LOXO
CLADDING SYSTEMS

PANEL SYSTEMS
TECHNICAL MANUAL

PRODUCT DESCRIPTION AND BUILDING SYSTEM DETAILS

Edition Aug 2020
(always refer to the latest manual as set out on www.loxocladding.co.nz)

MASONS
Designed Smart, Built Tough.

Granosite®
SPECIALIST ARCHITECTURAL COATINGS

Approved Coating Partners

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Loxo Cladding Systems
Panel and Flooring Systems Technical
Manual Product Description and
Building System Details

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LOXO PANEL AND FLOOR SYSTEMS
TECHNICAL INFORMATION & SPECIFICATION

This specification is prepared for:

Owner / Owner's Representative:
_____

Project Address:
_____ **Date:** _____

Product (s) - tick as appropriate **Panel Veneer**
Other **Panel Floor**

Consent No:
_____

Main Contractor:
_____ **Phone:** _____

Architect / Designer: _____ **Phone:** _____

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LOXO BOUNDARY FIRE WALL TECHNICAL MANUAL

LOXO PANEL VENEER SYSTEM - AN INTRODUCTION

The Loxo Panel Veneer system is an exterior wall cladding system that provides lightweight, high-quality, and highly durable cladding solutions perfectly suited to the needs of both residential and commercial buildings. With exterior coating solutions provided by Loxo Cladding NZ Ltd. approved fully-reinforced exterior Plaster System coating partners Masons and Wattyl Granosite, Loxo Panels are one of the most attractive cladding systems on the market today.

This specification document outlines the installation and application of the Loxo Panels system by Loxo Cladding NZ Ltd. Loxo Panels are an exterior wall system using individual panels constructed with lightweight autoclaved aerated concrete (AAC), and is suitable for exterior cladding of both residential and commercial buildings. Each panel is 50mm thick, or 75mm and reinforced with corrosion-protected steel in both horizontal and vertical directions.

Loxo Panels are fixed over a 22mm to 50mm Loxo (VH) EPS Batten Cavity that sits between the panels themselves and the timber wall framing of the building. Panels can also be bonded or mechanically fixed to concrete or masonry walls. Loxo Panels use the approved reinforced Plaster System for finishing and coating by Masons or Wattyls Granosite.

Important:

- This specification must be read in conjunction with the detail data sheets.
- All materials such as PVC flashings and fixings used for the Loxo Panels system must be supplied by Loxo Cladding NZ Ltd or one of its certified distributors.
- All materials such as fiberglass mesh and plaster components used for the coating of Loxo Panels must be supplied by Valspar Paint (NZ) Ltd.

Performance and Technical Specifications

Dry Density:	560kg/m3
Intensity:	4.0MPa
Modulus of Elasticity:	1800MPa
Thermal Resistivity:	0.29m2K/W
Dry Shrinkage Value:	0.8mm/m
Panel Size:	50mm x 2200mm x 600mm or 75mm x 2200mm x 600mm
Thermal Conductivity:	0.12 W/mK
Sound Transmission Class (STC):	33 (50mm bare panel)
Fire Resistance:	1.5 hours (overseas testing)
Dry mass of 50mm Loxo Panel:	32 kg/m2 coating and substrate, considered a medium weight cladding in terms of NZS 3604 : 2011 (75mm; 46 k8/m2
Windzone:	All wind zones of NZS 3604

Standards Compliance

Loxo Panels fixed in accordance with the details and instructions in this Technical Manual meet the requirements and relevant sections of the New Zealand Building Code (NZBC) including:

B1 Structure
B2 Durability
E2 External Moisture
F2 Hazardous Building Materials

The mass of the bare 50mm and 75mm Loxo Panel sits within the range defined in the NZS 3604: 2011 standards for light wall cladding. With finishing and plaster coating applied, the overall mass sits within the range for medium wall cladding.

Insulation is installed in accordance with NZBC E3/AS1 Clause 1.1.1 (a).

Fire Resistance for the Loxo Panels exceeds the requirements for standard commercial or domestic exterior walls. Additionally, Loxo Panels have an ignitability index of zero and are ‘Non Combustible’ in accordance with NZBC Clause C3 and NZS/AS 1530 standards.

Structure and Durability

Loxo Panels (including their fixings) are able to withstand all wind loadings and earthquake zones in all areas of New Zealand in accordance with NZS 3604:2011. For extra high wind zones refer to Wellington Wind Loads download assessment at www.loxocladding.co.nz.

When installed in accordance with this technical manual, Loxo Panels meet the requirements of NZBC Clause B2.3.2.

When fixed in accordance with this technical manual, Loxo Panels fixing screws meet the requirements of NZBC Clause B2.3.1 (b).

External Moisture

The Loxo Cladding NZ Ltd 'approved' External Reinforced Plaster System coatings used on Loxo Panels meet the requirements of NZBC E2.3.3 relating to the resistance of water penetration, provided the integrity of the specified external Granosite Plaster System is maintained. Refer Granosite and Masons warranty guides: www.wattyl.co.nz <http://www.wattyl.co.nz/> www.mpb.co.nz

Hazardous Building Materials

In reference to NZBC Clause F2 regarding Hazardous Building Materials, Loxo Panels are non-hazardous providing all safety precautions included in this literature are adhered to, refer to Health and Safety on Page 16.

TECHNICAL SPECIFICATION

Electrical Cables

PVC sheathed electrical cables must be prevented from direct contact with the Loxo EPS Battens.

Maintenance

Regular checks and cleaning, at least annually, of the jointing and coating systems must be carried out and any routine maintenance performed as and when required to maintain weather tightness. Any damage to the coating system must be promptly repaired by an approved applicator to ensure the integrity of the Granosite or Masons coating system is maintained. Refer Granosite warranty guide: www.wattyl.co.nz <http://www.wattyl.co.nz/> or www.mpb.co.nz

Footings

Loxo Panels can be a direct substitute for a thin sheet cladding material e.g. fibre cement sheeting or polystyrene cladding and fixed with a 22mm cavity on a timber frame. The panel can be sat on a rebated step down in a similar manner to that provided for brick veneer, or alternatively can be fixed with an overhang of the concrete slab or timber base (see Details 3.1 & 3.2) in accordance with NZS 3604: 2011 Section 6.

Framing (Timber or Steel)

Studs should be sized as normal to suit the wind loadings, vertical loading and stud height in accordance with NZS 3604: 2011 Section 8. Buildings or parts of buildings outside the scope of NZS 3604 must be to a specific design in accordance with NZS 3603 and AS/NZS 1170. Timber studs should be spaced at nominal 600mm centres. Dwangs/nogs must be flush fitted at a maximum of 800mm centres. For steel framing the minimum framing specification is 'C' section studs and nogs of overall section size 75mm web and 32mm flange. Minimum Steel thickness must be 0.75mm. Use self-drilling 100mm long AS 3566 Corrosion Class 4 and Grade 304 Stainless Steel in the sea spray zone.

Bracing

The timber or steel framed walls must be braced for a medium weight wall cladding in accordance with NZS 3604: 2011 Section 5.

Wall Wrap (Building Paper)

To comply with NZBC Acceptable Solution E2/AS1 Table 23, wall wrap must be fixed to the exterior wall framing before Loxo Panels are installed. Building paper must be installed horizontally and be continuous around corners.

Control Joints

Vertical control joints are located at internal corners. If the distance between corners exceeds 8m, control joints should be located in line with window and door openings. These joints require 10mm gaps between panels which are injected with expandable foam or backing rod and sealed with approved moisture compatible flexible sealant (see Details 4.1 and 4.2).

Horizontal control joints are used when timber joists are not seasoned (see Details 4.1 and 4.2), and/or when wall height exceeds 8m.

Two-Storied Construction

Loxo Cladding Panels can be used for two-storied construction when fixed in accordance with Details 3.3.1, 3.3.2, and 3.5.1.

Non Vented System

The Loxo Panel Veneer System may be designed and installed as a non vented cavity system with the approval of Loxo NZ Head Office on a case by case basis. The local Distributor shall apply for a Non Vented System pack outlining the system and it's requirements. A selection of typical Non Vented details are shown within this Technical Manual. If any additional details are required please contact Loxo NZ. Most typical vented system details can be adopted simply by removing and base vents and replacing Vermin Control Cavity Closure's with non vented panel Base Shoe. All window panel junctions must be sealed and must incorporate the Loxo Patented Water Divertor Head Flashings.

Loxo (VH) EPS Battens

Loxo (VH) EPS Battens are manufactured from high density expanded polystyrene (Class VH) with an approximate density of 28kg/m3.

Measurements:

1. Classic (VH) EPS (22mm) battens: 22mm ×40mm × 1200mm
2. Deluxe (VH) EPS (50mm) battens: 50mm × 40mm × 1200mm

With Loxo Cladding NZ Ltd approval, H3.2 timber battens may be used.

All panel fixing with the Bugle head screws is fixed through panel, battens and into framing (see Detail 3.4).

All battens must be fixed by galvanised nails or approved adhesive to the framing in accordance with the batten layout as shown on the detail data sheets. Additional vertical battens are required at external and internal corners and openings. Airflow must be blocked off at soffit/wall junction (see Detail 7.1 and 7.2). Gables must be lined or incorporate an air barrier which complies with the requirements of NZBC Acceptable Solution E2/AS1, Table 23.

Loxo Cladding NZ Ltd recommend Bostik Tuf As Nails Original.

Loxo Cladding NZ Ltd allow H3.2 treated timber battens as a replacement to the Loxo (VH) EPS Battens.

Loxo (VH) EPS Battens cannot be used for the Loxo Boundary Fire Wall System. (refer to Loxo website for

this download www.loxocladding.co.nz)

LOXO PANEL SYSTEM COMPONENTS

Screws

Loxo Panels require the use of Bugle head self cutting screws (Grade 3 or 4) to fix the 50mm panels through the Loxo battens (classic 22mm 14 - 10 × 100mm long Bugle screws / deluxe 50mm batten 14 - 10 × 150mm long Bugle screws) to the framing.

With **Loxo Cladding NZ Ltd** approval, 14 - 10 x 125mm long Bugle screws may be used. All screws must comply with Compliance Document E2/AS1 Table 20.

These components are suitable for all New Zealand conditions providing:

a) They are fixed through the face of the Loxo panels and embedded a minimum of 5mm;
b) The **Loxo Panels** receive a **Loxo Cladding NZ Ltd 'approved' Plaster System** finish; and
c) Loxo Cladding NZ Ltd recommend that a 100% Acrylic high-performance Elastomeric paint finish is applied and properly maintained.

Loxo Panel Adhesive

Loxo Panel Adhesive is a polymer modified cement-based adhesive mortar supplied in 20kg bags. It is supplied by **Loxo Cladding NZ Ltd**, mixed on-site with clean water (see instructions printed on each bag), and is applied to all edges of the panels (except control joint) by trowel.

Or Loxo Cladding NZ Ltd allows the use of Bostik Alpha Grip Foaming PU Construction Adhesive or Bostik FixAll Tile Adhesive or Masons Plastaseal

Loxo Panel Adhesive is also used for bonding **Loxo Decorative Trims** and banding, along with minor patching, repairs and stopping of **Loxo Panels**.

Corrosion Protection Paint

Loxo Panels may be cut to size and whenever possible no reinforcing steel should be exposed to openings or corners. When this is not possible the exposed steel must be ground back into the Loxo Panel by a minimum of 5mm and treated with a zinc primer. Primer used is CRC ZINC IT OR Loxo Primer, instructions for use are on the container.

Sealant Joints

Expandable foam, backing rod and moisture compatible flexible MS sealant supplied by **Loxo Cladding NZ Ltd** for use of control joints, joinery, soffits, meter box and general wall penetrations as per drawn details. Before MS sealant application use GranoPrime® as a sealant primer on Loxo Panels. Loxo Cladding NZ Ltd recommends using Bostik SEAL'N'FLEX MS.

Vents (Detail 1.2)

1. Loxo Classic Vents 100 × 50 @ 1000mm centres

Battens (22mm up to 50mm) (Detail 2.1)

1. 22mm × 40mm × 1200mm Loxo (VH) EPS battens Classic (22mm)
2. 50mm × 40mm × 1200mm Loxo (VH) EPS battens Deluxe (50mm)

Flashings (Details 1.1)

1. Loxo PVC jamb flashing
2. Loxo PVC sill flashing
3. Metal flashings (supplied and installed by others).

Note: Check if there are any special back-flashings required where the Loxo Cladding Panel joins another substrate/cladding. All pipes are flashed appropriately in accordance with E2/AS1 Figure 68. All meter boxes must be flashed in accordance with the detailed drawings for the Loxo Cladding System. All sealant work must be installed in strict accordance with the manufacturer's instructions.

Mouldings (Details 1.1 & 4.1)

1. Loxo PVC slotted vermin control cavity closer Classic (22mm)
2. Loxo PVC slotted vermin control cavity closer Deluxe (50mm)
3. Loxo PVC control joint moulding
4. Loxo PVC base shoe moulding 50mm

All PVC flashings and mouldings must be glued to Loxo Panels using Loxo Cladding NZ Ltd recommends using Bostik Gold or Bostik Tuf As Nails solvent-based adhesives.

Damp Proof Course (DPC)

The following DPCs are approved by Loxo Cladding NZ Ltd for use with Loxo Panels:

- Supercourse 500 DPC
- Malthoid DPC
- 0.25mm Polythene DPC

These DPCs meet the requirements of E2/ASI Section 10.2.3.

Sill and Jamb Flashings

For the Loxo Cladding System's it is mandatory to use Loxo Sill and Jamb Flashings (see Details 6.1 and 6.2).

Waterproofing and plaster options (for bottom edges of Loxo Panels)

- Bituminous membrane paint DPM bottom edge and back 50mm of Loxo Panels
- Loxo PVC base shoe moulding's

INSTALLATION OF LOXO PANELS

General

Loxo Panels installation must be performed or supervised by approved installers to ensure quality of workmanship. Please contact Loxo Cladding NZ Ltd for details of licensed Loxo distributors/applicators.

Construction Method

1. Ensure builder has completed items set out in the pre-cladding check list (See Appendix A).
2. On rebated step down foundations, apply bituminous membrane paint DPM must be applied to foundation and upstand as per Details 2.2 and 3.1. by builder / main contractor.
3. Check to ensure framing is straight and plumb with a straight edge, especially corner studs, and is sheathed with wall wrap in accordance with compliance document E2/AS1 Table 23.
4. Measure 600mm up the stud from the rebated step down of the footing, or 15mm below Loxo PVC slotted vermin control cavity closer for overhanging foundations. Mark a horizontal line around the building at 600mm intervals up the soffit line or top plate (see Detail 2.1, 2.2, 2.3, and 3.1).
5. (VH) EPS Polystyrene battens Deluxe (50mm) vertically with 3 nails or an approved adhesive from the bottom plate to the top plate, as per Details 2.1, 2.2, and 2.3. Extra battens can be placed to allow for irregularities in framing or in anticipated extra support for Loxo Panels.
6. Calculate the quantities of Loxo Panels required for the first course around the building making allowance for window and door openings. Apply waterproofing/plaster option to bottom edges of Loxo Panel.
7. Starting from a corner, place the first Loxo Panel horizontally onto the rebate. Use a spirit level to ensure the Loxo Panel is level and is flush with the rebate edge. Push the Loxo Panel hard against the battens and screw fix through the exterior face, through the batten and into the framing a minimum of 50mm in from the edges of the Loxo Panel. A minimum of 6 screws are required per Loxo Panel, and each screw must be wound into the Loxo Panel until the head is embedded by a minimum of 5mm. Loxo Panels can be cantilevered a maximum of 500mm beyond the stud.
8. Apply Loxo Panel Adhesive approximately 2-3mm thick along the vertical edge of the Loxo Panel. Abut the next Loxo Panel hard against the fixed Loxo Panel. Ensure this Loxo Panel is level and screw to the battens. Repeat this procedure around the perimeter of the building.
9. Apply Loxo Panel Adhesive approximately 2-3mm thick along the top edge of the first row of Loxo Panels approximately one panel length. Lay the next row of Loxo Panels with a quarter to half overlap of the Loxo Panel below, then screw Loxo Panel to framing as outlined above.
10. Loxo Panels may be cut to size and whenever possible no reinforcing steel should be exposed to openings or corners. When this is not possible the exposed steel must be ground back into the Loxo Panel by a minimum of 5mm and treated with a zinc primer.
11. At window and door openings install Loxo PVC jamb and sill flashings before Loxo Panel is installed.
12. On overhanging foundations as per detail 3.1 and 3.2 install Loxo slotted version control cavity closers 22mm Classic or 50mm Deluxe. If using a rebated foundation, then core drill holes and install vents.

LOXO PANELS WARRANTY

System Warranty

Loxo Panels and associated materials, when installed as exterior wall cladding, are warranted for a minimum life period of 15 years (from date of completion), meeting the requirements outlined in the New Zealand Building Code (Clause B2.3.1). Our products are designed to have a life span significantly in excess of this minimum period.

Workmanship Guarantee

Our panel installation and the exterior plastering workmanship is guaranteed for a period of 5 years from date of practical completion.

LOXO APPROVED COATING PARTNERS

Masons and Granosite Plaster and Paint System is the only approved plaster system for application over the Loxo Panel system.

For more information, see the Granosite Plaster System and Paint Specifications.

Guarantee

The Loxo Approved Plaster System is guaranteed for a period of 15 years (from date of completion) to perform and meet provisions outlined in the New Zealand Building Code (Clauses B1 Structure, B2 Durability, E2 External Moisture, and E3 Internal Moisture). This guarantee applies only where all material components of the Plaster System have been prepared and installed in accordance with our written instructions, technical specifications and detail drawings, and where the work is carried out by an approved contractor, and where the system has been properly maintained and subjected to normal conditions of exposure.

Important Notes:
The construction details on the following pages describe the most common applications of the Loxo Panels system. Loxo Panels can be installed and applied in situations other than those outlined. If designers or specifiers require additional or modified details, please contact Loxo Cladding NZ Ltd immediately at info@loxocladding.co.nz

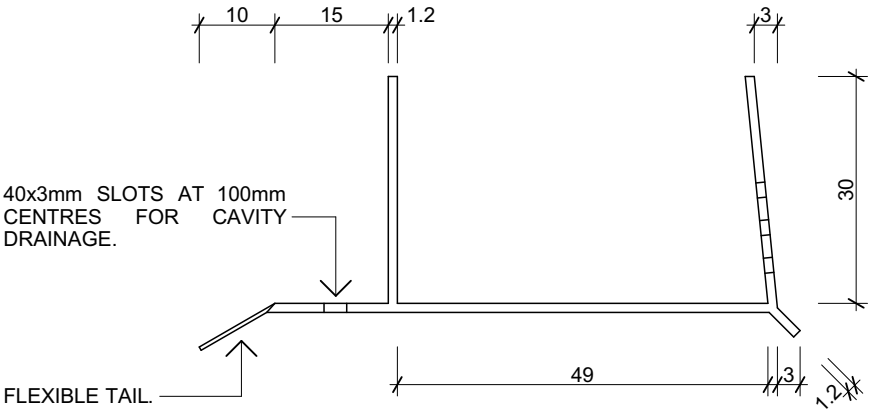
HEALTH AND SAFETY

Loxo AAC Panel, along with all clay, concrete and quarry products contains Crystalline Silica, or Silica Dust. Loxo AAC Panel itself does not cause health problems - however when cutting, drilling, sawing, routing, chasing, sanding and in any way breaking up the material there is the potential for health problems to occur unless precautionary measures are taken. Breathing in the dust repeatedly, usually over a number of years may lead to health problems.

When loading, stacking and laying panels workers are unlikely to breath in the fine silica dust. When breaking up the material, sawing, drilling etc it is imperative that a safety mask and eye protection are worn. Ensure the mask fits properly and is approved for use with Dust. Also protective clothing should be worn e.g. overalls. These should be washed often and not in the same wash as other clothes.

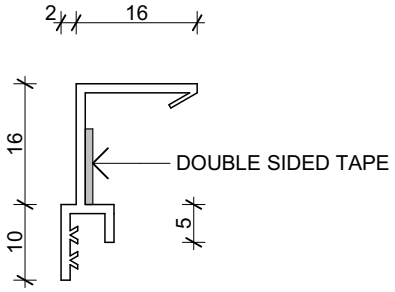
The site should be cleaned of dust every day and when using power tools these should be fitted with efficient and well maintained dust extraction devices.

As the Loxo Cladding Panel Installer on site - please note that it is your responsibility to inform all employees of these Health and Safety requirements under the Occupational Health and Safety Act.



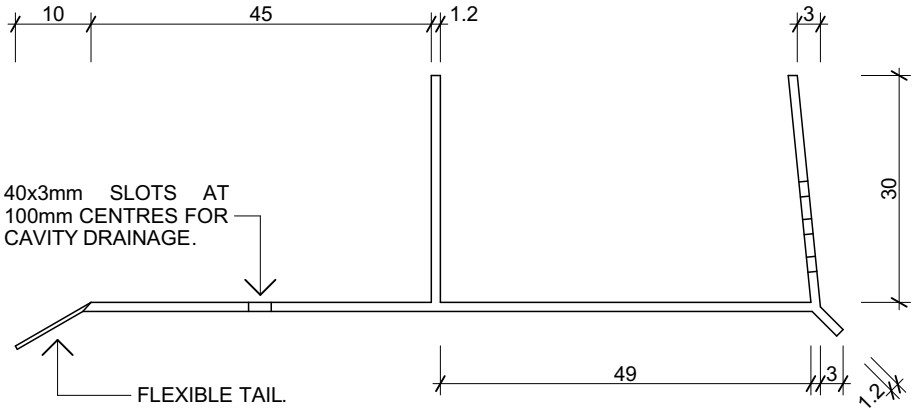
LOXO PVC SLOTTED VERMIN CONTROL BASE SHOE OFFSET - CLASSIC (22MM)

Det. 1.1.1
Scale 1:1



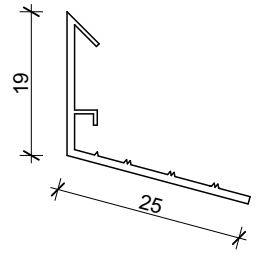
LOXO PVC JAMB FLASHING

Det. 1.1.4
Scale 1:1
UPDATED AUGUST 2014



LOXO PVC SLOTTED VERMIN CONTROL BASE SHOE OFFSET - DELUX (50MM)

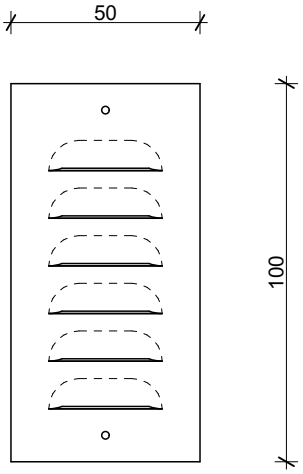
Det. 1.1.3
Scale 1:1
UPDATED APRIL 2018



LOXO PVC SILL FLASHING

Det. 1.1.5
Scale 1:1

1.2 VENT

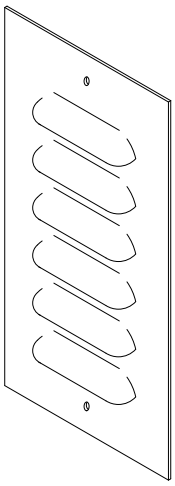


LOXO CLASSIC VENT ELEVATION

Det. 1.2.1
Scale 1:2

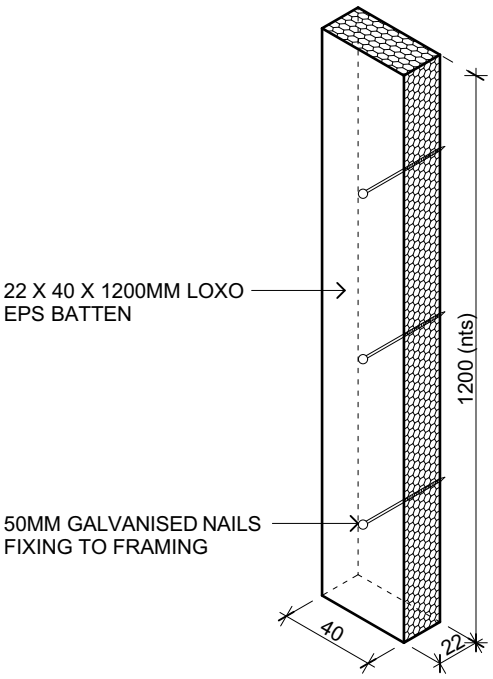
LOXO CLASSIC VENT SECTION

Det. 1.2.2
Scale 1:2



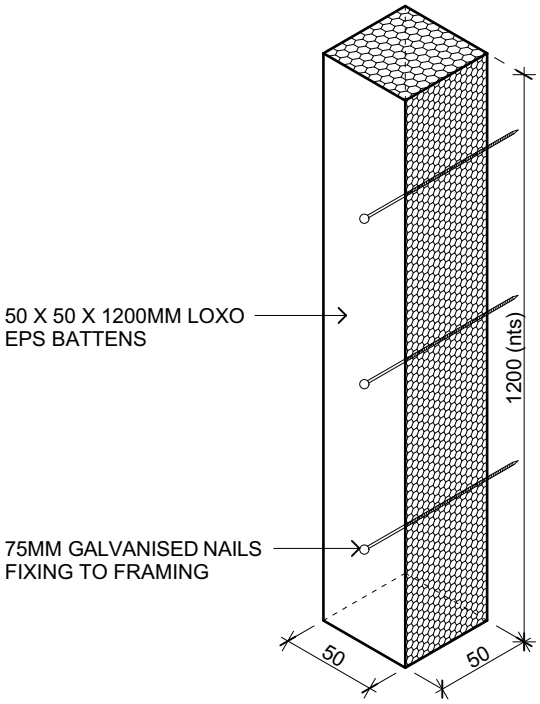
LOXO CLASSIC VENT

Det. 1.2.3
Scale NTS



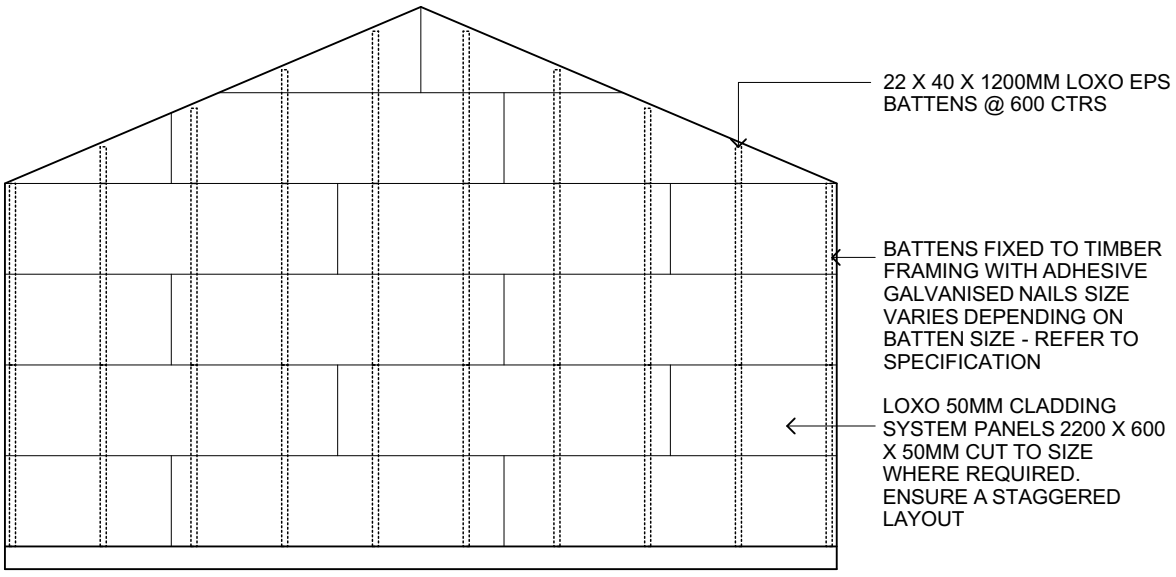
LOXO (CLASS V.H) EPS CONTINUOUS BATTENS - CLASSIC (22mm)

Det. 2.1.1
Scale NTS



LOXO (CLASS V.H) EPS CONTINUOUS BATTENS - DELUXE (50mm)

Det. 2.1.2
Scale NTS

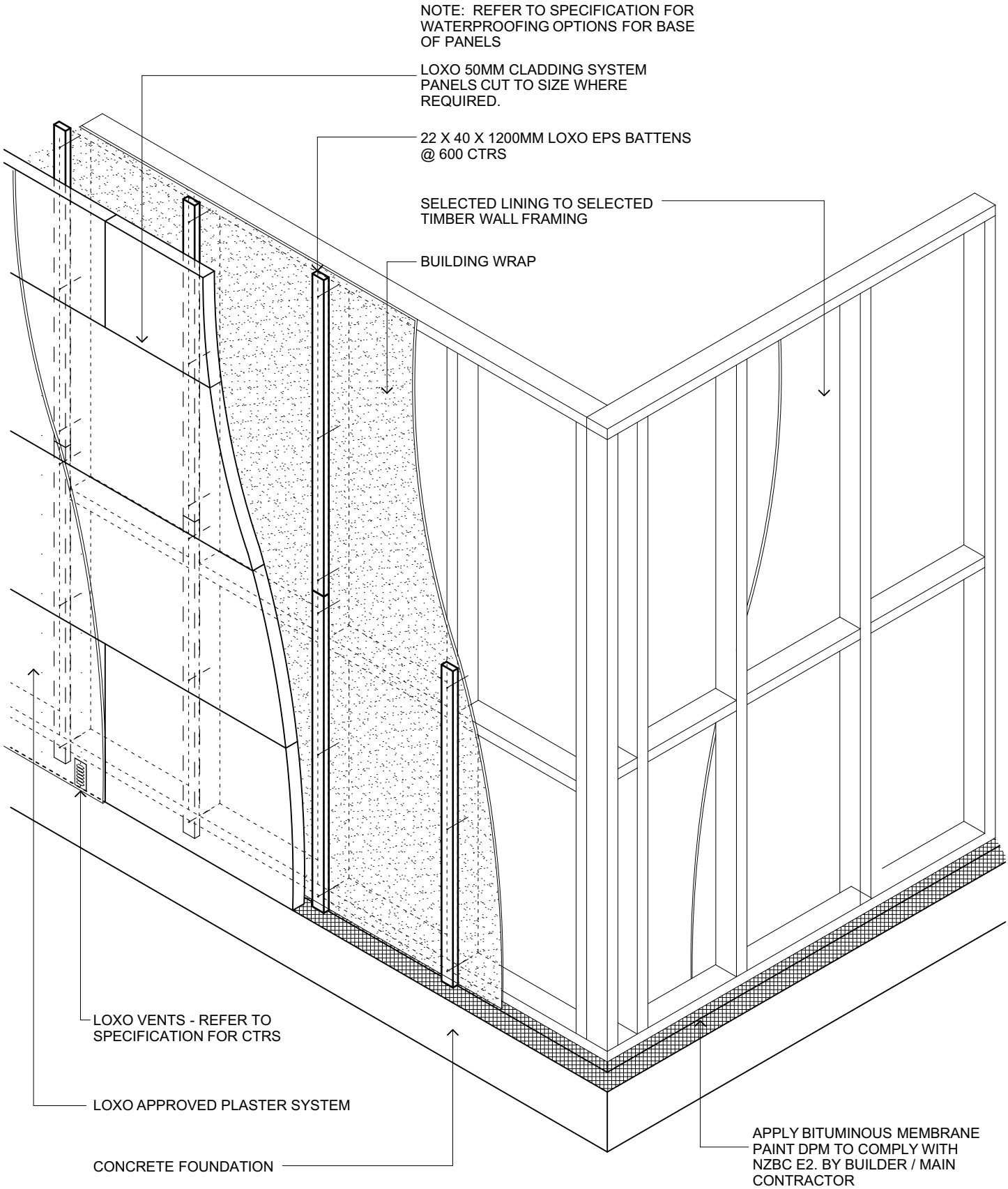


SINGLE STOREY PANEL ELEVATION

Det. 2.1.3
Scale 1:50

UPDATED APRIL 2018

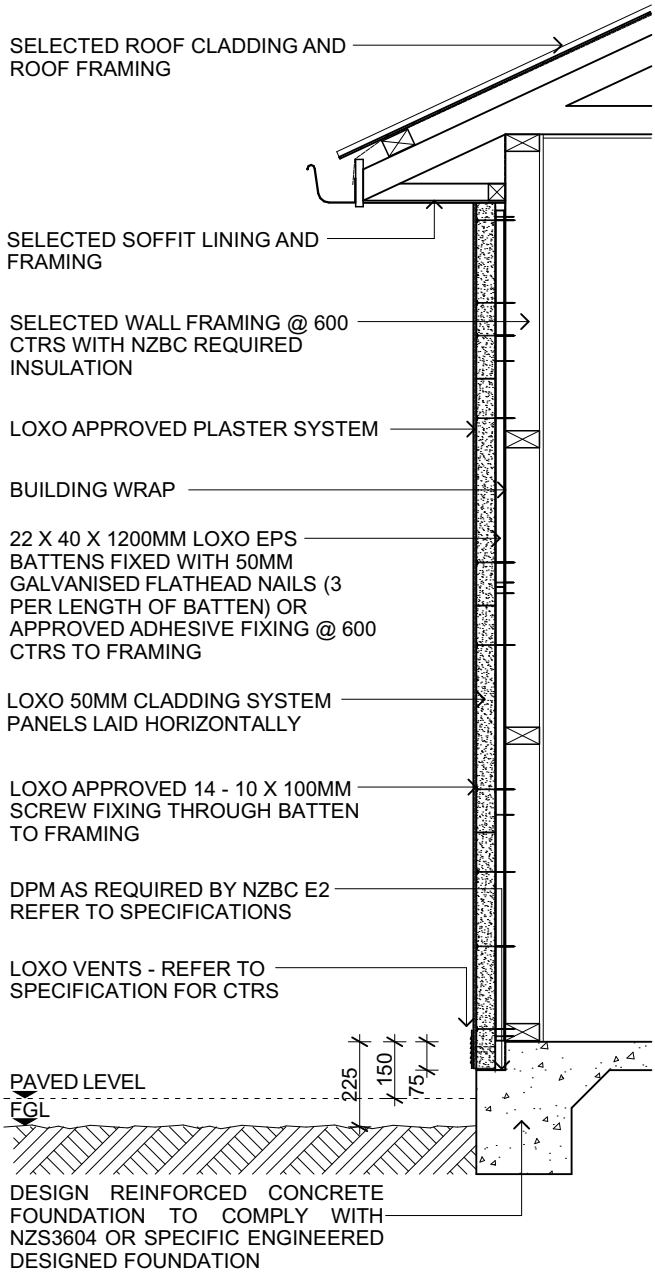
2.2 GENERAL ARRANGEMENT



GENERAL ARRANGEMENT

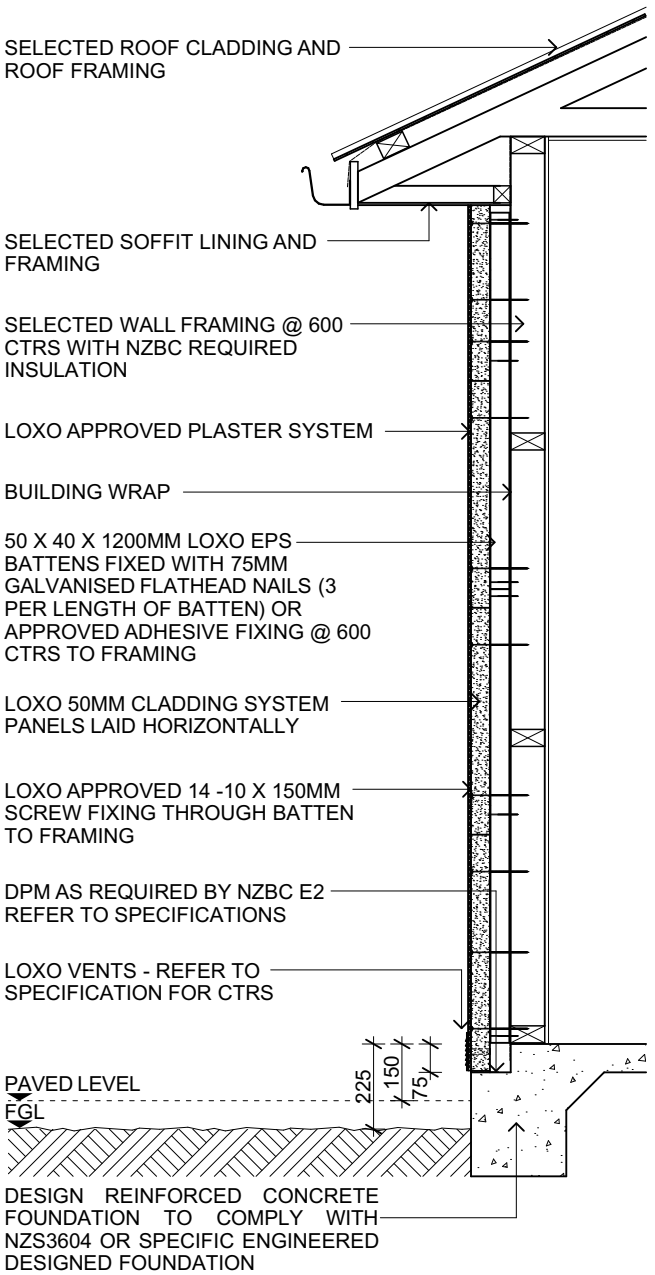
Det. 2.2.1
Scale NTS
UPDATED AUGUST 2020

SINGLE STORY SECTION 2.3



SINGLE STOREY SECTION
22 x 40 x 1200mm CLASSIC BATTEN

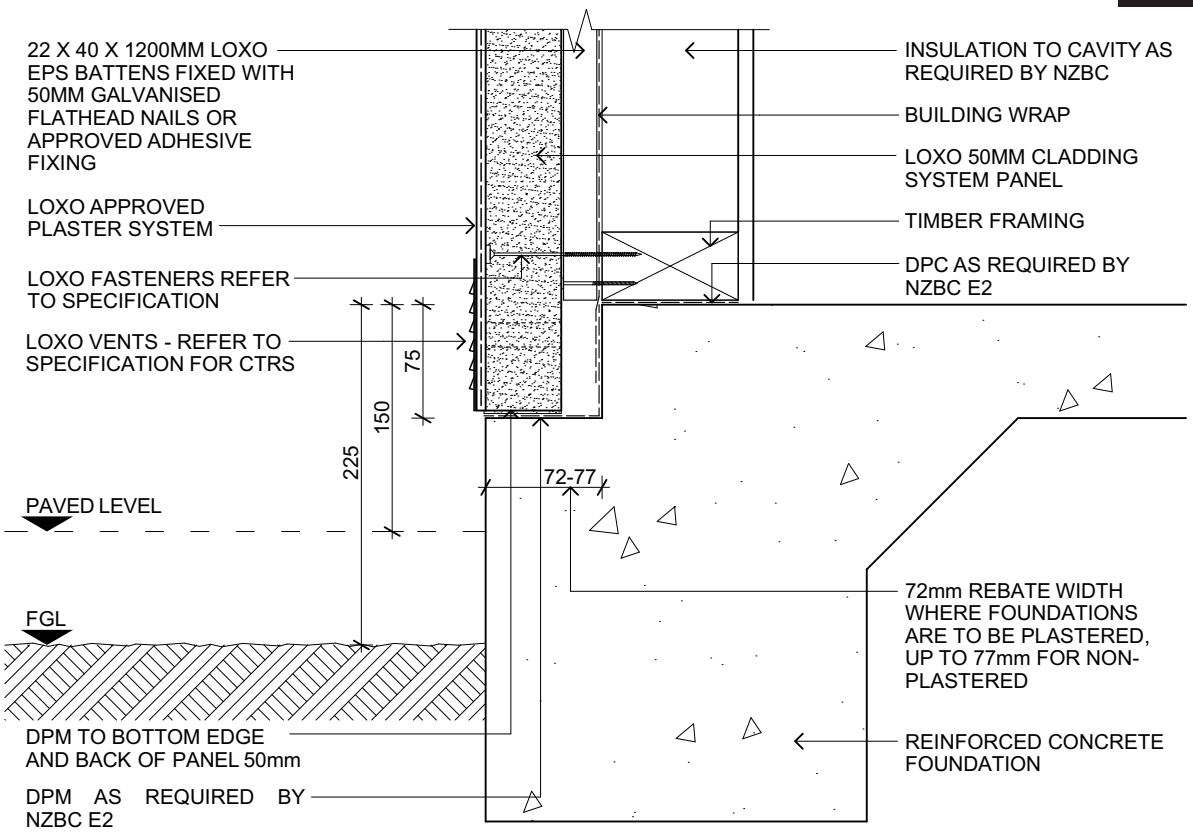
Det. 2.3.1
Scale 1:20
UPDATED AUGUST 2020



