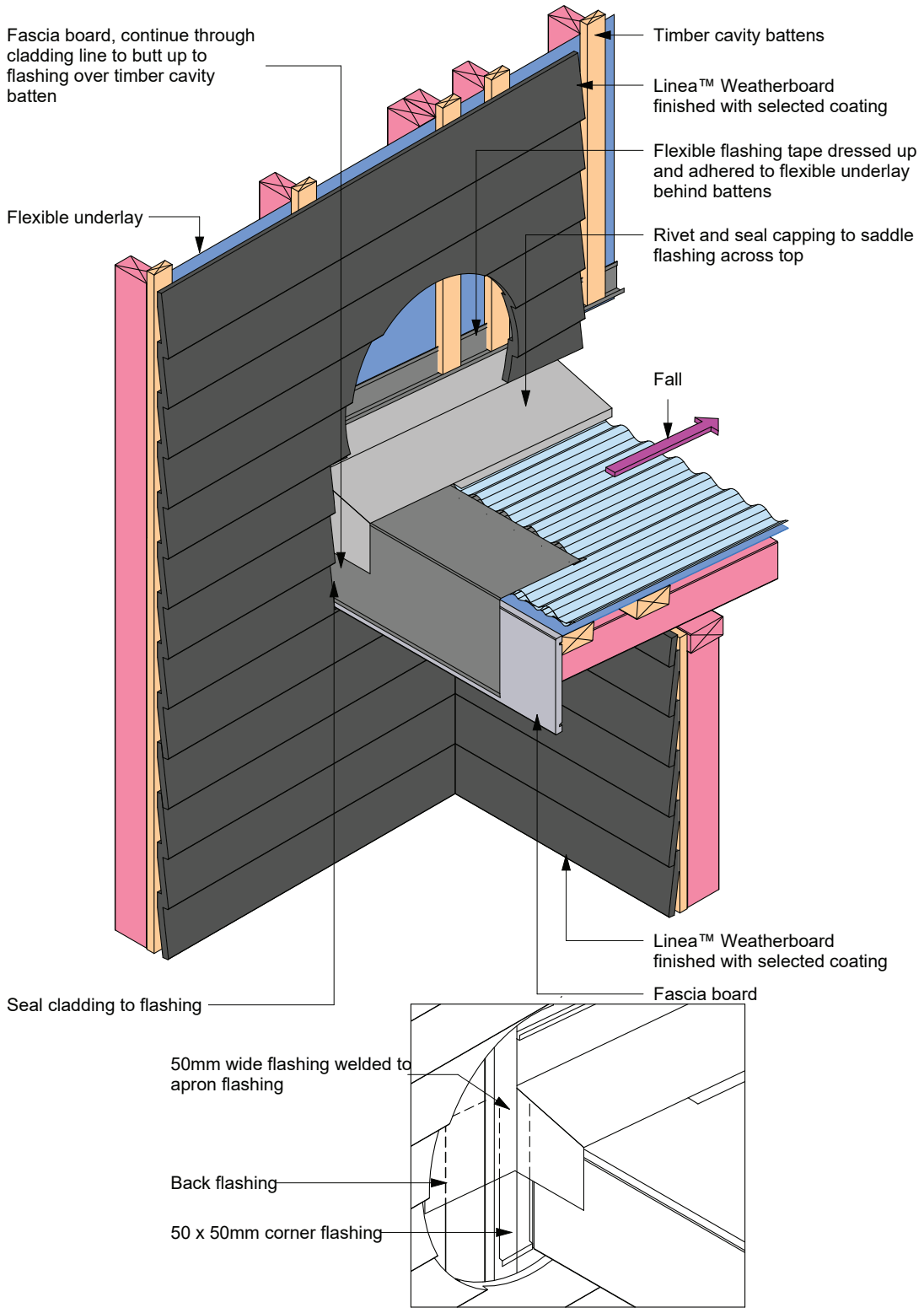
## Figure 34: Junction of Linea™ Weatherboard and fascia board



