

# Generation 2

## NZ Timber Cladding Systems



VERSION V2 30/09/2020

NATURAL. DURABLE. CLASSIC.

# Generation 2 bevelback weatherboards are proudly 100% New Zealand made.

We pride ourselves on delivering a premium weatherboard to work with and know you are well protected.

- Treatment warranty of 50 years protection.
- Treated with Koppers MicroPro® Wood Treatment Technology.
- Reduced corrosivity allowing the use of corrosion-resistant fasteners including hot-dipped galvanised, stainless steel or other approved fasteners to meet building code requirements
- New Zealand Radiata Pine sourced from renewable plantation forestry. KLC is a Chain of Custody, FSC® Certified Company.
- Eco-friendly with four environmental credentials.
- Weatherboards up to 6.3 metres in length.
- Formaldehyde-free and low volatile organic compounds used in the treating and gluing manufacturing process.
- No odour.
- A two coat, superior alkyd (oil based) priming system.
- Approved for aluminium contact.

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## DISCLAIMER

The recommendations contained in this document are based on good building practice, but are not an exhaustive statement of all relevant information. The successful performance of the system relies on many factors outside the control of KLC Limited, such as the quality of workmanship and design. KLC Limited will not be responsible for the installation of the products outside of the control of KLC Limited. It is the responsibility of the building designer of the intended project to ensure that the details and recommendations provided are suitable and that the design is executed appropriately.

# 1 General Information

## 1.1 Scope and General Information

The KLC Generation 2 H3.2 Board and Batten weatherboards can be used for buildings that fall within the scope of NZS 3604/2012 Timber Framed Buildings and Acceptable Solutions E2/AS1. Buildings that have a weathertightness risk score of more than 6 as assessed in E2/AS1 section 3 will require a drained and ventilated cavity.

Including:

- NZS 3602:2003 Timber Wood Based Products
- NZS 3617:1979 Profiles of weatherboards, fascia boards and flooring
- AS/5068 Finger Joints in Structural Products
- AS/5069 Finger Joints in Non-Structural Products
- NZS 1328.1:1998 Glued Laminated

Meets and Exceeds:

- NZS 3640:2003 Preservation of timber and wood-based products

The information contained within this guide are based on good building practice and are not a complete statement of all relevant building practices.

The drawings are as accurate as possible. KLC have specified extra flashing's in some areas that are over and above the requirements of NZBC E2/AS1 External Moisture.

## 1.2 Product Information

KLC Generation 2 H3.2 products are manufactured from short lengths of clear high grade radiata pine that are finger-jointed together using a structural glue to produce an untreated length of 6.3metres (substrate).

The substrate is then treated to H3.2, using the revolutionary wood treatment technology called MicroPro® (MCA). MicroPro® (MCA), Micronized Copper Azole (MCA) preservative system protects wood products from insects, termites and fungal decay and is manufactured by Koppers Performance Chemicals. The preservative contains a mixture of micronised copper carbonate (copper) and tebuconazole (azole). The MicroPro® treatment system is a water-borne, copper-based biocide preservative system with four Environmental Certifications.



**These environmental certifications have been awarded to Kopper MicroPro® Wood Treatment Technology**



### Scientific Certification Systems

MicroPro® is the first treated wood process to be EPP (Environmentally Preferable Product) certified by Scientific Certification Systems based on a life cycle assessment. As the leader in green building product certification since 1990, SCS was the first company to offer manufacturers a program for verifying the accuracy of environmental claims on products.



# 1 General Information



## Greenguard® Environmental Institute

MicroPro® is environmentally sustainable, this is demonstrated in low leaching of treatment preservatives from the timber, low volatile organic compound (VOCs) emissions and the award of the GREENGUARD Children and Schools' Certification from the Greenguard® Environmental



## Global GreenTag International - GreenRate™

MicroPro® Wood Treatment Technology has received a Global GreenTag GreenRate™ Level A award under Version 4.0 of the Global GreenTag International Product Certification Standard. It is the highest-level achievement for a product under Global GreenTag's GreenRate™ product rating system – declared by the certification body as 'Fit-for-Purpose' and confirmed for Green Building compliance.



## Global GreenTag International - Health Declaration

The GreenTag™ Product Health Declaration proves that Koppers MicroPro® Wood Treatment Technology is safe for human health (and ecosystems) and can be used with absolute peace of mind in workplace and residential building projects. Reducing risks for Building, Design and Procurement Professionals whilst supporting the user and occupant's health and wellbeing compared to products that don't.

The blanks are then kiln dried (KD) to a pre-determined moisture content. The KD H3.2 substrate is then profiled to various Weatherboards, Fascia, Finishing Boards (D4S), box corners and other profiles.

To complement these appearance grade products, a dual coat oil based (alkyd) priming system is applied.

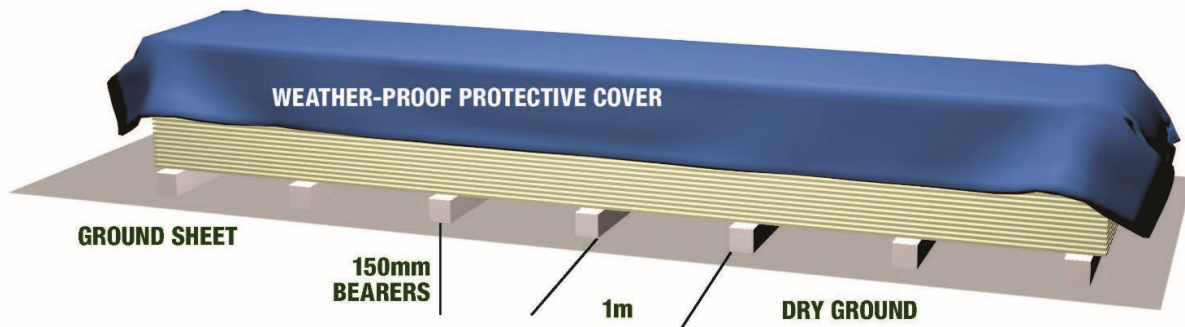
Note: Pre-priming does not waterproof the product and care must be taken to ensure dryness of product before final painting.

When using pre primed weatherboards and fascia ensure top coat painting occurs soon as possible after installation. Refer 4.0 Painting Requirements page 17.

# 1 General Information

## 1.3 On-Site Storage And Handling– KEEP IT DRY

Correct on-site storage of Generation 2 H3.2 products prior to installation is critical.



Ensure the product is stored on site correctly. Inside, under cover or as per the diagram above if stored outside.

- **MUST** remain dry at all times prior to installation.
- **MUST** be stored indoors on a flat surface off the ground, on bearers 150mm above ground, supported every one metre.
- If stored outside, there **MUST** be a moisture barrier (ground sheet) under the stack and a secondary waterproof cover. Allow for a good air circulation.
- Keep out of direct sunlight and protected from both rain and ground moisture uptake.
- Ensure that the framing and cavity battens are dry prior to installation. The underside of the weatherboard is vulnerable to water ingress. The moisture content must not exceed 15% at time of installation.

Note: Generation 2 H3.2 products are made from kiln dried timber. Timber will absorb moisture in a damp environment and release it in a dry environment. If Generation 2 H3.2 products do absorb moisture prior to installation, dimensional swelling may occur, this will disappear when the timber returns to its original moisture content. If the boards have become wet, check the dimensions of the profile. If the dimensions are larger than the specification leave the boards to dry and regain correct profile specifications before installation.

## 1.4 Handling

- Care should be taken when unloading KLC Generation 2 product. The profiles should be unloaded by hand or or with a Hiab forklift, ensure that there is a minimum of 2 well-spaced load points to avoid excessive bending or flexing during unloading.
- Do not tip these products from a truck.
- Avoid scratching the face of the board
- Always carry profiles products on their edge to avoid excessive bending.
- Avoid leaning against any vertical surface to avoid any bending. Store in a dry, well ventilated area.