SINGLE STOREY SECTION
50 x 40 x 1200mm DELUXE BATTEN

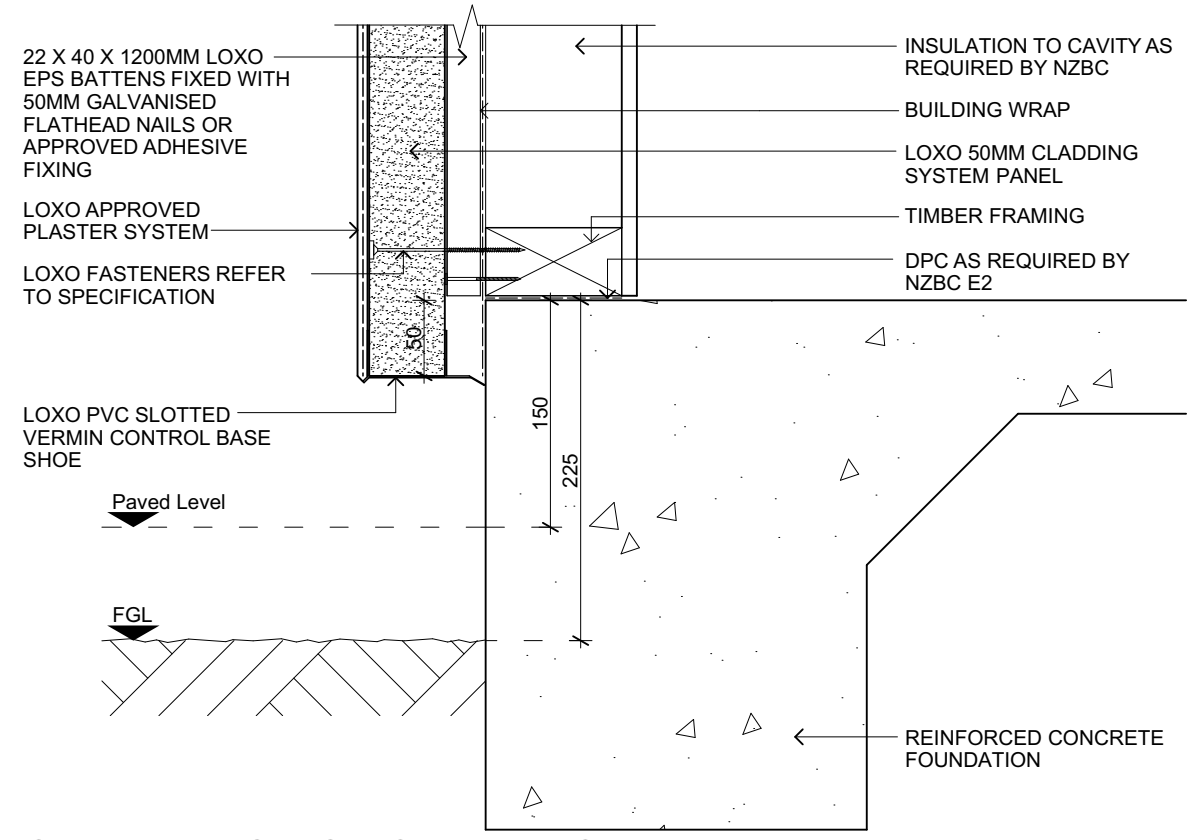
Det. 2.3.2
Scale 1:20
UPDATED AUGUST 2020

3.1 FOUNDATION & FLOORS



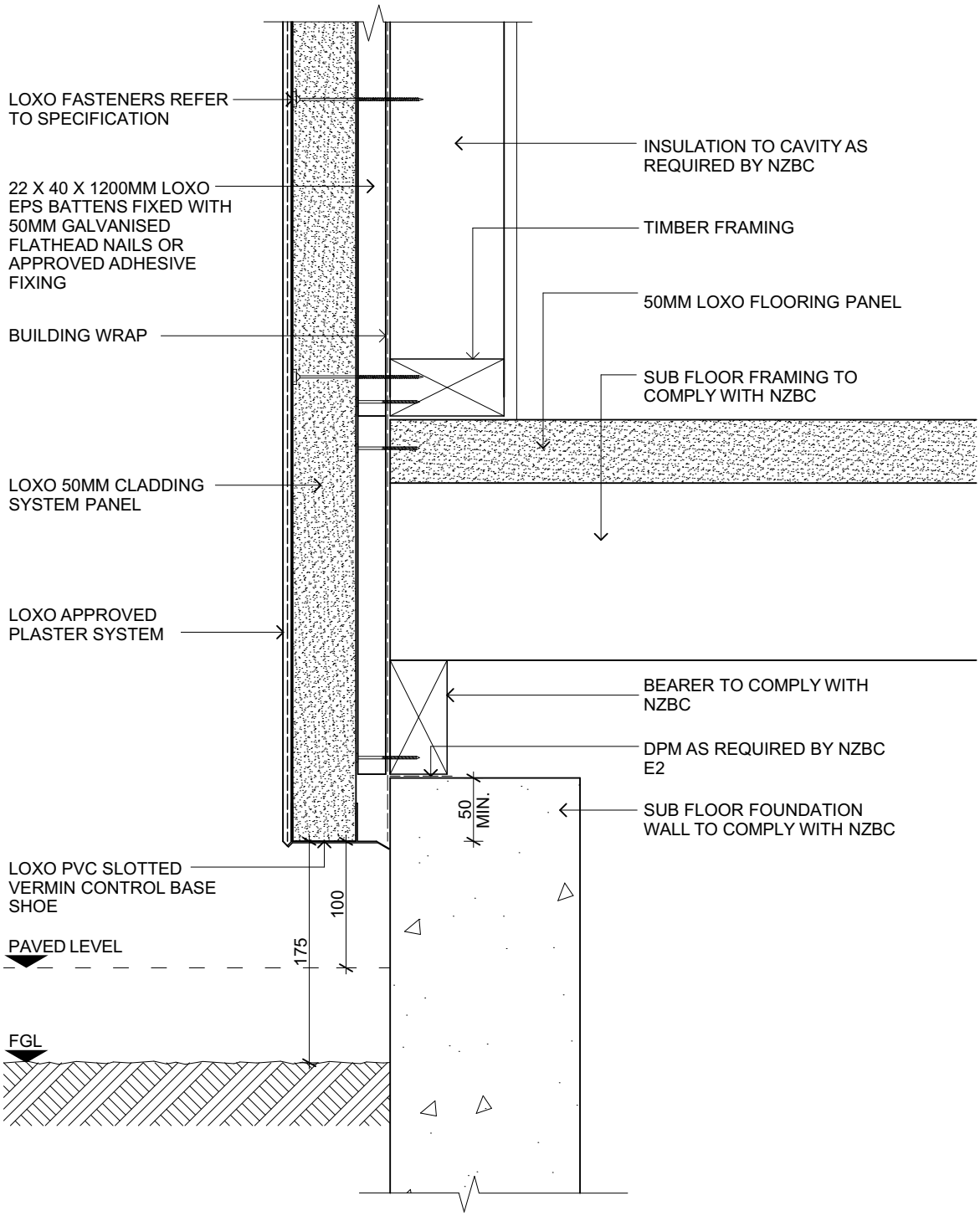
REBATED STEP-DOWN FOUNDATION DETAIL

Det. 3.1.1
Scale 1:5
UPDATED AUGUST 2020



OVER-HANGING FOUNDATION DETAIL

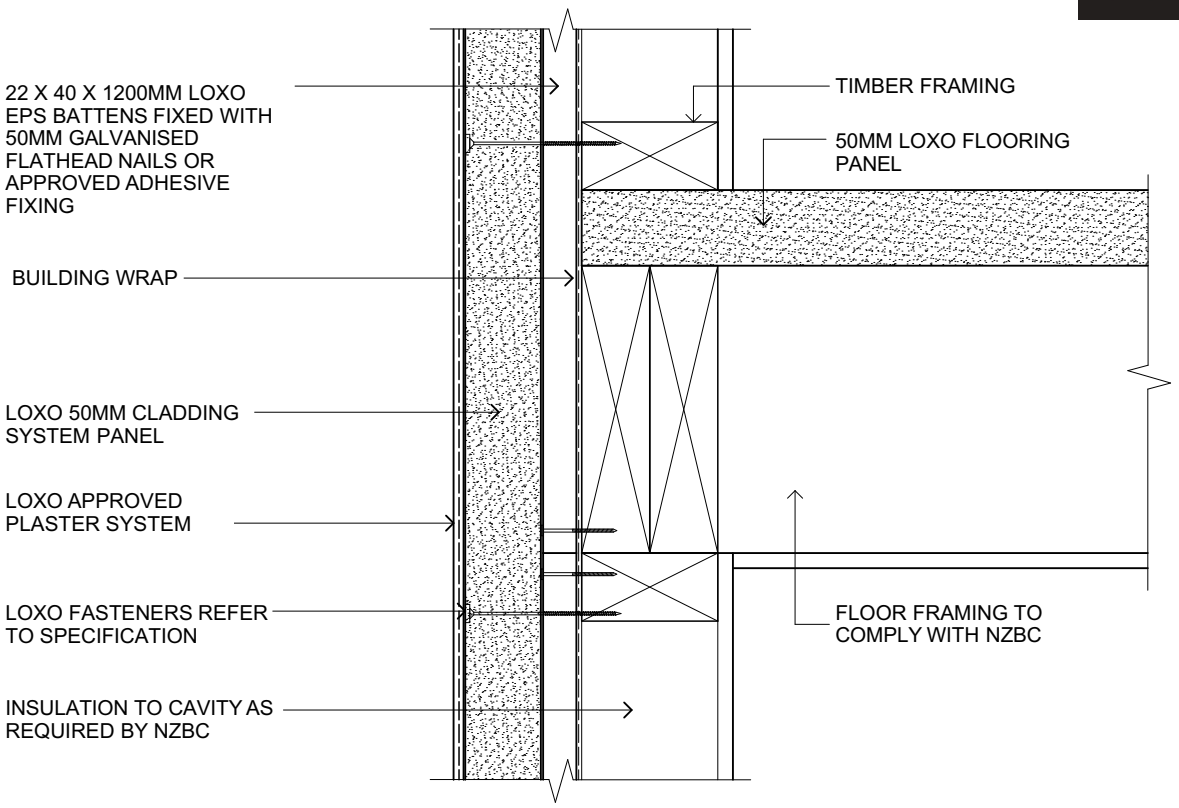
Det. 3.1.2
Scale 1:5
UPDATED AUGUST 2020



TIMBER FLOOR DETAIL

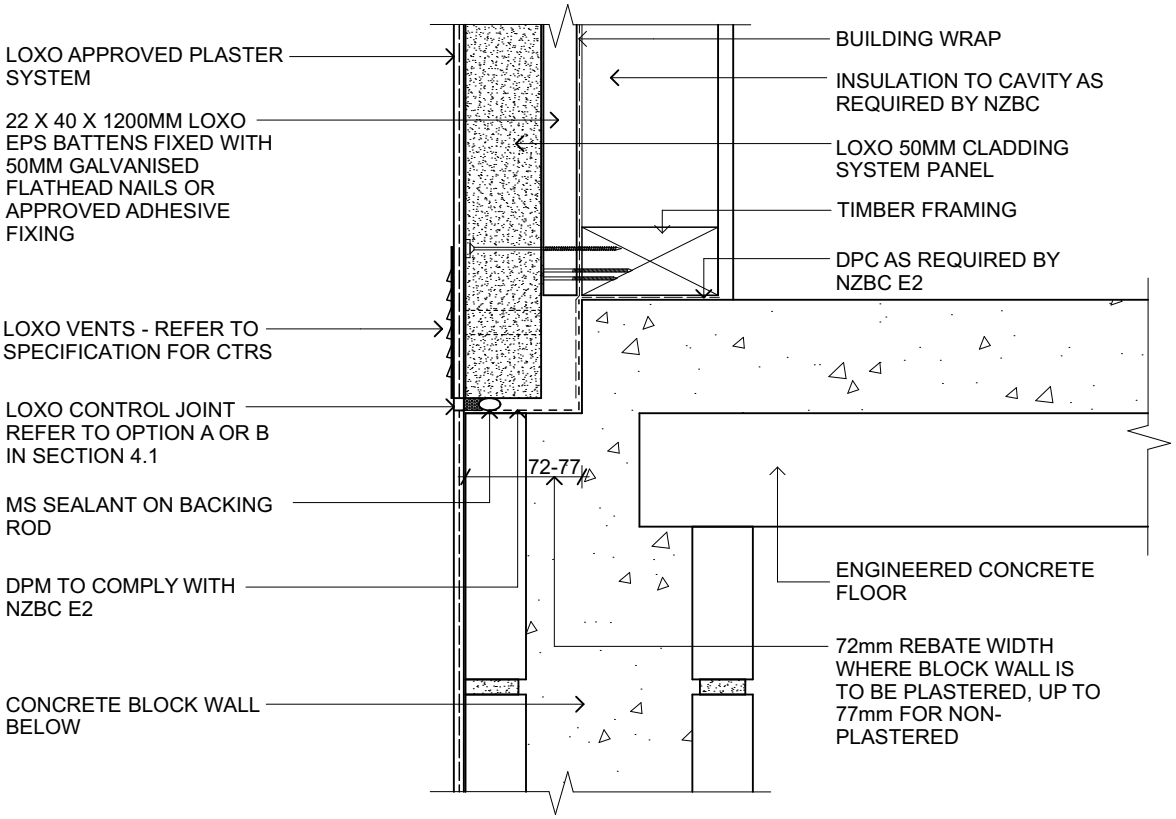
Det. 3.2.1
Scale 1:5
UPDATED AUGUST 2020

3.3 MID FLOOR



TIMBER MID-FLOOR DETAIL

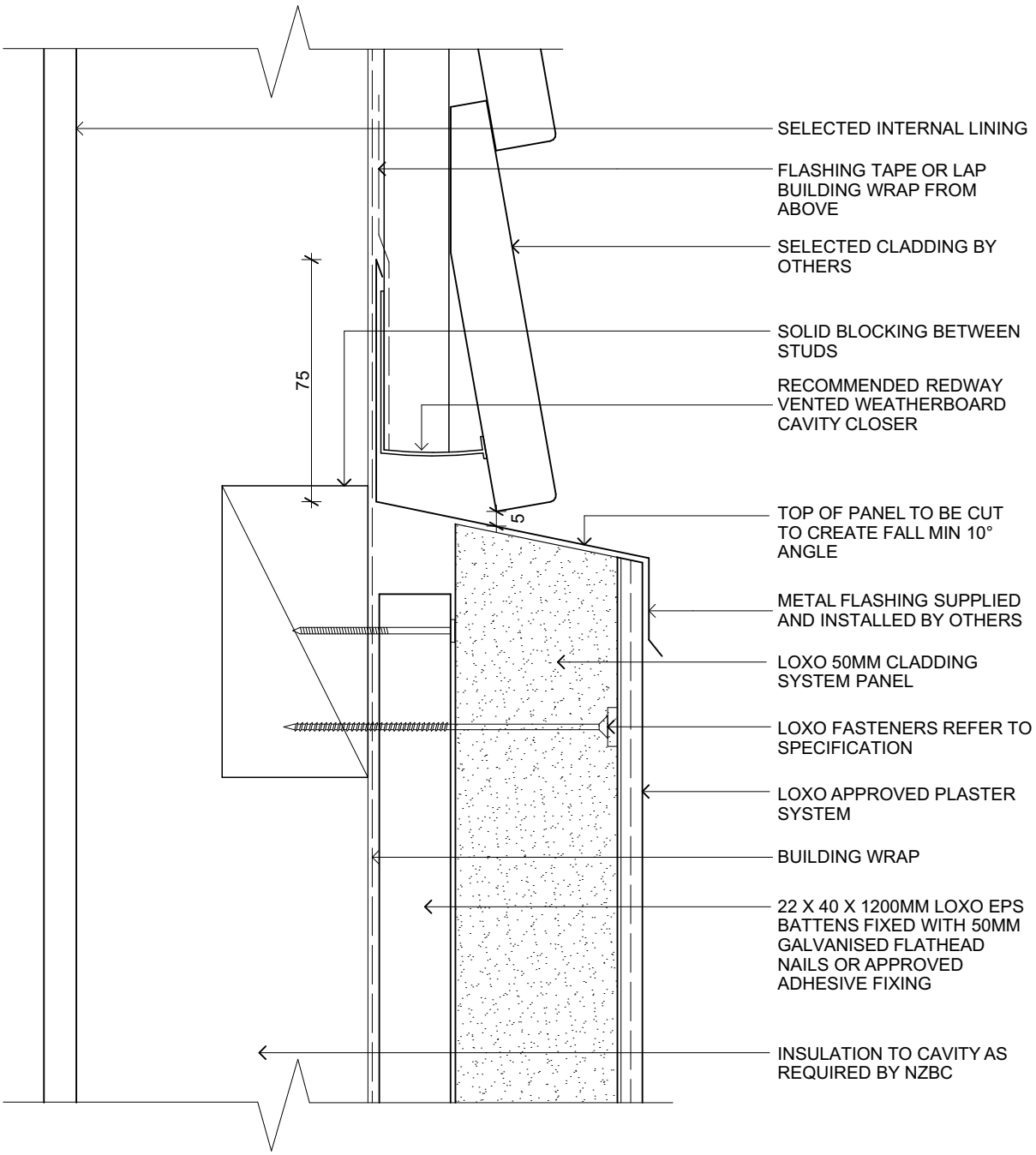
Det. 3.3.1
Scale 1:5
UPDATED AUGUST 2020



CONCRETE MID-FLOOR DETAIL

Det. 3.3.2
Scale 1:5
UPDATED AUGUST 2020

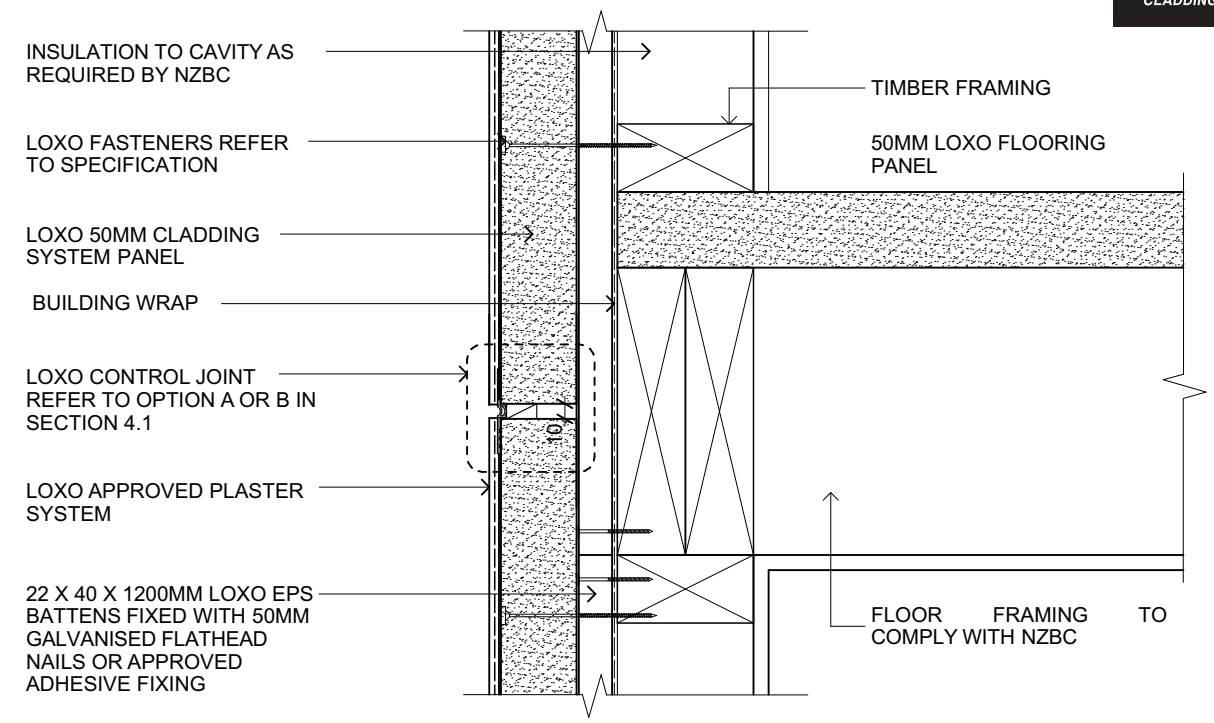
VERTICAL CLAD CHANGE 3.4



MID-FLOOR CLADDING CHANGE DETAIL

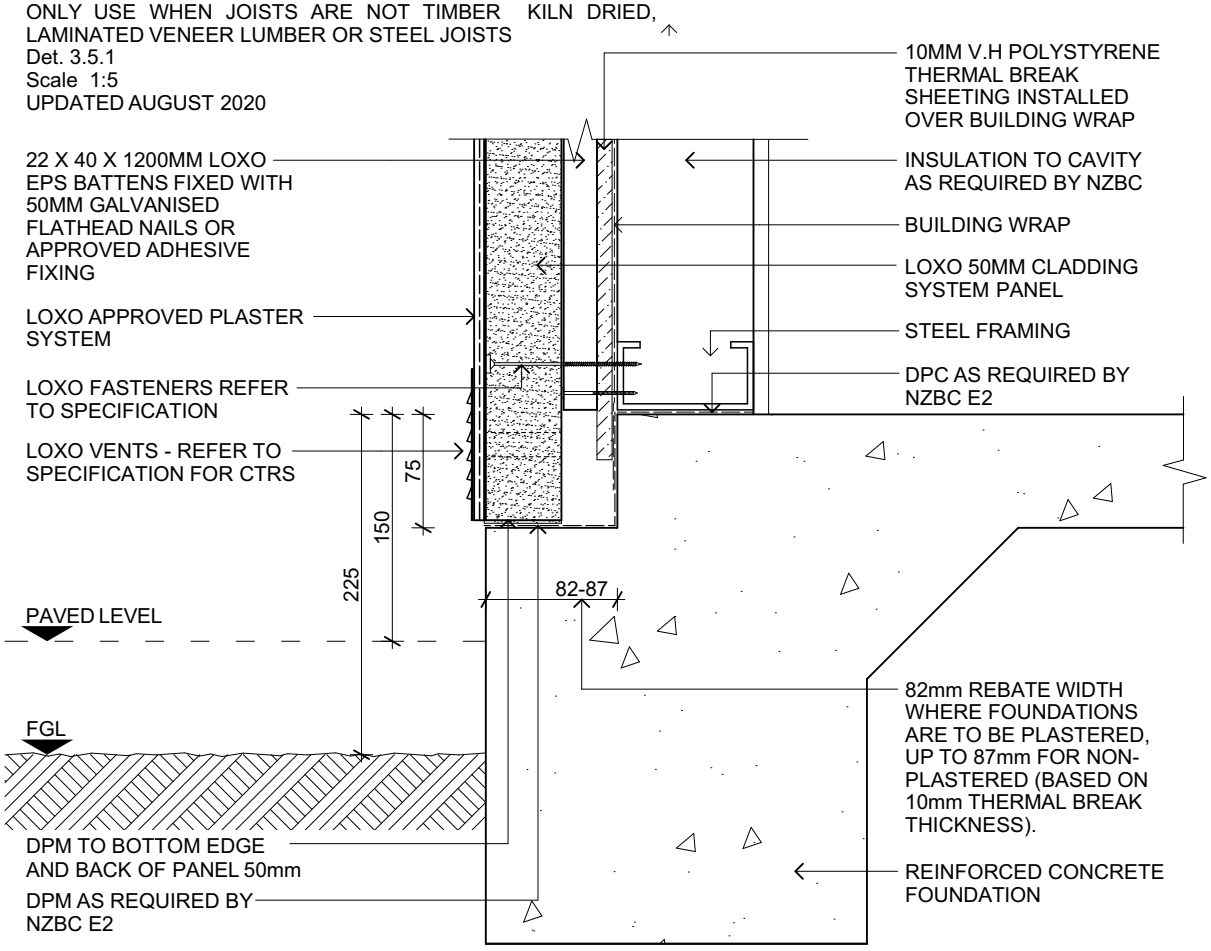
Det. 3.4.1
Scale 1:2
UPDATED AUGUST 2020

3.5 FOUNDATION & FLOORS



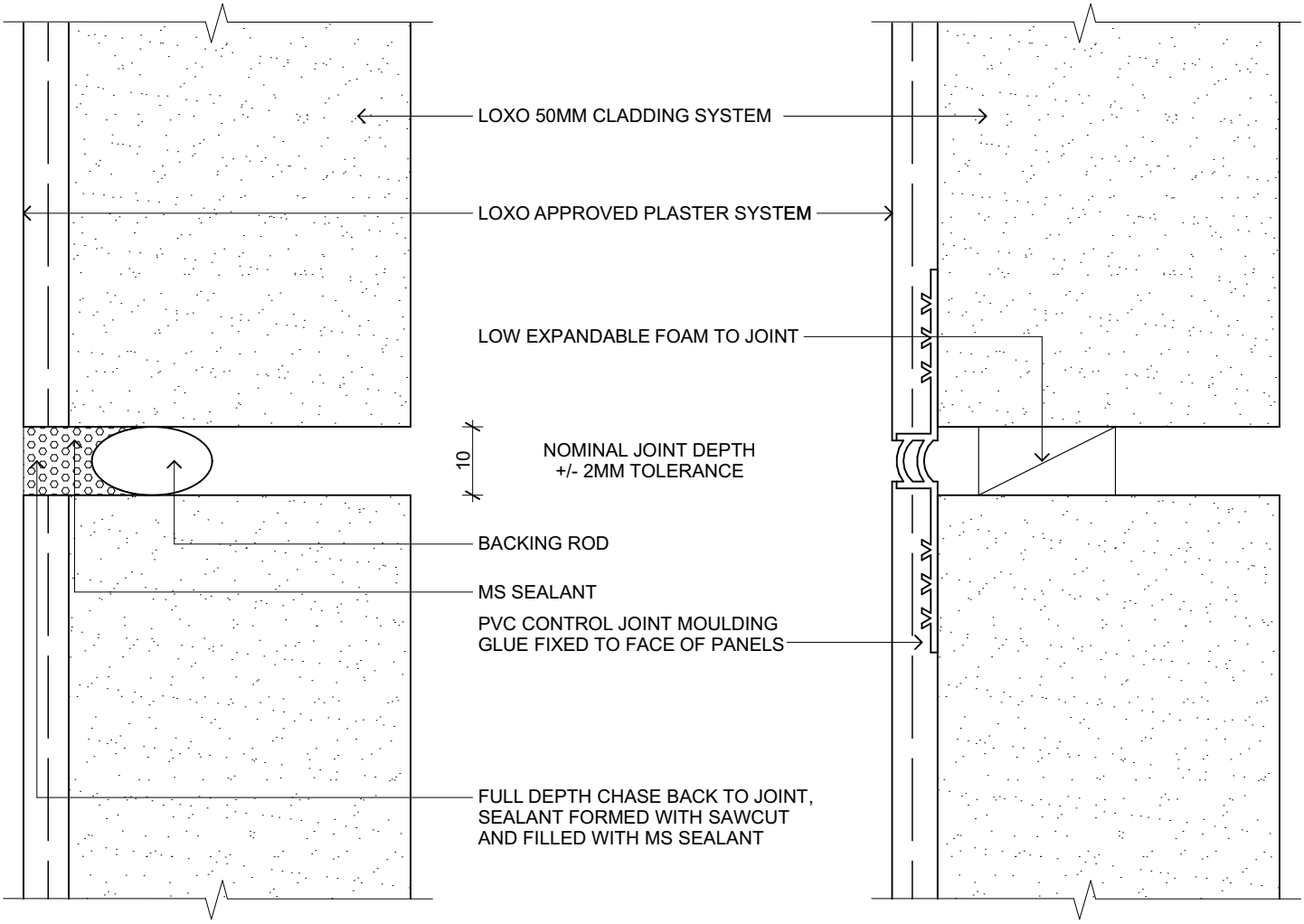
TIMBER MID-FLOOR DETAIL

ONLY USE WHEN JOISTS ARE NOT TIMBER KILN DRIED, LAMINATED VENEER LUMBER OR STEEL JOISTS
Det. 3.5.1
Scale 1:5
UPDATED AUGUST 2020



REBATED FOUNDATION WITH THERMAL BREAK POLYSTYRENE SHEETING

Det. 3.5.2
Scale 1:5
UPDATED AUGUST 2020



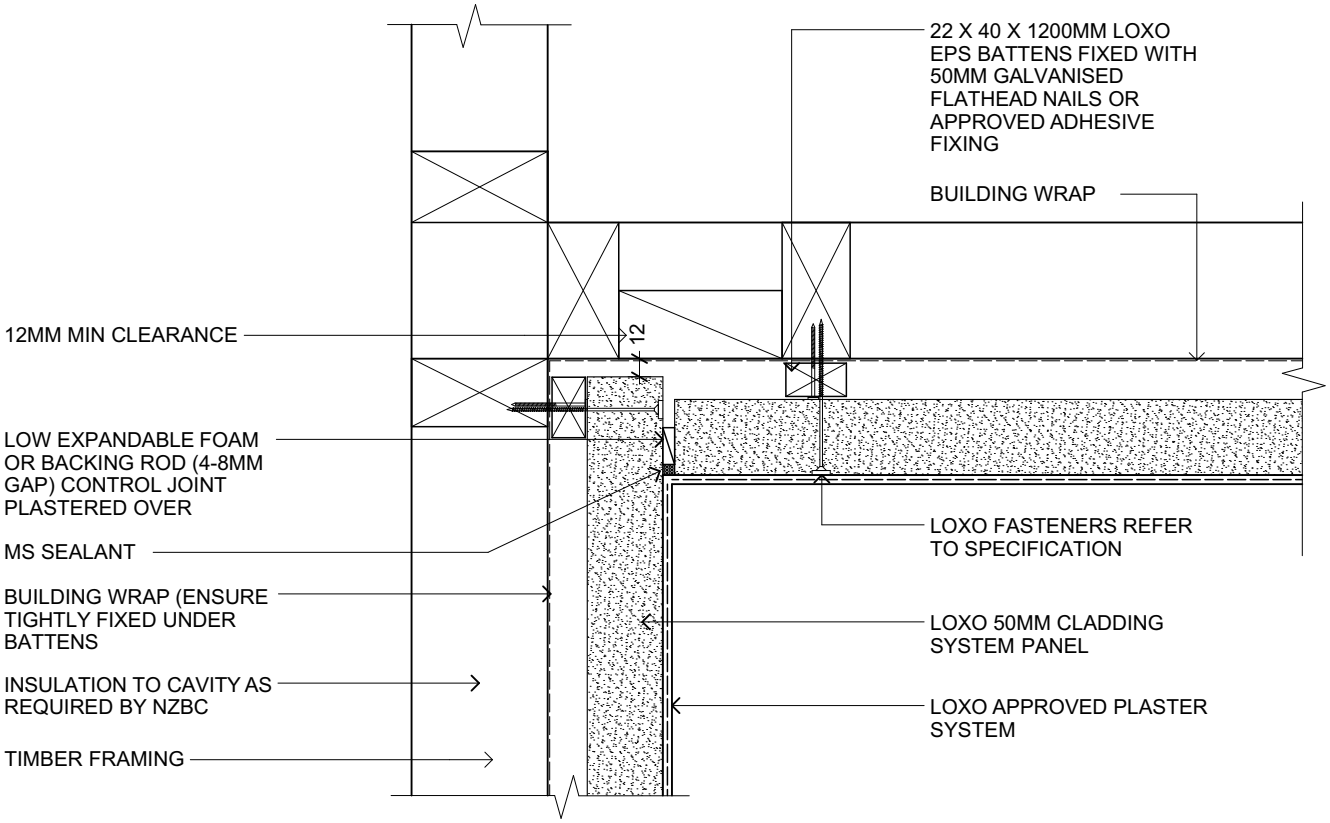
HORIZONTAL / VERTICAL CONTROL JOINT OPT A

Det. 4.1.1
Scale 1:1
UPDATED AUGUST 2020

HORIZONTAL / VERTICAL CONTROL JOINT OPT B

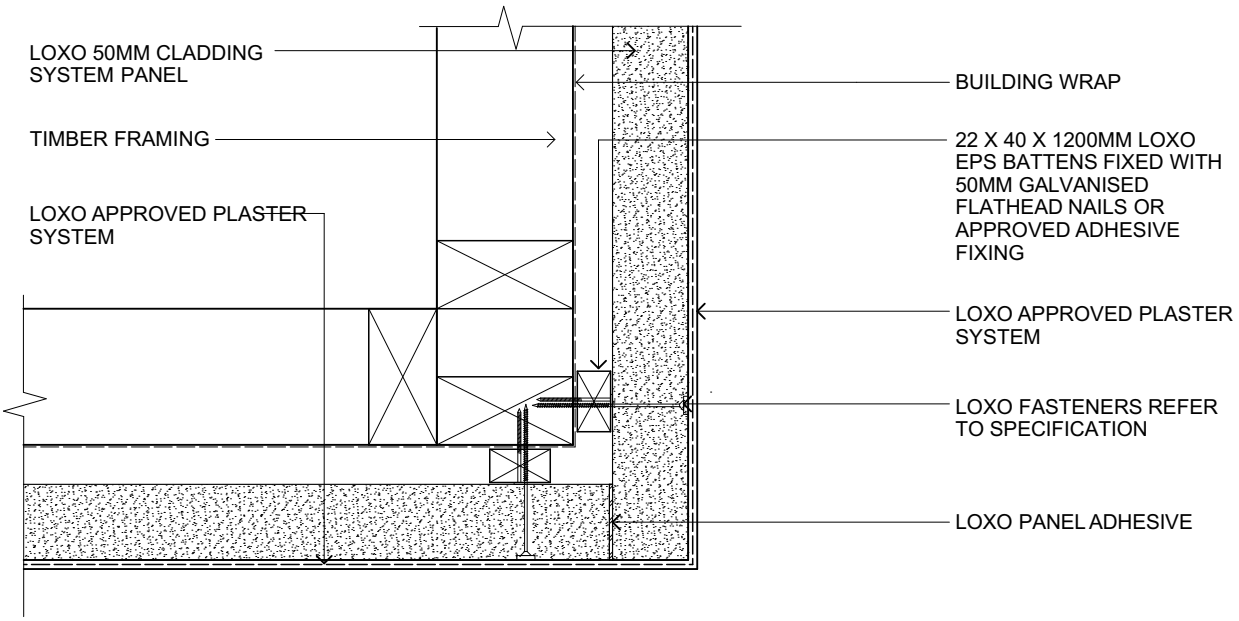
Det. 4.1.2
Scale 1:1
UPDATED AUGUST 2020

5.1 CORNER JUNCTION



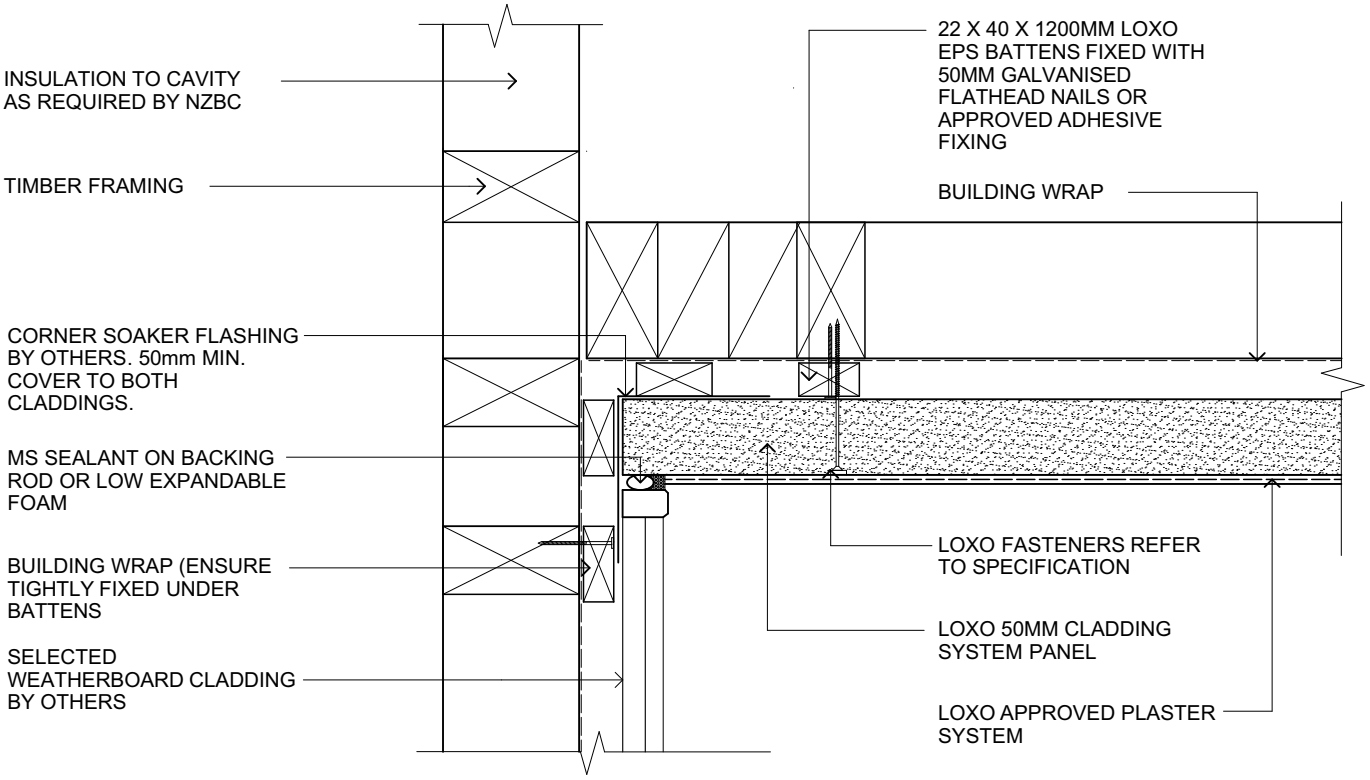
LOXO PANEL INTERNAL CORNER JUNCTION

Det. 5.1.1
Scale 1:5
UPDATED AUGUST 2020



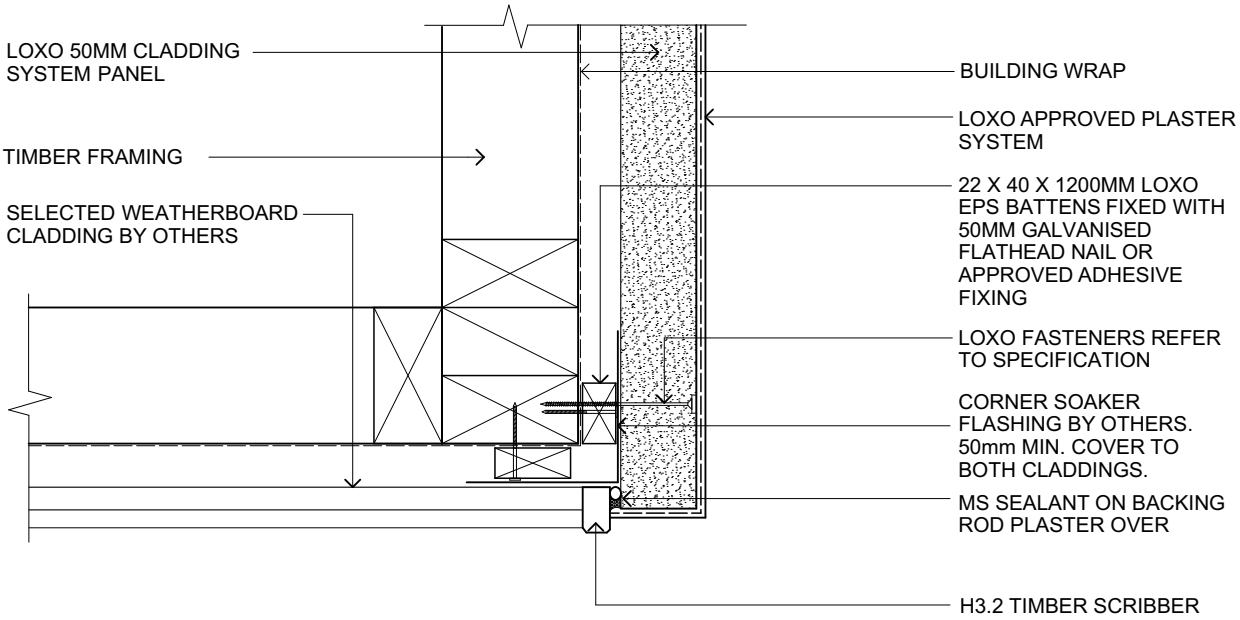
LOXO PANEL EXTERNAL CORNER JUNCTION

Det. 5.1.2
Scale 1:5
UPDATED AUGUST 2020



LOXO PANEL / WEATHERBOARD INTERNAL CORNER JUNCTION

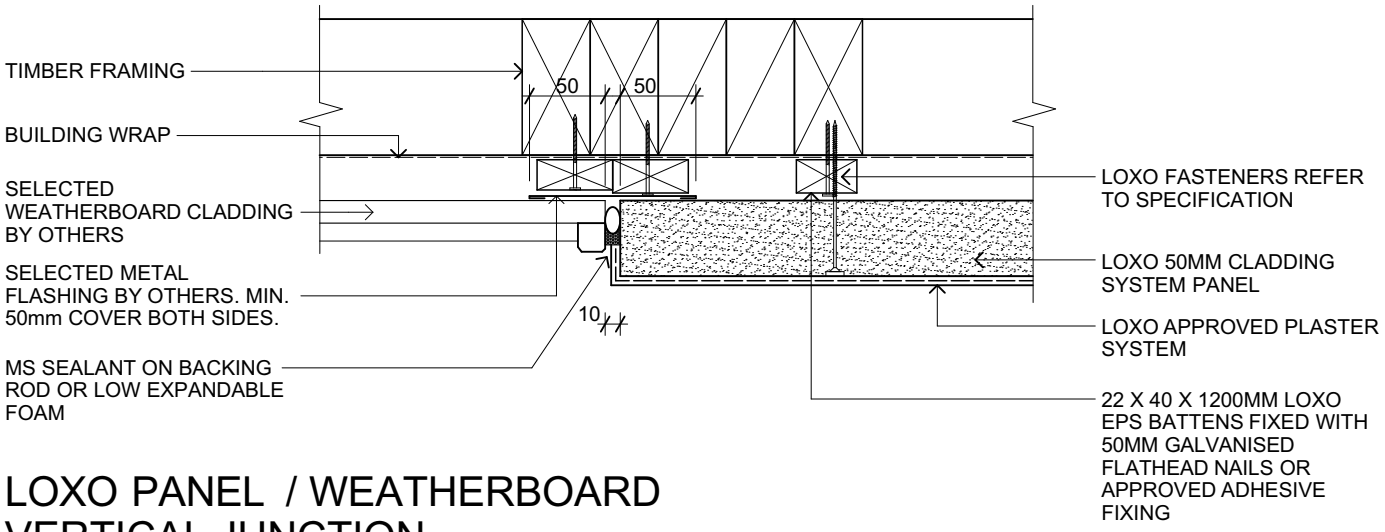
Det. 5.2.1
Scale 1:5
UPDATED AUGUST 2020