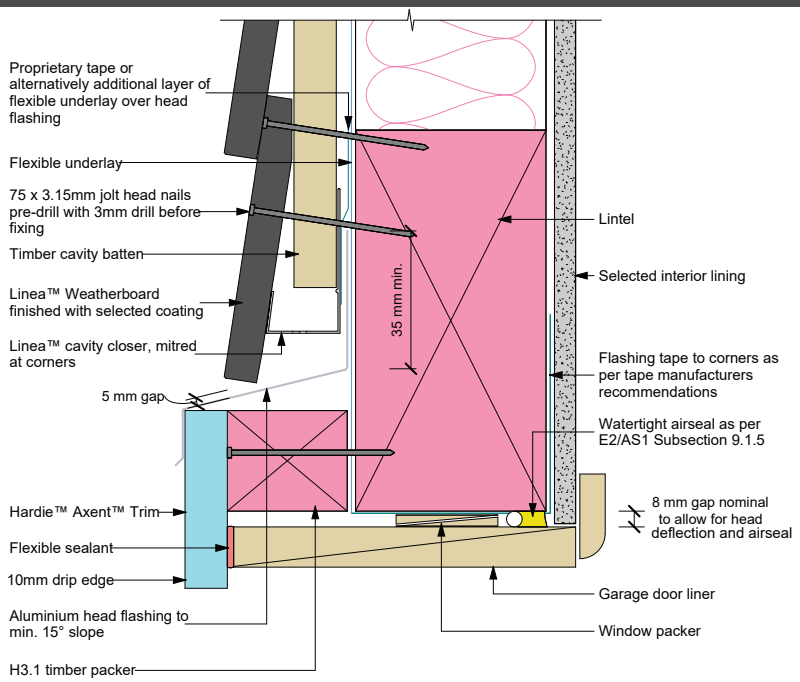

*When 50 year durability for flashing is required refer to Table C.1.1.1A of the NZBC E2/AS1 document