# 1 General Information

## 1.4 Cavity Batten

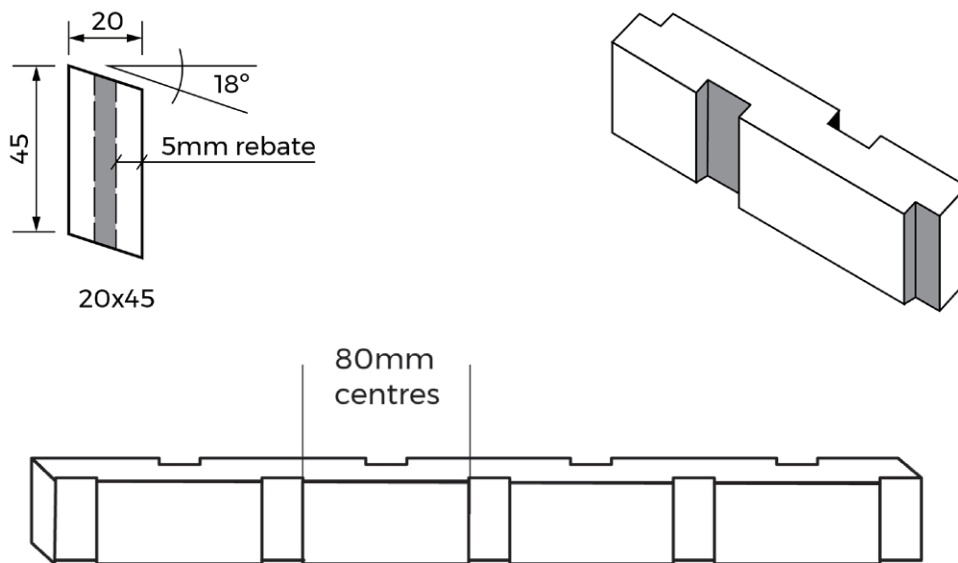
KLC Generation 2 H3.2 Vertical profiles have been designed for use in residential and small commercial building applications. The weatherboards are a thickness width of 18mm and are available in a range of face profiles.

The KLC Generation 2 H3.2 vertical profiles are an Acceptable Solution in E2/AS1 for direct fix only. However horizontal cavity battens can be used for cavity fix as an Alternative Solution.

### Options are:

#### a. H3.2 Castellated cavity battens

H3.2 Castellated cavity battens have gaps machined into them at approximately 80mm centres. They have a downward beveled slope on the top at an 18 degree angle to assist draining water. They are to be fixed onto every nog/dwang using 40x2.5 galvanised flat head nails or 50mm galvanized brad nails.



Note: Please refer to the detail drawings and the specified cavity batten. Reference the Architects plan and the manufacturers cavity batten instructions for installation.

#### b. Cavibat

Cavibat is an extruded polypropylene fluted cavity batten. Cavibat's are installed with 40.2.8mm galvanized flat head nails or brad gun nailed with galvanised bradsat 400 centres. Please refer to Cavibat's technical guide for full installation details.



## 2 Life Serviceability

KLC Generation 2 weatherboards have a durability warranty based on the Treatment Manufacturer's 50 year limited guarantee.

Under the New Zealand Standards NZS 3602:2003 Weatherboards and cladding products must have a minimum durability of 15 years. The life service is subject to correct installation, paint coating of the product, maintenance and care.

When KLC Generation 2 weatherboards are installed according to the instructions contained in this manual and by a Licenced Building Practitioner (LBP) or suitably qualified person, the service life can be expected to be considerably longer.

Full details covering all the aspects of pre-installation care, installation, painting and maintenance are contained within this manual.

KLC will not "Warranty" any Generation 2 H3.2 product that have not been stored correctly and installed by a professional Licenced Building Practitioner and as per the NZ Building Code NZS 3604 and painted in accordance with AS/NZS 2311 2017.

KLC Generation 2 exterior cladding systems have been designed for use in residential and small commercial building applications.



## 3 Guidelines for Installation

### 3.1 Installation Information

KLC Generation 2 H3.2 Board and Batten profiles can be used for buildings that fall within the scope of NZS3604 Timber Framed Buildings and Acceptable Solutions E2/AS1.

Although timber weatherboards can be used on buildings that have a maximum Weathertightness Risk Matrix Score of 6. You will need to use Acceptable Solutions E2/AS1 Table 3.0 Page 31 to ascertain the use of direct fix or on a cavity fixing system.

For situations where you wish to use Board and Batten on a higher risk matrix score, you will have to apply to your local Council for an alternative solution.

This would require the Board and Batten profiles to be installed on a 20mm cavity as per E2/AS1 9.1.8 drained cavities Pg 100.

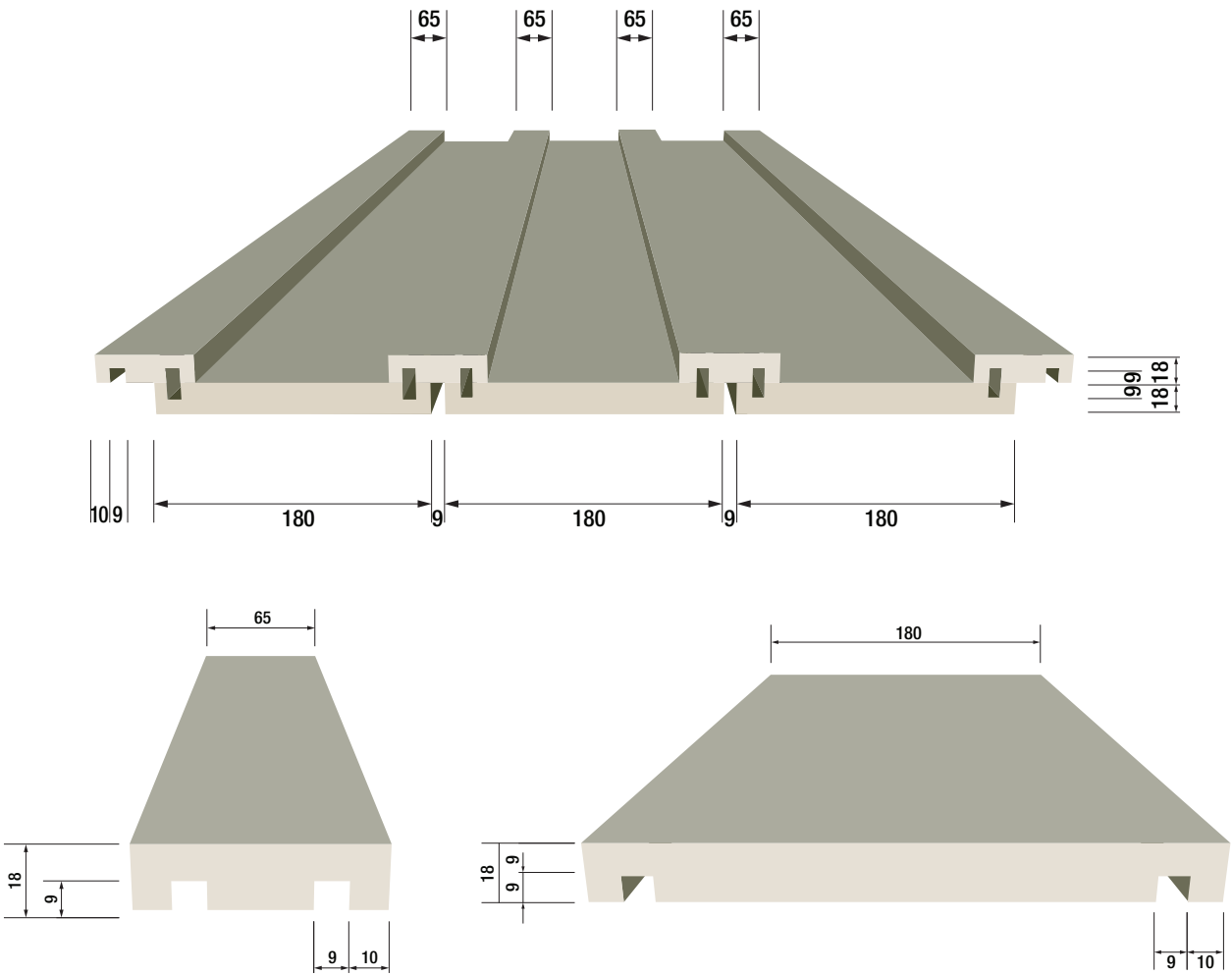
Weatherboard cladding systems are an acceptable solution under the terms of the New Zealand Building Code E2/AS1. NZBC E2/AS1 section 1.5 specifies that the design, installation, and alteration of cladding is classed as restricted building work.