LOXO PANEL / WEATHERBOARD EXTERNAL CORNER JUNCTION

Det. 5.2.2
Scale 1:5
UPDATED AUGUST 2020

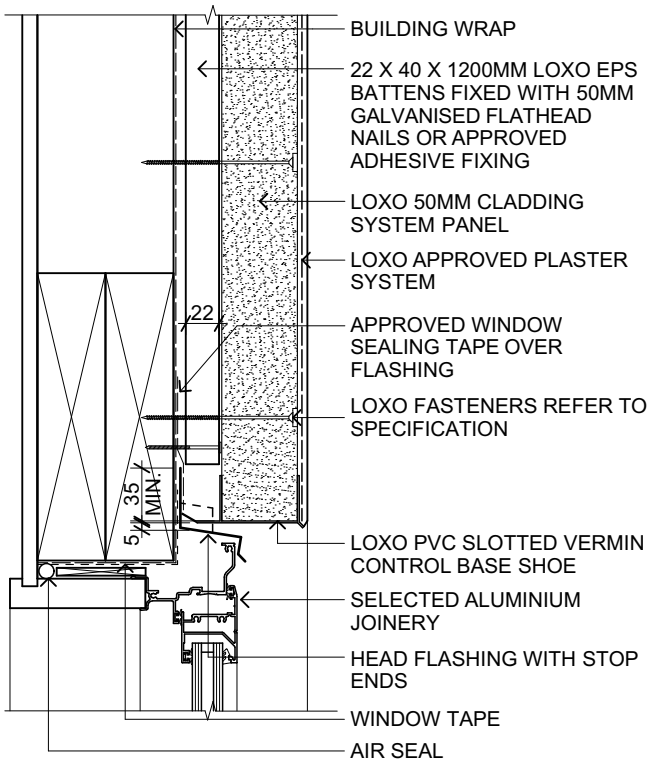
5.3 WEATHERBOARD JUNCTION



LOXO PANEL / WEATHERBOARD VERTICAL JUNCTION

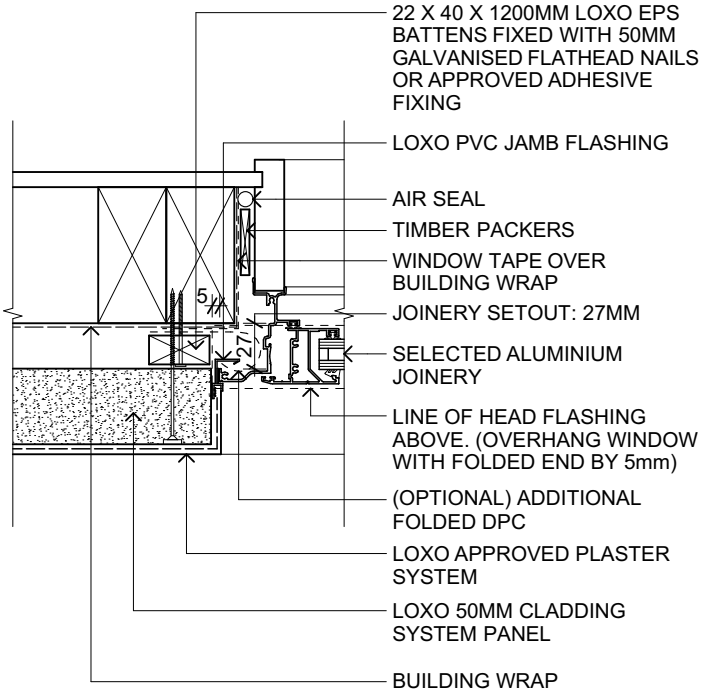
Det. 5.3.1
Scale 1:5
UPDATED AUGUST 2020

WINDOW DETAIL 6.1



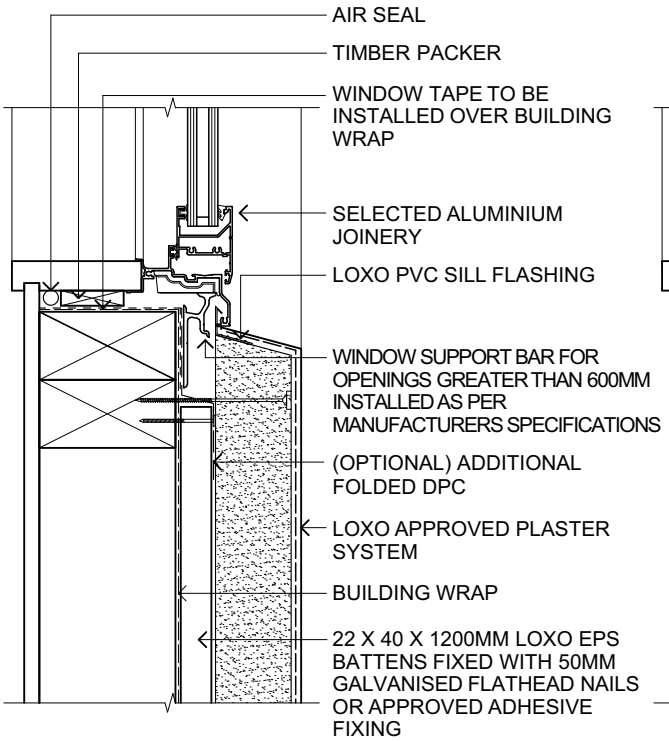
HEAD DETAIL (CLASSIC)

Det. 6.1.1
Scale 1:5
UPDATED AUGUST 2020



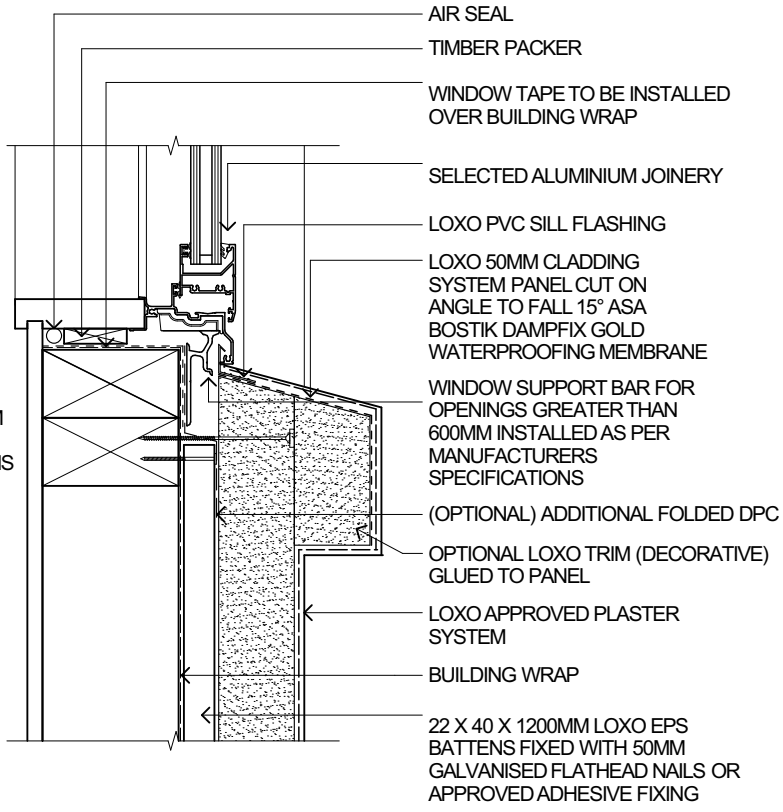
JAMB DETAIL (CLASSIC)

Det. 6.1.3
Scale 1:5
UPDATED AUGUST 2020



SILL DETAIL (CLASSIC)

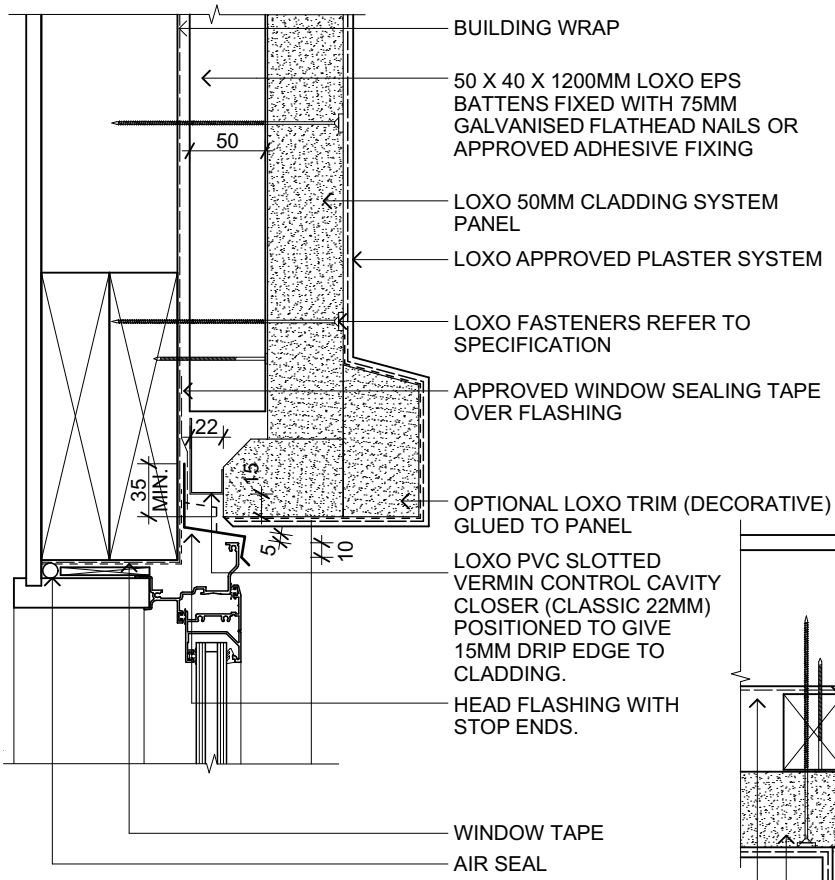
Det.6.1.2
Scale 1:5
UPDATED AUGUST 2020



SILL DETAIL (CLASSIC)

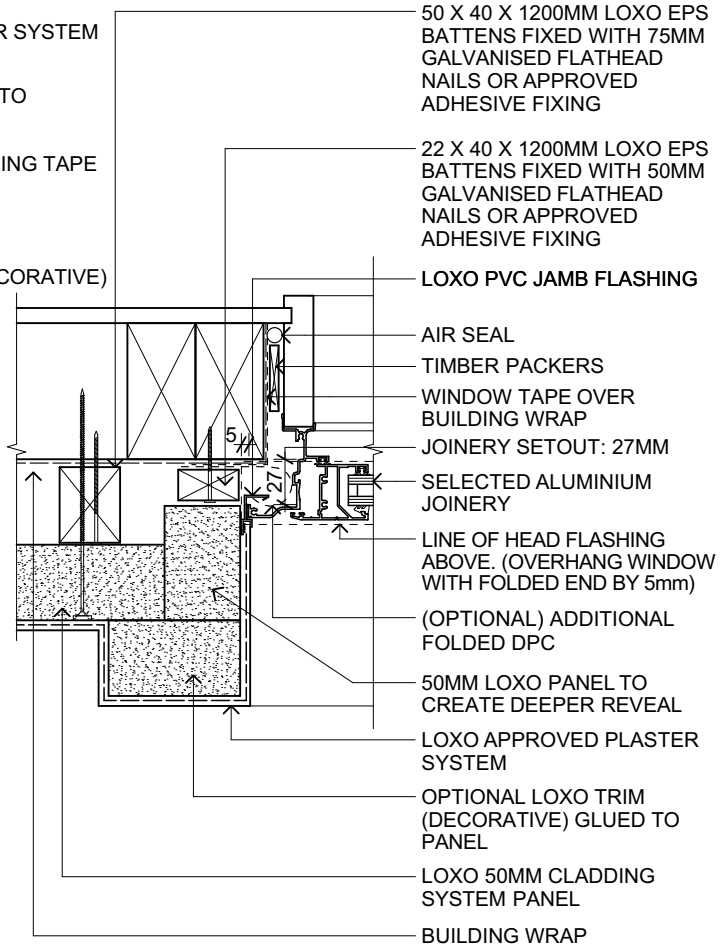
(Decorative Trim Option)
Det. 6.1.4
Scale 1:5
UPDATED AUGUST 2020

6.2 WINDOW DETAIL



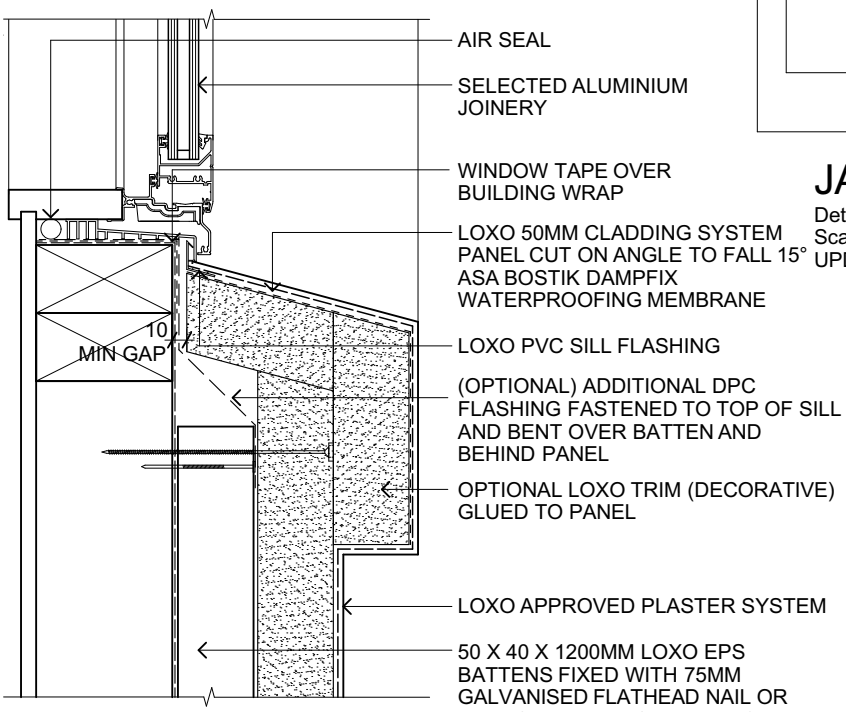
HEAD DETAIL - DELUXE

Det. 6.2.1
Scale 1:5
UPDATED AUGUST 2020



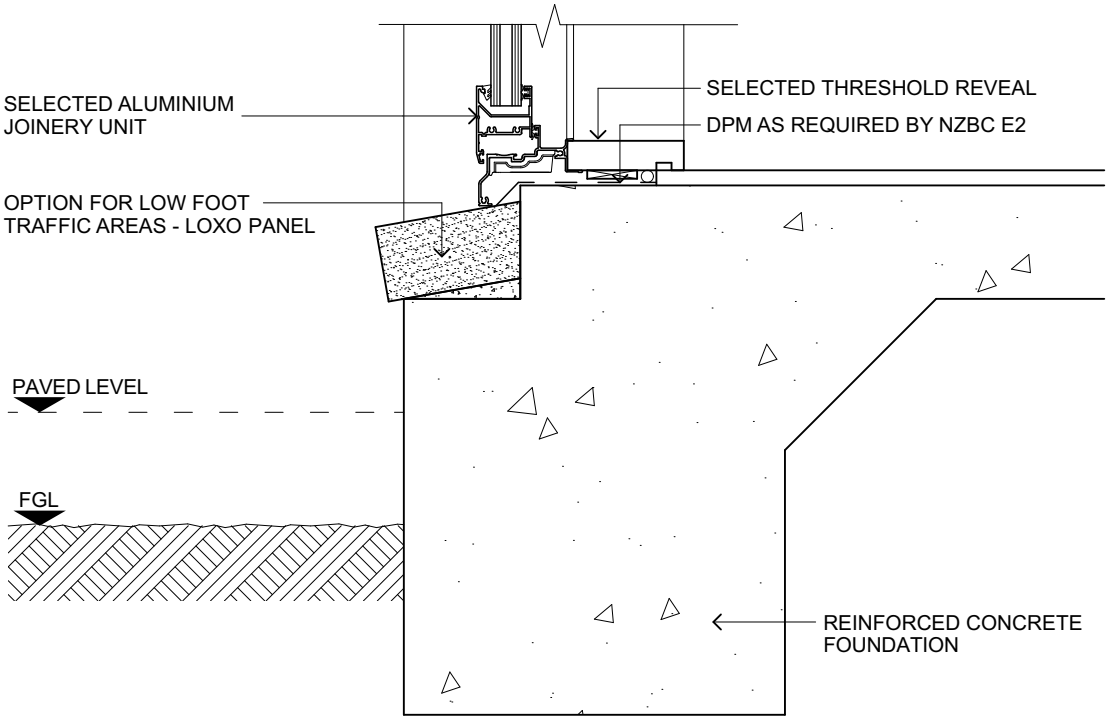
JAMB DETAIL - DELUXE

Det. 6.2.3
Scale 1:5
UPDATED AUGUST 2020



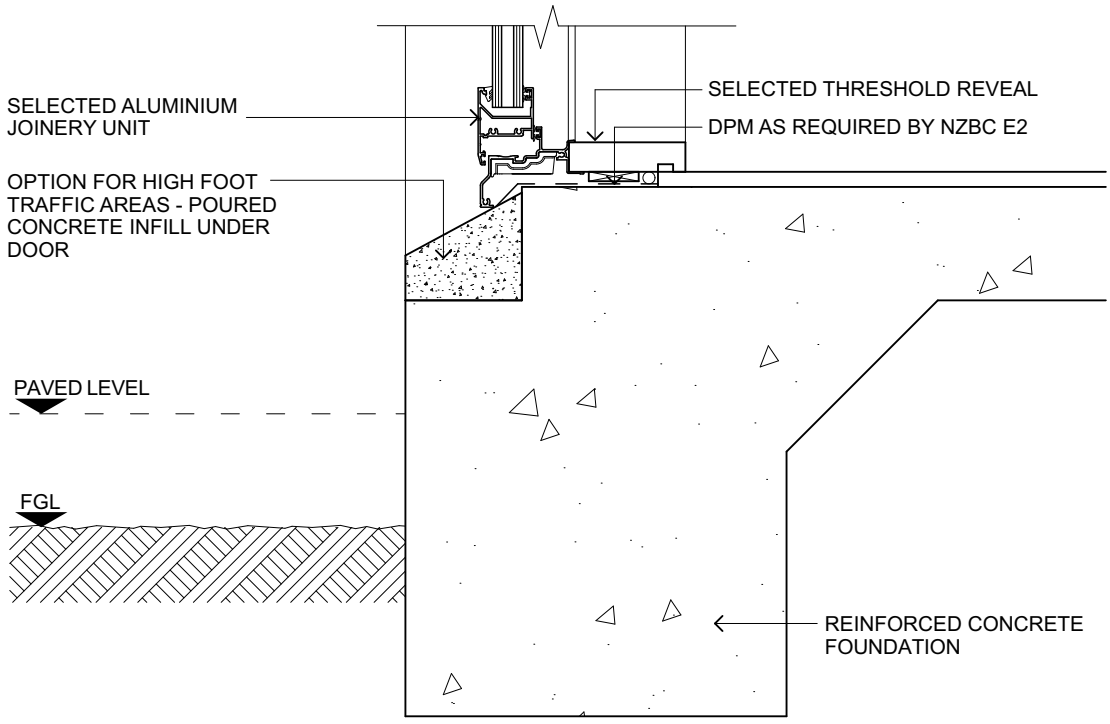
SILL DETAIL - DELUXE

Det. 6.2.2
Scale 1:5
UPDATED AUGUST 2020



THRESHOLD DETAIL - OPT A

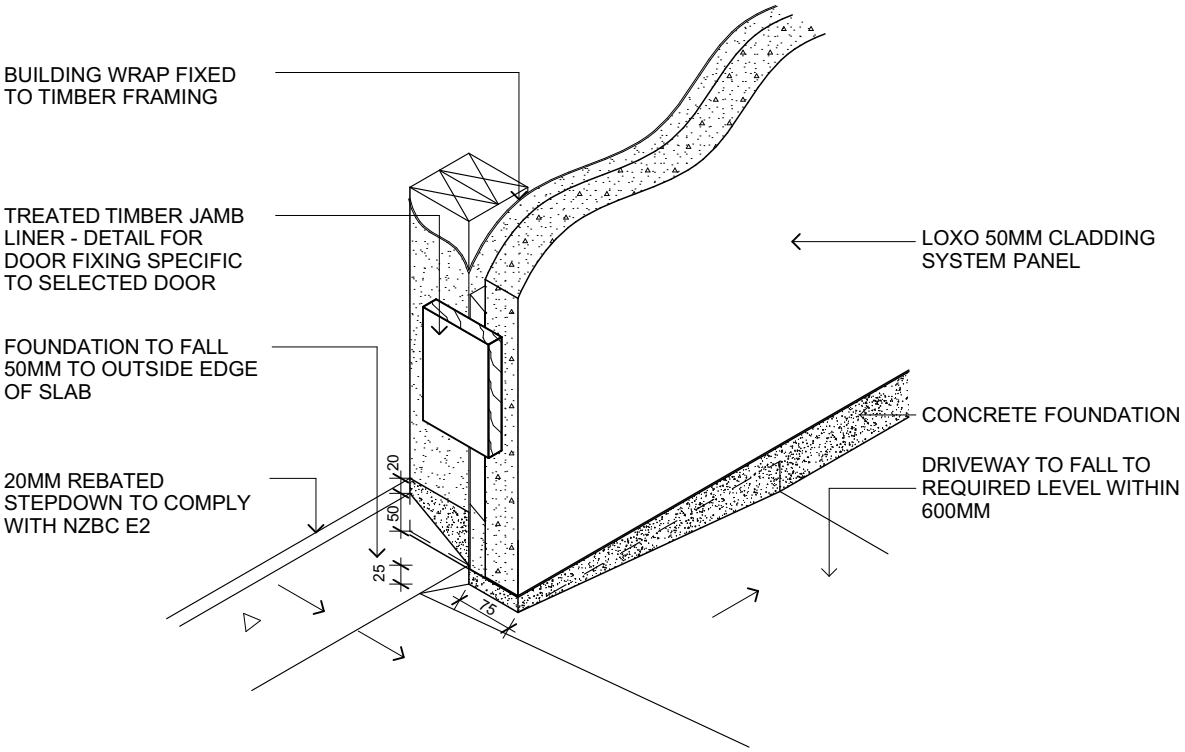
Det. 6.4.1
Scale 1:5



THRESHOLD DETAIL - OPT B

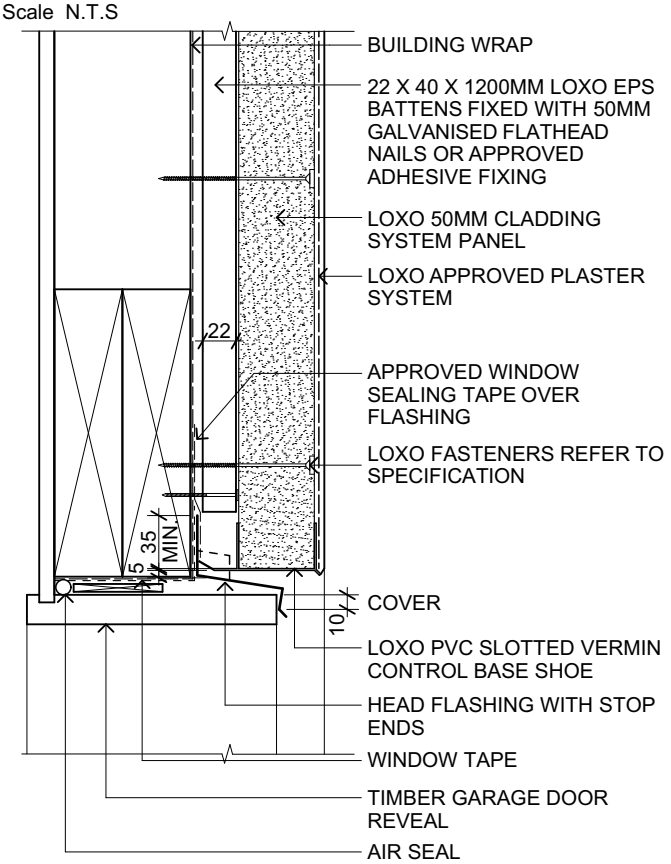
Det. 6.4.2
Scale 1:5

6.5 GARAGE DOOR DETAILS



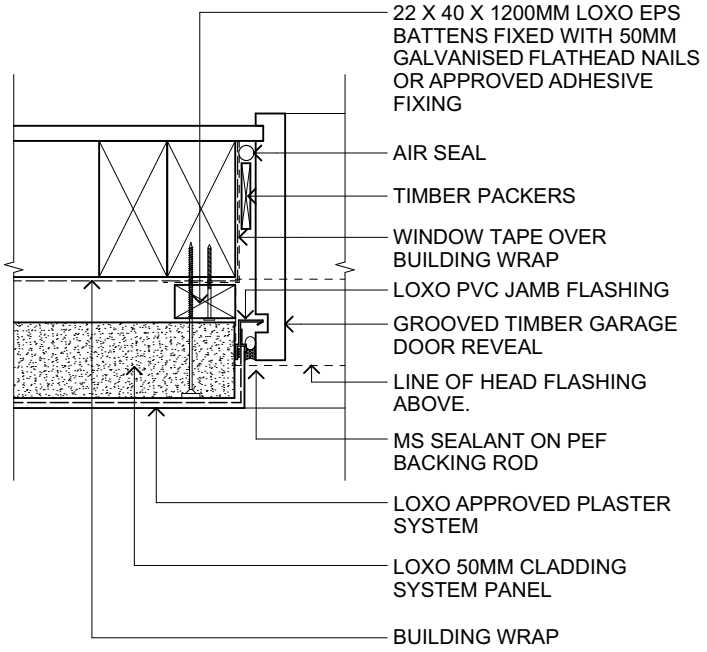
GARAGE DOOR OPENING

Det. 6.5.1
Scale N.T.S



GARAGE DOOR HEAD DETAIL

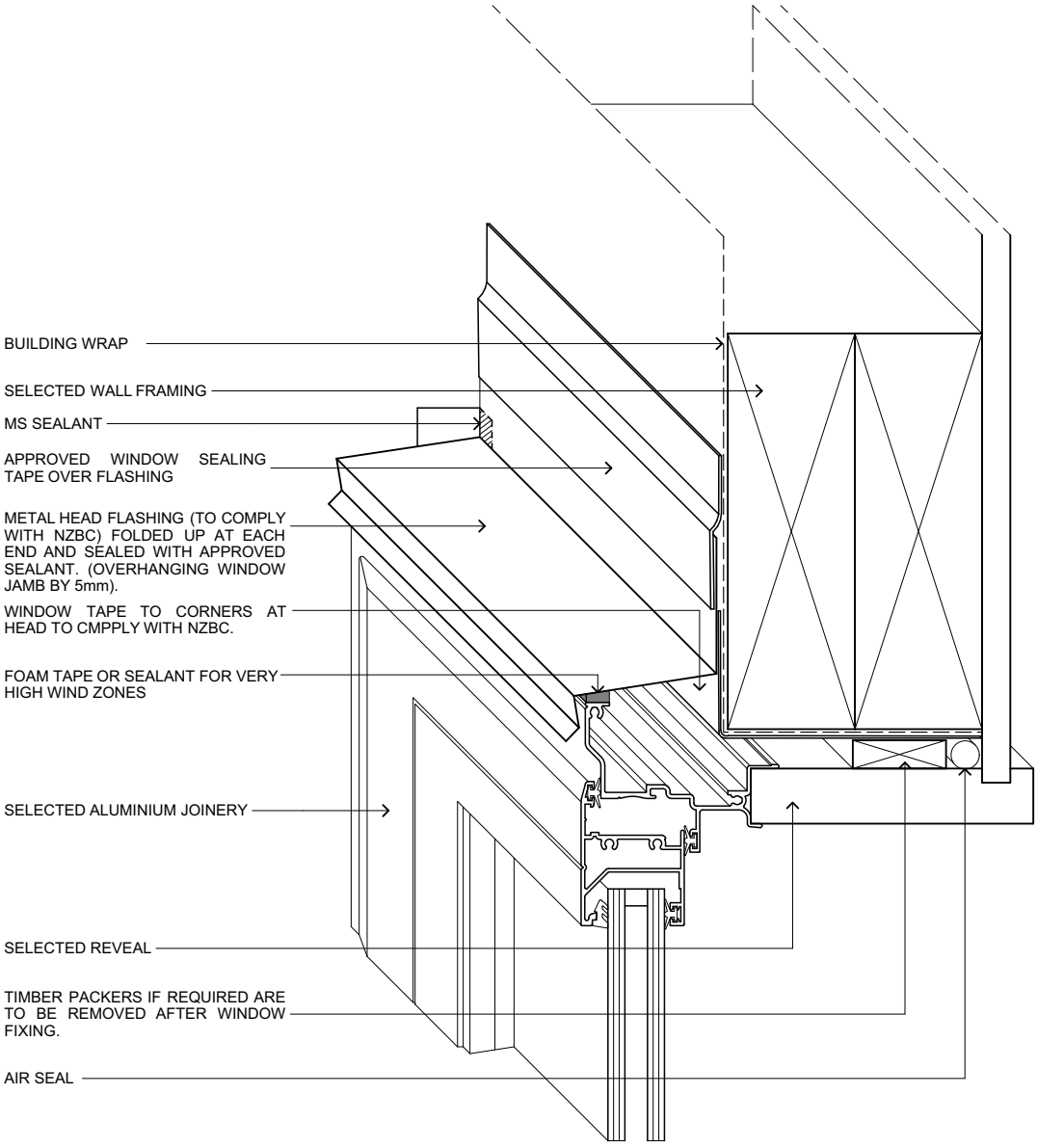
Det. 6.5.2
Scale 1:5
UPDATED AUGUST 2020



GARAGE DOOR JAMB DETAIL

Det. 6.5.3
Scale 1:5
UPDATED AUGUST 2020

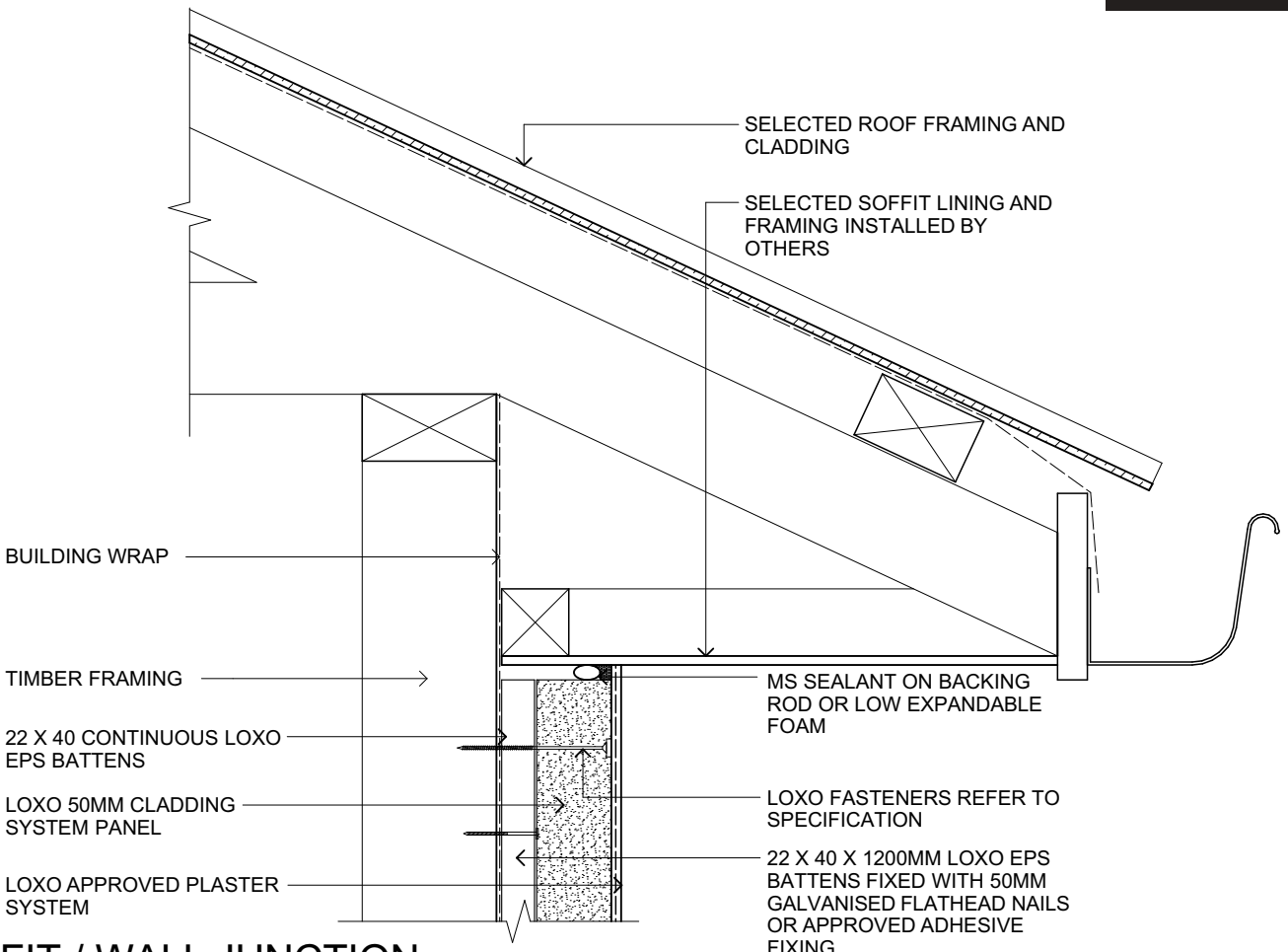
WINDOW HEAD FLASHING 6.8



WINDOW HEAD FLASHING ISOMETRIC

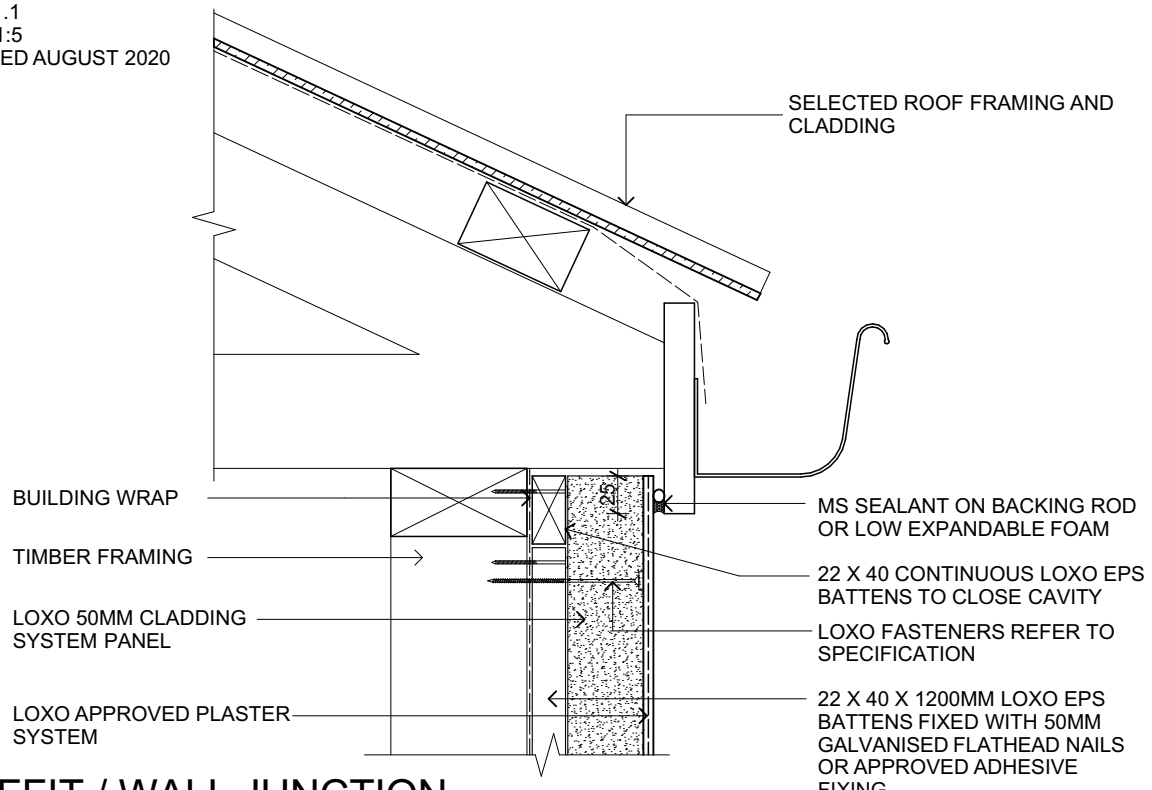
Det. 6.8.2
Scale NTS
UPDATED APRIL 2018

7.1 SOFFIT / WALL JUNCTIONS



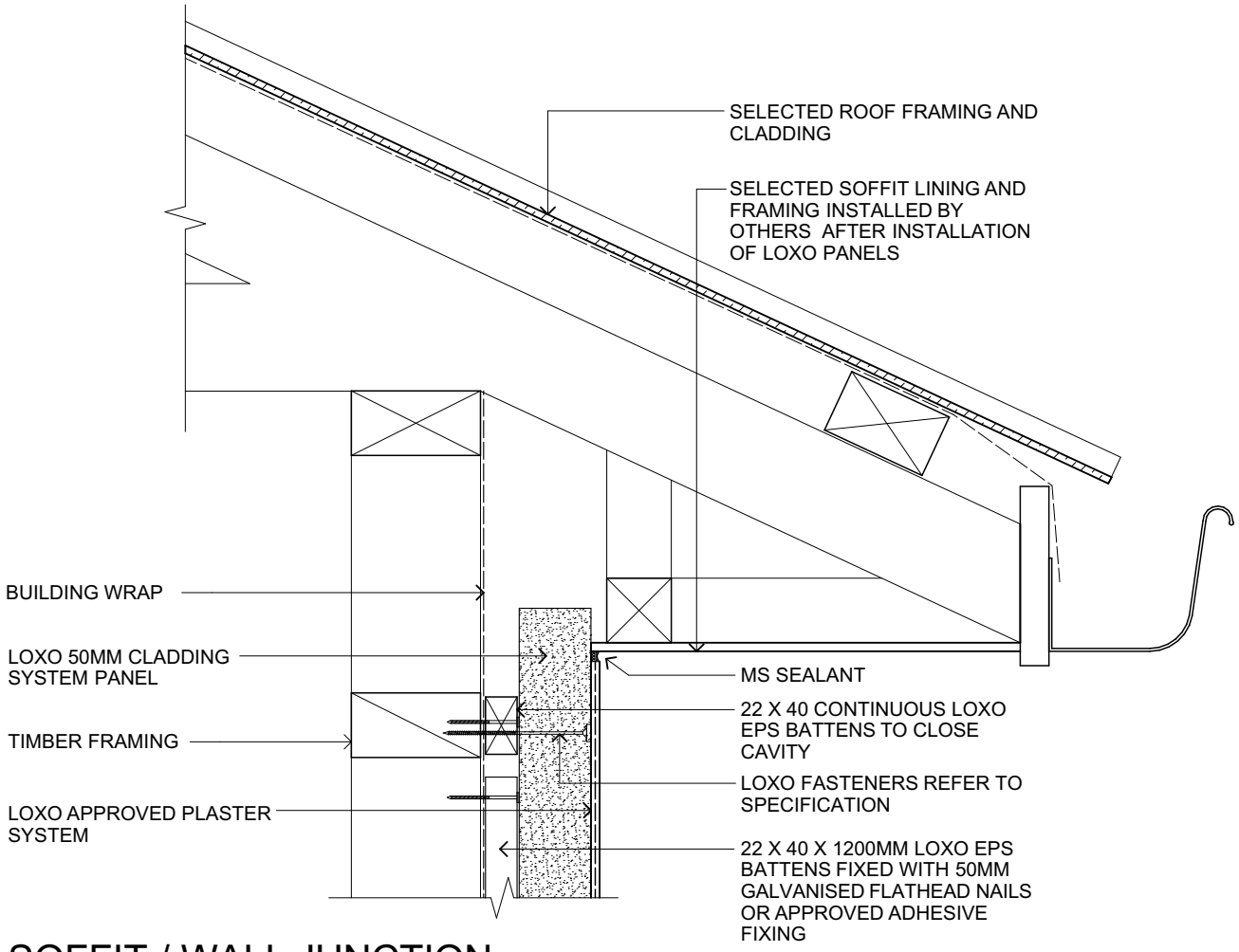
SOFFIT / WALL JUNCTION

Det. 7.1.1
Scale 1:5
UPDATED AUGUST 2020



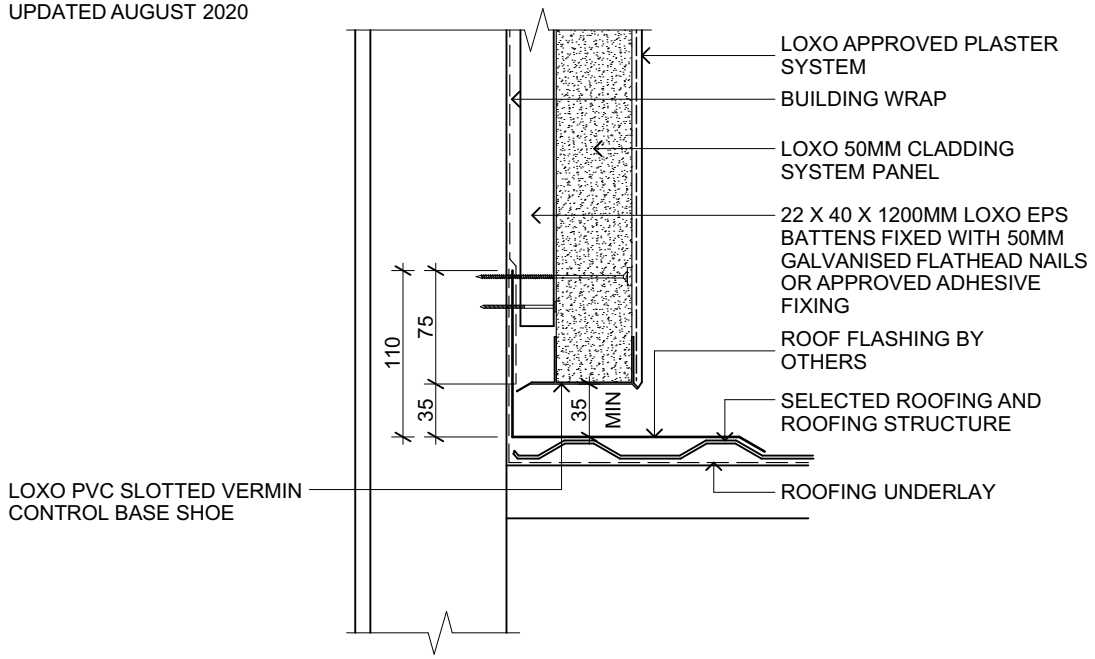
SOFFIT / WALL JUNCTION

Det. 7.1.2
Scale 1:5
UPDATED AUGUST 2020



SOFFIT / WALL JUNCTION

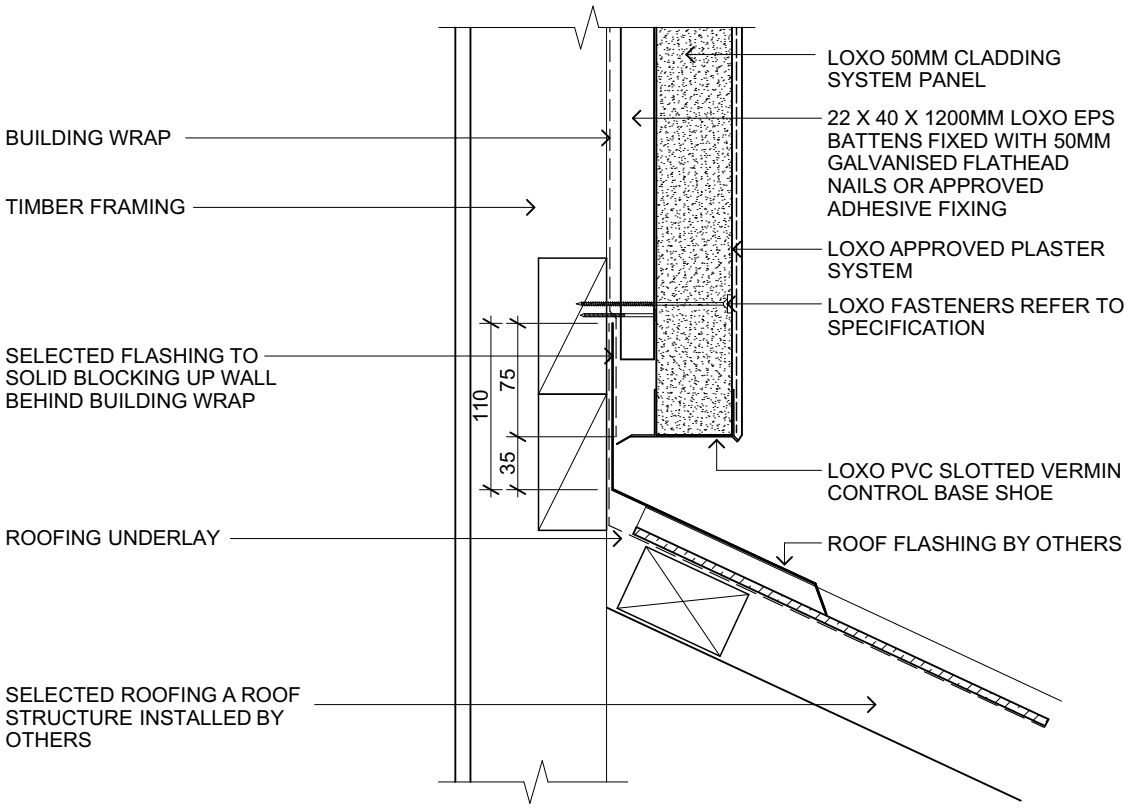
Det. 7.2.1
Scale 1:5
UPDATED AUGUST 2020