Note: Site cut edges to be primed

## Figure 35: Enclosed roof to wall intersection

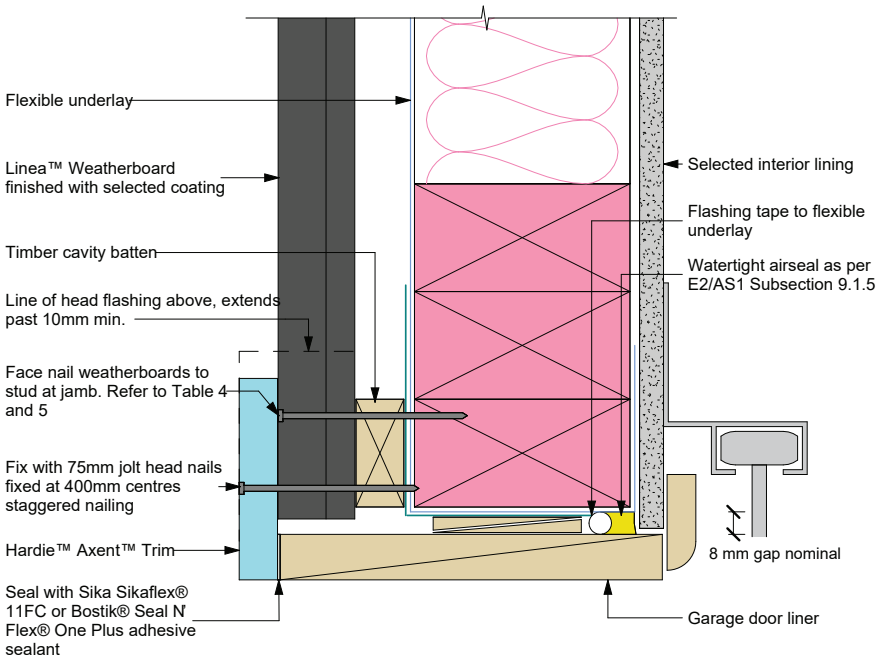


## Figure 36: Garage door head



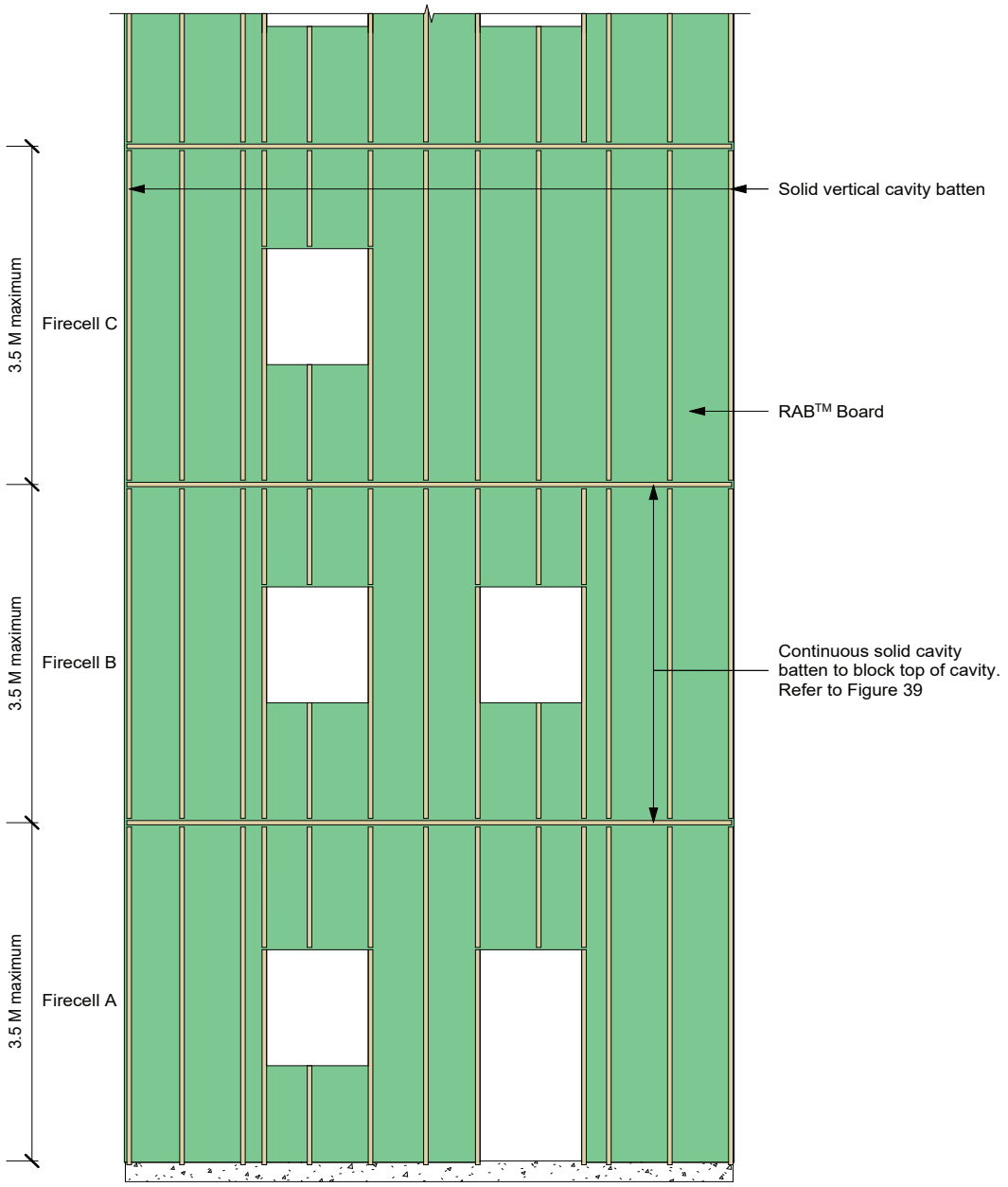

Note:
- Sealant must be applied between head flashing and liner in VH and EH wind zones and SED wind pressures
- Site cut edges to be primed