The KLC Generation 2 cladding products must be installed by a Licenced Building Practitioner (LBP)

# 3 Guidelines for Installation

## 3.2 Board and Batten Profiles

Vertical Shiplap Profile Sizes	Finish Grade	Lap	Cover	Length
KLC121 180 x 18 Board	Finger Jointed	29	122	6.3m
KLC123 65 x 18 Batten	Finger Jointed	29	65	6.3m



The products should be installed by a competent qualified person in accordance with the provisions of the Building Code E2/AS1 (sec 9.4) and NZS 3604 (2011). For further information visit [BRANZ Good Practice Guide, Timber Cladding](#).

## 3 Guidelines for Installation

### 3.1 Pre Installation Checks

There are many simple checks that should be carried out prior to installation which can avoid issues during installation.

- Where any KLC Generation 2 profile has been exposed to moisture prior to installation, the moisture content should be checked. If the moisture content is above 15% then the product should not be installed until it returns to 15% or less.
- When excessive moisture or swelling is found the profile should be put aside and allowed to dry to its original profiled dimensions. This is best done by placing the product in fillet and stored as outlined above. Filleting allows air movement through the boards for drying.
- Check for any defects or damage caused during delivery or storage.
- Remove any dirt, dust or stones which may be on the product.
- If there are any areas where a primer coat has been removed or damaged, the affected area should be sanded smooth and a primer coat applied.
- This product is primed with a factory applied alkyd architectural coating, a similar oil-based undercoat or primer must be used for touch-up work
- If building in “sea spray or geothermal zones”, it is the building designers responsibility to ensure all specified fastenings, fittings, and flashings comply with NZS 3604, Section 4 – Durability.

### 3.2 Installation

- Installation must be by a Licensed Building Practitioner (LBP), or supervised by an LBP. Please refer to BRANZ Bulletin Number 468, Fixing of Timber Weatherboards.
- Do not install Generation 2 H3.2 weatherboards if their moisture content is over 15%.
- If building in “seaspray or geothermal zones”, it is the building designers responsibility to ensure all specified fastenings, fittings, and flashings comply with NZS 3604, Section 4 – Durability.
- Avoid joining KLC Generation 2 H3.2 vertical weatherboards use full length boards whenever possible, ensure a good pre-set out to use full lengths.
- Use full length boards.
- Re-prime all cut ends, mitres, notching's, borings with 2 coats of brush-applied alkyd primer.
- Stud centres are at 600mm max, Nog centres at 450mm max. Refer to the project plan for confirmation.
- Leave an approximate 9mm gap in between each board profile, aligning the batten weather grooves and the board weather grooves to align. Allowing for expansion and contraction.
- Boards must have a gap between each board to allow for seasonal movement. Alignment of the weather grooves is essential.
- Hand nailing is recommended as nail guns can cause damage to the surface of the board. If a nail gun is used, a non-marking attachment should be used to avoid damage to the surface.
- Avoid joining vertical weatherboards use full length boards whenever possible, follow pre-set out to use full lengths.
- Pre-drill all boards to a minimum of 1mm diameter smaller than nail gauge.
- Single nail all weatherboard profiles, regardless of size. Nailing boards together will likely result in split boards.
- Location of nails is 90mm (centre) or edge of each board. Location of the nails for the batten is centre of the batten 45mm from the edge. Missing the underneath board..
- Nails should be applied at an upward angle of 10 degrees to avoid water entering through the fixing point.
- All nails should be punched to a depth of no less than 2mm. As soon as nails are punched below the surface of the weatherboard they must be filled with an exterior grade filler immediately to prevent moisture uptake in the weatherboards.
- Re-prime all cut ends, mitres, notching's, borings with 2 coats of brush-applied alkyd (oil based) primer.
- Timber weatherboards are designed to accommodate thermal, seismic and moisture related movement in the boards laps. Each weatherboard is single nailed so that the weatherboards can expand, contract and move independently of each other. KLC does not recommend the use of any sealant/glue which inhibits the natural and ongoing movement of the weatherboard.

## 3 Guidelines for Installation

### 3.3 Framing

The timber framing must comply with NZS3604 – Timber Famed Buildings with maximum of 600mm centres.

- The moisture content of the framing must not exceed 20% at the time of fixing the weatherboard. Excessive moisture content in the timber framing may cause movement in the framing structure thus altering the weatherboard positioning.
- Additional framing may be required at soffit, corners, windows and door opening.

### 3.4 Nail Selection

KLC Generation 2 H3.2 weatherboards are treated using the revolutionary water based micronised copper timber treatment technology called “MicroPro®”.

- In most applications both stainless steel and hot dip galvanised steel fixings and fasteners are safe to use with MicroPro® treated exterior products. Compliant to AS/NZS 4680 and to NZBC E2/AS1 Table 24 Page 177.  
Note: In sea-spray and Geothermal zones nails must be Stainless Steel.
- Hand nailing is recommended as the use of nail guns can cause fibre damage to the face and back of the board. If a nail gun is used, a non- marking attachment should be used to avoid damage to the surface.

Based on MicroPro® ISANTA fastener corrosion test results, MicroPro® treatment is considered similar to CCA treatment with regard to the effects on fastener material. Therefore, in most applications both stainless steel and hot dip galvanised steel fixings and fasteners are safe to use with MicroPro® treated exterior products. Compliant to AS/NZS 4680 and to NZBC E2/AS1 Table 24.

### Nailing Schedule

Weatherboard	Framing Set-Out	Nails (direct fixing)	Nails (on cavity)	Nailing requirements	Wind Zone	Wind Barrier*
Board and Batten Weatherboards	Studs @ 600mm centres max.	75mm x 3.15mm Jolt Head (JH) Hot Dipped Galvanised Nails or Stainless Steel Nails 35mm penetration into the board	90mm x 3.15mm Jolt Head (JH) Hot Dipped Galvanised Nails or Stainless Steel Nails 35mm penetration into the board	Single nail on every nog centred from side edge of the board	Low, Medium, High & Very High	Lightweight Building Paper Heavyweight Building Paper
External & Internal Corners Box Corners	All weatherboards	50x2.5mm Jolt Head (JH) Hot Dipped Galvanised Nails 250mm centres	50x2.5mm Jolt Head (JH) Stainless Steel Nails 250mm centres	300mm centres maximum		

## 3 Guidelines for Installation

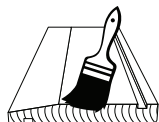
### 3.5 Fixing Details

KLC Generation 2 H3.2 Vertical Weatherboards can be directly fixed to the framing but the use of this is limited by section 9.4 of E2/AS1. All types of weatherboards can be used where the risk score is between 0 and 6.

Where weatherboards are directly fixed to the framing a wall underlay complying with Table 23 of E2/AS1. Also refer to sections 9.1.5-9.1.7 and followed prior to fixing weatherboards.

**Refer to the full drawing suite for correct installation of Building Components**

### 3.6 Jointing Weatherboards



All cut ends, drill holes, rebates and notches must be resealed immediately with a suitably approved product. eg an Alkyd Primer

End sealing can also be achieved by the application of 2 coats of brush-applied, quality Alkyd (oil based) primer which and allowed to dry between coats.

Refer to E2/AS1 Section 9.4.5, Vertical Weatherboards “Vertical Shiplap and Board & Batten weatherboards shall be in continuous lengths over the storey height”. Therefore, no jointing is allowed.

### 3.7 Bottom Of Cladding

There are differing requirements for the clearance between cladding, ground and pavers. Wall cladding and concrete slabs:

- Weatherboards must overlap the floor structure by no less than 50mm.
- 175mm from an uncovered ground surface. Ensure the end is completely sealed with a quality primer
- Overlap the concrete slab by a minimum of 50mm. Maintain a 15mm drip edge.
- Direct fix cladding must have a minimum horizontal off-set of 6mm to prevent moisture capillary action.
- With drained cavities there will be no direct connection between the sub floor spaces and the drained cavities.
- Direct fix cladding must have a minimum horizontal offset of 6mm to prevent moisture capillary action.
- With drained cavity systems care must be taken to ensure air from the sub-floor space cannot enter the cavity.