ROOF / WALL JUNCTION

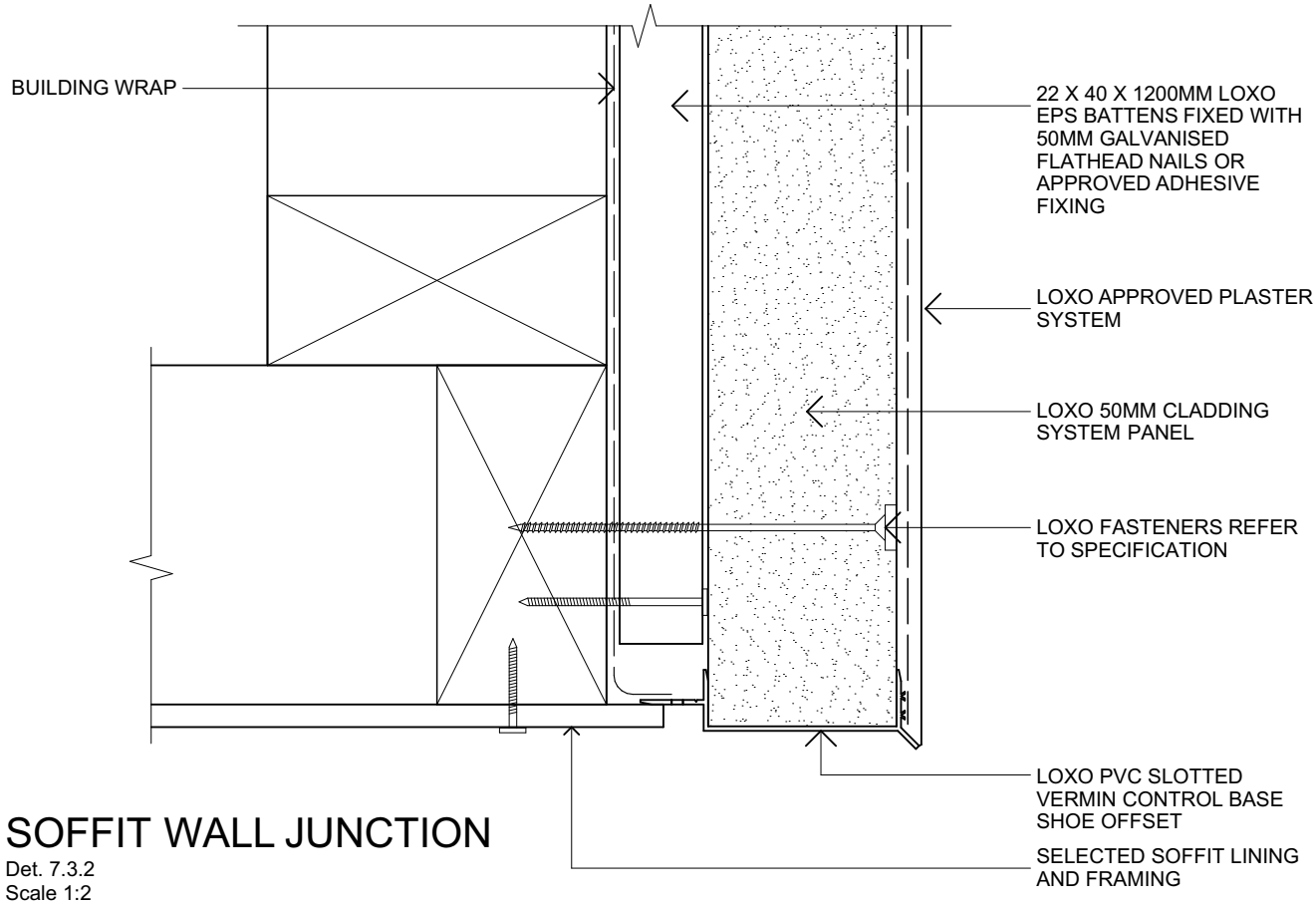
Det. 7.2.2
Scale 1:5
UPDATED AUGUST 2020

7.3 SOFFIT EDGE DETAILS



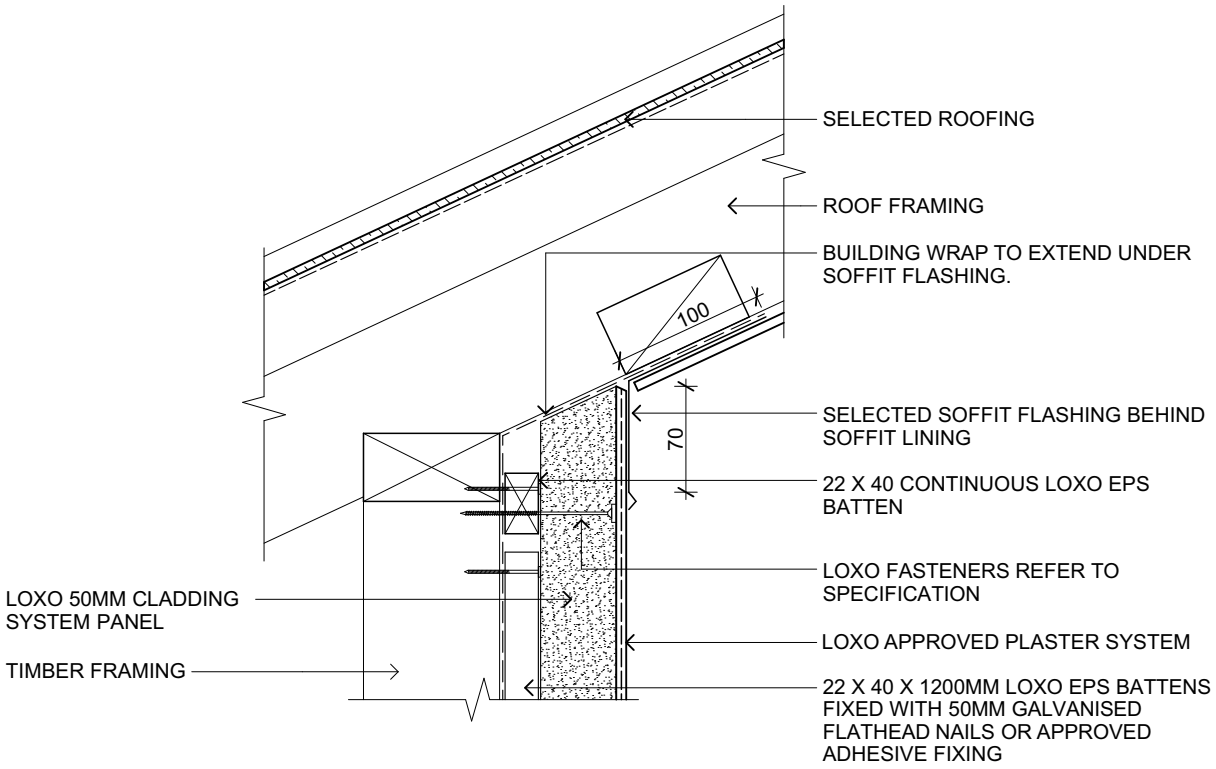
ROOF / WALL JUNCTION

Det. 7.3.1
Scale 1:5
UPDATED AUGUST 2020



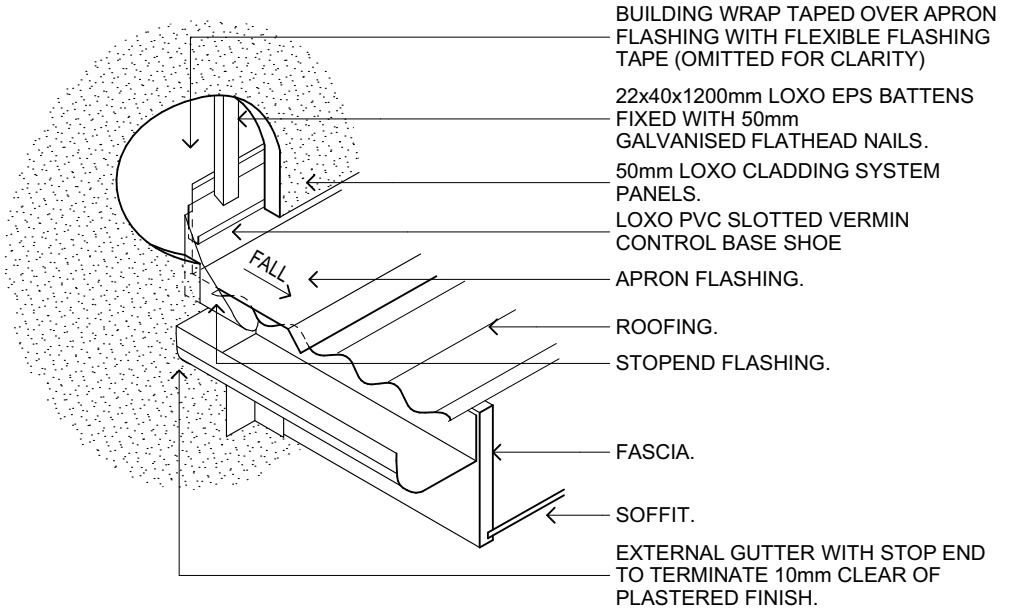
SOFFIT WALL JUNCTION

Det. 7.3.2
Scale 1:2
UPDATED AUGUST 2020



MONOPITCHED EXPOSED SOFFIT / WALL JUNCTION

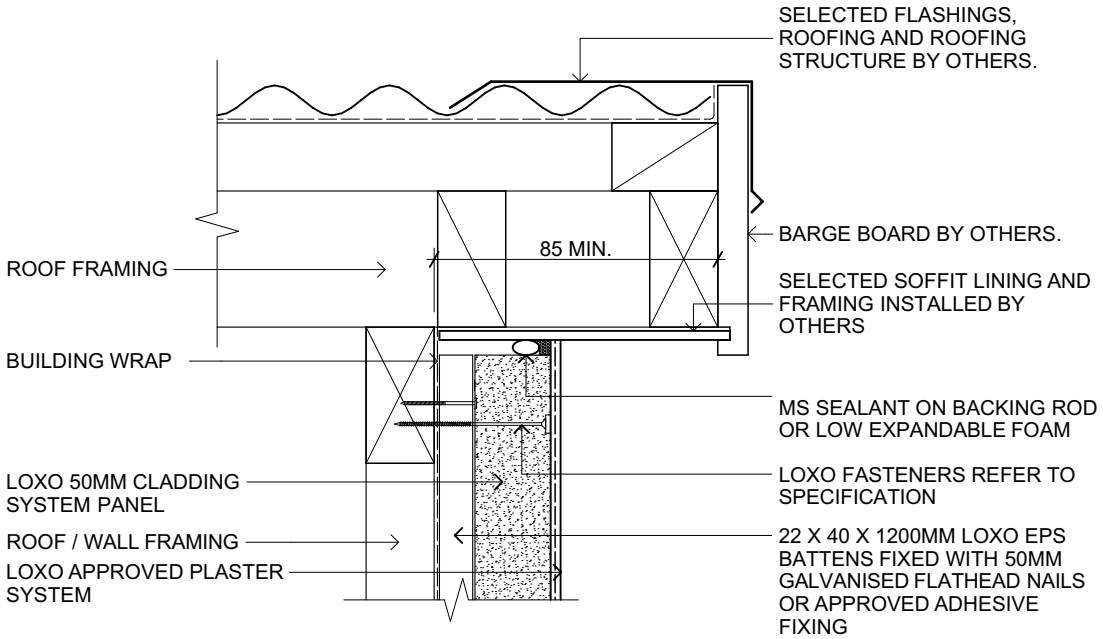
(Metal Flashing)
Det. 7.4.2
Scale 1:5
UPDATED AUGUST 2020



ROOF APRON KICKOUT FLASHING

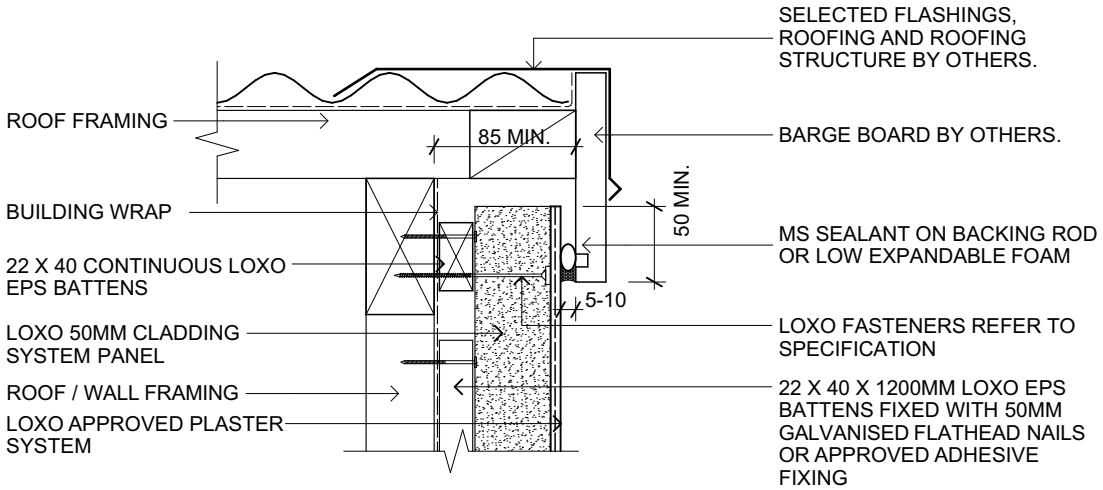
Det. 7.4.3
Scale 1:5
UPDATED AUGUST 2014

7.6 ROOF BARGE WALL DETAILS



BARGE / WALL JUNCTION

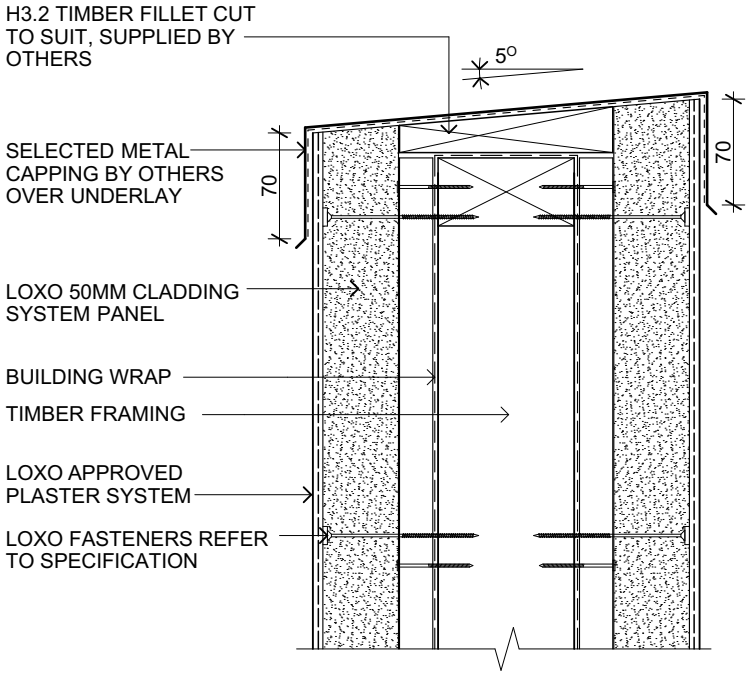
Det. 7.6.1
Scale 1:5
UPDATED AUGUST 2020

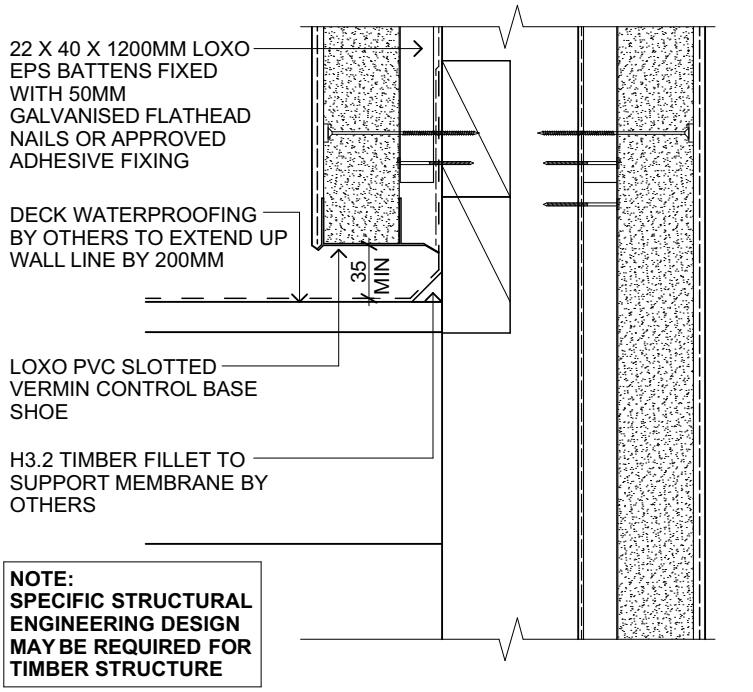


CLIPPED BARGE / WALL JUNCTION

Det. 7.6.2
Scale 1:5
UPDATED AUGUST 2020

METAL PARAPET/ BALUSTRADE DETAIL 8.1



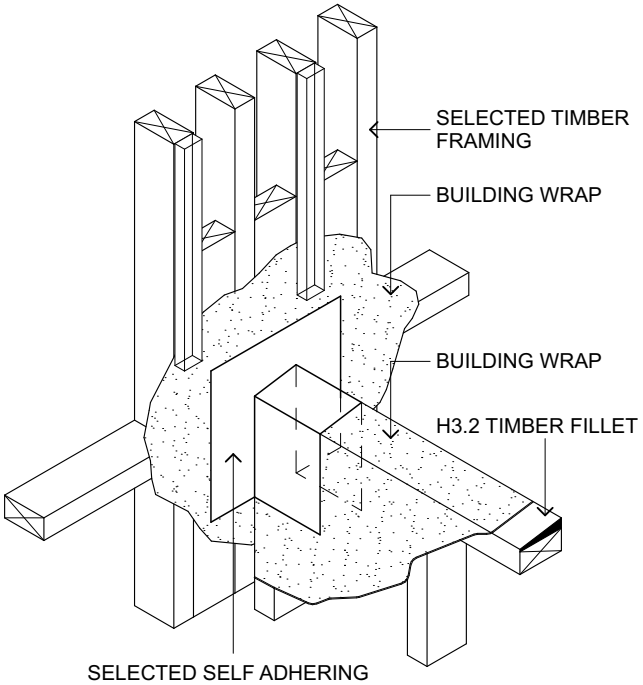


NOTE:
SPECIFIC STRUCTURAL ENGINEERING DESIGN MAY BE REQUIRED FOR TIMBER STRUCTURE

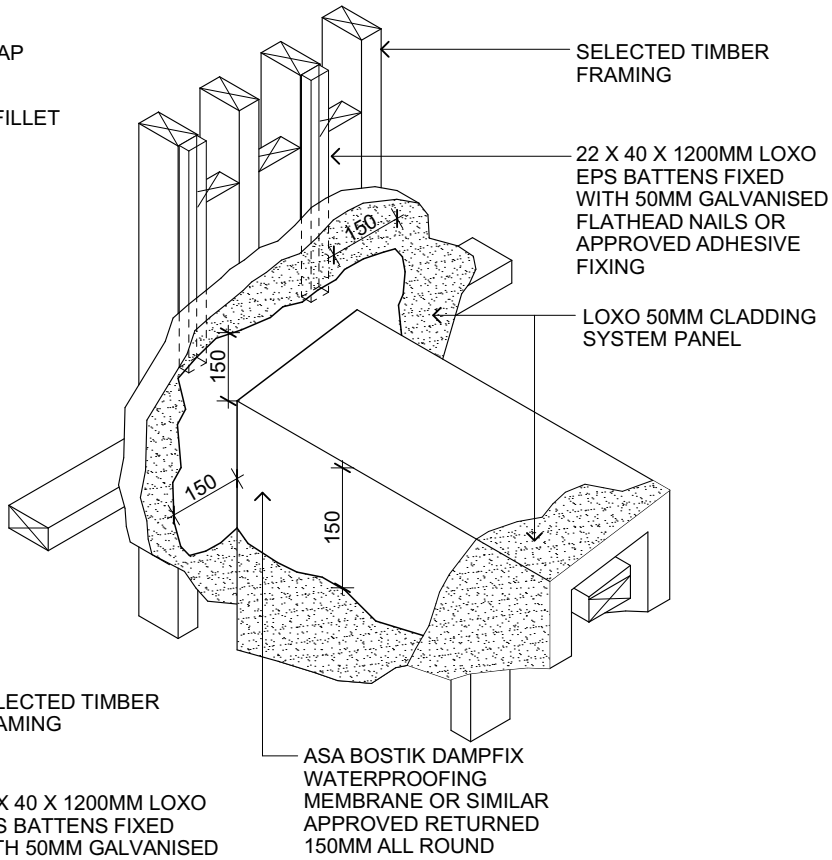
METAL PARAPET / BALUSTRADE DETAIL

Det. 8.1.2
Scale 1:5
UPDATED AUGUST 2020

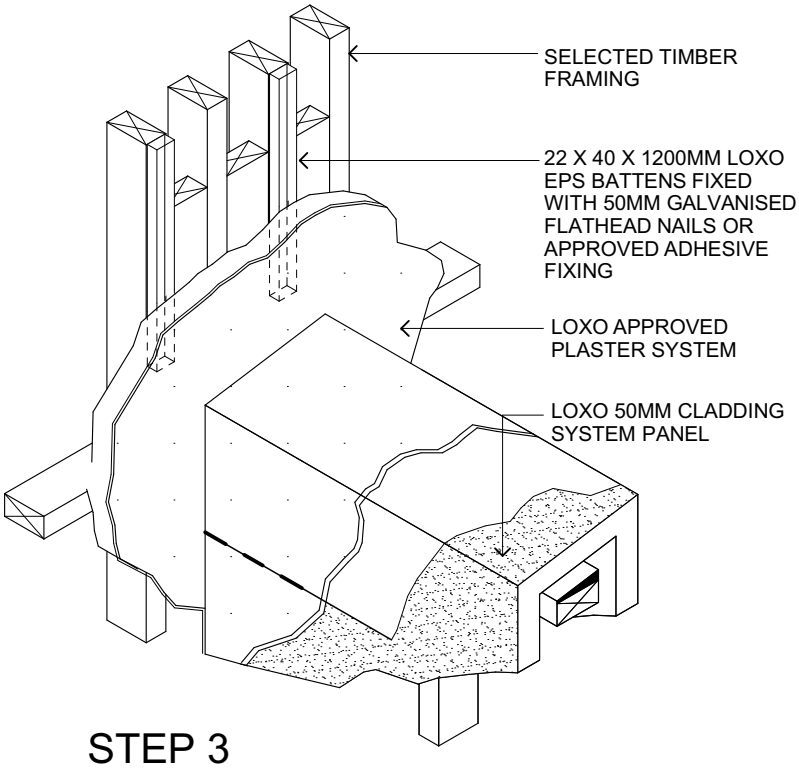
8.2 PARAPET / BALUSTRADE DETAIL



STEP 1



STEP 2

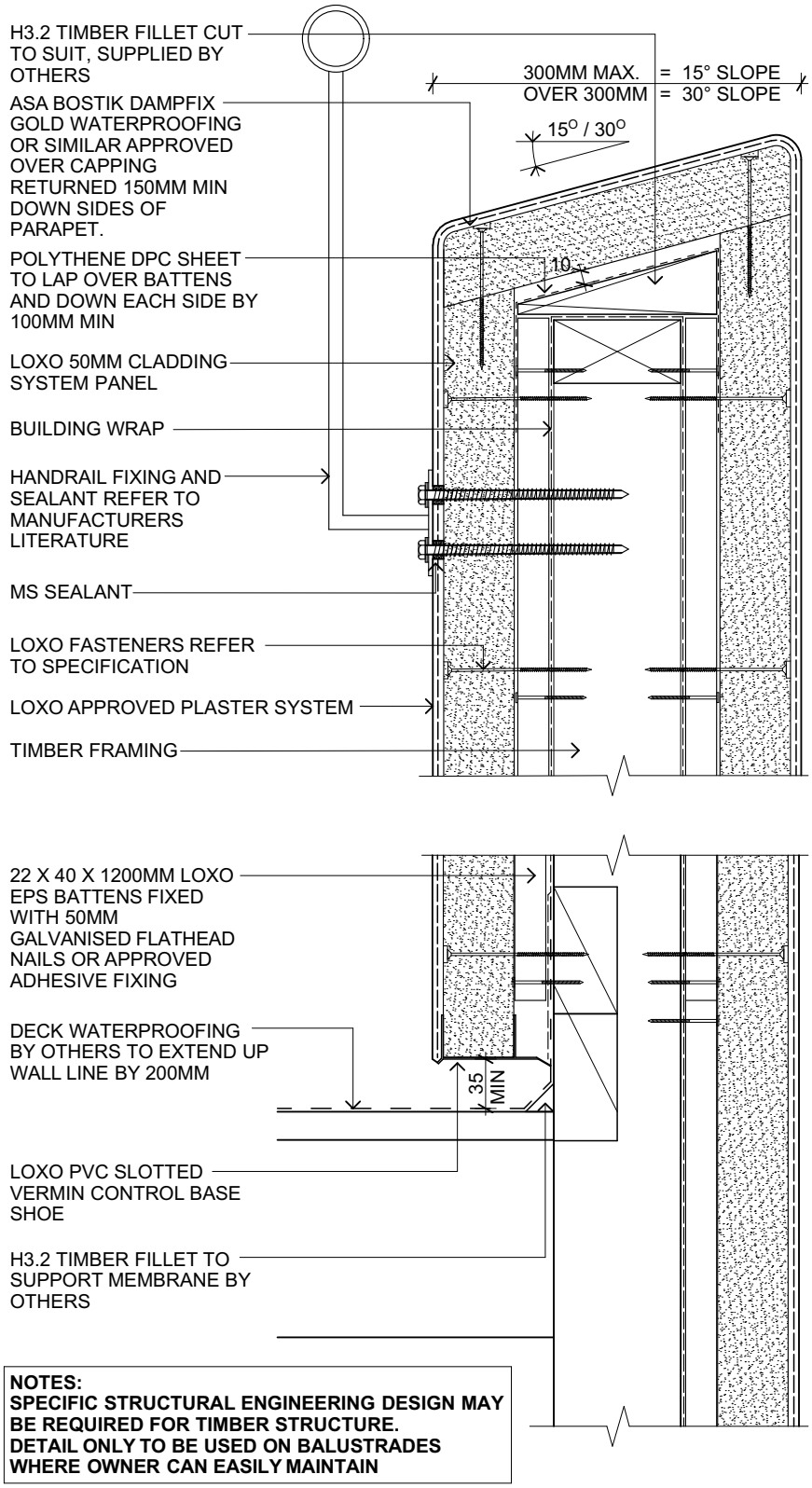


STEP 3

PARAPET / BALUSTRADE WALL INTERSECTION

Det. 8.2.1
Scale NTS
UPDATED AUGUST 2020

PARAPET / BALUSTRADE DETAIL 8.3

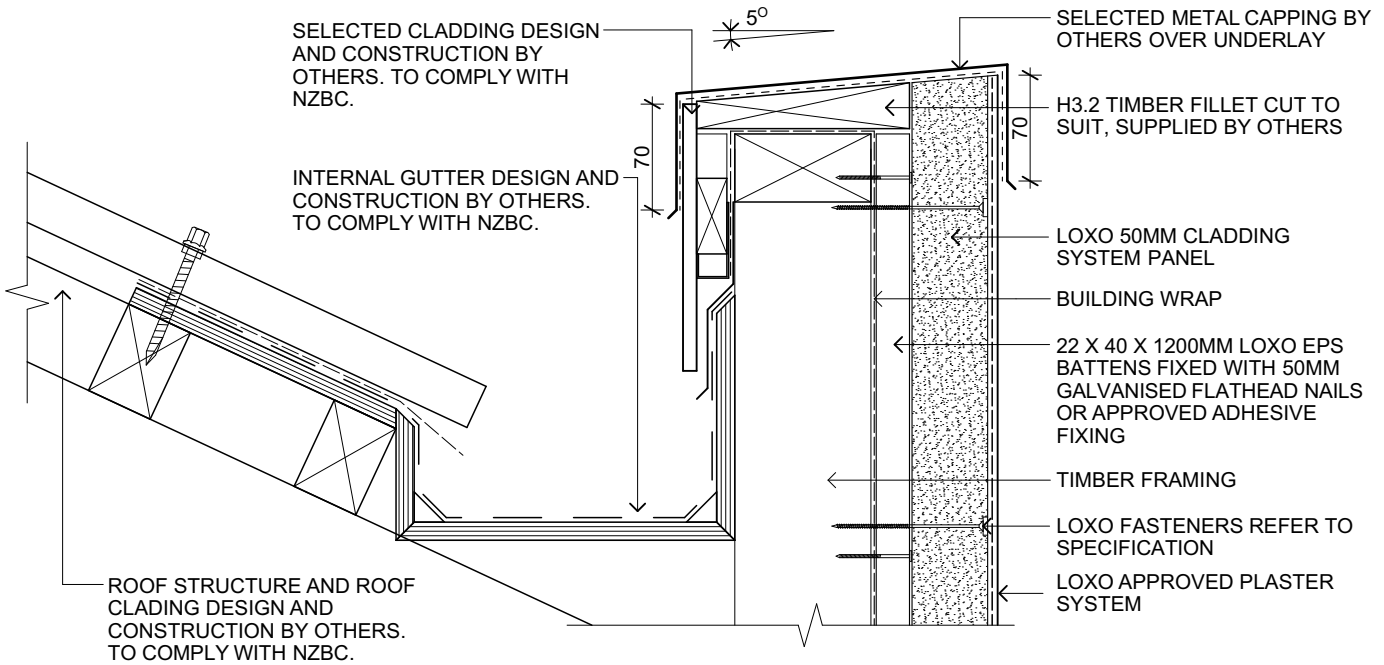


NOTES:
SPECIFIC STRUCTURAL ENGINEERING DESIGN MAY BE REQUIRED FOR TIMBER STRUCTURE.
DETAIL ONLY TO BE USED ON BALUSTRADES WHERE OWNER CAN EASILY MAINTAIN

PLASTERED BALUSTRADE DETAIL

Det. 8.3.1
Scale 1:5
UPDATED AUGUST 2020

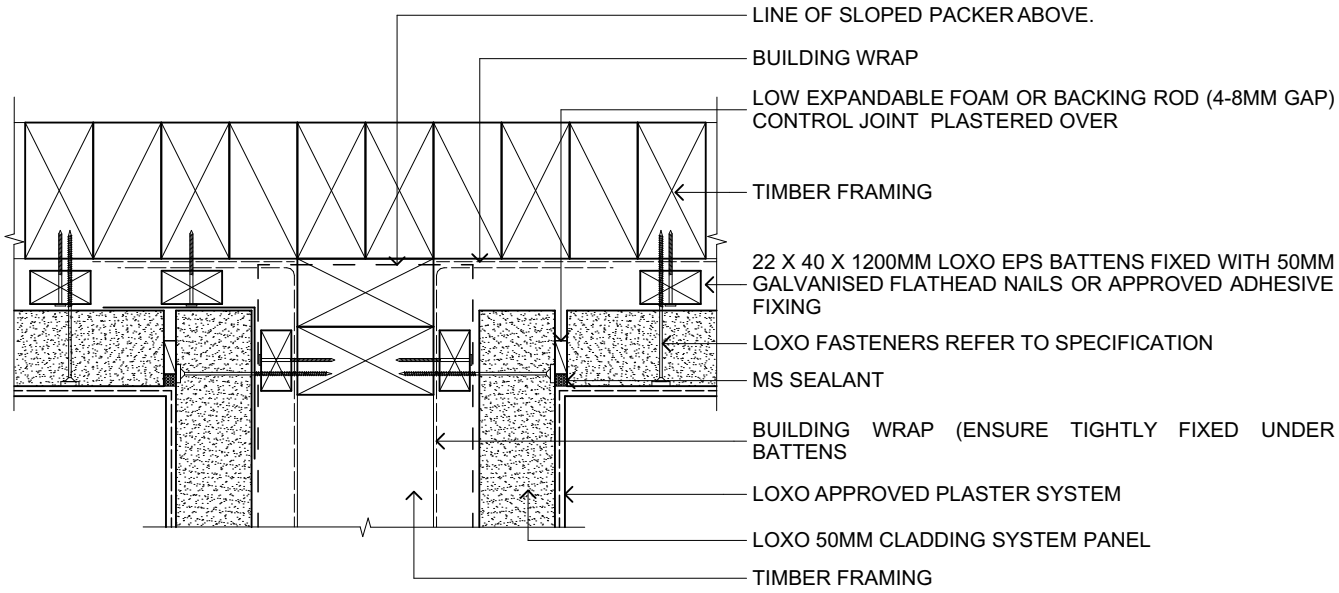
8.4 PARAPET DETAIL



PARAPET / INTERNAL GUTTER DETAIL

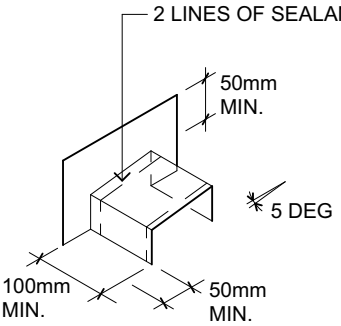
Det. 8.4.1
Scale 1:5
UPDATED AUGUST 2020