## Figure 37: Garage door jamb

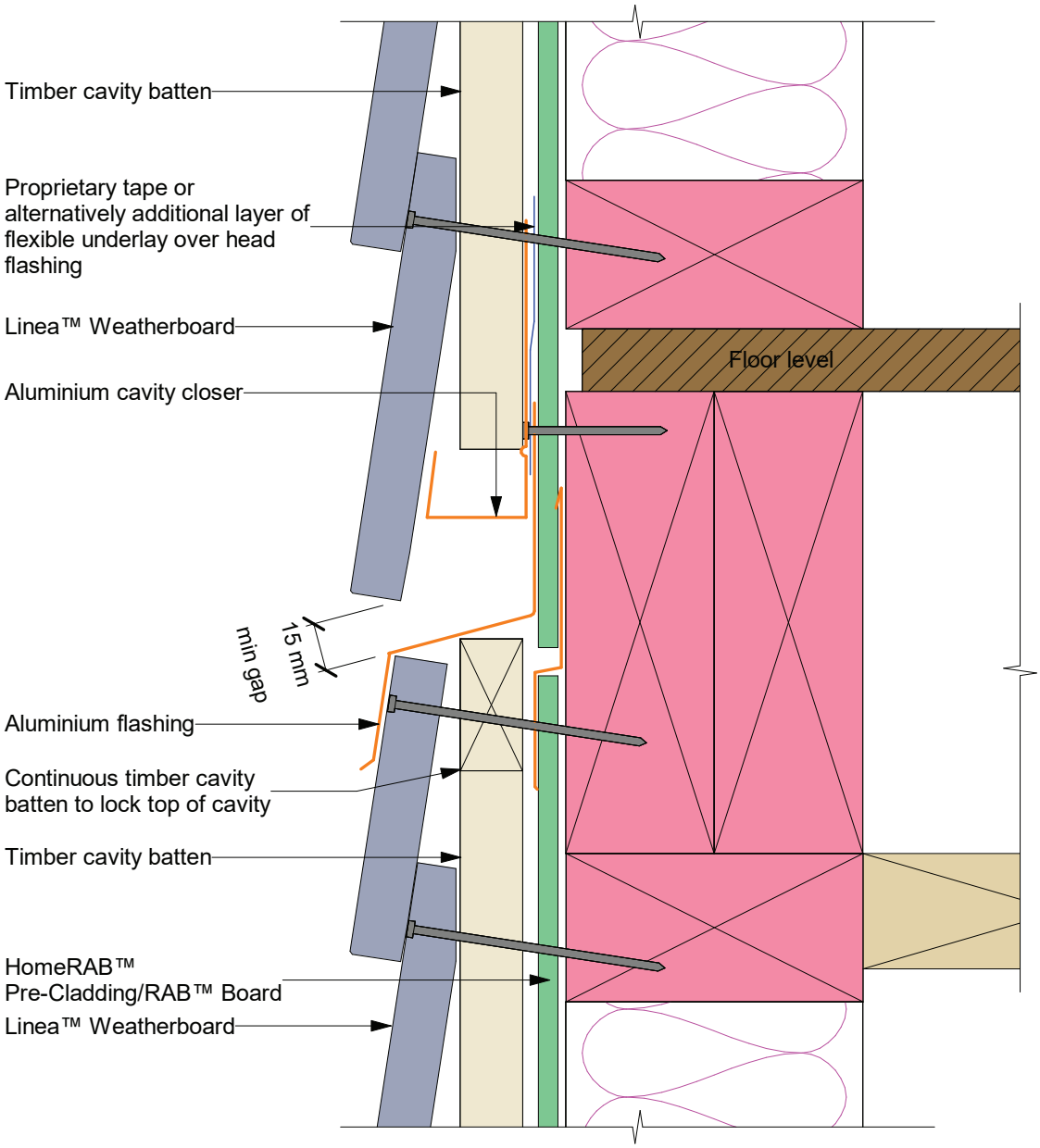



Note: Site cut edges to be primed

## Figure 38: Framing setout building height over 10m



## Figure 39: Inter-storey drainage and fire stopping joint



# Linea™ Weatherboard

# Product Warranty

NEW ZEALAND I Effective August 2024

This warranty is given by James Hardie New Zealand Limited ("James Hardie", "we", "its" and "us").