### 3.8 Windows And Door Openings

Window and Door Heads

When installed the flange forming the window, door facing must overlap the cladding material or the back flashing by a minimum of:

- 10mm on jambs
- 8mm on sills

When installing direct fix weatherboards, window and doors shall have a 5mm stand-off from the flange to the weatherboard to allow for air equalisation. The gap is to be sealed or trimmed down the jamb but left open along the sill.

Head flashings must have a 50mm bead of sealant installed between the weatherboard and each end of the head flashing.

### 3.9 Flashings

Refer to NZS3604 section 4 and E2/AS1 Table 20 for durability requirements and E2/AS1 section 9 for flashing design and fabrication details.



## 3 Guidelines for Installation

### 3.10 Sealants

All sealants must be suitable for exterior use and while they will assist with providing weathertightness at laps and joints they must not be relied on to provide total protection.

### 3.11 Air Seals

Air seals are a barrier that prevent air flowing into the building. Air seals are required where a hole or penetration through the external cladding occurs – windows, doors, pipes, meter boxes etc. See E2AS1 for complete building air seal requirements.

A foam backing rod of a suitable diameter must be installed in the gap, a sealant to the perimeter that forms a waterproof air seal prior to applying the sealant.

Backing rods and sealants must be used in accordance with the manufacturer's instructions.

### 3.12 External Corners

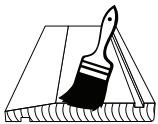
#### FIXING

Corners are to be screwed tight with a 45x10g 316 stainless steel wood screw, predrill counter sunk hole. Fix at 300mm centers, fill and prime or 50x 2.5mm nails can be used for fixing, pre drill holes.

### 3.13 Sealant To Corner Joint

Double prime cut ends and apply a continuous strip of a flexible adhesive sealant. Sealant must be used on the full face of both weatherboards. Push tightly together.

Ensure all cut ends are sealed immediately.



Apply two coats of an Alkyd (oil based) primer or end sealer.

### 3.15 Internal Corners

Internal corners must be made water tight by the use of corrosion-resistant flashings which shall be fitted behind the weatherboards on all internal corners.

### 3.16 Sealant To Corner Joint

Double prime cut ends and apply a continuous strip of a flexible adhesive sealant. Sealant must be used on the full face of both weatherboards. Push tightly together.

### 3.17 Corner Flashing Required

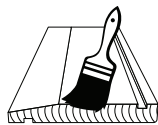
An internal corner flashing may be required. Refer to the Architects specific drawing details.

## 3 Guidelines for Installation

### 3.19 Pipe Penetration

Pipes to have a minimum 5° slope to the outside.

A flexible flashing tape with a minimum of 100mm coverage around the outside. Install as per manufacturers instructions



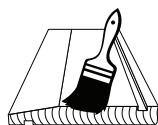
Apply two coats of an Alkyd (oil based) primer or end sealer.

### 3.20 Wall Underlay And Flashing Tapes

Use only underlays that meet the requirements of E2/AS1 Table 23

### 3.21 Cutting and End Sealing

- All cut ends, drill holes, rebates and notches must be resealed immediately with a suitably approved product. eg an Alkyd (oil-based) Primer
- End sealing can also be achieved by the application of 2 coats of brush-applied, quality Alkyd (oil based) primer which are allowed to dry between coats.
- Avoid joining KLC Generation 2 H3.2 vertical weatherboards whenever possible, but if unavoidable use a 45 degree angle joint directly over nogs. The top board overlapping the bottom board
- Use one single nail through the overlapping board to join.



Two coats of an Alkyd primer (oil-based) or end sealer.

### 3.22 Soakers And Flashings

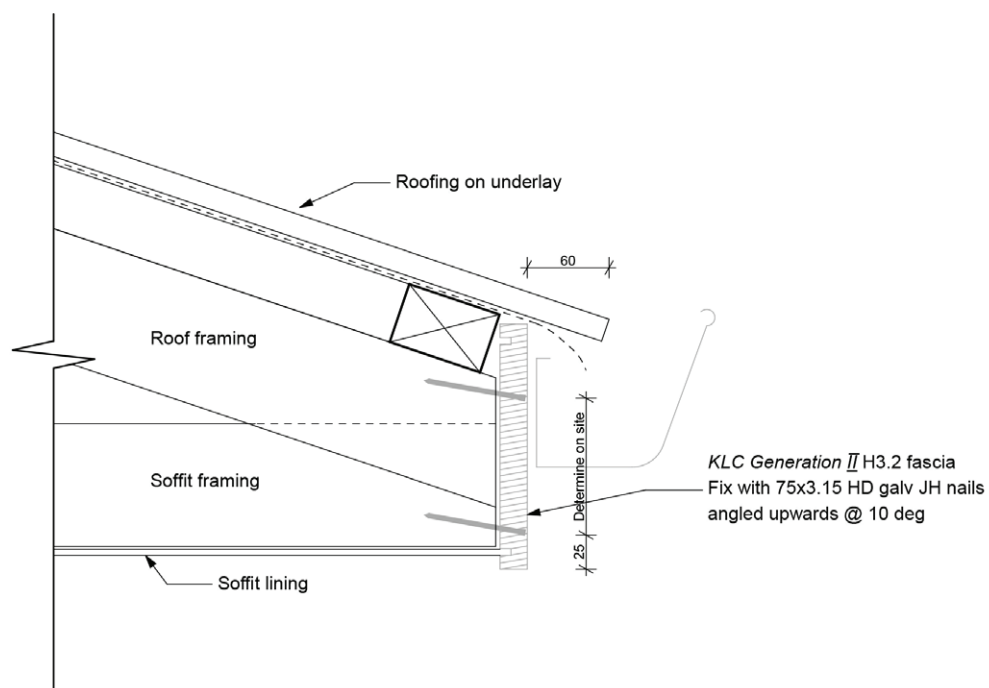
Soakers and flashings can be Galvanised Steel, Aluminium, Stainless Steel (304) or Copper. All these materials are compatible with the KLC Generation 2 H3.2 profiles. These are safe to use with MicroPro treated products.

Soakers and flashings must be fixed in accordance with the NZS3604:2011 and Acceptable Solution E2/AS1.

NZS 3604:2011 section 4 and Table 6.12 outline durability for flashings. Section 9 of E2/AS1 outlines flashing design and fabrication details.

## 4 Fascia Installation

As an alternative to nail fixing, fascia can be screwed onto rafter ends as wide as is practical with wide head (10mm) Stainless steel screws, slightly countersunk. Screws should be a min. 75mm long.



KLC Generation II H3.2 products have a premium factory applied alkyd primer and undercoat applied in two separate coats.

## 5 Painting

KLC Generation 2 H3.2 products have a premium factory applied alkyd primer and undercoat applied in two separate coats.

All painting must be carried out in a good tradesman-like manner and in accordance with AS/NZS 2311 2017. Please also refer to “BRANZ Good Practice Guide to Exterior Coating”.

If boards have been exposed for longer than 4 weeks, some dimensional swelling or distortion of the board may have occurred during unprotected exposure to the elements. Also, some sanding and re-priming may be required.

1. The moisture content of the boards before painting. Equilibrium Moisture Content (EMC) should be at 15% or less. Use a correctly calibrated moisture meter to check.
2. Once installed, remove any dirt and surface contamination by sanding and dusting down. Spot-prime any exposed timber with two coats of oil primer. Spot-prime the filled nail holes. Any sealants used should be of a flexible exterior grade and suitable for over coating with acrylic paint
3. Once undercoated, simply apply two coats of 100% premium acrylic low gloss house paint to the manufacturer's specification, at a rate of 12-14m<sup>2</sup>/L.
4. Once applied, the two topcoats should have a combined thickness of no less than 50 microns. The Painter must adhere to the topcoat paint manufacturer's spread rate.
5. The onus is on the painter to ensure that the primed surface remains well adhered to the timber substrate and is a suitable base for the subsequent topcoats. This is particularly important where the boards have been exposed for longer than 4 weeks before top coating. Painters should refer to the AS/NZ 2311:2017 guide to painting buildings.