NOTE:
ALL DIMENSIONS SHOWN ARE INDICATIVE ONLY. ALL ARE SPECIFIC DESIGN



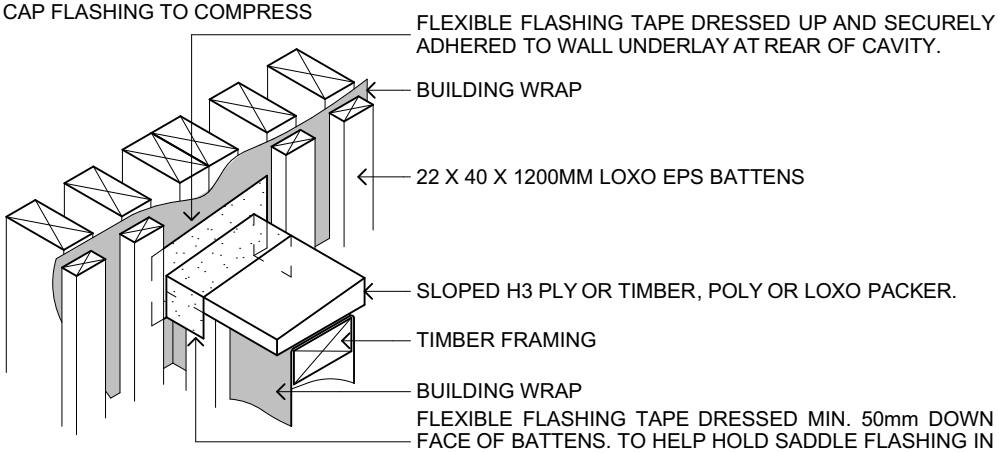
PARAPET TO WALL JUNCTION

PLAN SECTION
Det. 8.6.1
Scale 1:5
UPDATED AUGUST 2020



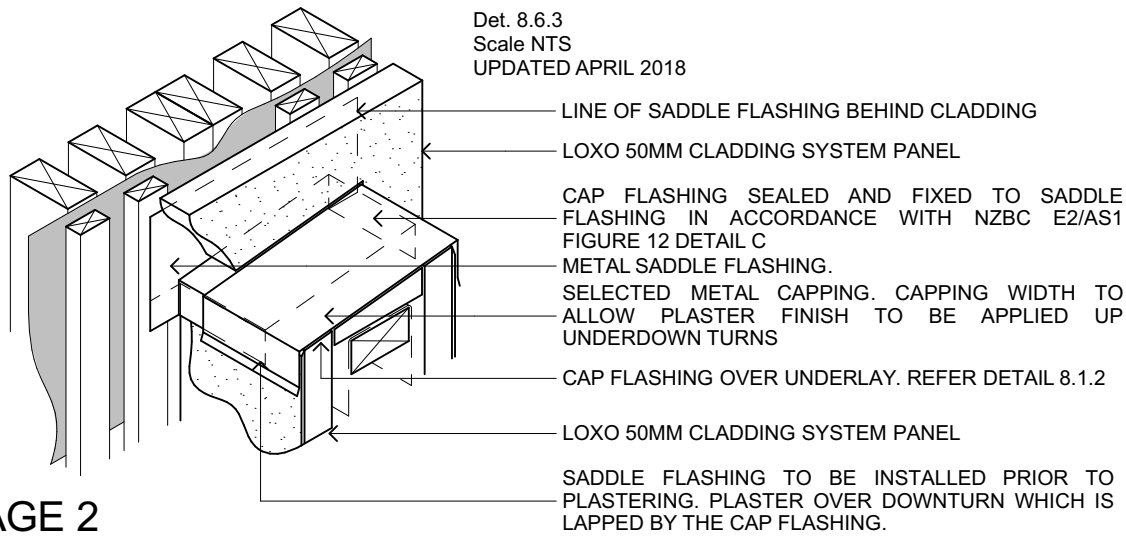
SADDLE FLASHING

Det. 8.6.2
Scale 1:5



STAGE 1

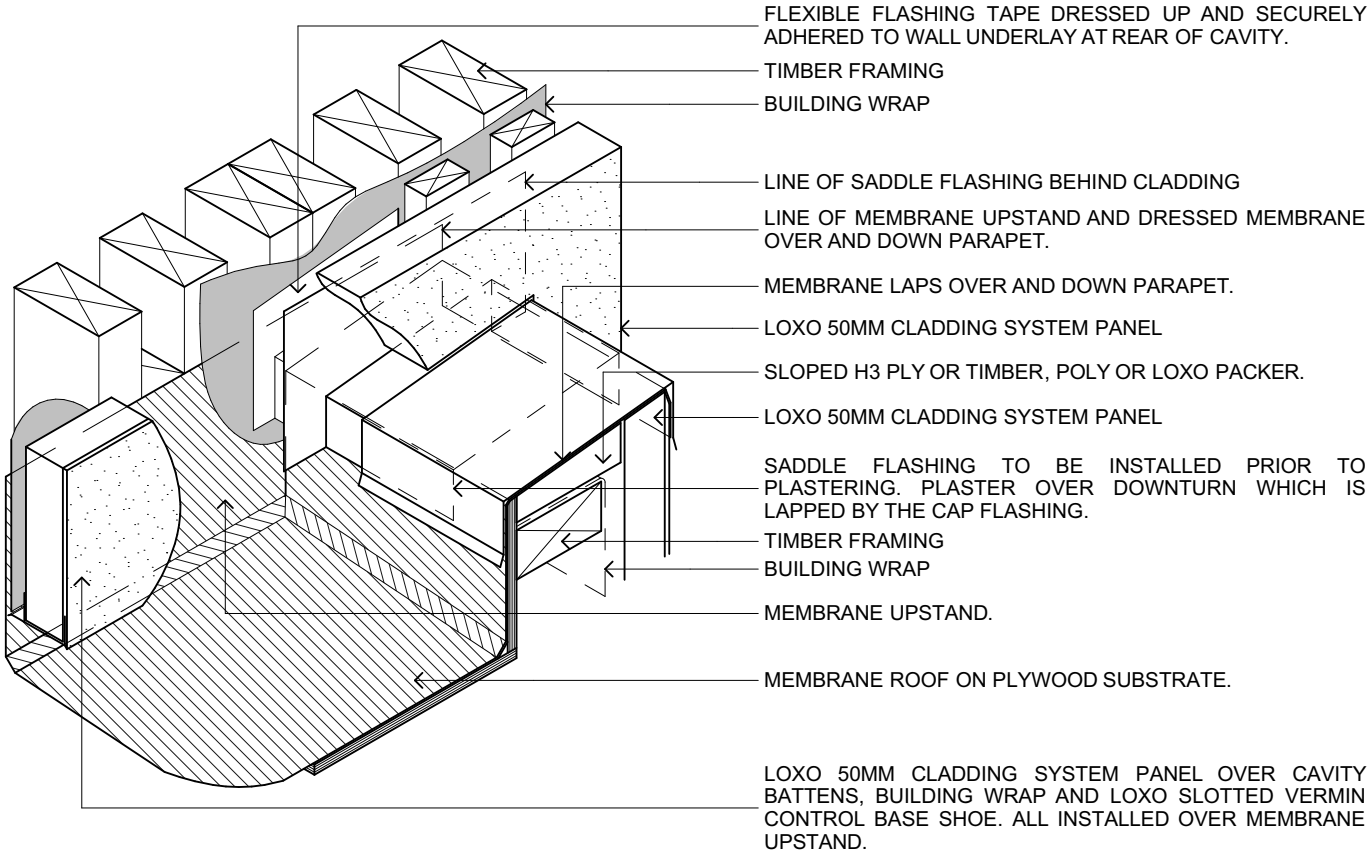
Det. 8.6.3
Scale NTS
UPDATED APRIL 2018



STAGE 2

Det. 8.6.4
Scale NTS
UPDATED APRIL 2018

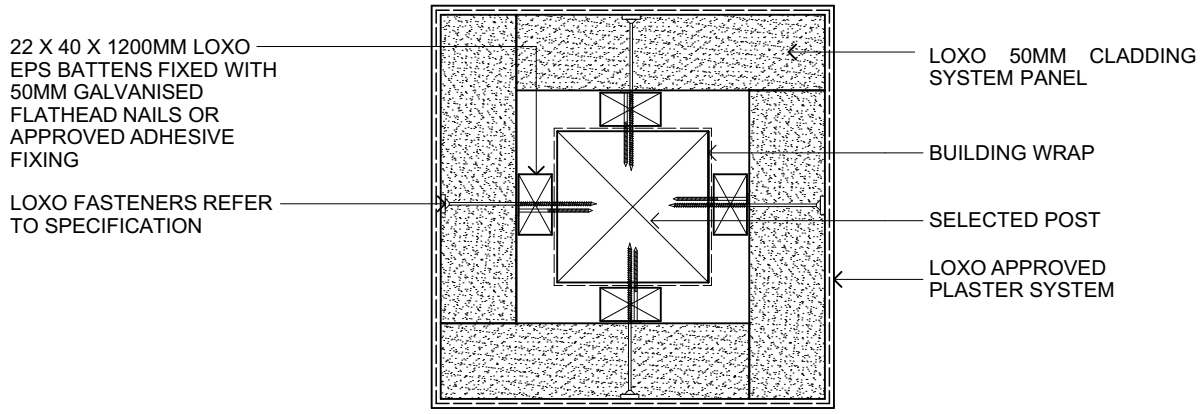
8.7 MEMBRANE ROOF PARAPET



MEMRANE ROOF JUNCTION TO PARAPET AND WALL

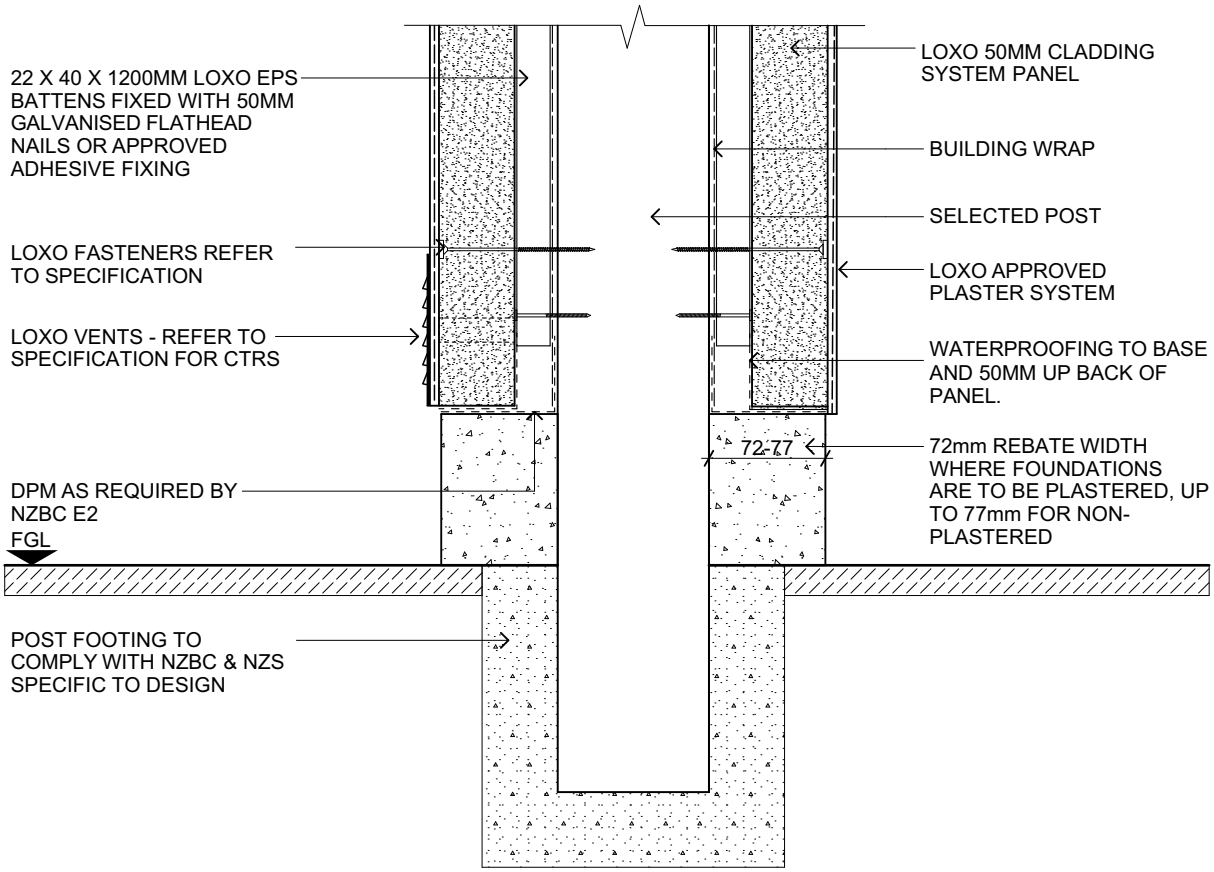
Det. 8.7.1
Scale NTS

POST DETAIL 9.1



LOXO POST PLAN DETAIL

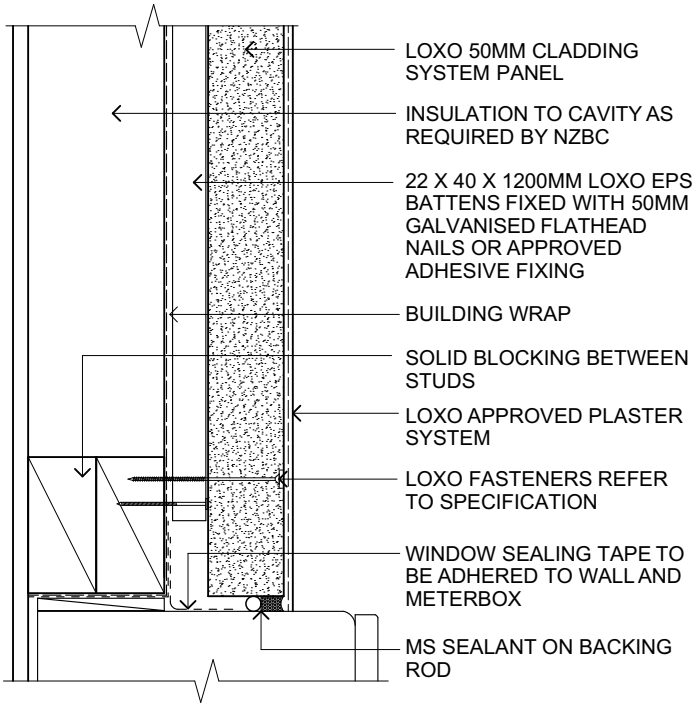
Det. 9.1.1
Scale 1:5
UPDATED AUGUST 2020



LOXO POST GROUND CONNECTION DETAIL

Det. 9.1.2
Scale 1:5
UPDATED AUGUST 2020

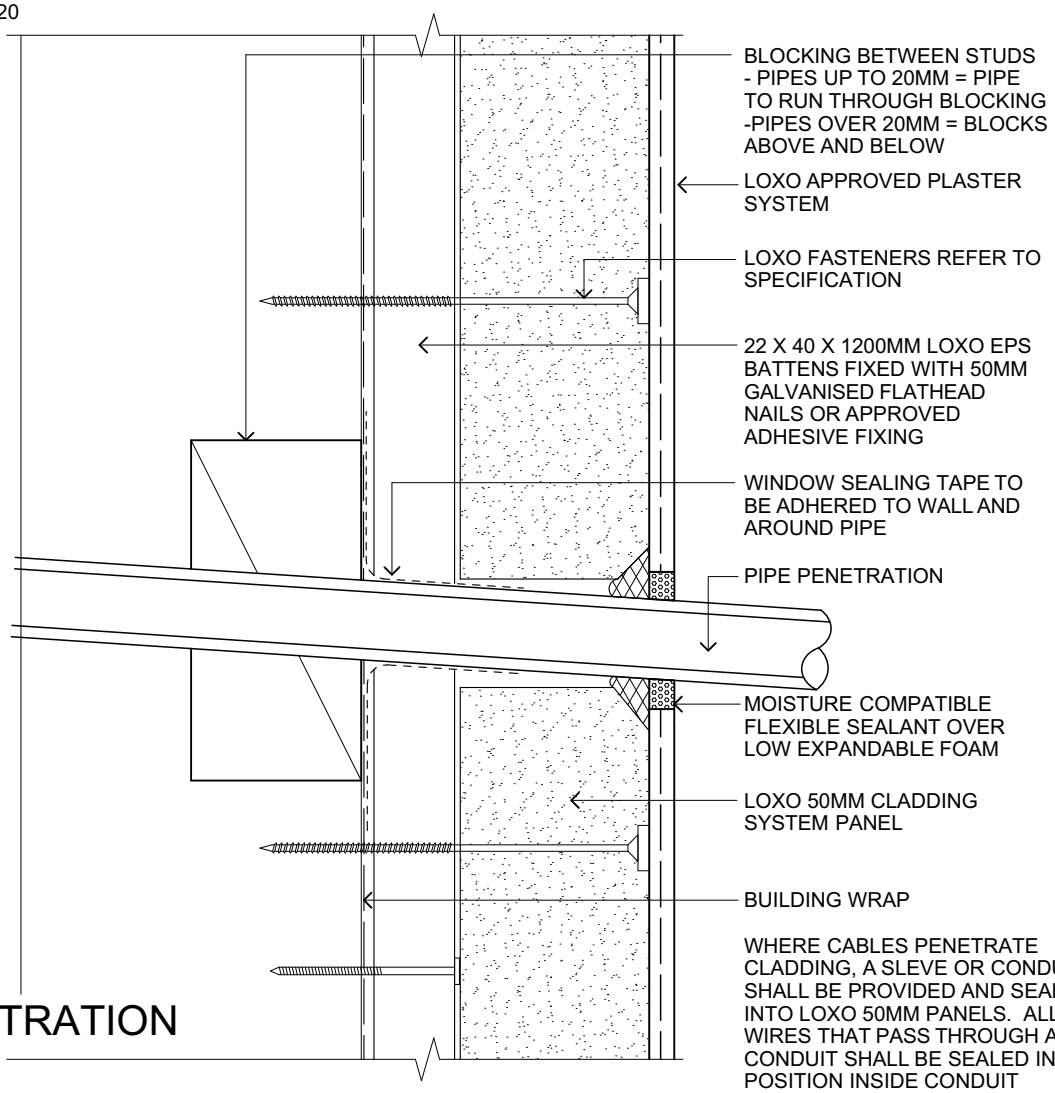
10.1 PENETRATION DETAIL



NOTE:
WHERE POSSIBLE, METERBOXES SHOULD BE LOCATED IN SHELTERED AREAS OF THE BUILDING.
ENSURE GOOD PRESSURE IS APPLIED WHEN INSTALLING WINDOW TAPE ALONG ENTIRE SURFACE FOR A GOOD BOND TO WALL AND METERBOX SURFACES.

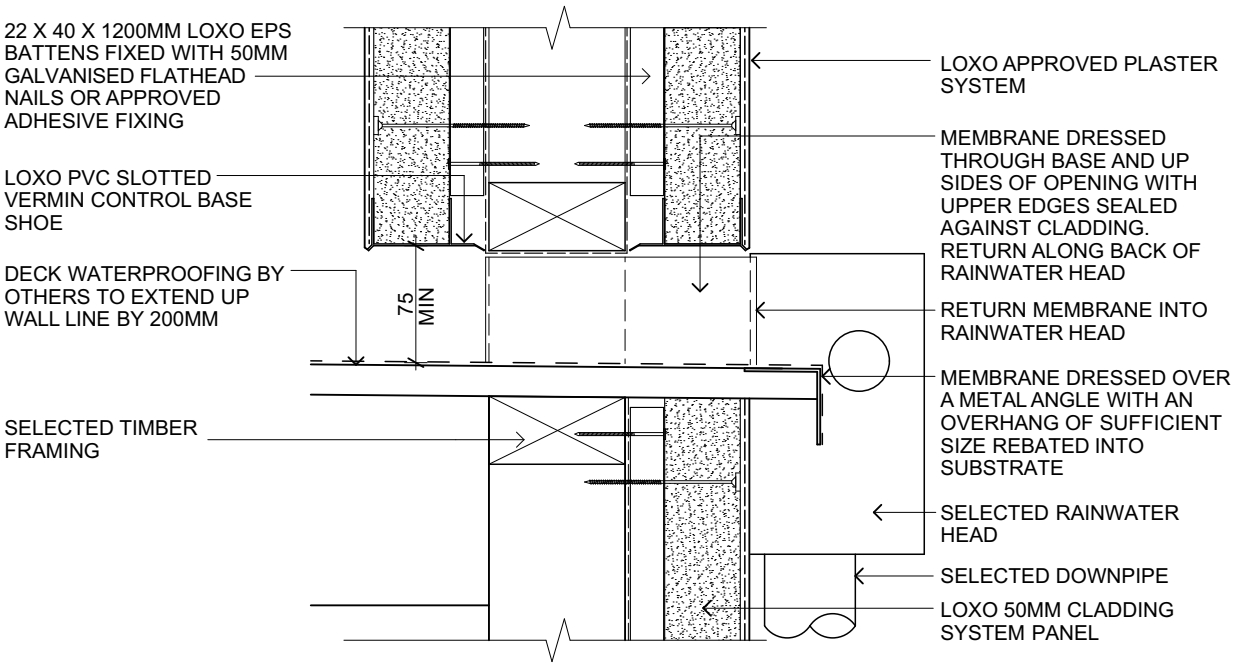
METERBOX HEAD / JAMB / SILL DETAIL

Det. 10.1.1
Scale 1:5
UPDATED AUGUST 2020



PIPE PENETRATION

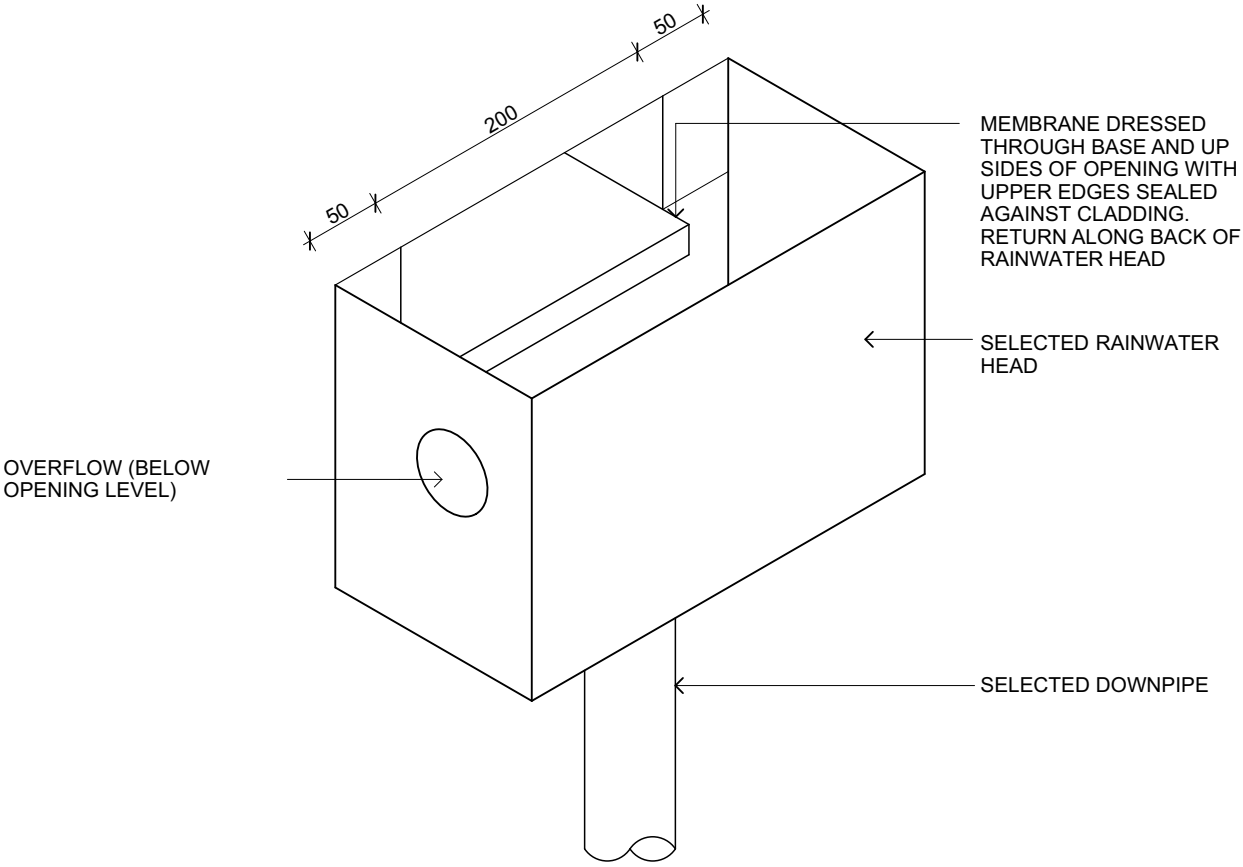
Det. 10.1.2
Scale 1:5
UPDATED AUGUST 2020



RAINWATER HEAD OPENING DETAIL

Det. 10.2.1
Scale 1:5
UPDATED AUGUST 2020

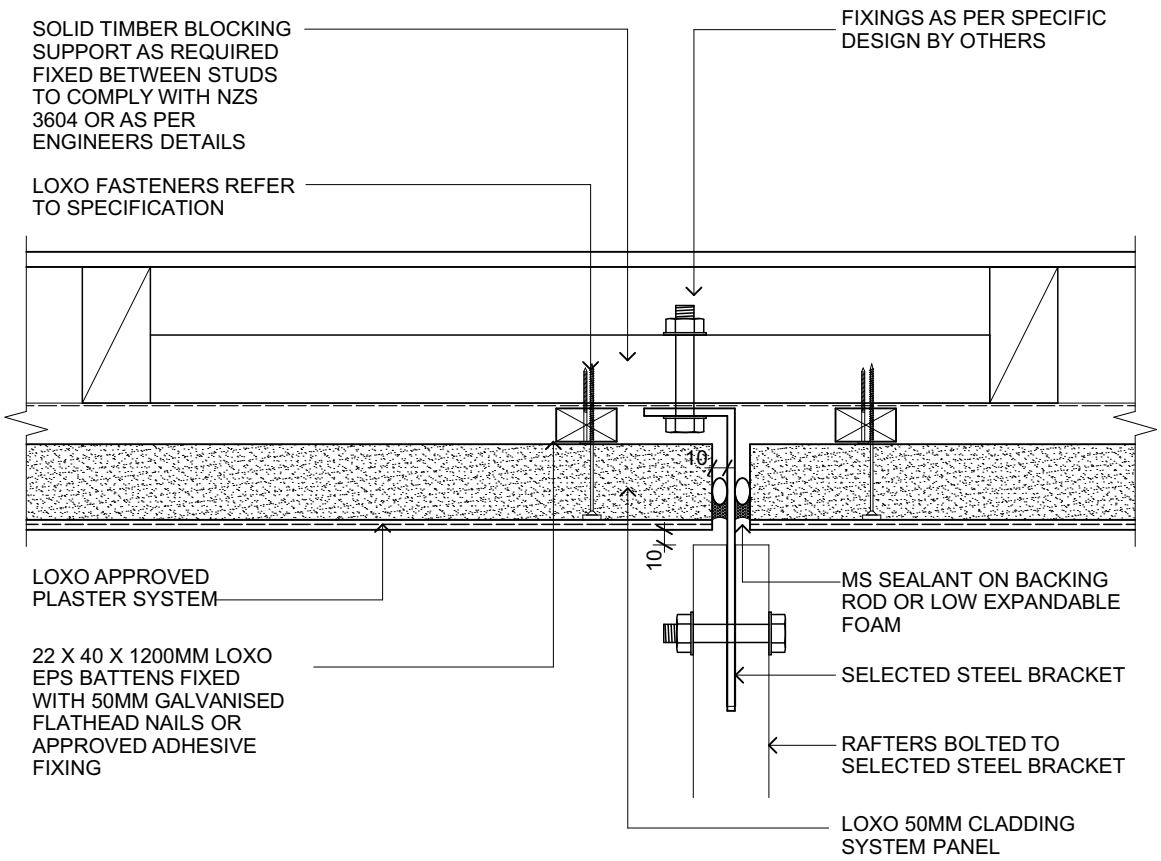
NOTE
SPECIFIC RAINWATER HEAD DETAIL IS REQUIRED TO COMPLY WITH NZBC E2



RAINWATER HEAD DETAIL

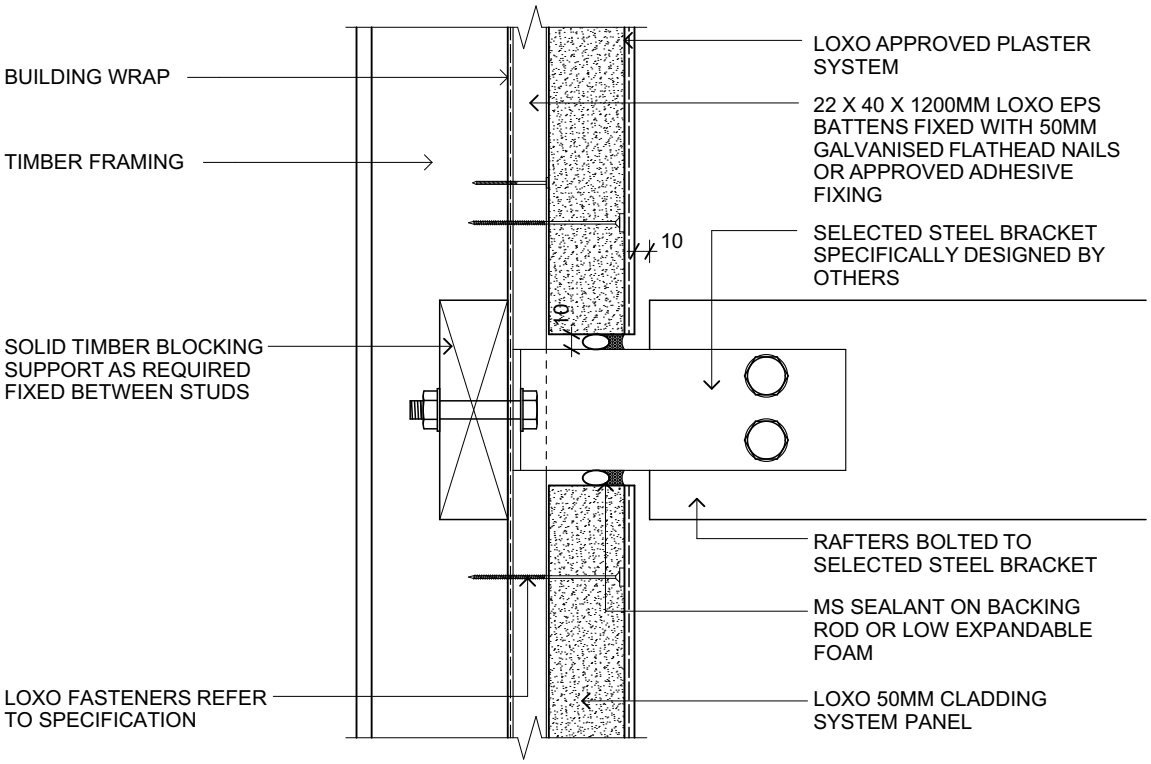
Det. 10.2.2
Scale N.T.S

10.3 BRACKET / WALL DETAILS



BRACKET / WALL JUNCTION PLAN

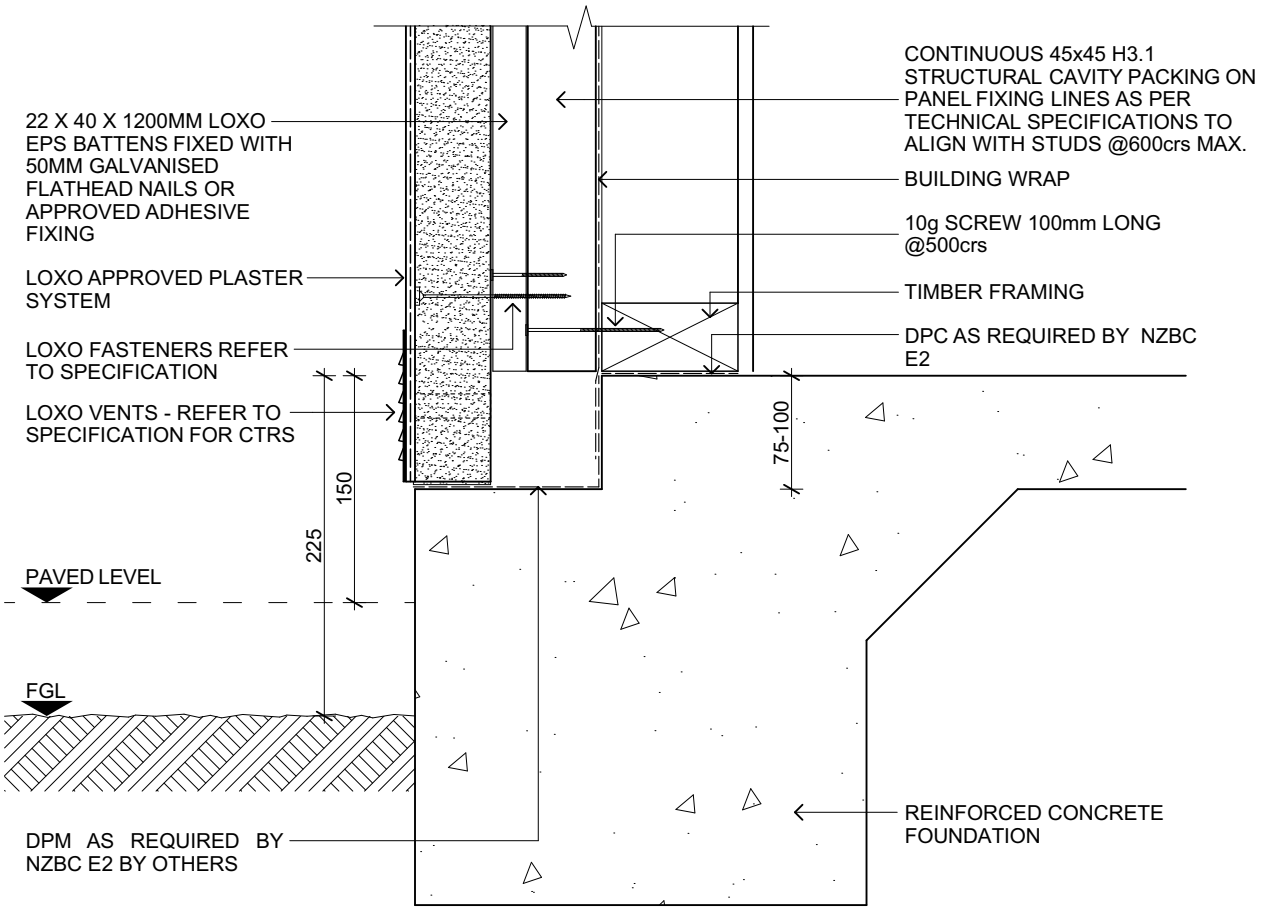
Det. 10.3.1
Scale 1:5
UPDATED AUGUST 2020