In this warranty:

- ***"Consumer"*** has the meaning given to it in the Consumer Guarantees Act;
- ***"Product"*** refers to the item listed below:

Linea™ Weatherboard

- ***"Technical Literature"*** means the Product specific installation guide published by James Hardie at the time of installation of the product (copies of the current installation instructions are available at jameshardie.co.nz or by calling Ask James Hardie™ on 0800 808 868); and
- ***"Warranty Period"*** means twenty five (25) years.

## Warranty

1. Subject to the conditions and limitations set out below, we warrant that for the Warranty Period from the date of purchase, the Product will be free from defects due to defective factory workmanship or materials.
2. James Hardie further warrants that for a period of 15 years from the date of purchase of the Product that any associated accessories supplied by us will be free from defects due to defective factory workmanship or materials.
3. James Hardie warrants that at the time of manufacture the Product will comply with AS/NZS 2908.2:2000 Cellulose-cement products - Flat sheet.
4. This warranty is not transferable and is only provided to and may only be relied upon by:
   (a) the first purchaser of the Product or accessory from James Hardie; and
   (b) the last purchaser of the Product or accessory prior to installation.
5. If a breach of this warranty occurs, we will (at our option) either: supply replacement Product or accessory; rectify the affected Product or accessory; or pay for the reasonable and substantiated cost of the replacement or rectification of the affected Product or accessory.

## Warranty Conditions

6. You may only claim under this warranty if:
   (a) the Product was installed and maintained strictly in accordance with the Technical Literature including the components or products specified or recommended in the Technical Literature; and
   (b) other products applied to or used in conjunction with the Product are applied or installed and maintained strictly in accordance with the relevant manufacturer's instructions and good trade practice; and
   (c) the Product is used in an application designed and constructed in strict compliance with all relevant provisions of the New Zealand Building Code (**"NZBC"**), applicable laws, regulations and standards; and
   (d) we are given reasonable opportunity to inspect the Product **before** any attempt is made to repair or remove the Product once it has been installed; and
   (e) the requirements for bringing a claim under the warranty as set out in clause 8 are complied with.
7. Subject to clauses 10 and 11:
   (a) to the fullest extent permitted by law, we exclude all:
      (i) other warranties, conditions, liabilities and obligations which may otherwise apply in respect of the purchase or use of the Product and/or its Technical Literature, other than those specified in this warranty; and
      (ii) liability for any loss or damage (whether direct or indirect) including property damage or personal injury, consequential loss, economic loss or loss of profits, the purchase or use of the Product and/or its Technical Literature whether arising in contract, tort (including negligence), statute or equity.
   (b) if or to the extent that it is not permitted by law to so limit our liability as set out in clause 7(a), then to the fullest extent permitted by law, we limit our liability at our option to:
      (i) the replacement of the Product or accessory or the supply of equivalent Product or accessory;
      (ii) the repair of the Product or accessory;
      (iii) the payment of the reasonable and substantiated cost of replacing the Product or accessory, or of acquiring equivalent Product or accessory; or
      (iv) the payment of the reasonable and substantiated cost of having the Product or accessory repaired;
   (c) this warranty does not cover defects which are not due to defective factory workmanship or materials, including but not limited to damage or defects caused by or arising from or attributable to:
      (i) use of the Product in applications not recommended by us or in accordance with the Technical Literature;
      (ii) the Product being subjected to abnormal treatment including impact, abrasion or mechanical action;
      (iii) surface marking, scratches or stains arising during or after the installation of the Product;
      (iv) poor workmanship or installation, poor design or detailing, settlement or structural movement and/or movement of materials to which the Product is attached;
      (v) incorrect design of the structure;
      (vi) acts of God including but not limited to earthquakes, fire, cyclones, floods or other severe weather conditions or unusual climatic conditions;
      (vii) efflorescence, normal wear and tear, growth of mould, mildew, fungi, bacteria, or any organism on any Product surfaces or Product (whether on the exposed or unexposed surfaces);