NOTE: The KLC warranty will be void if dark colours with a Light Reflectance Value (LRV) less than 45 are used.

6. Darker colours will absorb heat from the sun and may cause excessive movement, distortion, splitting and possible resin bleed. Light colours reflect the sun's heat. Therefore, only light colours with a light reflective value (LRV) of greater than or equal to 45% may be used. Refer paint colour charts for details.

### Top Coat Light Reflectance Values as recommended by KLC



The significance of Light Reflectance Values is now being recognized by the building industry. When paint is exposed to sunlight it absorbs and reflects radiant heat (as well as UV light).

It's not only radiant heat warming up the paint film that is the problem. Damage is caused by temperature changes (i.e. from hot sun, cold to cloudy sky) causing the paint film to go through a process of heating up then cooling down again resulting in changes in dimensional stability of the timber substrate. Increases in the core temperature of the timber substrate can also cause resins to

mobilise and leach through the paint film. This is known as resin bleed.

Light paint colours with a high light reflectance (and therefore a high LRV over 45) allow less free radicals to be released, which means the paint film and substrate will last longer. Correspondingly dark colours with a lower light reflectance allow more heat to be absorbed, therefore causing more damage to the surface and resulting in reduced life for the paint film.

### Resene Cool Colour Technology

- Resene Cool Colour technology reduces the amount of Infra-red heat absorption only into the substrate (it does not have an effect on Visible light nor Ultra Violet which equates to 49% of Sunlight energy)
- Resene Cool Colour technology works best for Darker colours where Black tinter is used in the colour
- When using Resene Cool Colour the surface will still remain warm/hot to touch however less heat is being absorbed thru into substrate
- LRV's are only a measure of visible colour, not heat absorption which is better measured by TSR (Total Solar Reflectance) therefore LRV's are not altered when using Resene Cool Colours as the colour is the same (albeit that a Resene Cool
- Colour will perform like a colour with a higher LRV)
- Resene advise customers that the use of Resene Cool Colour technology does not alter the LRV of the colour therefore
- Suppliers/Manufacturers of substrates own guidelines on colour choice should always be followed unless that Supplier/Manufacturer advises otherwise.

## 6 Maintenance

It is the responsibility of the home owner to ensure that annual maintenance is carried out. Maintenance should be carried out every 12 months. In some cases, this may be required more regularly eg. sea spray.

### Maintenance Checklist

1. Wash all exterior surfaces using a low-pressure wash system to remove dust, dirt and other contaminants.
  - Do not use a high pressure washing system eg water blaster
  - If the washing does not remove stubborn areas of mold or dirt use a soft brush or broom and an appropriate cleaning agent to remove these deposits. Check with the paint manufacturer and read the directions on the product to apply the cleaning agent.
2. Once the building is clean and the surfaces have been inspected for damage, wear and tear and paint coating degrade then repairs and must be undertaken immediately.
  - If the paint surface has been damaged then:
    - Remove all damaged paint, sand back if required
    - Apply a quality primer on any bare timber
    - Once the primer has dried apply 2 top coats of a quality top coat paint.



## 7 Health and Safety

Health and safety precautions should be adhered to when working with all wood products. Machine tools should be fitted with dust extractors and work areas should be kept clean.

If dust levels exceed Work Safe New Zealand Standards, the wearing of a dust mask (AS/NZS 1715 & AS/NZS 1716) and protective eyewear (AS/NZS1336 & AS/NZS 1337) is recommended.

Storage and work areas should be adequately ventilated.

## 8 Detailed Drawings

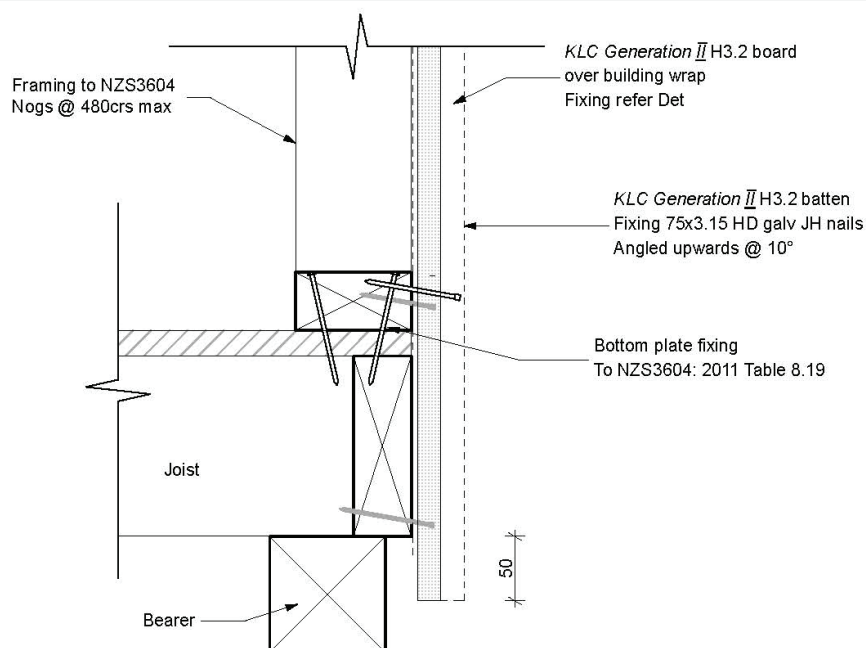
### DRAWINGS DIRECTORY

#### Direct Fix

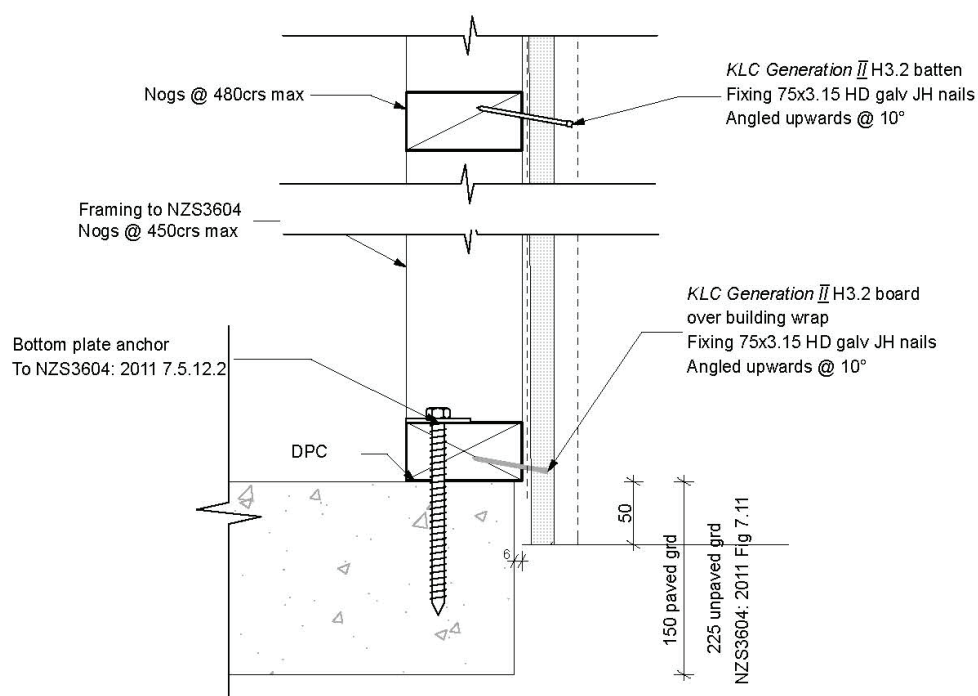
D1.1	Foundation, Timber Floor	21
D1.2	Foundation, Concrete Floor	21
D1.3	Door Sill, Timber Floor	22
D1.4	Door Sill, Concrete Floor	22
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## 8 Detailed Drawings