BRACKET / WALL JUNCTION SECTION

Det. 10.3.2
Scale 1:5
UPDATED AUGUST 2020

RECLAD FOUNDATION DETAILS 11.1

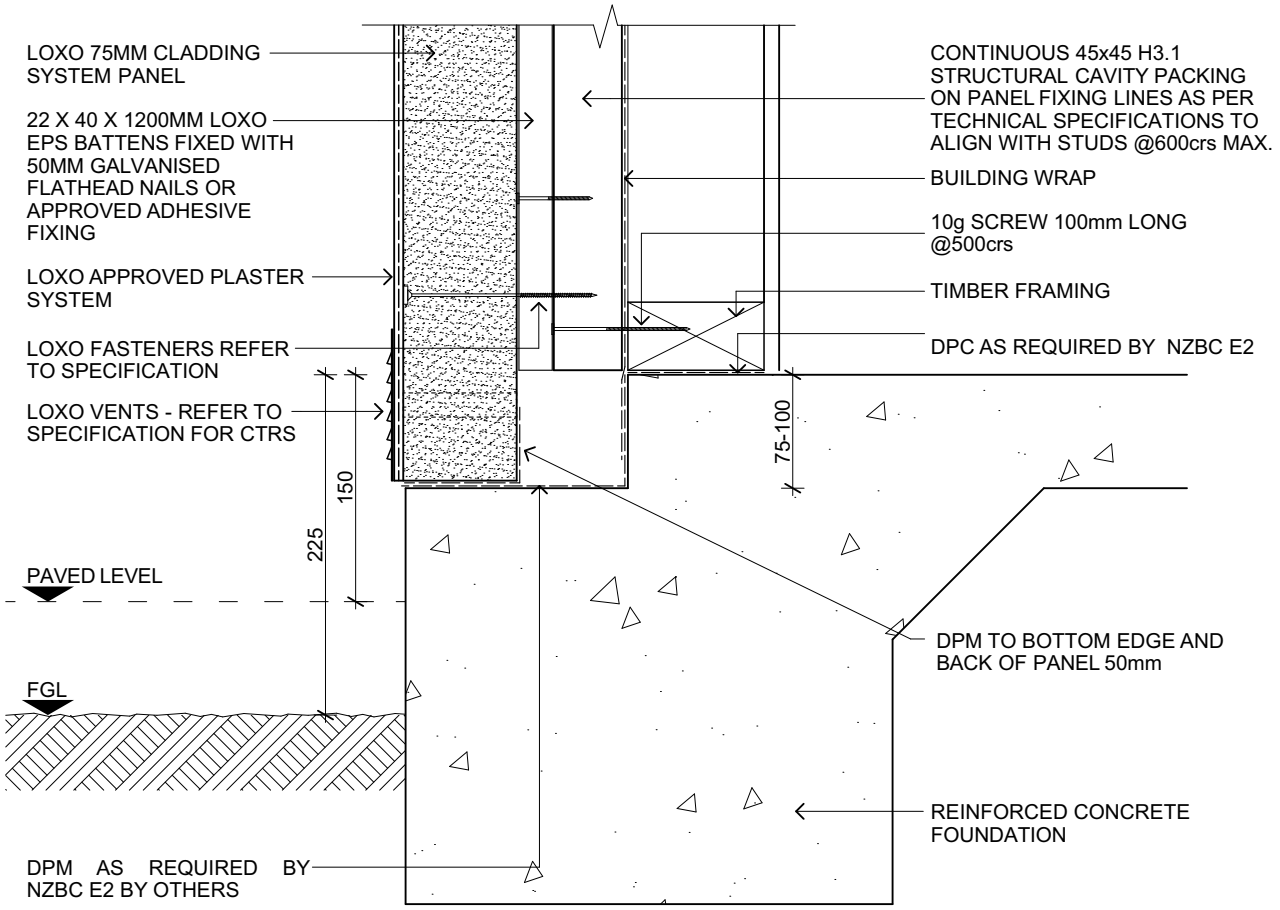


RECLAD BRICK VENEER FOUNDATION DETAIL

Det. 11.1.1
Scale 1:5
UPDATED AUGUST 2020

THIS DETAIL IS SPECIFIC TO CHRISTCHURCH SEISMIC LOADING $C_h(T_1)$=0.3 AND A VERY HIGH WIND ZONE TO NZS 3604:2011

11.2 75MM RECLAD BRICK VENEER FOUNDATION DETAIL

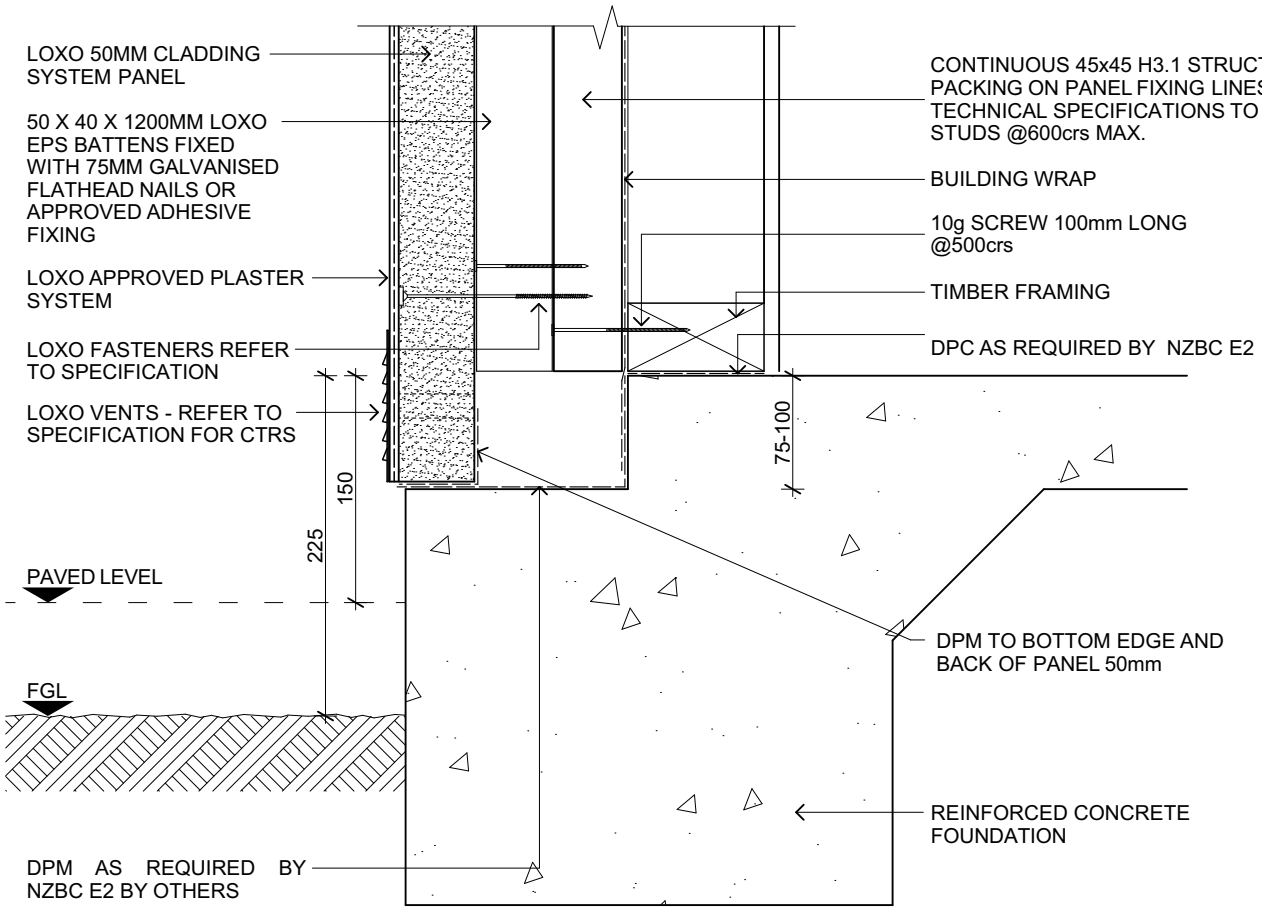


75mm RECLAD BRICK VENEER FOUNDATION DETAIL

Det. 11.2.1
Scale 1:5
UPDATED AUGUST 2020

THIS DETAIL IS SPECIFIC TO CHRISTCHURCH SEISMIC LOADING C_z=0.3 AND A VERY HIGH WIND ZONE TO NZS 3604:2011

DELUXE RECLAD BRICK VENEER FOUNDATION DETAIL 11.3

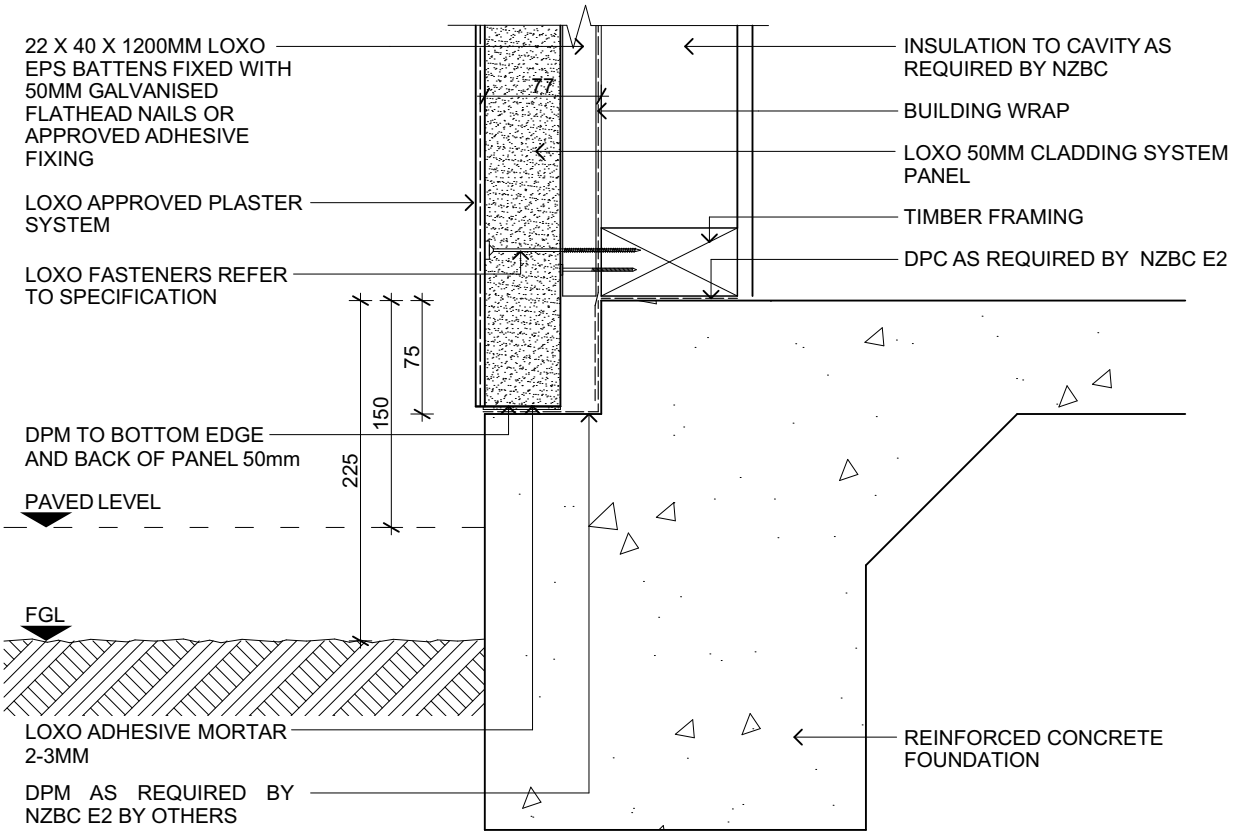


DELUXE RECLAD BRICK VENEER FOUNDATION DETAIL

Det. 11.3.1
Scale 1:5
UPDATED AUGUST 2020

THIS DETAIL IS SPECIFIC TO CHRISTCHURCH SEISMIC LOADING C_z=0.3 AND A VERY HIGH WIND ZONE TO NZS 3604:2011

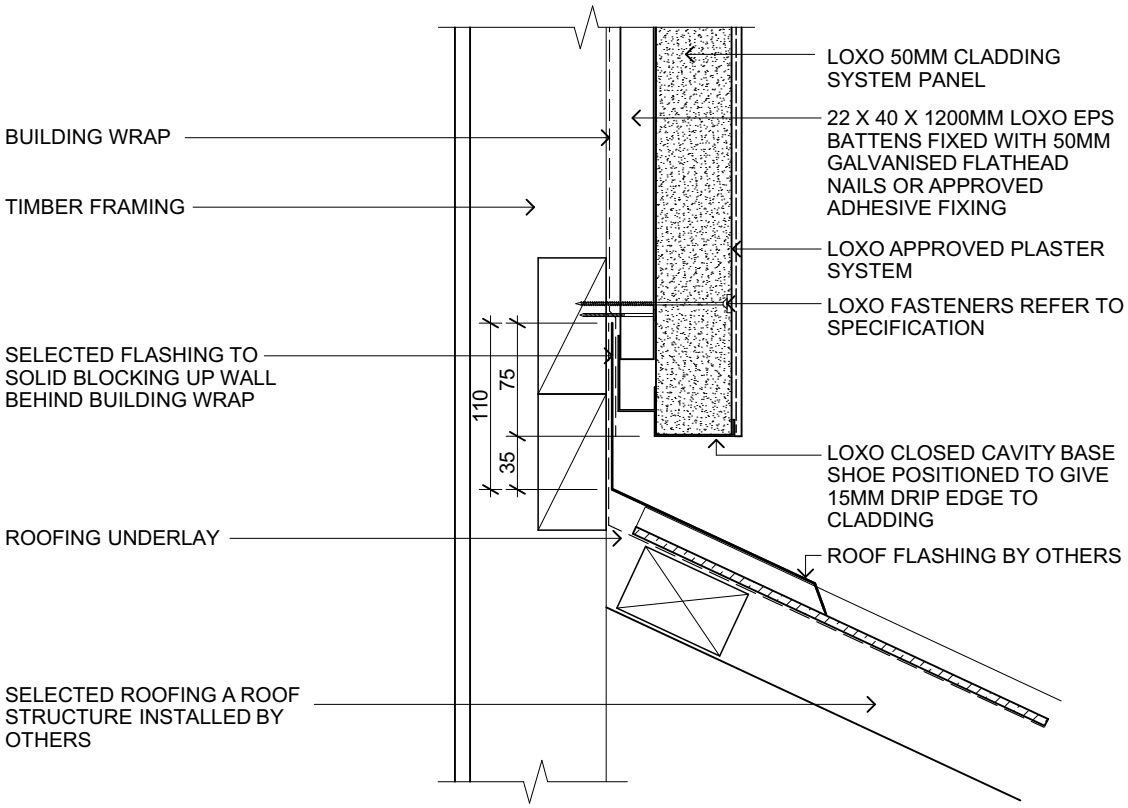
12.1 FOUNDATION DETAIL



REBATED STEP-DOWN FOUNDATION DETAIL - CLOSED CAVITY

Det. 12.1.1
Scale 1:5
UPDATED AUGUST 2020

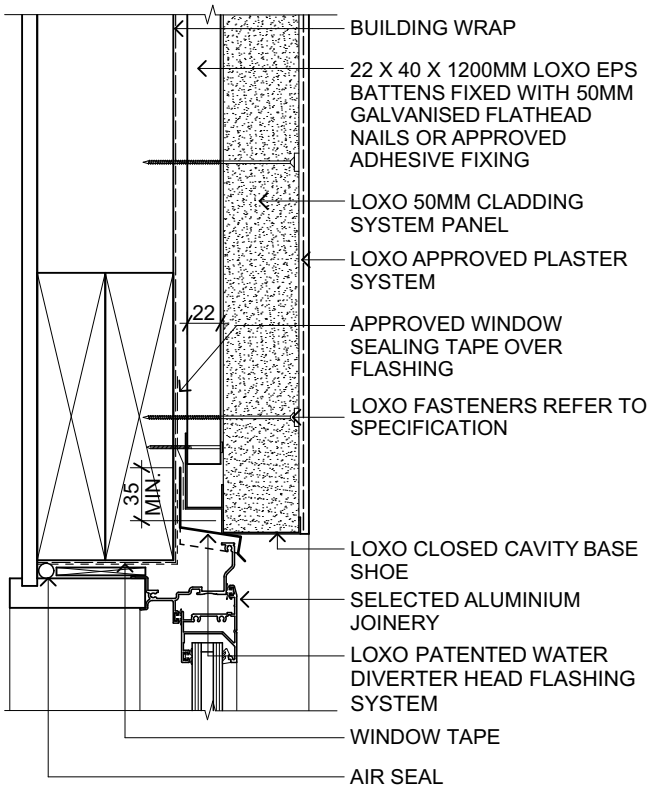
ROOF DETAIL - CLOSED CAVITY 12.2



ROOF / WALL JUNCTION - CLOSED CAVITY

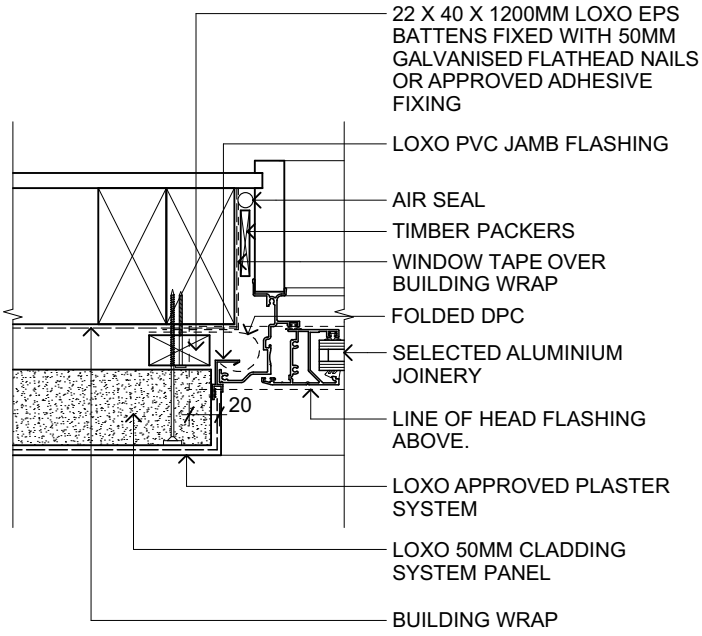
Det. 12.2.1
Scale 1:5
UPDATED AUGUST 2020

12.3 WINDOW DETAILS - CLOSED CAVITY



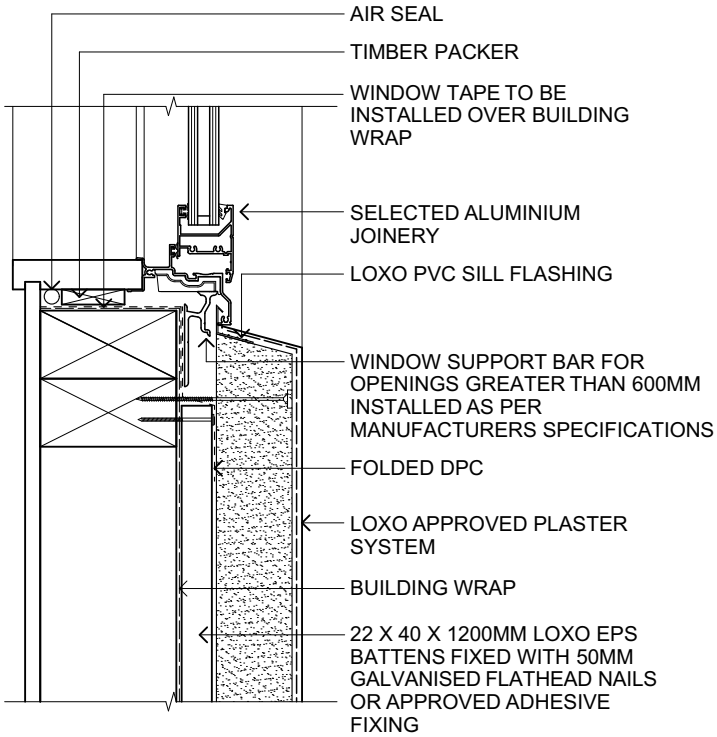
HEAD DETAIL (CLASSIC)

Det. 12.3.1
Scale 1:5
UPDATED AUGUST 2020



JAMB DETAIL (CLASSIC) - CLOSED CAVITY

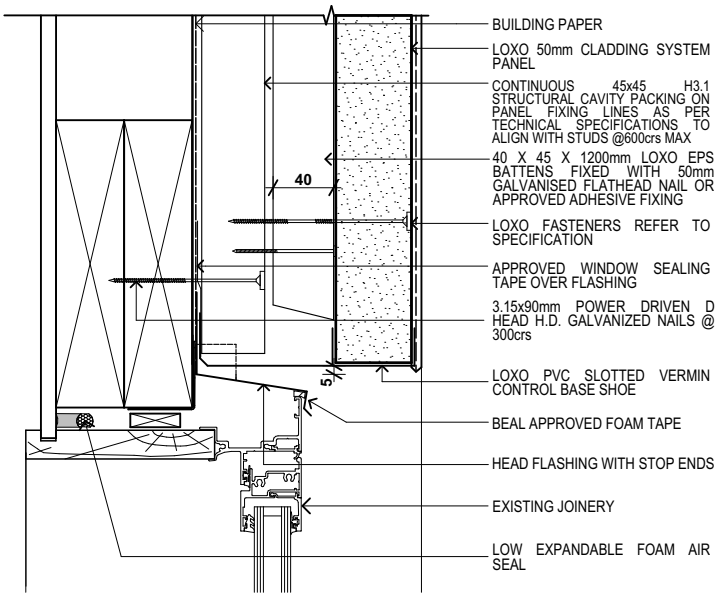
Det. 12.3.3
Scale 1:5
UPDATED AUGUST 2020



SILL DETAIL (CLASSIC) - CLOSED CAVITY

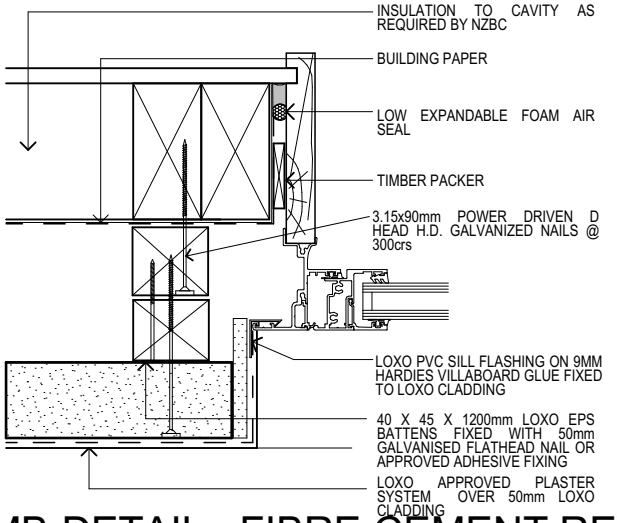
Det.12.3.2
Scale 1:5
UPDATED AUGUST 2020

HEAD FLASHING DETAILS - CLOSED CAVITY 12.4



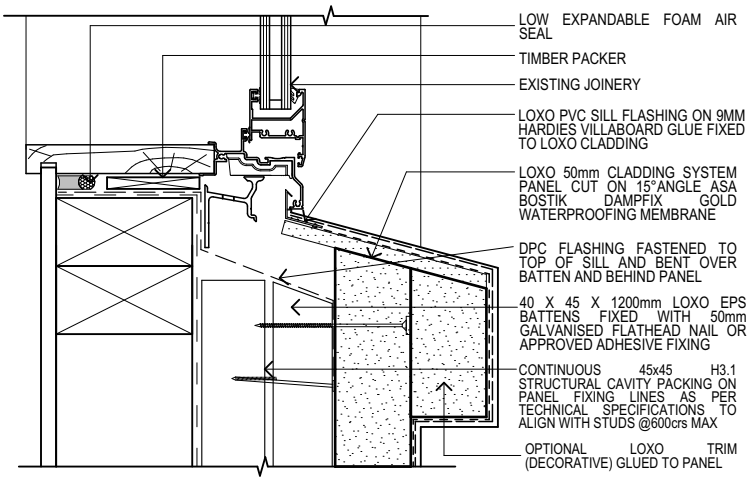
HEAD DETAIL - FIBRE CEMENT REV

Det. 12.4.1
Scale 1:5
UPDATED AUGUST 2020



JAMB DETAIL - FIBRE CEMENT REVEAL

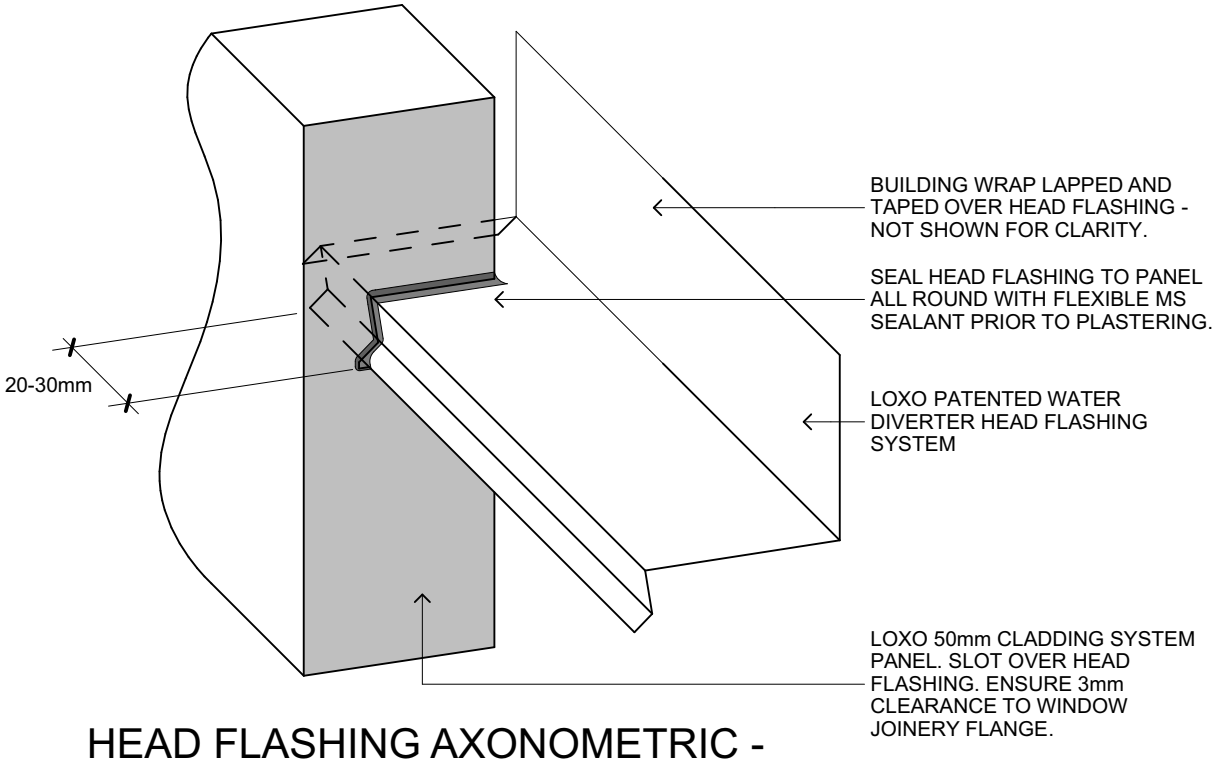
Det. 12.4.3
Scale 1:5
UPDATED AUGUST 2020



SILL DETAIL - FIBRE CEMENT REVEAL

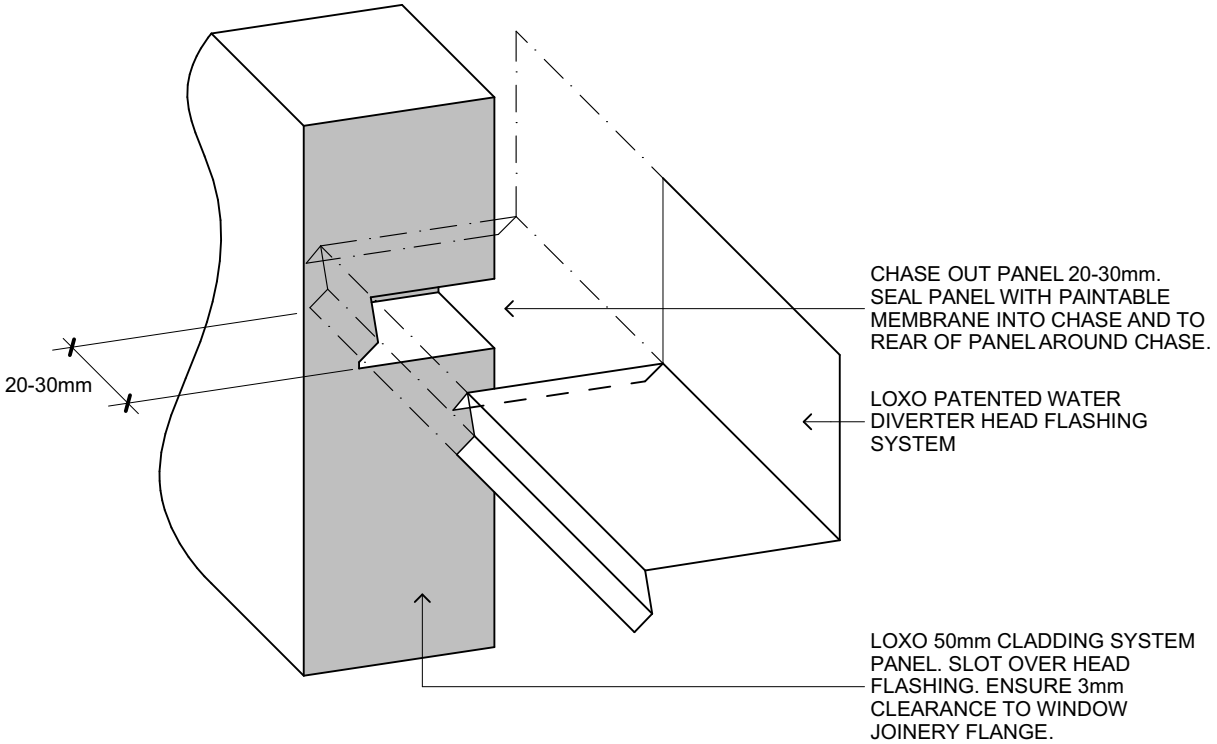
Det. 12.4.2
Scale 1:5
UPDATED AUGUST 2020

HEAD FLASHING DETAILS - CLOSED CAVITY 12.5



HEAD FLASHING AXONOMETRIC - CLOSED CAVITY

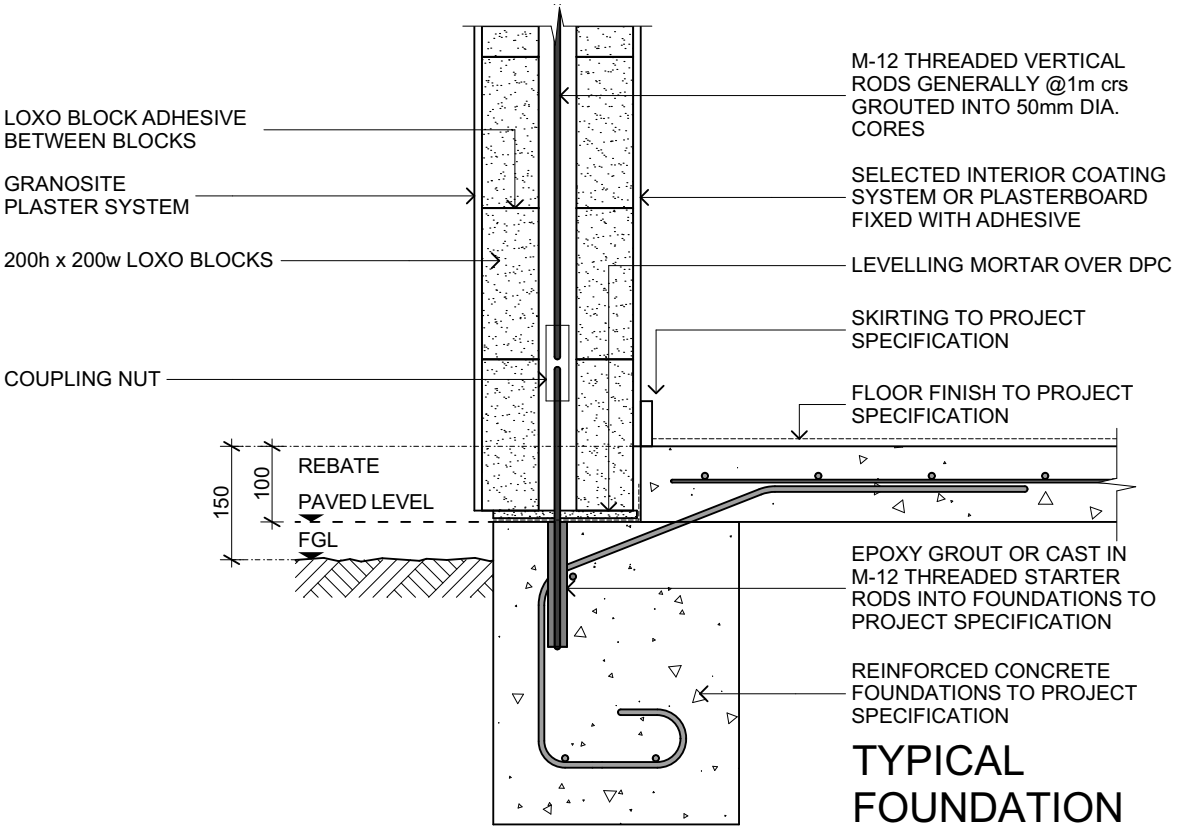
Det. 12.5.1
NTS
UPDATED AUGUST 2020



HEAD FLASHING EXPLODED AXONOMETRIC - CLOSED CAVITY

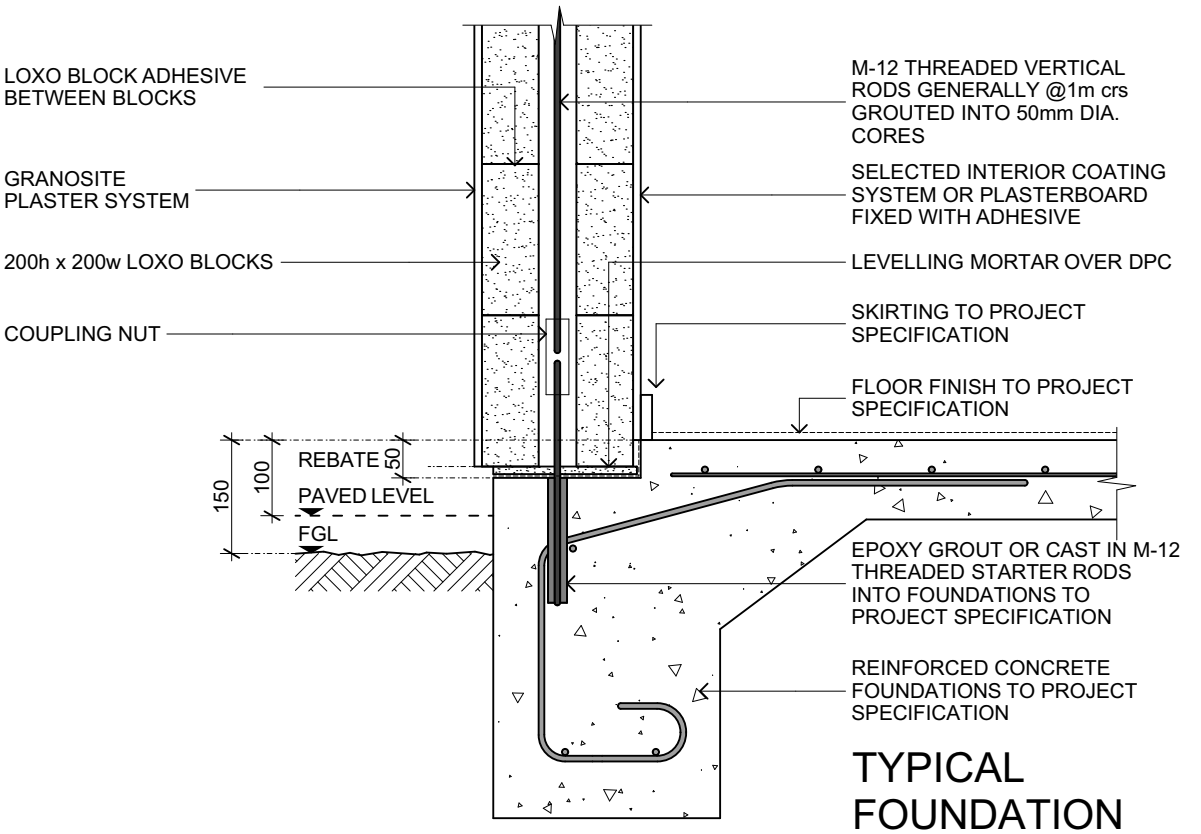
Det. 12.5.2
NTS
UPDATED AUGUST 2020

13.1 BLOCK SECTION DETAIL



TYPICAL FOUNDATION DETAIL OPTION 1

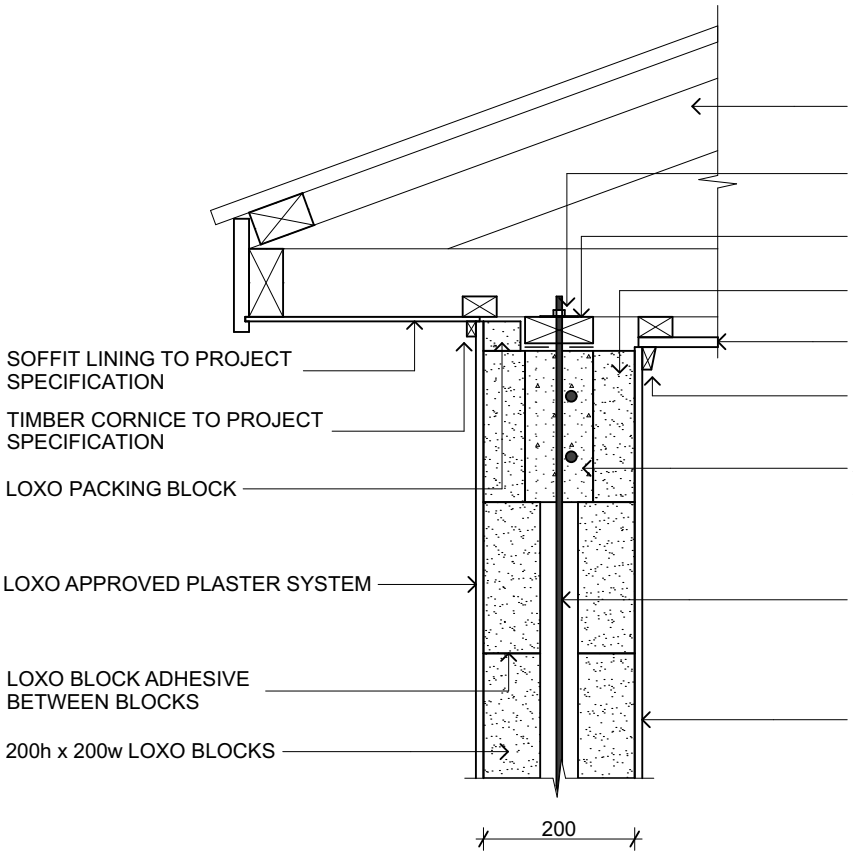
Det. 13.1.1
Scale 1:10



TYPICAL FOUNDATION DETAIL OPTION 2

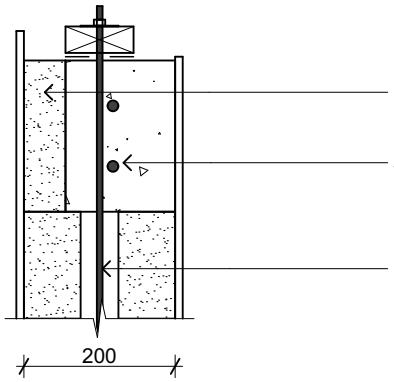
Det. 13.1.2
Scale 1:10

13.2 BOND BEAM DETAILS



BOND BEAM OPTION 1

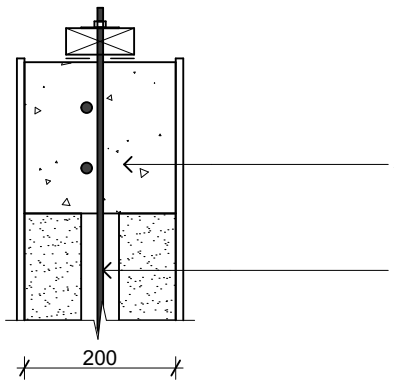
Det. 13.2.1
Scale 1:10



REFER ABOVE FOR TYPICAL NOTATION

BOND BEAM OPTION 2

Det. 13.2.2
Scale 1:10

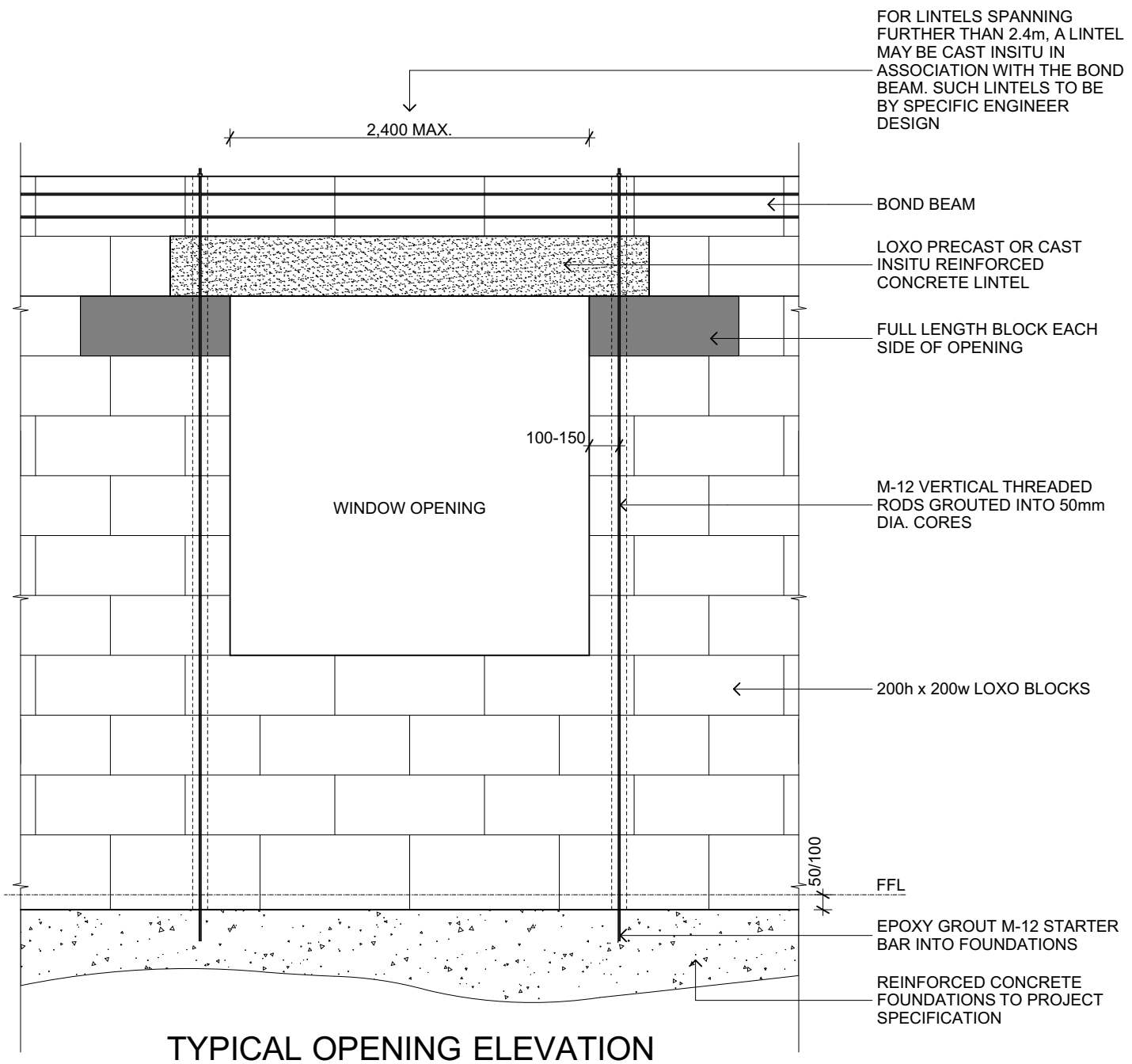


REFER ABOVE FOR TYPICAL NOTATION

BOND BEAM OPTION 3

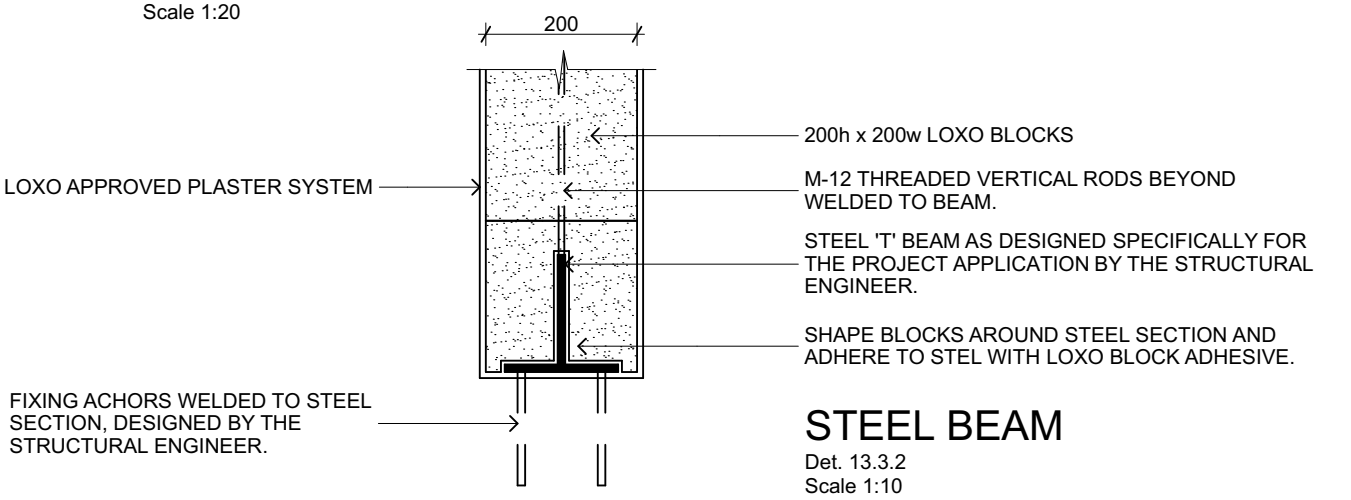
Det. 13.2.3
Scale 1:10

13.3 BLOCK OPENING DETAILS



TYPICAL OPENING ELEVATION

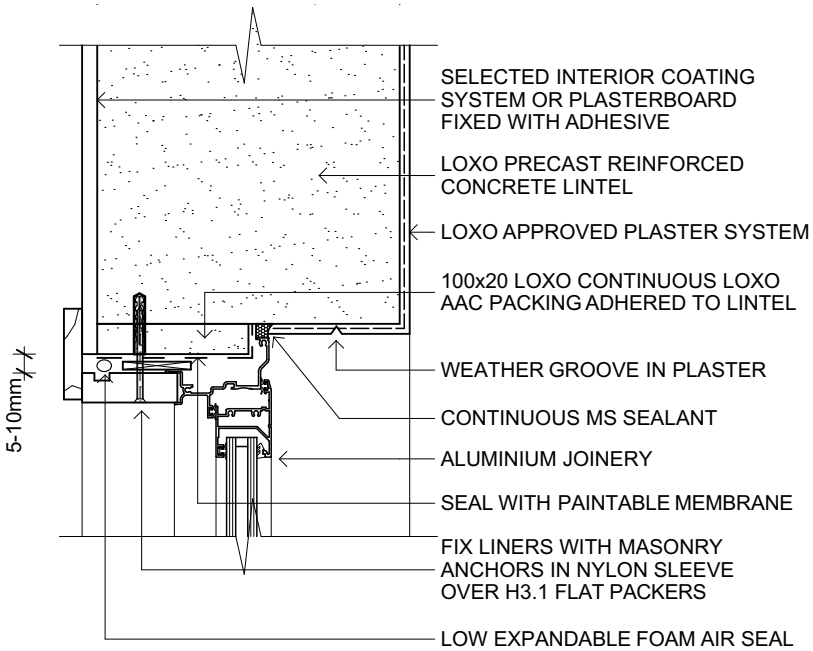
Det. 13.3.1
Scale 1:20



STEEL BEAM

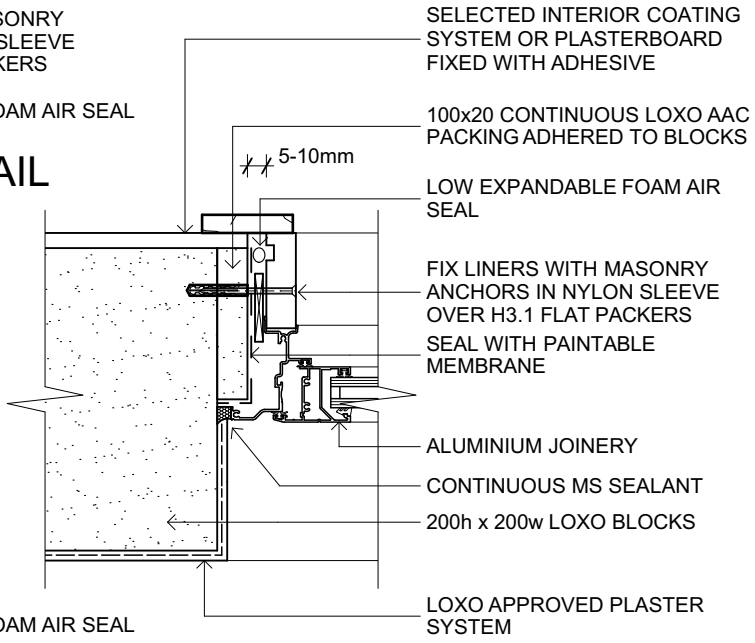
Det. 13.3.2
Scale 1:10

13.4 BLOCK WINDOW DETAILS



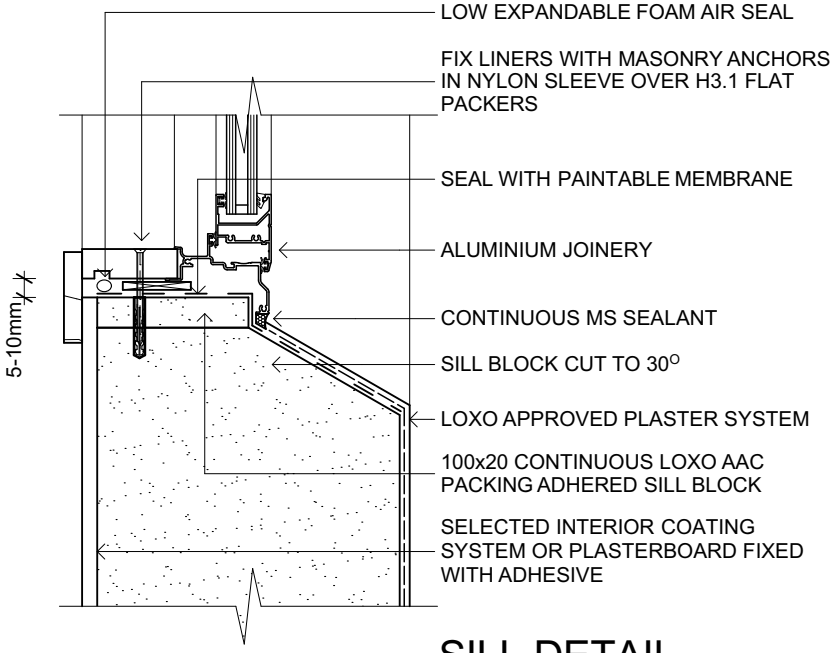
HEAD DETAIL

Det. 13.4.1
Scale 1:5



JAMB DETAIL

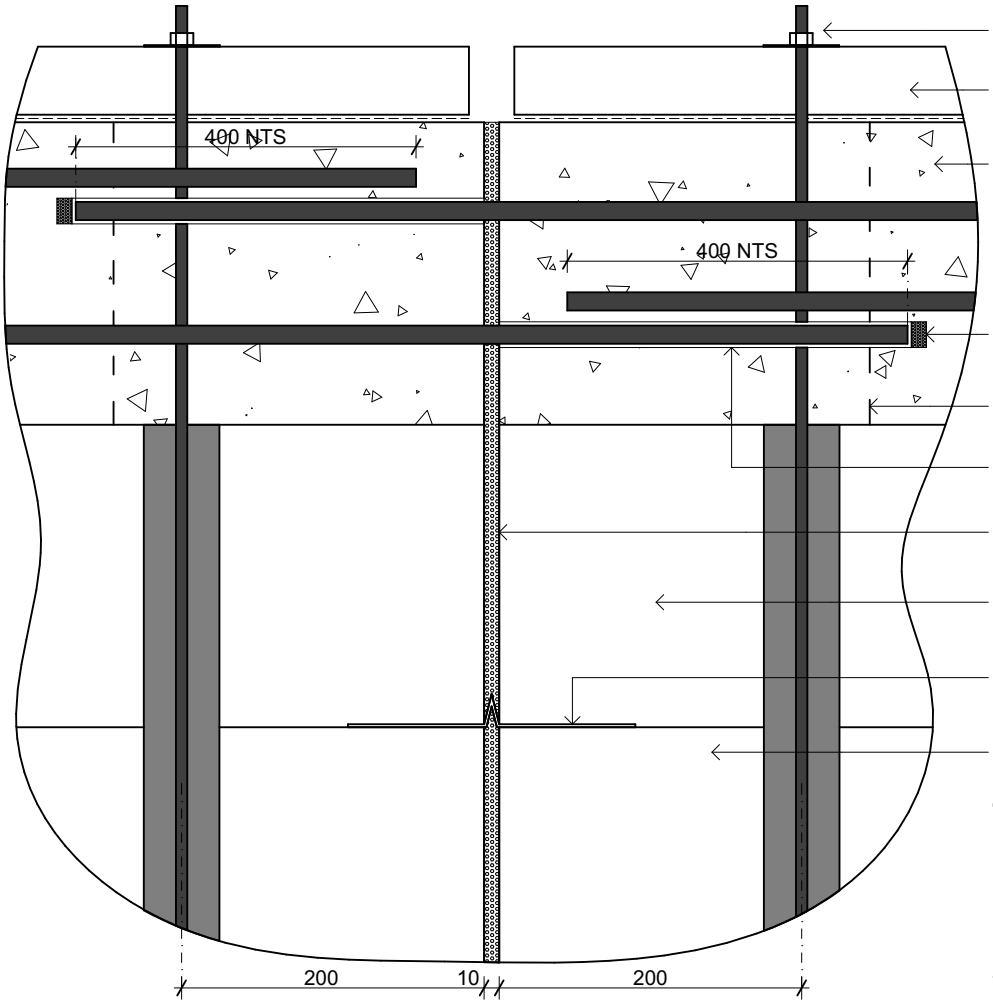
Det. 13.4.2
Scale 1:5



SILL DETAIL

Det. 13.4.3
Scale 1:5

13.5 CONTROL JOINT DETAILS



NUT FASTENING WITH 50SQ. x 3mm GALVANISED WASHERS.