(viii) contact with chemicals such as solvents, detergents and pollutants, or exposure to a harsh chemical environment or an excessively salty environment;

(ix) use of adhesive tapes, sealants or mastics on the Product, or recoating of the surface of the Product outside of the recommended maintenance guidelines in the Technical Literature; or

(x) failure of third party coating systems, including but not limited to sealers and paints; and

(xi) **this warranty does not cover** any variation in the look of the Product including but not limited to: any variation in colour or surface pattern; any variation between different batches of the Product; or any variation against any sample material provided. The architect/builder/installer must ensure **prior to specification** that variation in look between items of Product is acceptable and ensure that each item of Product meets all aesthetic requirements **prior to installation.** Subject to the terms of this warranty, after installation of the Product, **we are not liable** for claims arising from aesthetic variations or defects if such variations or defects were, or would upon reasonable inspection have been, **apparent prior to installation.**

## Making a Claim Under Warranty

If you are the property owner and did not purchase the product yourself, and you believe you have any issue with James Hardie product installed at your home, in the first instance you should contact the builder who purchased and installed the product. If you purchased the product yourself, you can make a claim under this warranty as detailed below.

8. In order to make a claim under this warranty, you must provide the following information in writing to us using the contact details below within 30 days after the alleged defect would have become reasonably apparent or, if the defect was reasonably apparent prior to installation, then the claim must be made prior to installation:
   (a) proof of purchase;
   (b) description of the defect and the issue;
   (c) photographs of the defect; and
   (d) your contact details.
9. Subject to New Zealand Consumer Law, you must bear any expenses you incur as a result of claiming under this warranty, except where you are entitled to recover such expenses under the New Zealand Consumer Law, in which case we will bear or otherwise reasonably compensate you for such expenses. All claims for such expenses are to be notified to us in writing within 21 days from the later of: when you make a claim under this warranty; or when we notify you that we, acting reasonably, accept responsibility for these expenses.

## New Zealand Consumer Law

10. If you acquire the Product or accessories manufactured or supplied by us as a Consumer, that Product or accessories may come with guarantees that cannot be excluded under the Consumer Guarantees Act. If so, and we are a supplier, you are entitled to a replacement or refund for a failure of a substantial character or a failure that cannot be remedied, and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality or fail to meet some other guarantee and can be remedied and the failure is not of a substantial character. Where we or a related entity are the manufacturer, then you will have the rights set out in the Consumer Guarantees Act if the goods do not comply with this warranty or the consumer guarantees under the Consumer Guarantees Act.
11. Other than as lawfully excluded or limited by the other terms of this warranty, any rights a Consumer may have under this warranty are in addition to other rights and remedies of a Consumer under a law in relation to the goods to which this warranty relates. Nothing in this warranty shall exclude or modify any legal rights a purchaser and/or Consumer may have under the Consumer Guarantees Act, Fair Trading Act or otherwise which cannot be excluded or modified at law.

## Disclaimer

The recommendations in James Hardie's literature are based on good building practice but are not an exhaustive statement of all relevant information. Further, as the successful performance of the relevant system depends on numerous factors outside the control of James Hardie (e.g. quality of workmanship and design) James Hardie shall not be liable for the recommendations made in that Technical Literature and the performance of the relevant system, including its suitability for any purpose or ability to satisfy the relevant provisions of the NZBC, laws, regulations and standards. It is the responsibility of the building designer to ensure that the details and recommendations provided in the relevant James Hardie Technical Literature are suitable for the intended project and that specific design is conducted where appropriate.

## Our Contact Details

**James Hardie New Zealand Limited**

**Address:** 1 O'Rorke Road, Penrose, Auckland, 1061

**Postal address:** PO Box 12070, Penrose, Auckland 1642

**Telephone:** "Ask James Hardie™" on 0800 808 868

**Website:** www.jameshardie.co.nz

**Email:** info@jameshardie.co.nz

## Notes

## Notes

JamesHardie™

**Ask James Hardie™ | Call 0800 808 868 | jameshardie.co.nz**