### D1.1 Foundation, Direct Fix, Timber Floor

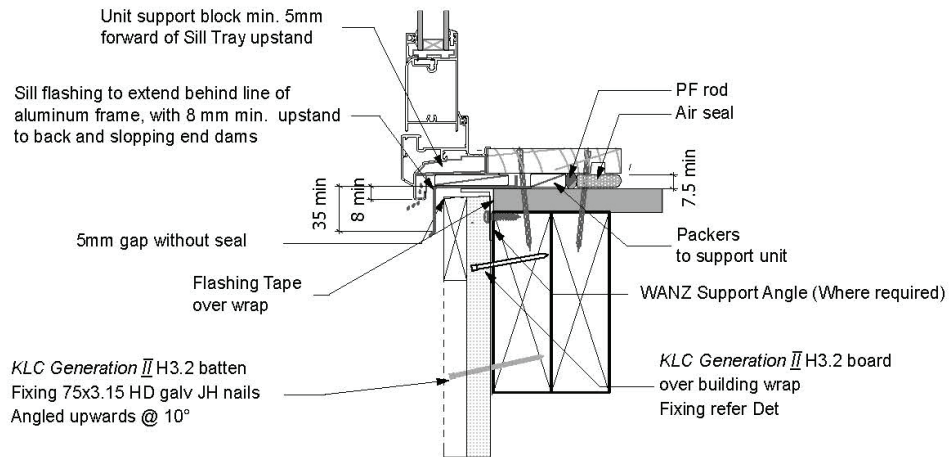


### D1.2 Foundation, Direct Fix, Concrete Floor

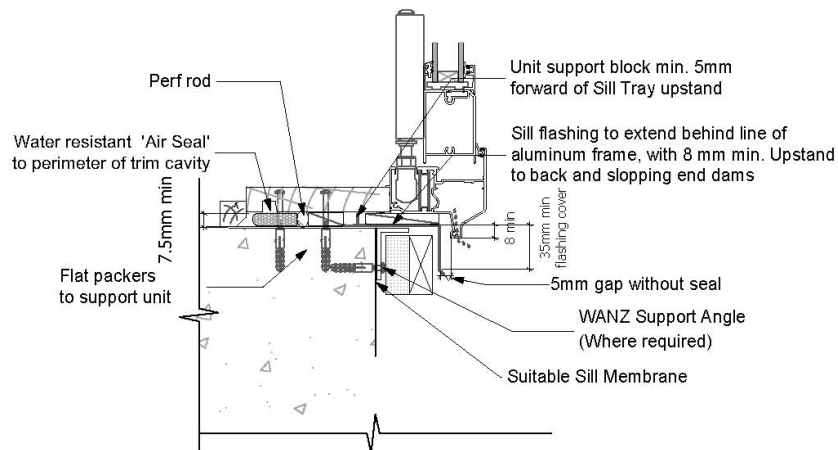


## 8 Detailed Drawings

### D1.3 Sill, Direct Fix, Timber Floor

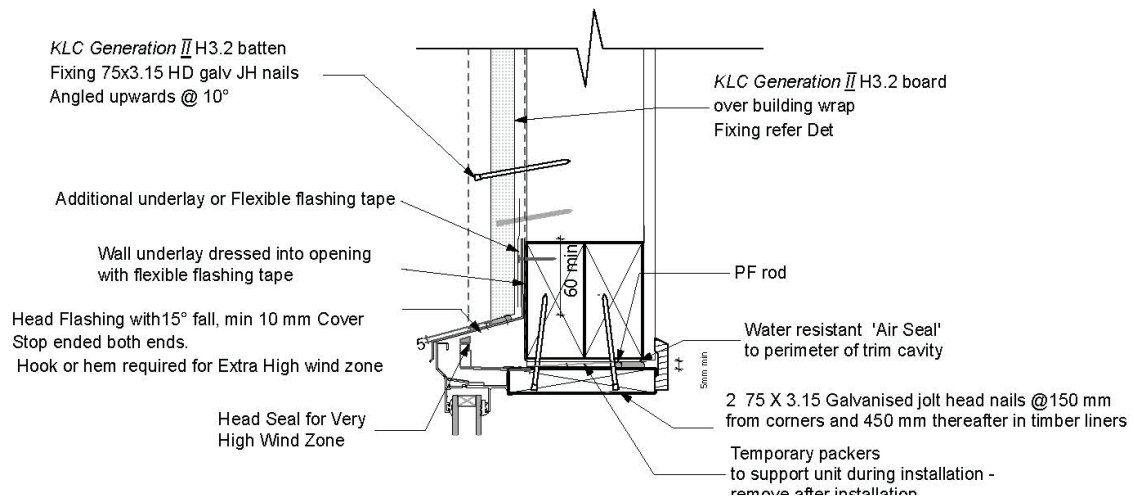


### D1.4 Sill, Direct Fix, Concrete Floor

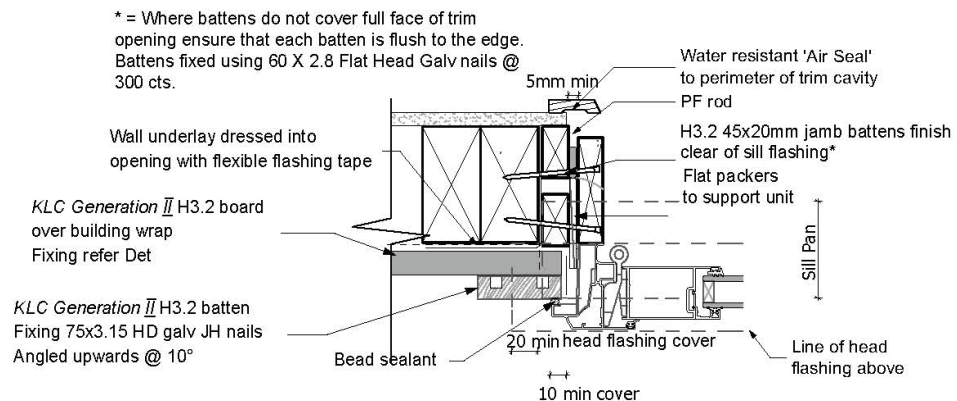


## 8 Detailed Drawings

### D1.5 Window Head, Direct Fix



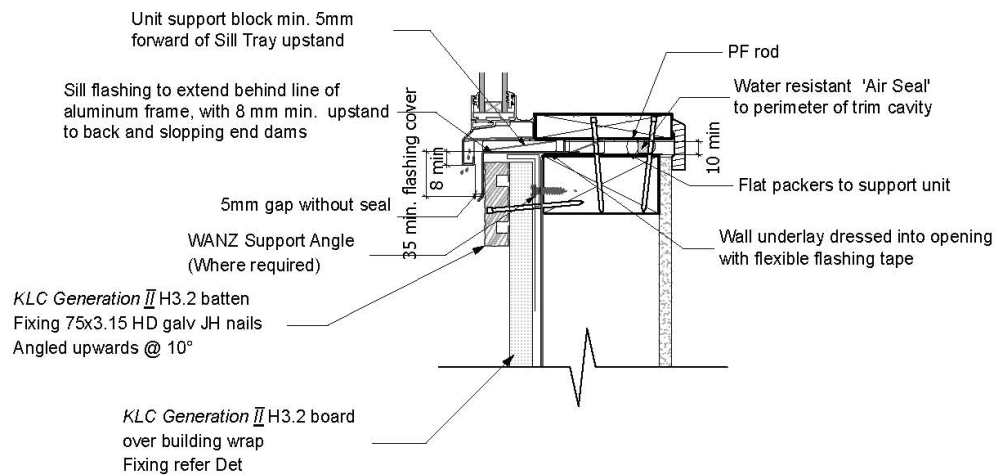
### D1.6 Door Jamb, Direct Fix



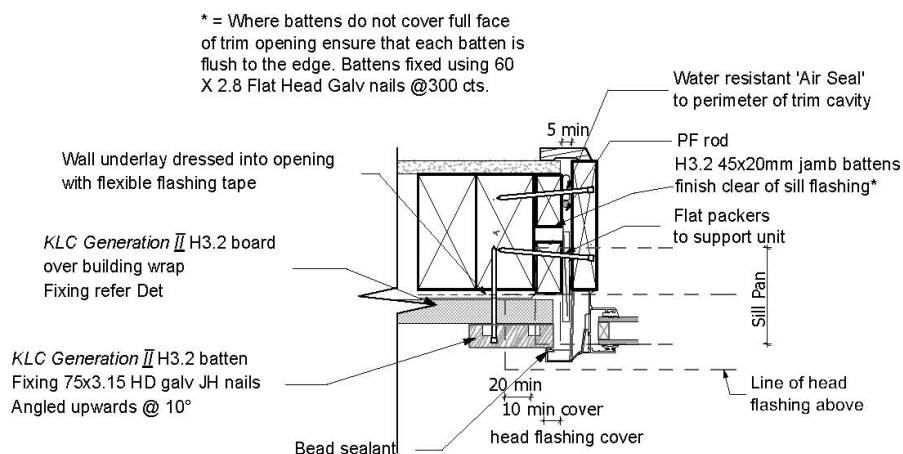