90x45 TOP PLATE OVER DPC

BOND BEAM: 2/D-12 HORIZONTAL REINFORCING BARS TIED TO VERTICAL RODS. SOLID FILL WITH GROUT.

POLYSTYRENE COMPRESSION PLUGS

LINE OF 50mm FACING BLOCKS

SLIP JOINT WITH DENSO TAPE, GREASED PVC SLEEVE OR PROPRIETARY

PEF BACKING ROD AND FLEXIBLE MS SEALANT

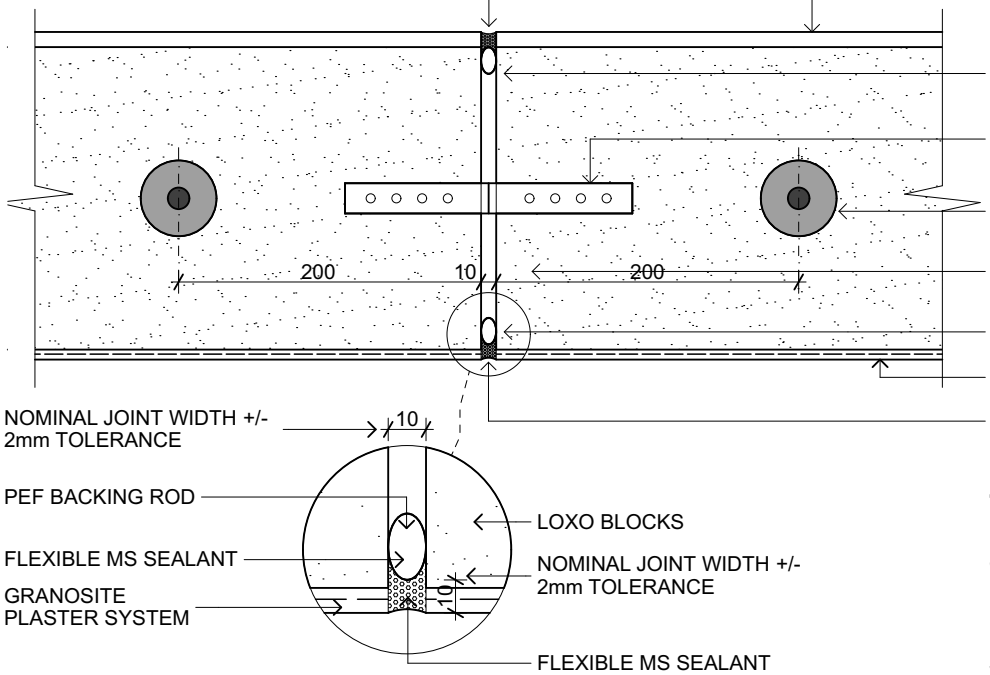
M-12 THREADED VERTICAL RODS GENERALLY @1m crs GROUTED INTO 50mm DIA. CORES

CONTROL JOINT TIE AT EVERY COURSE

200h x 200w LOXO BLOCKS

TYPICAL CONTROL JOINT ELEVATION

Det. 13.5.1
Scale 1:5



CONTROL IN INTERNAL PLASTER SYSTEM AS PER TYPICAL EXTERIOR DETAIL OR CONTROL JOINT TO PLASTERBOARD MANUFACTURERS DETAILS.

SELECTED INTERIOR COATING SYSTEM OR PLASTERBOARD FIXED WITH ADHESIVE

PEF BACKING ROD AND FLEXIBLE MS SEALANT

CONTROL JOINT TIE AT EVERY COURSE

M-12 VERTICAL THREADED RODS GROUTED INTO 50mm DIA. CORES

NOMINAL JOINT WIDTH +/- 2mm TOLERANCE

PEF BACKING ROD

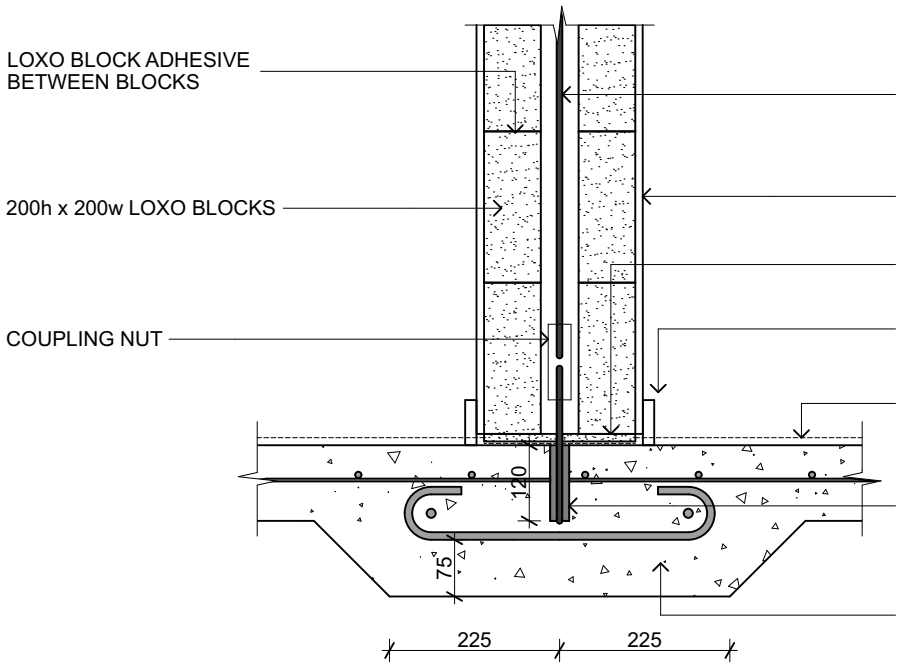
LOXO APPROVED PLASTER SYSTEM

CONTROL JOINT FILLED WITH MS SEALANT

TYPICAL CONTROL JOINT PLAN SECTION

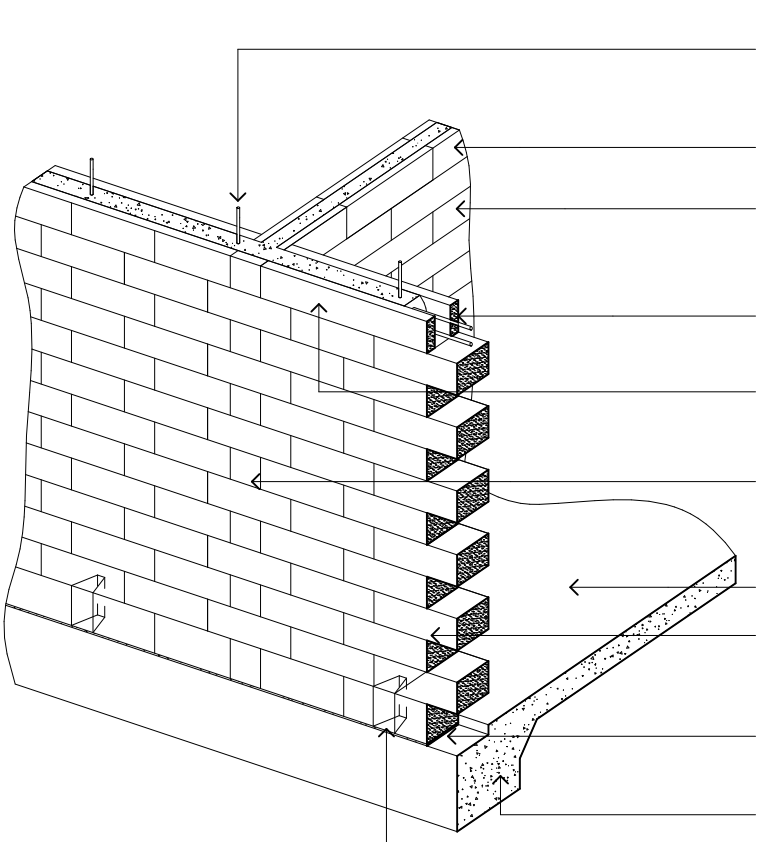
Det. 13.5.2
Scale 1:5

13.6 INTERNAL WALL DETAILS



INTERNAL LOAD BEARING FOUNDATION

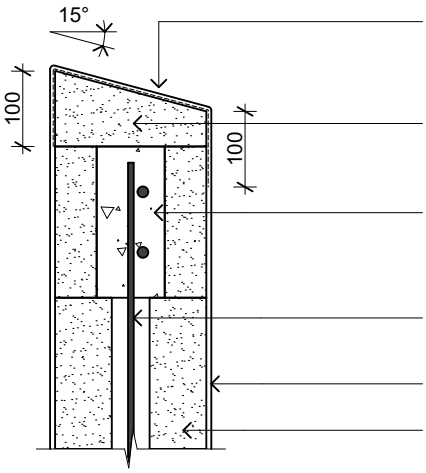
Det. 13.6.1
Scale 1:10



INTERNAL - EXTERNAL WALL JUNCTION

Det. 13.6.2
Scale NTS

13.7 MISC DETAILS



ASA BOSTIK DAMPFIX GOLD WATERPROOFONG MEMBRANE OVER BLOCK RETURNED VERTICALLY 100mm MIN. BOTH SIDES

LOXO 100h BLOCK CUT TO 15^{O} SLOPE FIXED TO BOND BEAM WITH LOXO BLOCK ADHESIVE

BOND BEAM TO PROJECT SPECIFIC ENGINEERS DESIGN.

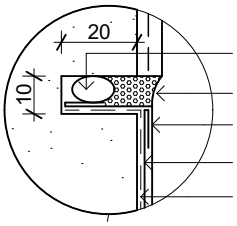
M-12 THREADED VERTICAL RODS GENERALLY @1m crs GROUTED INTO 50mm DIA. CORES

LOXO APPROVED PLASTER SYSTEM

200h x 200w LOXO BLOCKS

PARAPET DETAIL

Det. 13.7.1
Scale 1:10



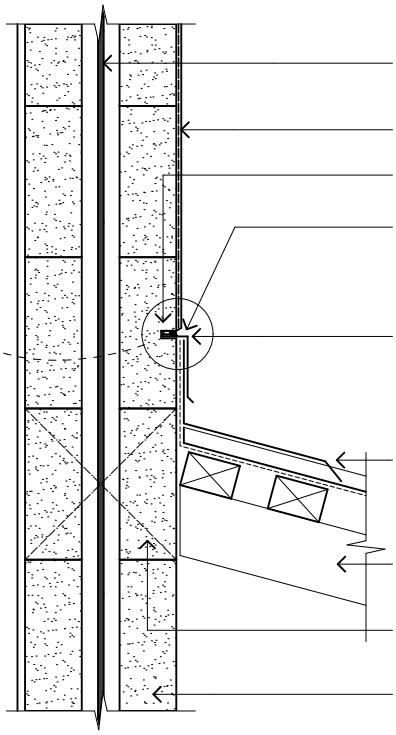
PEF BACKING ROD

FLEXIBLE MS SEALANT

COVER FLASHING.

APRON FLASHING

ROOFING UNDERLAY



M-12 THREADED VERTICAL RODS GENERALLY @1m crs GROUTED INTO 50mm DIA. CORES

LOXO APPROVED PLASTER SYSTEM

20x10mm CHASE IN BLOCKS

PEF BACKING ROD AND FLEXIBLE MS SEALANT

0.55 BMT COLORSTEEL COVER FLASHING WITH HEM AND DRIP EDGE TO COMPY WITH NZBC E2/ AS1. ENSURE MATERIAL COMPATIBILITY WITH SELECTED ROOFING APRON FLASHING.

APRON FLASHING TO PROJECT SPECIFICATION AND TO COMPLY WITH NZBC E2/AS1

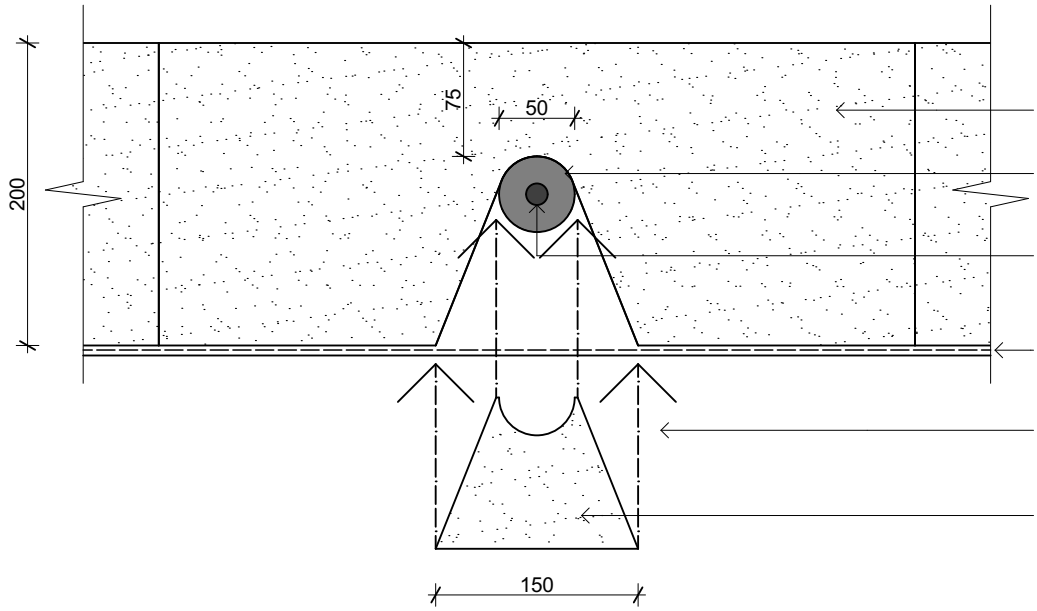
ROOFING, ROOF STRUCTURE AND FIXING TO PROJECT SPECIFICATION

BOND BEAM TO PROJECT SPECIFIC ENGINEERS DESIGN.

200h x 200w LOXO BLOCKS

APRON FLASHING

Det. 13.7.2
Scale 1:10



BOTTOM COURSE WEDGE

Det. 13.8.1
Scale 1:5

LOXO PANEL FLOOR SYSTEM - AN INTRODUCTION

The Loxo Panel Floor System is a lightweight autoclaved aerated concrete (AAC) interlocking panel system designed over typical timber or steel suspended floor structures. The Loxo Panel Floors have excellent fire proofing, thermal and acoustic characteristics providing a lightweight, cost effective alternative to solid concrete. It is suitable for residential and light commercial buildings.

This specification outlines the installation and application of the Loxo Panel Floor System by Loxo Cladding NZ Ltd. The Loxo Panel Floor System is suitable for both residential and commercial applications. The panels come in a standard size of 1800mm long x 600mm wide x 75mm thick. The panels are suitable substrate for a wide variety of floor coverings including carpet, tiles and timber.

Loxo Floor Panels are fixed over typical timber or steel floor joists with a combination of Construction Adhesive as approved by Loxo and screws. The panels are also bonded together on all sides with Loxo Panel Adhesive.

Important:
- This specification must be read in conjunction with the detail data sheets.
- All materials such as grouts, adhesives and fixings used for the Loxo Panel Floor System must be supplied by Loxo Cladding NZ Ltd or one of its certified distributors

Performance and Technical Specifications

Dry Density:	520kg/m3
Intensity: (Compressive Strength)	4.0MPa
Panel Size:	1800mm x 600mm x 75mm thick
Thermal Conductivity:	0.12 - 0.13 W/(mK)
Density For Structure Calculation:	600kg/m3
Thermal Resistivity:	R: 0.56m2 K/W

Standards Compliance

Loxo Floor Panels fixed in accordance with the details and instructions in this Technical Manual meet the requirements and relevant sections of the New Zealand Building Code (NZBC) including:

B1 Structure
B2 Durability
F2 Hazardous Building Materials

The dry mass of the Loxo Panels are considered light weight, and may be used on structures complying with NZS 3604:2011

Fire Resistance for the Loxo Floor Panels exceeds the requirements for standard commercial or domestic floors. Additionally, Loxo Panels have an ignitability index of zero and are 'Non Combustible' in accordance with NZBC Clause C3 and NZS/AS 1530 standards.

Since the panels are applied to the top of the floor joists, any inter storey fire rating should be considered one way.

Structure and Durability

Loxo Floor Panels (including their fixings) are able to withstand all wind loadings and earthquake zones in all areas of New Zealand in accordance with NZS 3604:2011 as long as the supporting structure is designed to withstand the weight of the panels (if in doubt refer to structural engineers design) or by project specific engineers design.

Hazardous Building Materials

In reference to NZBC Clause F2 regarding Hazardous Building Materials, Loxo Panels are non-hazardous providing all safety precautions included in this literature are adhered to, refer to Health and Safety on Page 74.

TECHNICAL SPECIFICATIONS

Framing (Steel)

Floor joists are to be designed by a project specific structural engineer.

Framing (Timber)

Floor joists are to be sized in accordance with NZS 3604:2011 to suit vertical loadings.
Buildings or parts of buildings outside the scope of NZS 3604 must be to specific design in accordance with NZS 3603 and AS/NZS 1170.

Timber studs should be spaced at nominal 600mm centres. Dwangs/nogs must be flush fitted at a maximum of 800mm centres.

Bracing

The timber or steel framed walls must be braced in accordance with NZS 3604: 2011 Section 5 or by specific structural engineers design.

LOXO PANEL FLOOR SYSTEM COMPONENTS

Screws

Bottom plates of walls shall be fixed with the use of self cutting screws (14 - 10 x 150mm long Bugle Head Class 3 screws) through the Loxo Floor Panels into the floor structure. Screws should be countersunk 5-10mm.

Bottom plates of walls within bracing elements shall be fixed with the use of coach screws (M-12 x 200mm long galvanised coach screws with 50x50x3mm square galvanised washers under the heads) through the Loxo Floor Panels into the floor structure.

Refer to Detail 14.1.3 for alternative wall bracing fixing option.

Typical panels shall be fixed with the use of self cutting screws (14 - 10 x 100mm long Bugle Head Class 3 screws for timber floor joists or 14 - 10 x 90 Metal Tip Self Drilling screws) into the floor structure. Screws should be countersunk 5- 10mm.

All panels shall also be bonded to the floor structure with a continuous bead (5mm wide) of Construction Adhesive as approved by Loxo.

Loxo Panel Adhesive

Loxo Panel Adhesive is a polymer modified cement-based adhesive mortar supplied in 20kg bags. It is supplied by Loxo Cladding NZ Ltd, mixed on-site with clean water (see instructions printed on each bag), and is applied to all edges of the panels (except control joint) by trowel.

Construction Adhesive as approved by Loxo is used to bond the floor panels to the floor structure.

Sealant

Expandable foam sealant is used to fill any voids at floor penetrations (such as pipework). Expandable foam sealers used are to be approved by Loxo.

INSTALLATION OF LOXO PANELS

General

Loxo Panels installation must be performed or supervised by approved installers to ensure quality of workmanship. Please contact Loxo Cladding NZ Ltd for details of licensed Loxo distributors.

Construction Method

1. Ensure the builder has completed items set out in the pre-installation checklist (See Appendix C).
2. Ensure floor joists are straight and level and free of dust and debris.
3. Plan setout, measure and provide chalk lines as required.
4. Apply a 5mm bead of Construction Adhesive as approved by Loxo to the top of the joists and Loxo Panel Adhesive to any adjacent panels in accordance with the details.
5. Loxo Panels are to be laid in a stretcher bond with a minimum overlap of one joist space, or 450mm minimum. Panels are to be laid with minimum horizontal sliding as this may reduce the level of adhesion. While moving the panel into place insert PEF backing rods for any control joints. Push the panel to close the tongue and grooves joint and ensure the Loxo Panel Adhesive makes full contact along all edges.
6. Screw fix panels as set out in the details. Fill any joints as required and screw holes with Loxo Panel Adhesive.
7. Remove excess Loxo Panel Adhesive.
8. Repeat steps 4 - 7.
9. Sand back any adhesive flush and sweep floor.
10. Builder to install any blocking below loadbearing walls, timber framed wall bottom plate fixings, holes and blocking for floor penetrations.

Construction Joints

Construction control joints divide the Loxo Floor Panels into separate floor diaphragms.

Construction joint locations should be located as follows:

- At change of joist direction
- At load bearing walls to ensure the floor diaphragms is continuous between bracing
- Over support walls or beams and under walls
- At 6m max spacing

LOXO PANEL FLOOR SYSTEM GURANTEE

System Guarantee

Loxo Panels and associated materials, when installed as a floor system, are guaranteed for a minimum life period of 15 years (from date of completion), meeting the requirements outlined in the New Zealand Building Code (Clause B2.3.1). Our products are designed to have a life span significantly in excess of this minimum period.

Workmanship Guarantee

Our panel installation workmanship is guaranteed for a period of 5 years from date of practical completion.

HEALTH AND SAFETY

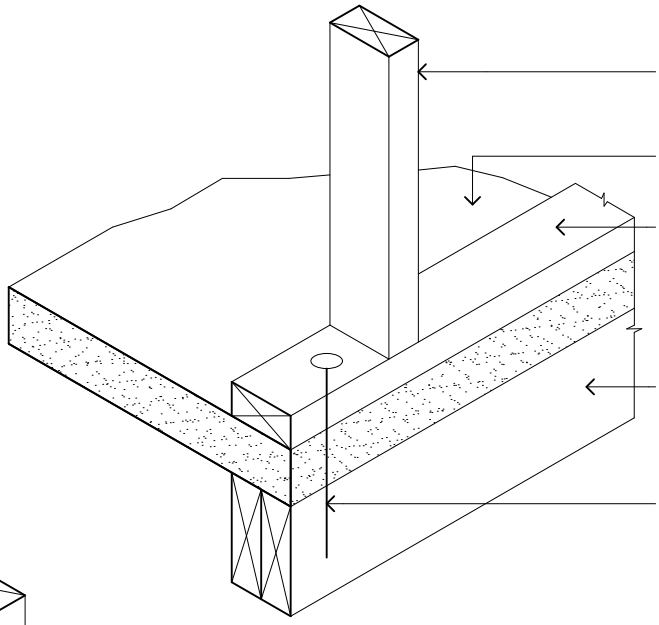
Loxo AAC Panel, along with all clay, concrete and quarry products contains Crystalline Silica, or Silica Dust. Loxo AAC Panel itself does not cause health problems - however when cutting, drilling, sawing, routing, chasing, sanding and in any way breaking up the material there is the potential for health problems to occur unless precautionary measures are taken. Breathing in the dust repeatedly, usually over a number of years may lead to health problems.

When loading, stacking and laying panels workers are unlikely to breath in the fine silica dust. When breaking up the material, sawing, drilling etc it is imperative that a safety mask and eye protection are worn. Ensure the mask fits properly and is approved for use with Dust. Also protective clothing should be worn e.g. overalls. These should be washed often and not in the same wash as other clothes.

The site should be cleaned of dust every day and when using power tools these should be fitted with efficient and well maintained dust extraction devices.

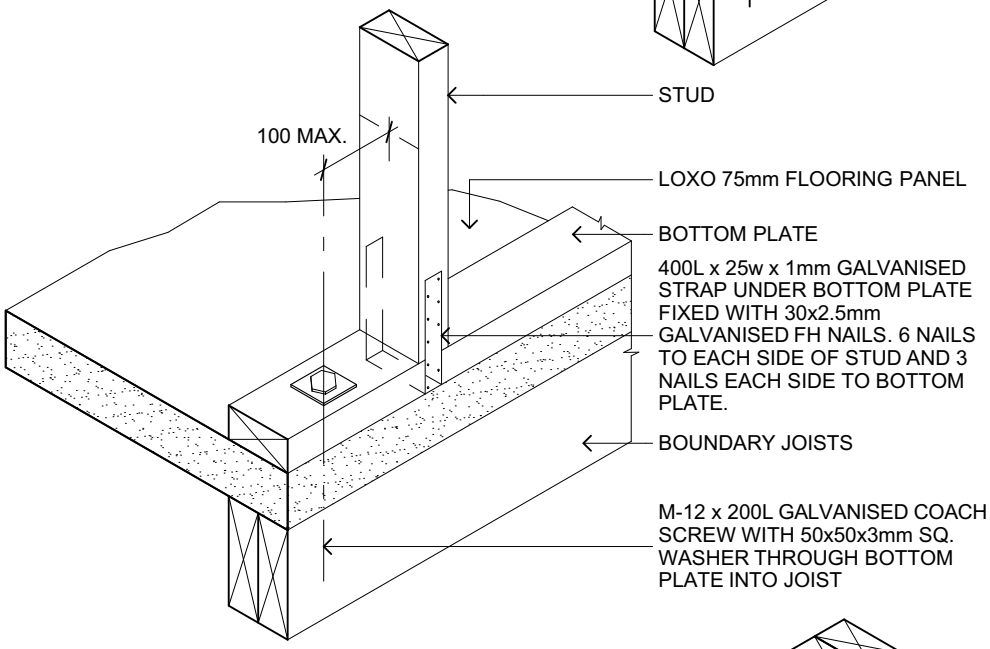
As the Loxo Panel Floor Installer on site - please note that it is your responsibility to inform all employees of these Health and Safety requirements under the Occupational Health and Safety Act.