## 8 Detailed Drawings

### D1.7 Window Sill, Direct Fix

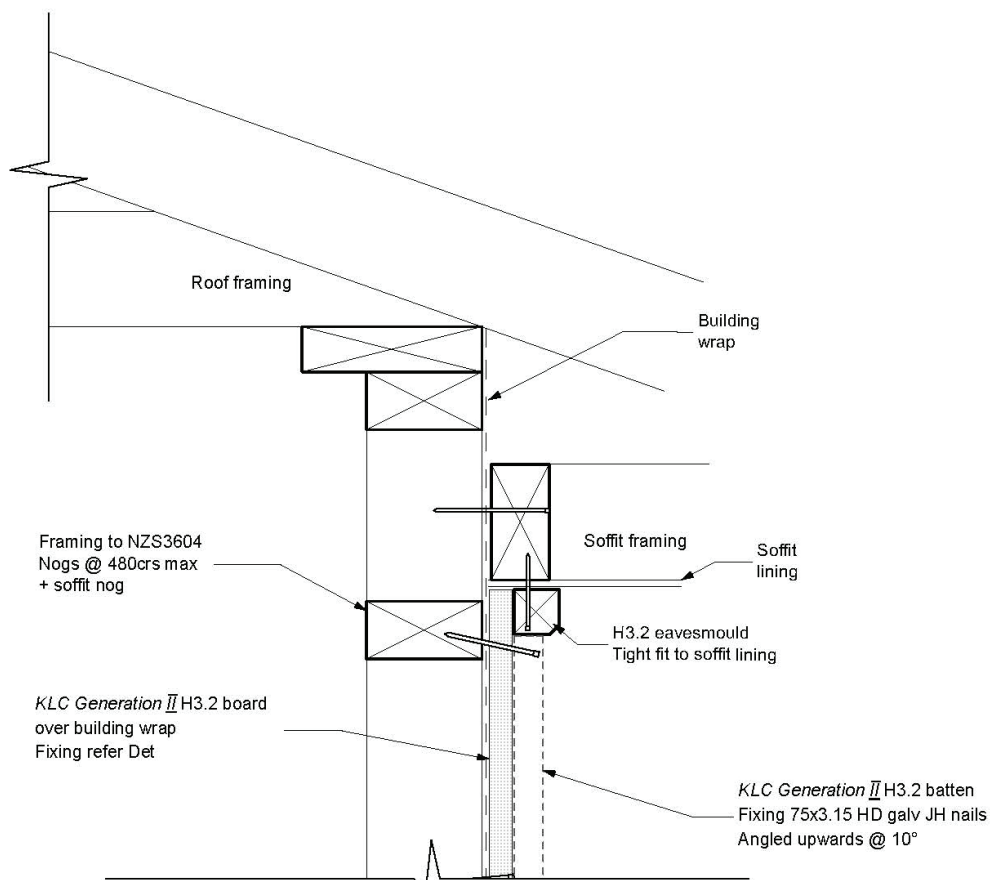


### D1.8 Window Jamb, Direct Fix

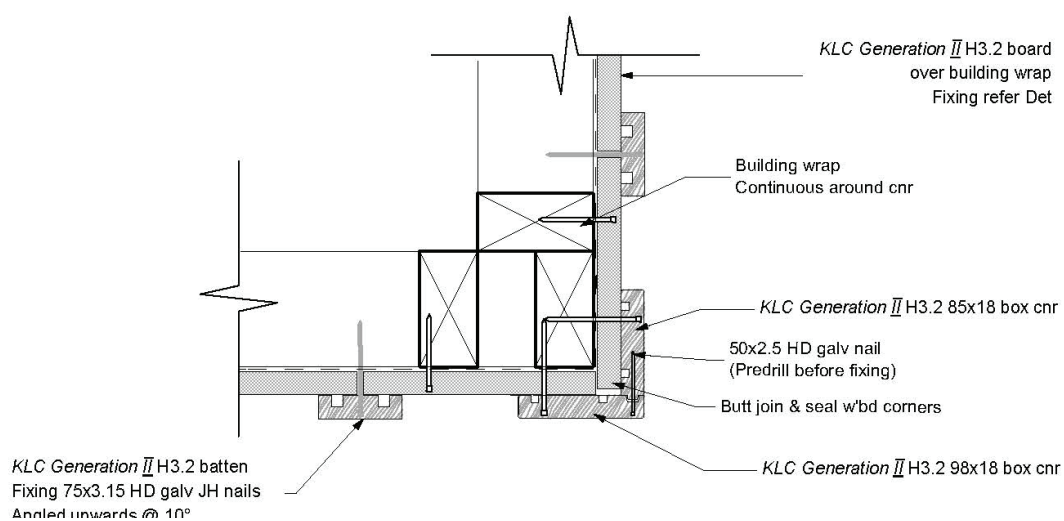


## 8 Detailed Drawings

### D1.9 Soffit Junction, Direct Fix

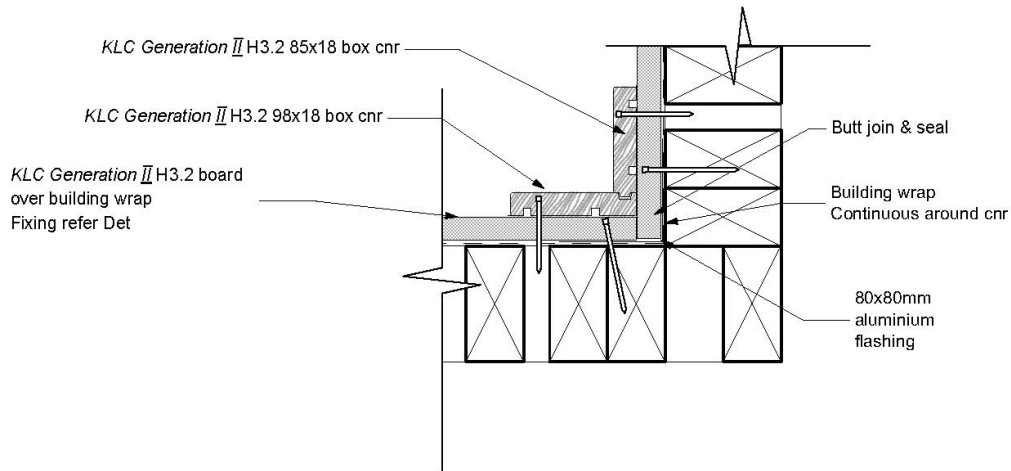


### D1.10 External Box Corner, Direct Fix

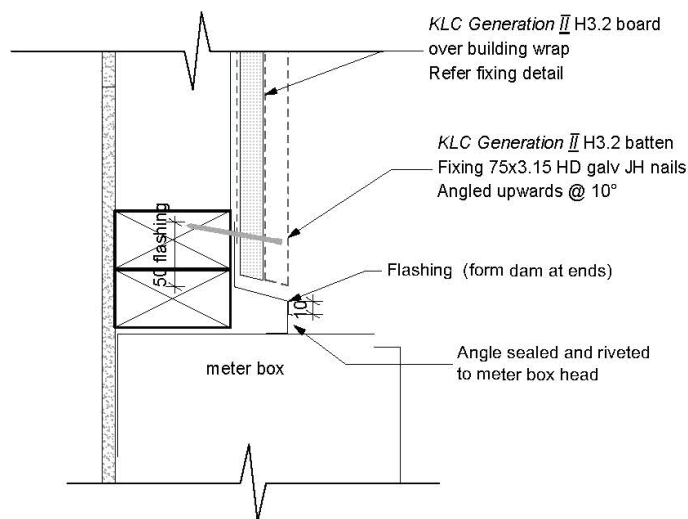


## 8 Detailed Drawings

### D1.11 Internal Box Corner, Direct Fix

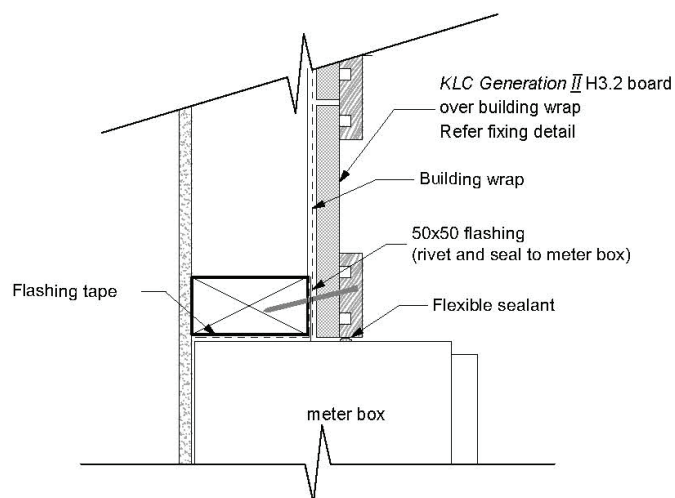


### D1.13 Meter Box Head, Direct Fix

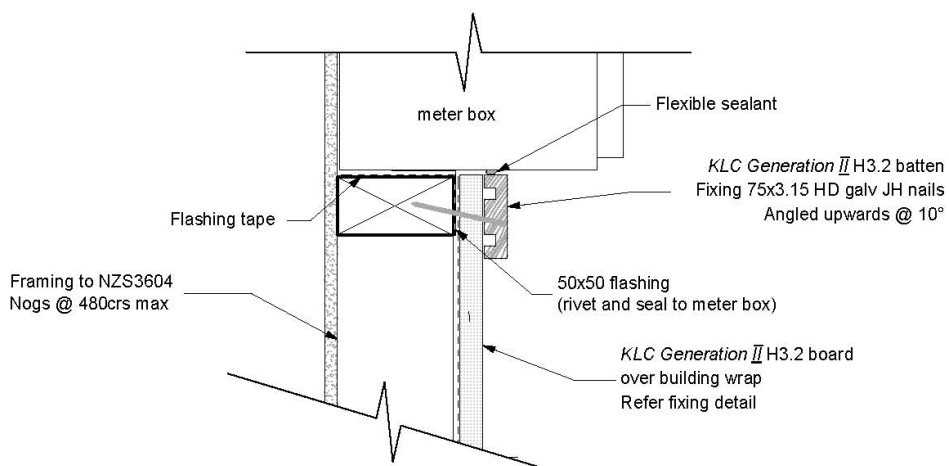


## 8 Detailed Drawings

### D1.14 Meter Box Jamb, Direct Fix

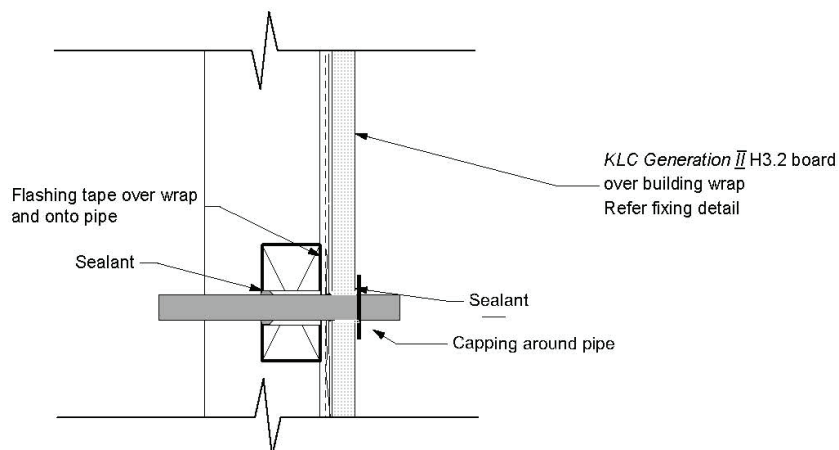


### D1.15 Meter Box Sill, Direct Fix

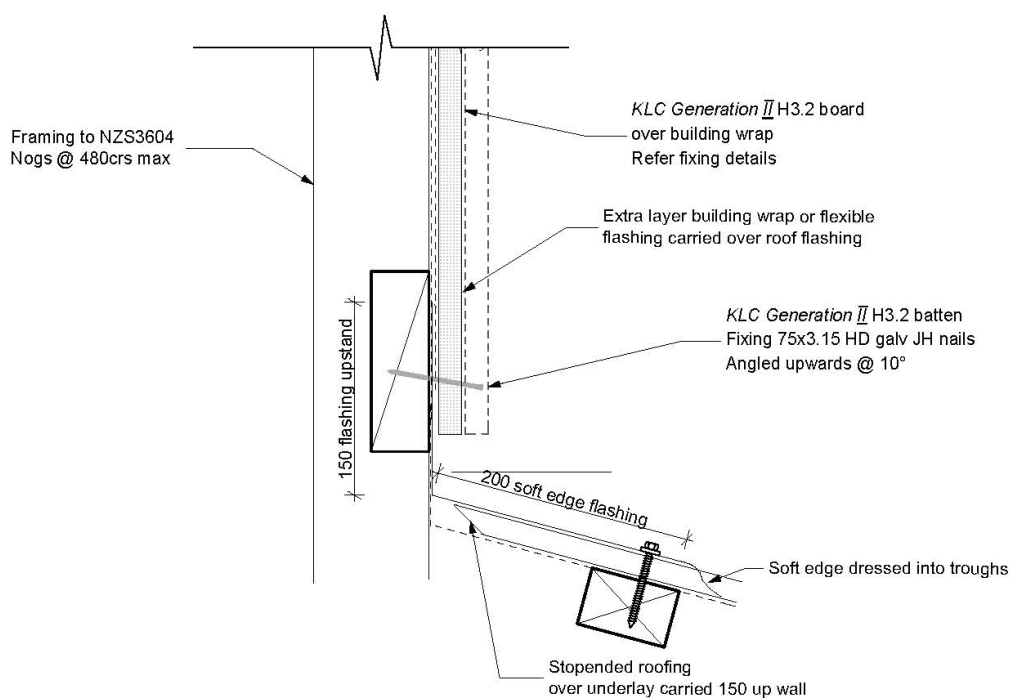


## 8 Detailed Drawings

### D1.16 Pipe Penetration, Direct Fix



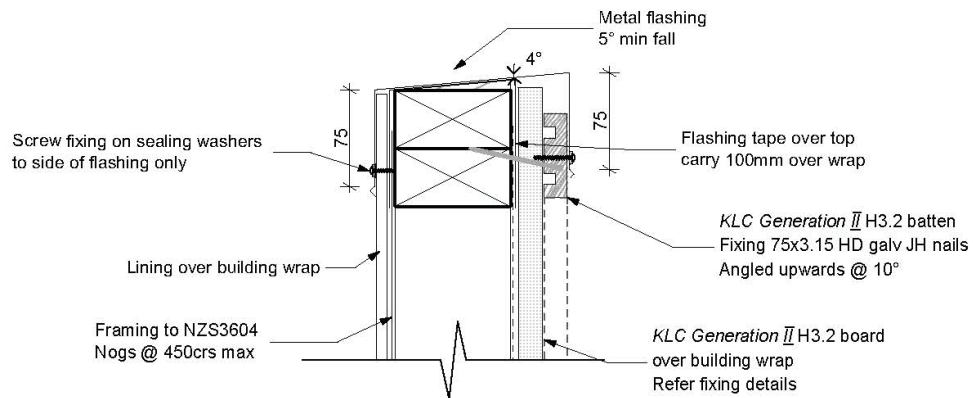
### D1.17 Apron, Direct Fix





## 8 Detailed Drawings

### D1.18 Parapete, Direct Fix



### D3.6/a Fixing Detail Batten / Fixing Detail Board