14.1 FLOOR EDGE DETAILS



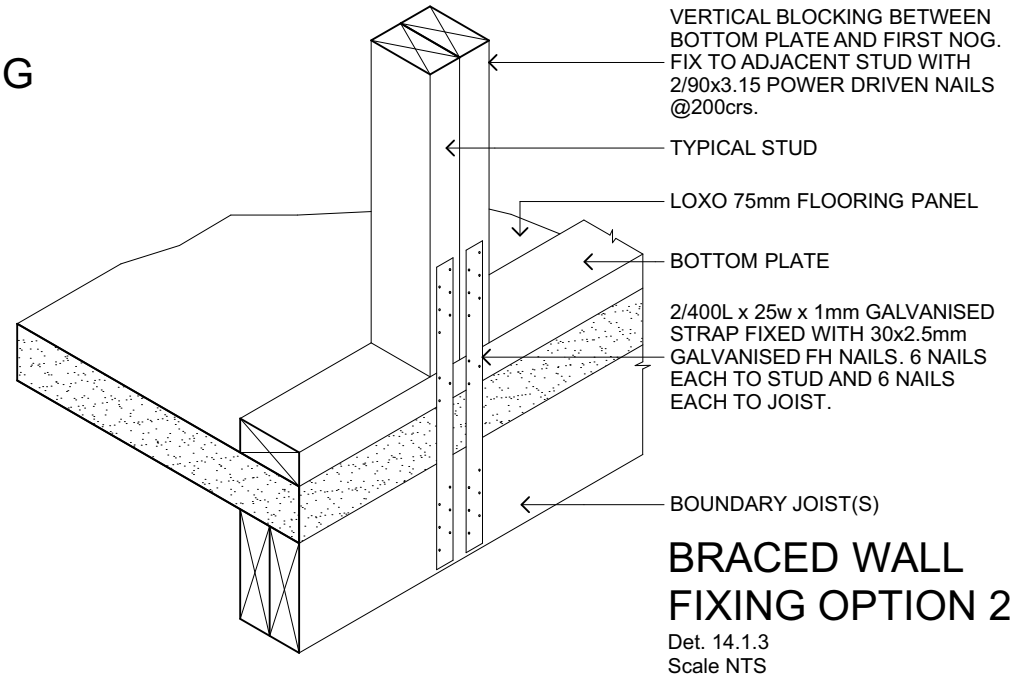
TYPICAL EXTERNAL WALL FIXING

Det. 14.1.1
Scale NTS



BRACED WALL FIXING OPTION 1

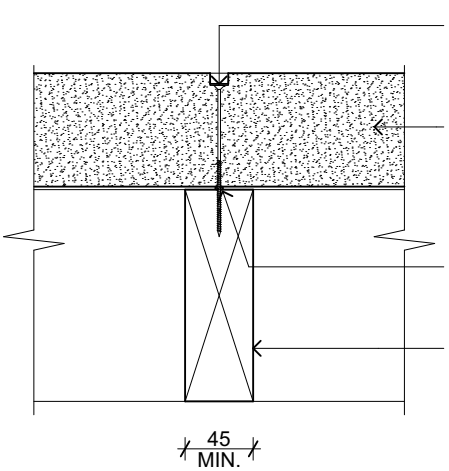
Det. 14.1.2
Scale NTS



BRACED WALL FIXING OPTION 2

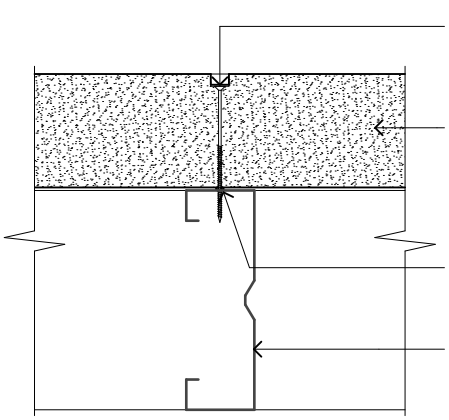
Det. 14.1.3
Scale NTS

14.2 FLOOR FIXING DETAILS



MID PANEL TIMBER JOIST FIXING

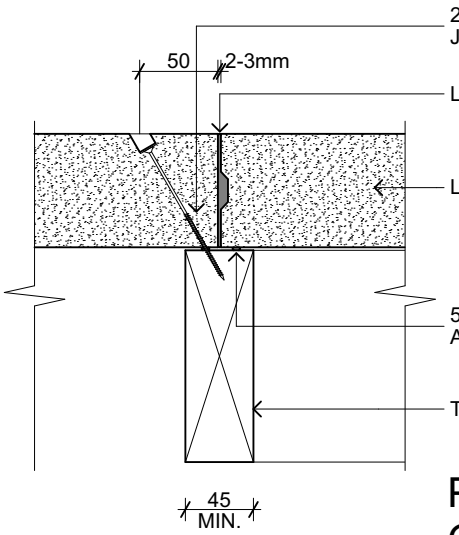
Det. 14.2.1
Scale 1:5



MID PANEL STEEL JOIST FIXING

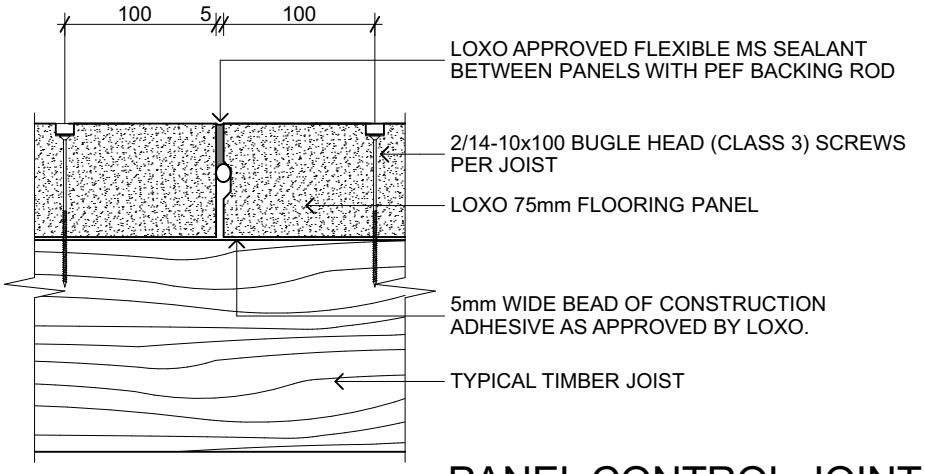
Det. 14.2.2
Scale 1:5

14.3 FLOOR FIXING DETAILS



PANEL FIXING AT CHANGE OF JOIST DIRECTION

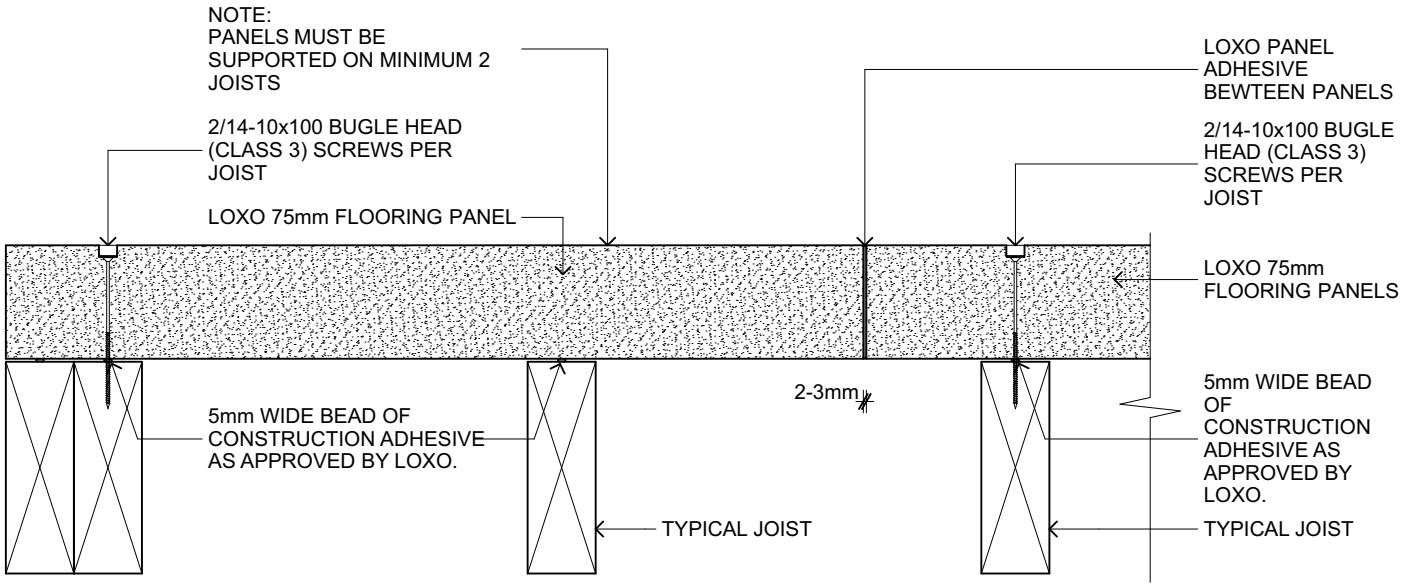
Det. 14.3.1
Scale 1:5



PANEL CONTROL JOINT

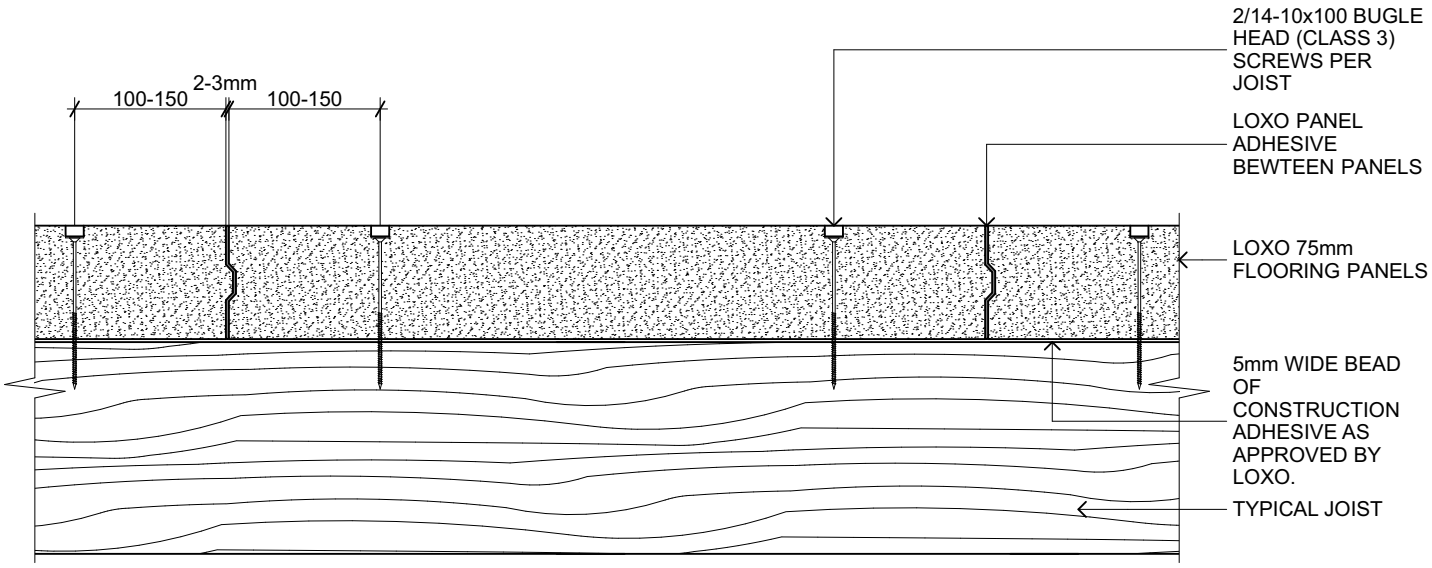
Det. 14.3.2
Scale 1:5

14.4 FLOOR FIXING DETAILS



PANEL FIXING AROSS JOISTS

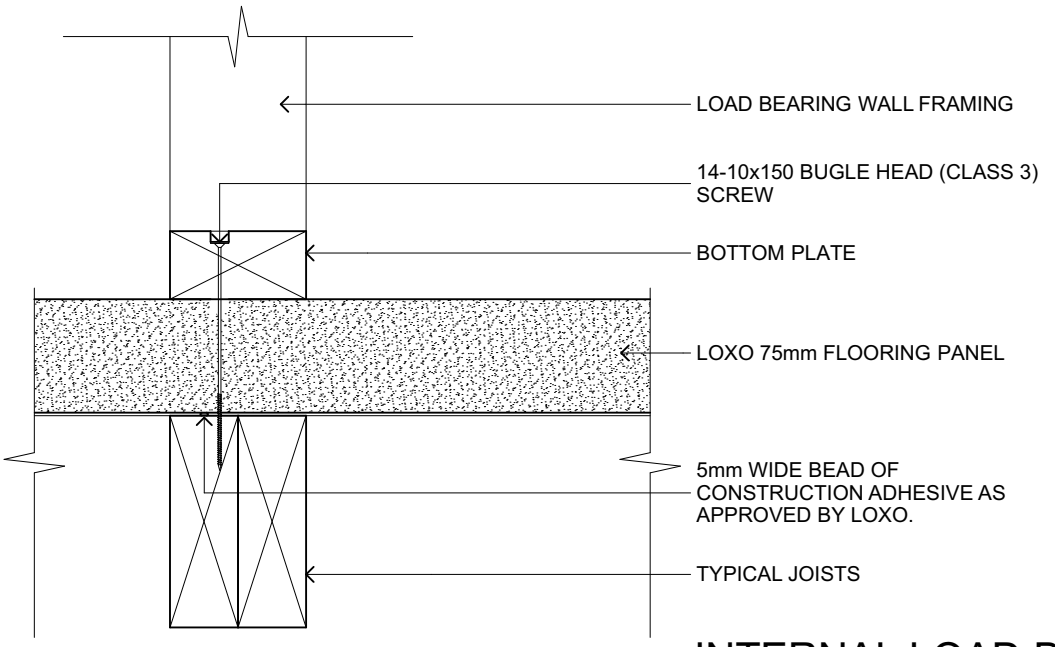
Det. 14.4.1
Scale 1:5



PANEL FIXING ALONG JOISTS

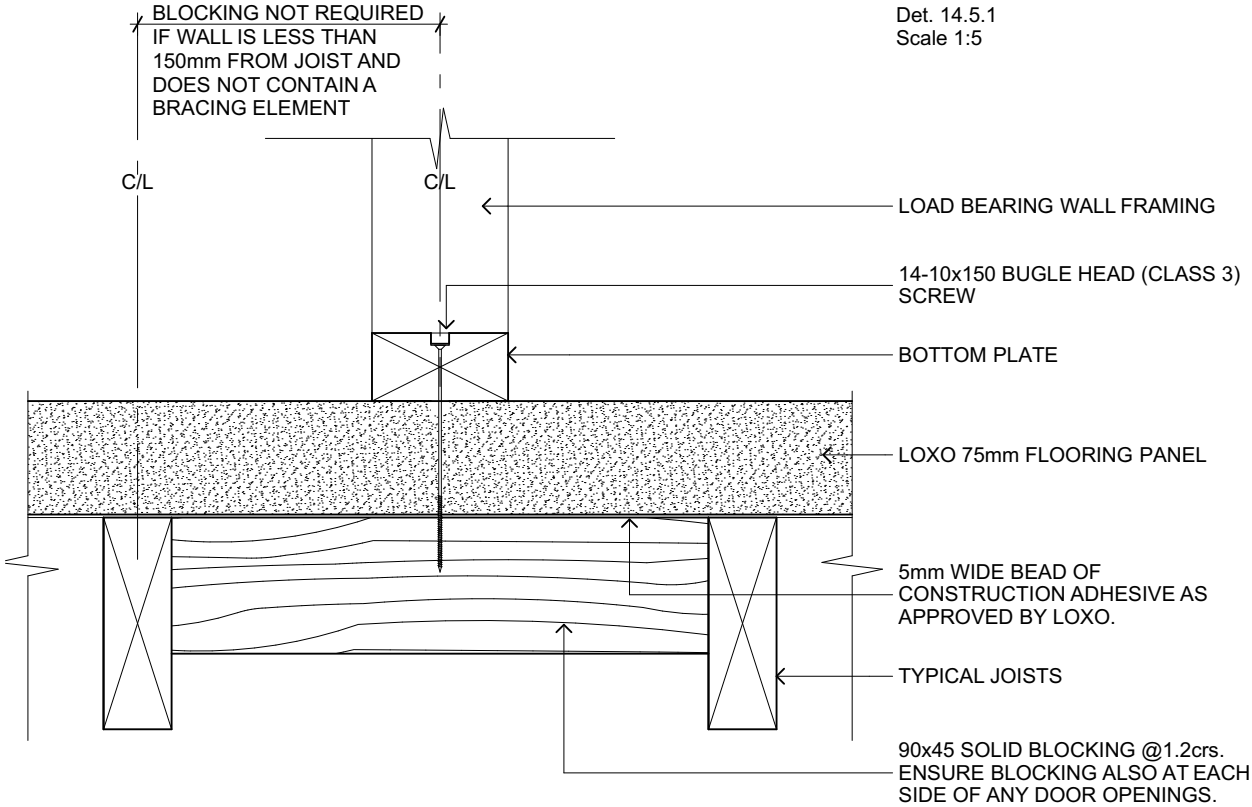
Det. 14.4.2
Scale 1:5

14.5 INTERNAL WALL FIXING DETAILS



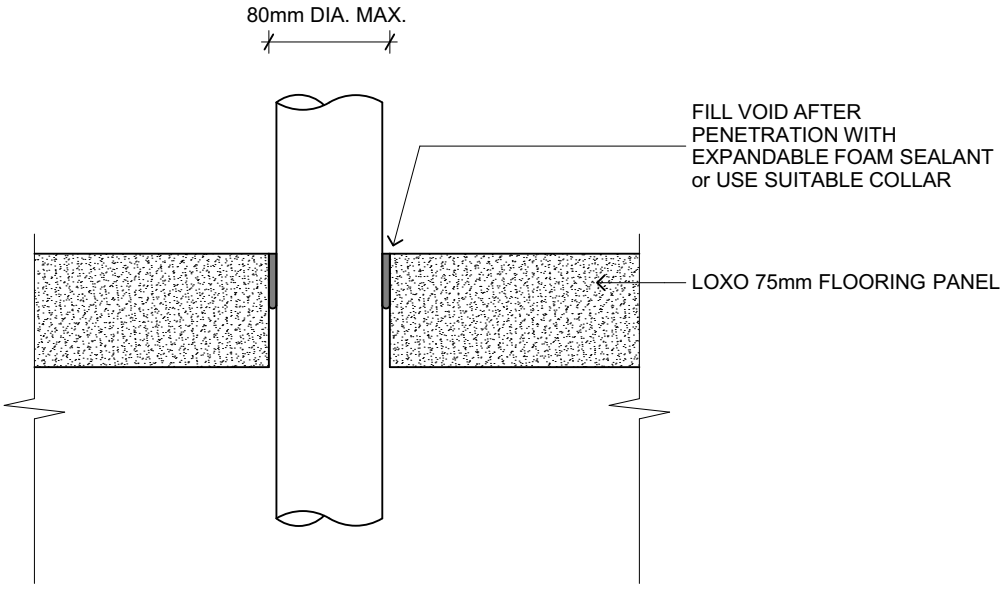
INTERNAL LOAD BEARING WALL FIXING

Det. 14.5.1
Scale 1:5



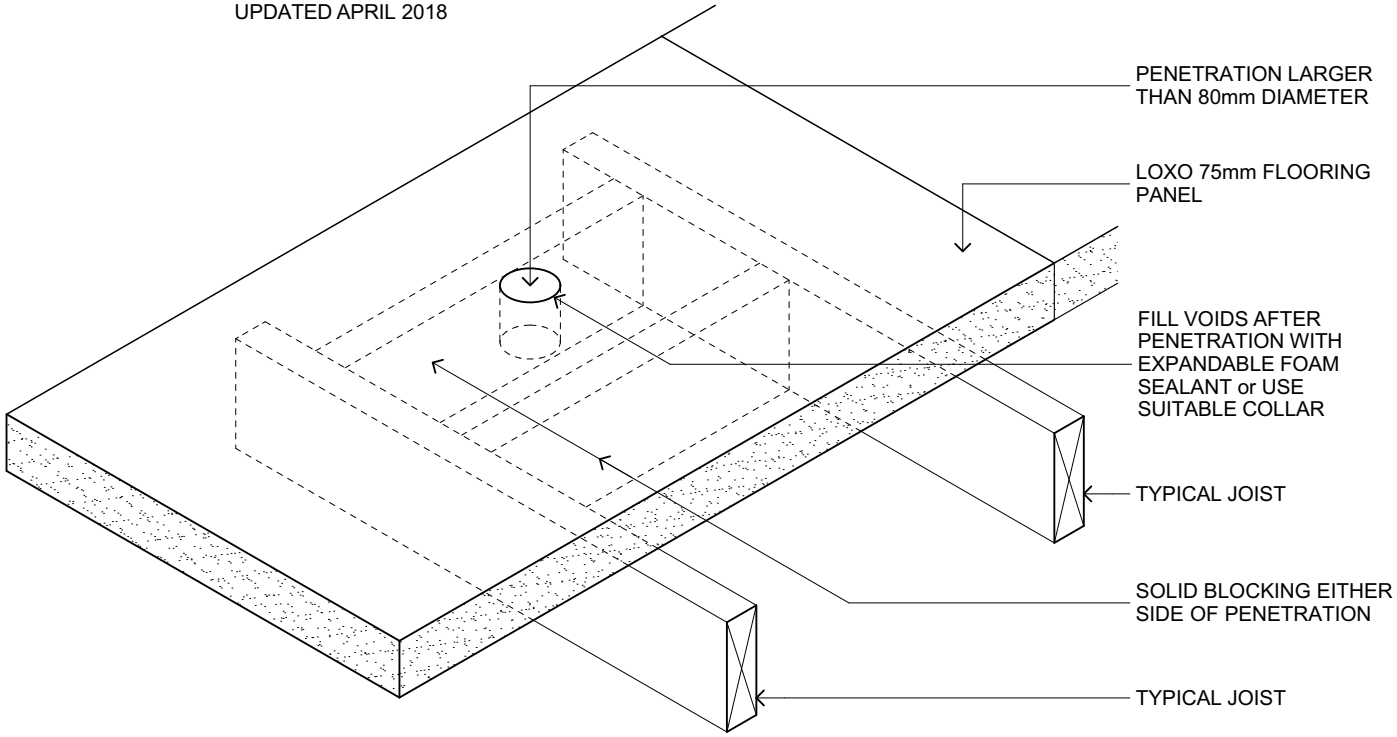
INTERNAL LOAD BEARING WALL FIXING

Det. 14.5.2
Scale 1:5



TYPICAL SMALL PENETRATION LESS THAN 80mm

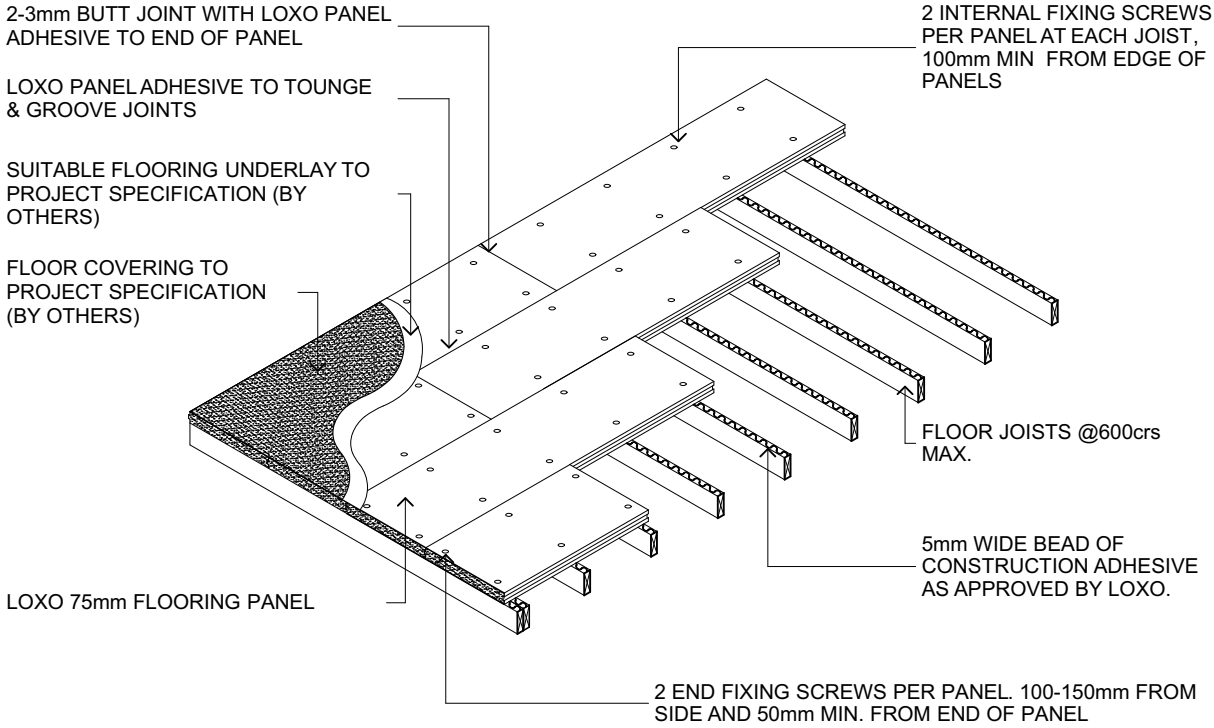
Det. 14.6.1
Scale 1:10
UPDATED APRIL 2018



TYPICAL LARGE PENETRATION GREATER THAN 80mm

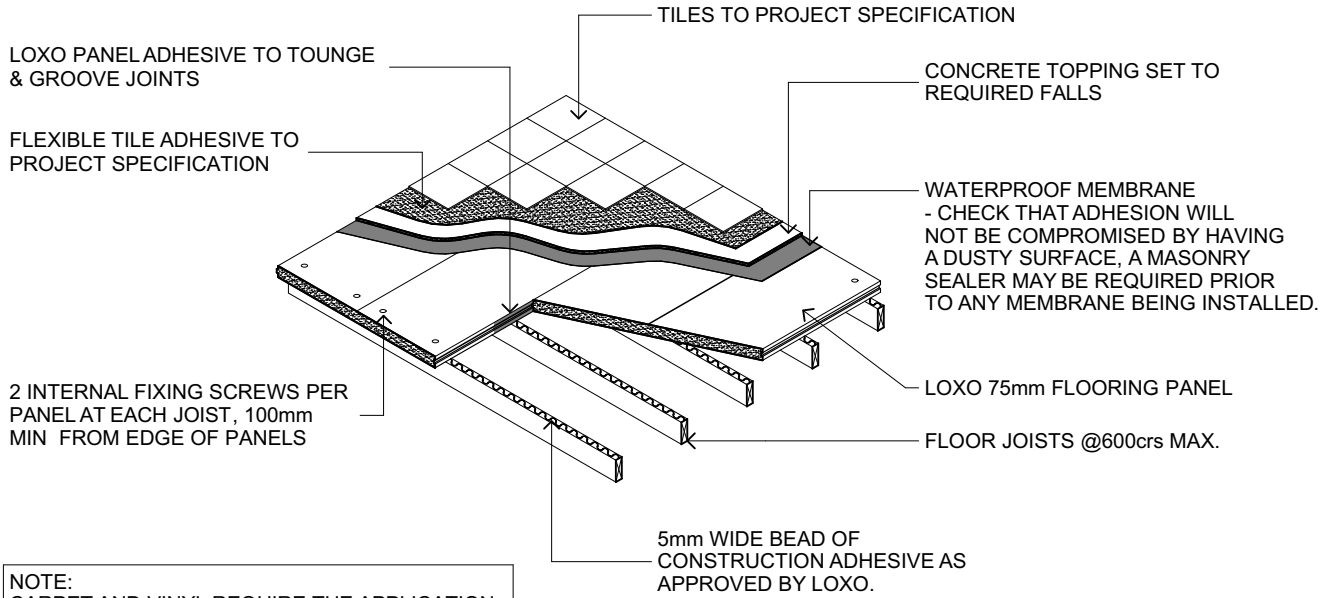
Det. 14.6.2
Scale NTS
UPDATED APRIL 2018

14.7 PANEL LAYOUT DETAILS



TYPICAL PANEL LAYOUT

Det. 14.7.1
Scale NTS
UPDATED 13.03.15



NOTE:
CARPET AND VINYL REQUIRE THE APPLICATION OF A FLOOR LEVELING / SURFACE PREPARATION COMPOUND PRIOR TO INSTALLATION.
CARPET WITH UNDERLAY CAN GENERALLY BE INSTALLED AS PER A STANDARD CONCRETE FLOOR PREPARATION GUIDE LINES, CONSULT YOUR FLOORING SPECIALIST FOR ADVICE.

CREATING FALLS ON PANELS

Det. 14.7.2
Scale NTS
UPDATED APRIL 2018

LOXO

CLADDING SYSTEMS

30/30/30 & 60/60/60 BOUNDARY FIRE WALLS

TECHNICAL MANUAL

Edition June 2018

(always refer to the latest manual as set out on www.loxocladding.co.nz)

Head Office: Loxo Cladding NZ Limited
PO Box 10176
Christchurch

Tel 64 3 372 3343

Email info@loxocladding.co.nz

www.loxocladding.co.nz

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P.O. Box 8874,
Christchurch 8440,
New Zealand
P. 03 348 6066
F. 03 348 6065
E. info@tmco.co.nz

23 March 2018

File No.: 150619

Loxo Cladding Systems Ltd
PO Box 10176
CHRISTCHURCH

Attention: Marcus Stufkens (m.stufkens@loxocladding.co.nz)

RE: LOXO FIRE RATED BOUNDARY WALL SYSTEMS

Dear Marcus,

We are writing to confirm that TM Consultants Ltd has conducted a post fire structural stability assessment for the Loxo Fire Rated Garage Boundary Walls.

This assessment has found that the Loxo fire rated walls described in TM Consultants Ltd Producer Statement Design, Issue A dated 23 March 2018 are capable of resisting an imposed 0.5kPa face loading for load perpendicular to the face of the wall acting toward and away from the boundary.

This letter does not address the durability or fire resistance rating requirements of the New Zealand Building Code.
TMCO reserves the right at any time to amend or withdraw this letter in the light of new knowledge.

If there are any questions please do not hesitate to contact me.

Yours sincerely,

Matthew Blyth
CPEng # 237435
TM CONSULTANTS LIMITED

TM Consultants Ltd.
A. 5 Burdale Street,
P.O. Box 8874,
Christchurch 8440,
New Zealand
P. 03 348 6066
F. 03 348 6065
E. info@tmco.co.nz

PRODUCER STATEMENT – DESIGN (ISSUE A)

File No. 150619

ISSUED BY: **TM CONSULTANTS LIMITED**
DESIGN ENGINEER: **MATTHEW B BLYTH**
TO: **LOXO CLADDING SYSTEMS LIMITED**
TO BE SUPPLIED TO: **LOCAL BCA OR TA**
IN RESPECT OF: **FIRE RATED GARAGE BOUNDARY WALL WITH OVERHANG AND FIRE RATED BOUNDARY WALL WITH REBATE IN SLAB**
AT: **VARIOUS LOCATIONS**

TM CONSULTANTS LIMITED has been engaged by **LOXO CLADDING SYSTEMS LIMITED** to provide **STRUCTURAL ENGINEERING** services in respect of the requirements of Clause **B1** of the Building Code 2004 for:

- ☐ All
- ☑ Part only as specified above

of the proposed building work. The design carried out by us has been prepared in accordance with

- ☑ Compliance Documents issued by Ministry of Business, Innovation & Employment **B1/VM1 and B1/VM4** of the approved documents
- ☐ Alternative solution as per the attached schedule

The proposed building work covered by this Producer Statement is described on **Loxo Cladding Systems Ltd's** drawings titled **Fire Rated Garage Boundary Wall, dated 20/03/2018** and numbered **Sheets F02 rev D, F03 rev D, F04 rev D, F05 rev B, F06 rev A, F17 rev C, F18 rev C, F19 rev C and F20 rev C** together with the specification and other documents set out in the schedule attached to this statement.

On behalf of TM Consultants Ltd, and subject to:

i. All proprietary products meeting their performance specification requirements.

I believe on reasonable grounds that a) the building, if constructed in accordance with the drawings, specifications, and other documents provided or listed in the attached schedule, will comply with the relevant provisions of the building code. and that b), the persons who have undertaken the design have the necessary competency to do so. I also recommend the following level of construction monitoring/observation: ☐CM1, ☐ CM2, ☐ CM3, ☐ CM4, ☐ CM5,

This Producer Statement - Design is valid for 1 year only from the date of issue.

I, **Matthew B Blyth** am CPEng **237435.** I am a Member of IPENZ and hold the following qualifications **BE(Civil), CMEngNZ(Structural), CPEng, IntPE(NZ), APEC Engineer.**

TM Consultants Ltd is a member of ACENZ.

SIGNED BY.....M. B. Blyth.....**ON BEHALF OF** TM Consultants Ltd **DATE: 23 March 2018**

Original To: Stufkens & Chambers Architects Ltd (via email:mstufkens@scarchitects.co.nz)

TM Consultants Ltd in issuing this statement holds a current policy of Professional Indemnity Insurance no less than $200,000.

Note: This statement shall only be relied upon by the Building Consent Authority named above. Liability under this statement accrues to TM Consultants Ltd only. The total maximum amount of damages payable arising from this statement and all other statements provided to the Building Consent Authority in relation to this building work, whether in contract, tort or otherwise (including negligence), is limited to the sum of $200,000.

Construction monitoring site visits required are to be carried out by the local territorial authority.

Engenuity CONSULTING ENGINEERS
027 491 5349
john@engenuity.co.nz
www.engenuity.co.nz

09 July 2018 Job No: 18013001

Loxo Cladding NZ Limited
Attn Marcus Stufkens

Via email: m.stufkens@loxocladding.co.nz

RE: Loxo 30/30/30 Fire Rated Boundary Wall Systems

Dear Marcus,

Following a review of the testing and assessments completed by CSIRO (FSV 1525, FCO 2915 & FCO 2944) and specific discussions with Hans Gerlich (Technical Manager, Building Systems, Winstone Wallboards Ltd), Engenuity Consulting Engineers Limited conclude that the Loxo Boundary Wall Systems detailed in drawings 'Fire Rated Garage Boundary Wall', sheets F02-F04, revision D, dated 08.04.18 and sheets F17-F20, revision D, dated 19.06.18 will provide a 30/30/30 fire resistance rating in accordance with AS 1530.4.

No unrated penetrations are permitted through the GIB linings. Where penetrations are required, these shall be fire stopped using an appropriate stopping medium installed strictly in accordance with the manufacturers requirements for the product used.

Note that this standard detail is not appropriate alone for typical 'side by side' or 'one above another' type terrace housing, and that additional specific fire rated junction details are necessary to ensure fire separation between units are achieved.

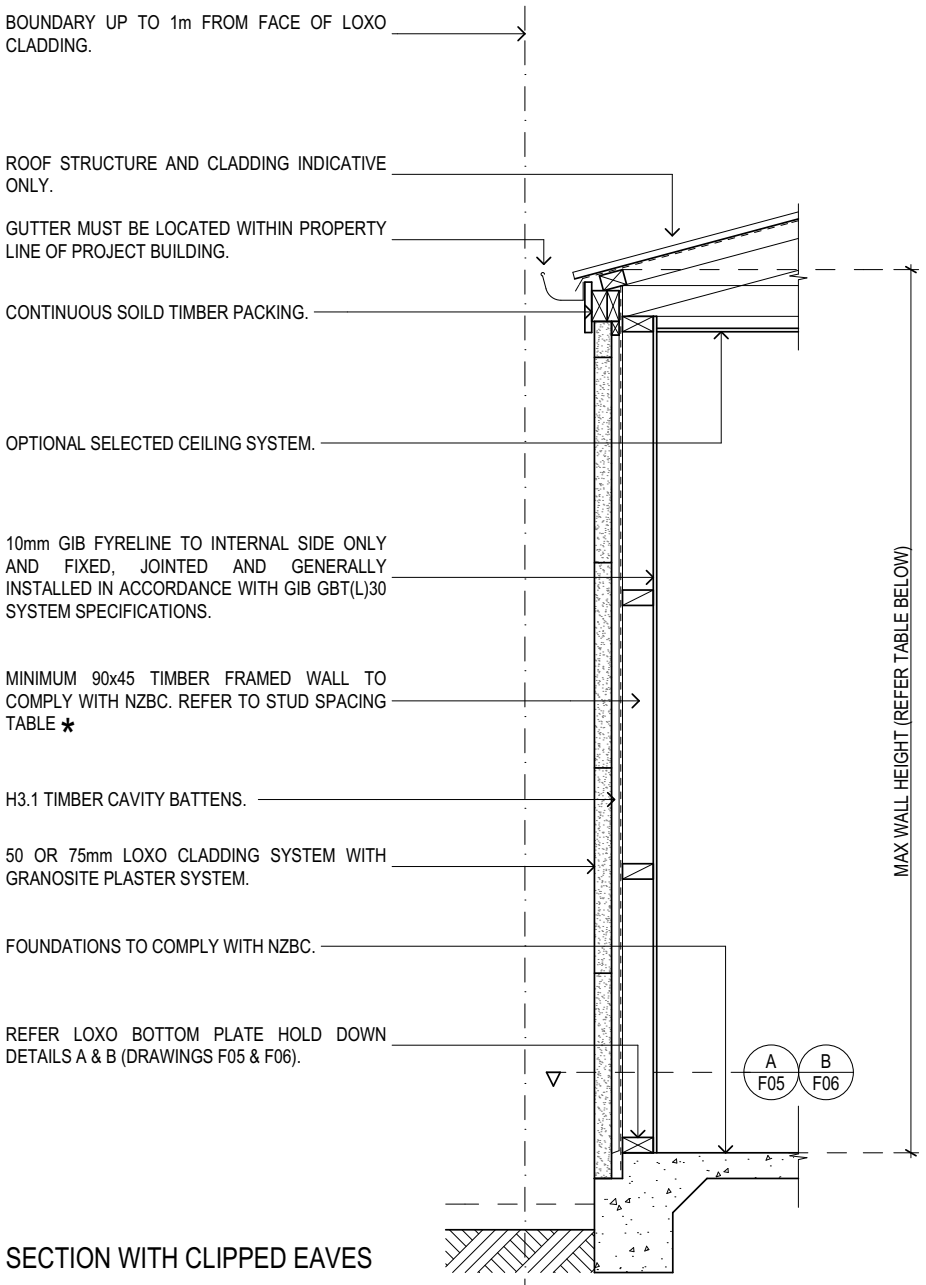
Take note that this letter does not address the durability or post fire structural stability requirements of the New Zealand Building Code.

Engenuity Consulting Engineers Limited reserves the right at any time to amend or withdraw this letter in the light of new knowledge.

If there are any questions, please do not hesitate to contact me.

Yours sincerely,
Engenuity Consulting Engineers Limited

John Collie
Director, Chartered Fire Engineer



SECTION WITH CLIPPED EAVES

BOUNDARY WALL DETAILS (GARAGE)

FIRE RATED 30/30/30 - NON VENTED SYSTEM.

NOTES:

SECTIONS INDICATIVE AND INTENDED FOR THE FIRE RATED SYSTEM ILLUSTATION ONLY. REFER TO LOXO TECHNICAL MANUAL IN ALL CASES FOR SPECIFIC JUNCTION DETAILS.

* REFER TO ALLOWABLE STUD SIZE AND CENTRES FOR THE APPLICABLE MAXIMUM WALL HEIGHT.

STUD TABLE		
STUD(MSG8, mm)	CENTRES(mm)	MAX. WALL HT.(mm)
90x45	300	3010
90x45	400	2600
90x45	450	2460
140x45	600	3000

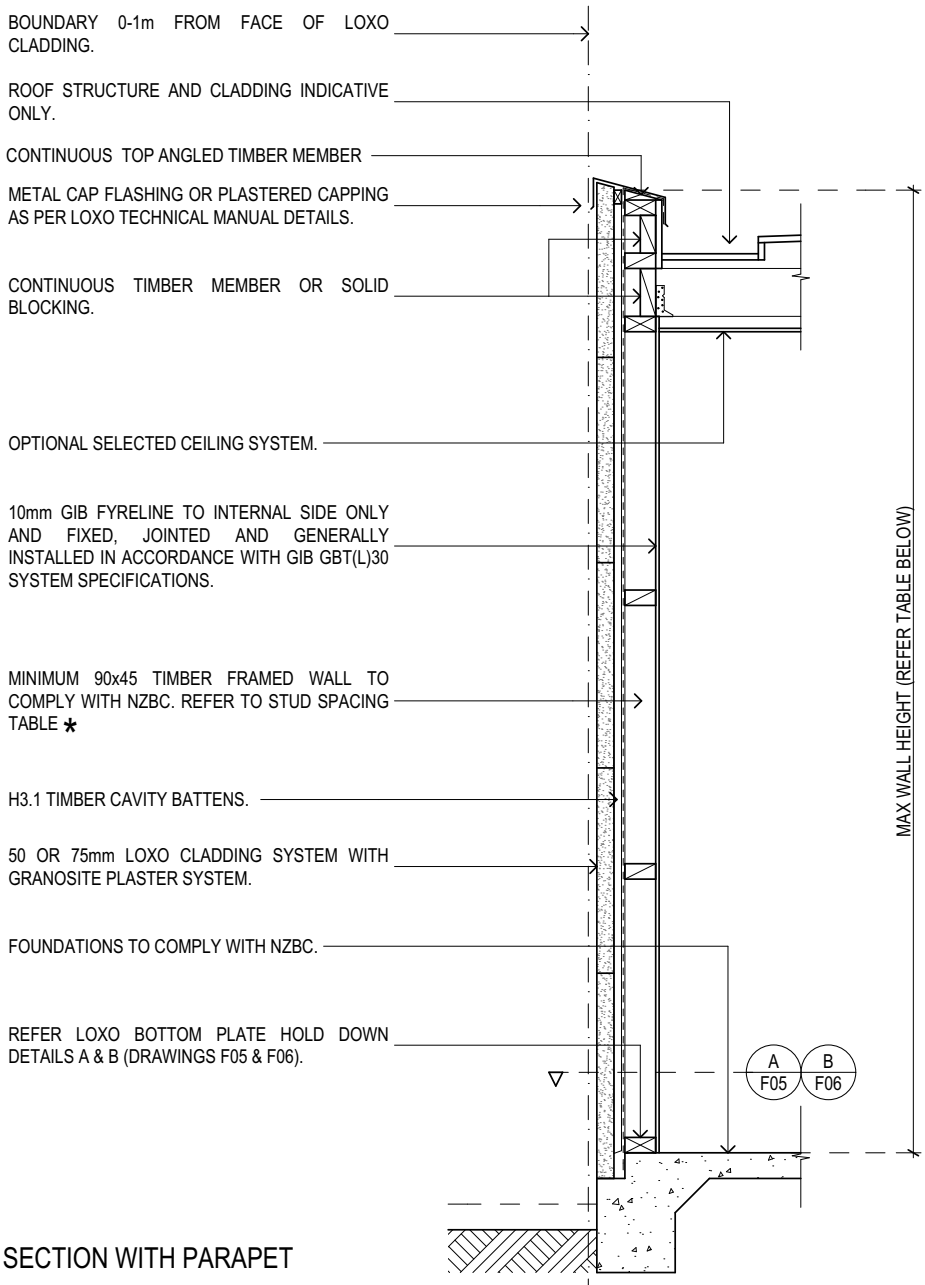
LOXO CLADDING SYSTEMS

TITLE: FIRE RATED GARAGE BOUNDARY WALL

REVISION: D

DATE: 08.04.2018

DRAWING NUMBER: F02



SECTION WITH PARAPET

BOUNDARY WALL DETAILS (GARAGE)

FIRE RATED 30/30/30 - NON VENTED SYSTEM.

NOTES:

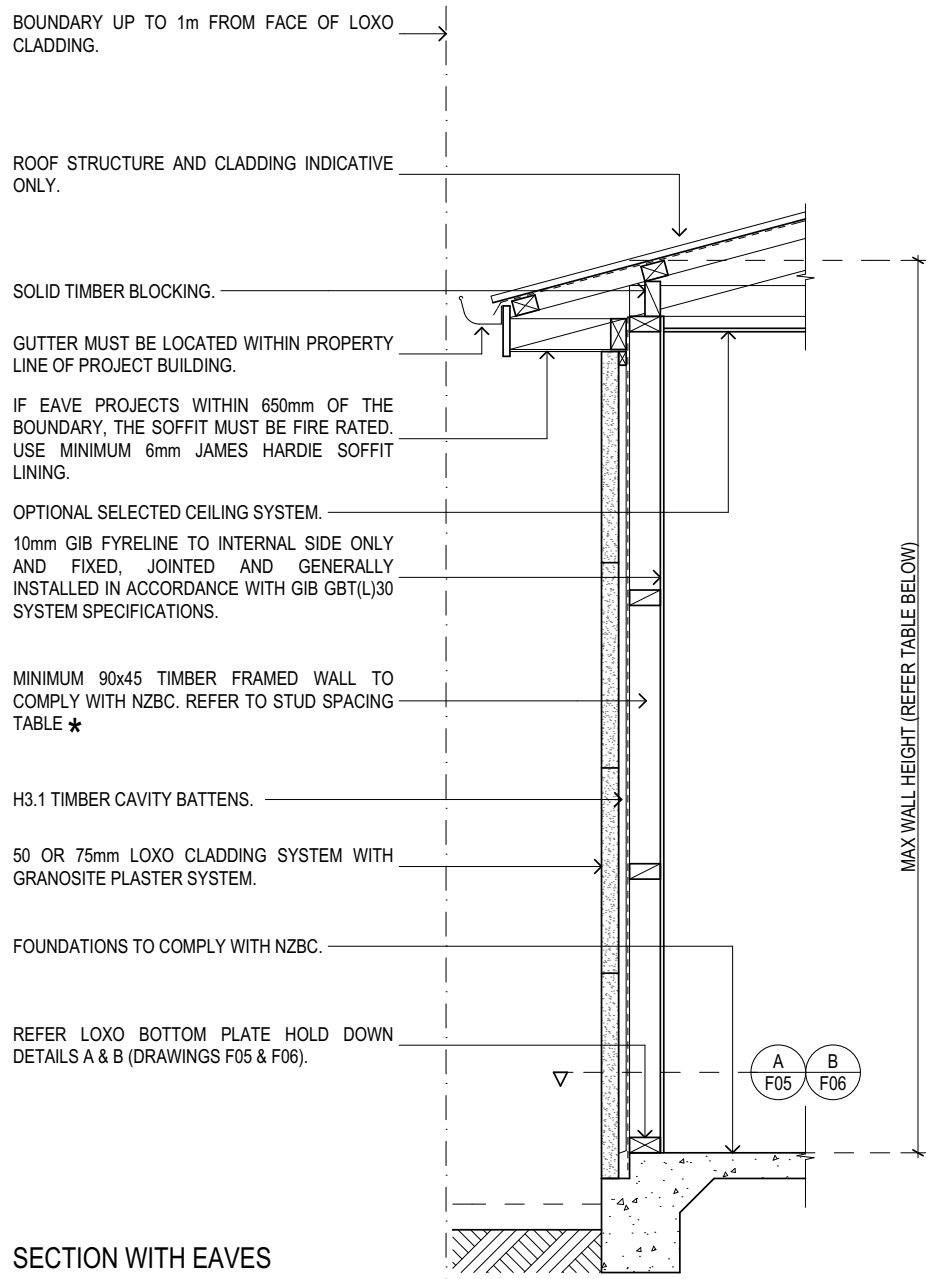
SECTIONS INDICATIVE AND INTENDED FOR THE FIRE RATED SYSTEM ILLUSTATION ONLY. REFER TO LOXO TECHNICAL MANUAL IN ALL CASES FOR SPECIFIC JUNCTION DETAILS.

* REFER TO ALLOWABLE STUD SIZE AND CENTRES FOR THE APPLICABLE MAXIMUM WALL HEIGHT.

STUD TABLE		
STUD(MSG8, mm)	CENTRES(mm)	MAX. WALL HT.(mm)
90x45	300	3010
90x45	400	2600
90x45	450	2460
140x45	600	3000

LOXO CLADDING SYSTEMS

TITLE: FIRE RATED GARAGE BOUNDARY WALL
REVISION: D
DATE: 08.04.2018
DRAWING NUMBER: F03



SECTION WITH EAVES

BOUNDARY WALL DETAILS (GARAGE)

FIRE RATED 30/30/30 - NON VENTED SYSTEM.

NOTES:

SECTIONS INDICATIVE AND INTENDED FOR THE FIRE RATED SYSTEM ILLUSTATION ONLY. REFER TO LOXO TECHNICAL MANUAL IN ALL CASES FOR SPECIFIC JUNCTION DETAILS.

* REFER TO ALLOWABLE STUD SIZE AND CENTRES FOR THE APPLICABLE MAXIMUM WALL HEIGHT.

STUD TABLE		
STUD(MSG8, mm)	CENTRES(mm)	MAX. WALL HT.(mm)
90x45	300	3010
90x45	400	2600
90x45	450	2460
140x45	600	3000

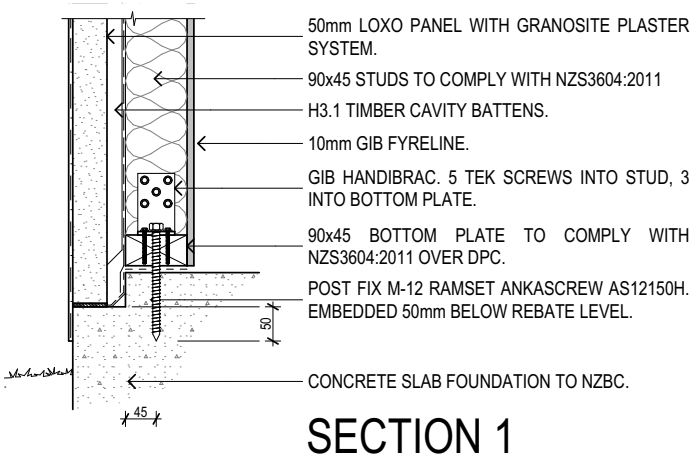
LOXO CLADDING SYSTEMS

TITLE: FIRE RATED GARAGE BOUNDARY WALL

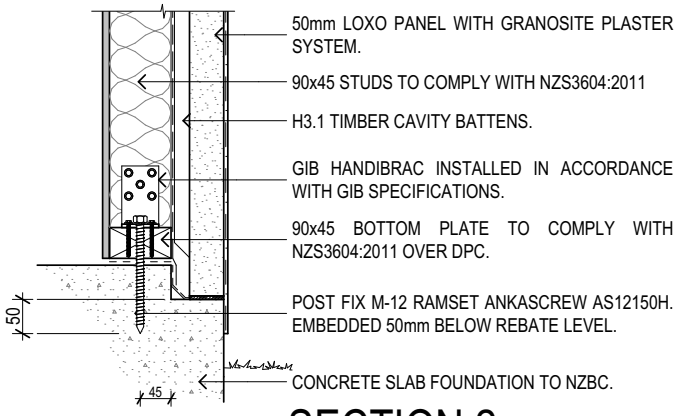
REVISION: D

DATE: 08.04.2018

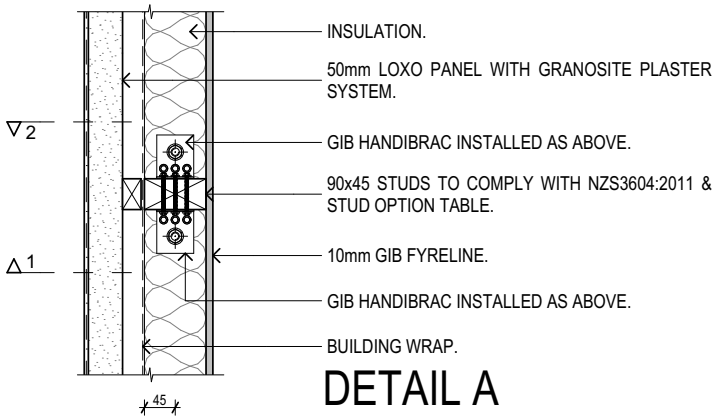
DRAWING NUMBER: F04



SECTION 1



SECTION 2



DETAIL A

LOXO BOTTOM PLATE HOLD DOWN DETAILS

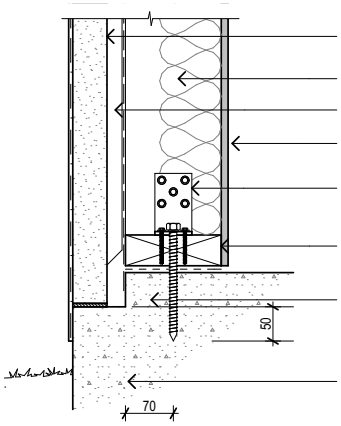
FOR 90mm WIDE STUDS AND BOTTOM PLATES
FIRE RATED 30/30/30

NOTES:

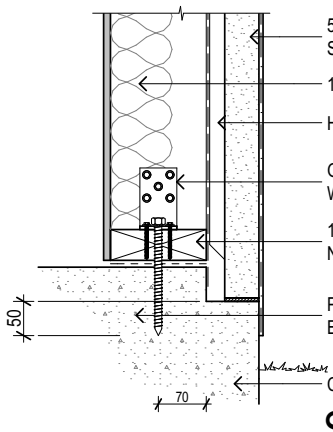
DETAILS INDICATIVE AND INTENDED FOR THE FIRE RATED SYSTEM ILLUSTATION ONLY. REFER TO LOXO TECHNICAL MANUAL IN ALL CASES FOR SPECIFIC JUNCTION DETAILS. DETAILS FOR 90mm STUDS AND BOTTOM PLATES ONLY. FOR STUDS AND BOTTOM PLATE WIDTHS OF 140mm, BOTTOM PLATE HOLD DOWNS ARE TO BE IN ACCORDANCE WITH DETAIL B

LOXO CLADDING SYSTEMS

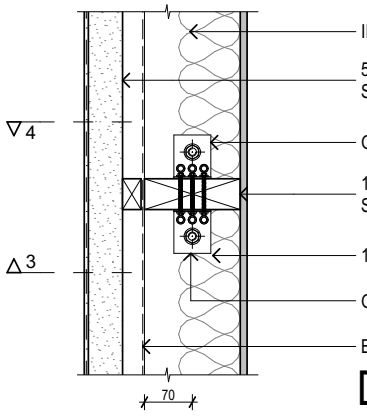
TITLE: FIRE RATED GARAGE BOUNDARY WALL DETAILS
REVISION: B
DATE: 08.04.2018
DRAWING NUMBER: F05



SECTION 3



SECTION 4



DETAIL B

LOXO BOTTOM PLATE HOLD DOWN DETAILS

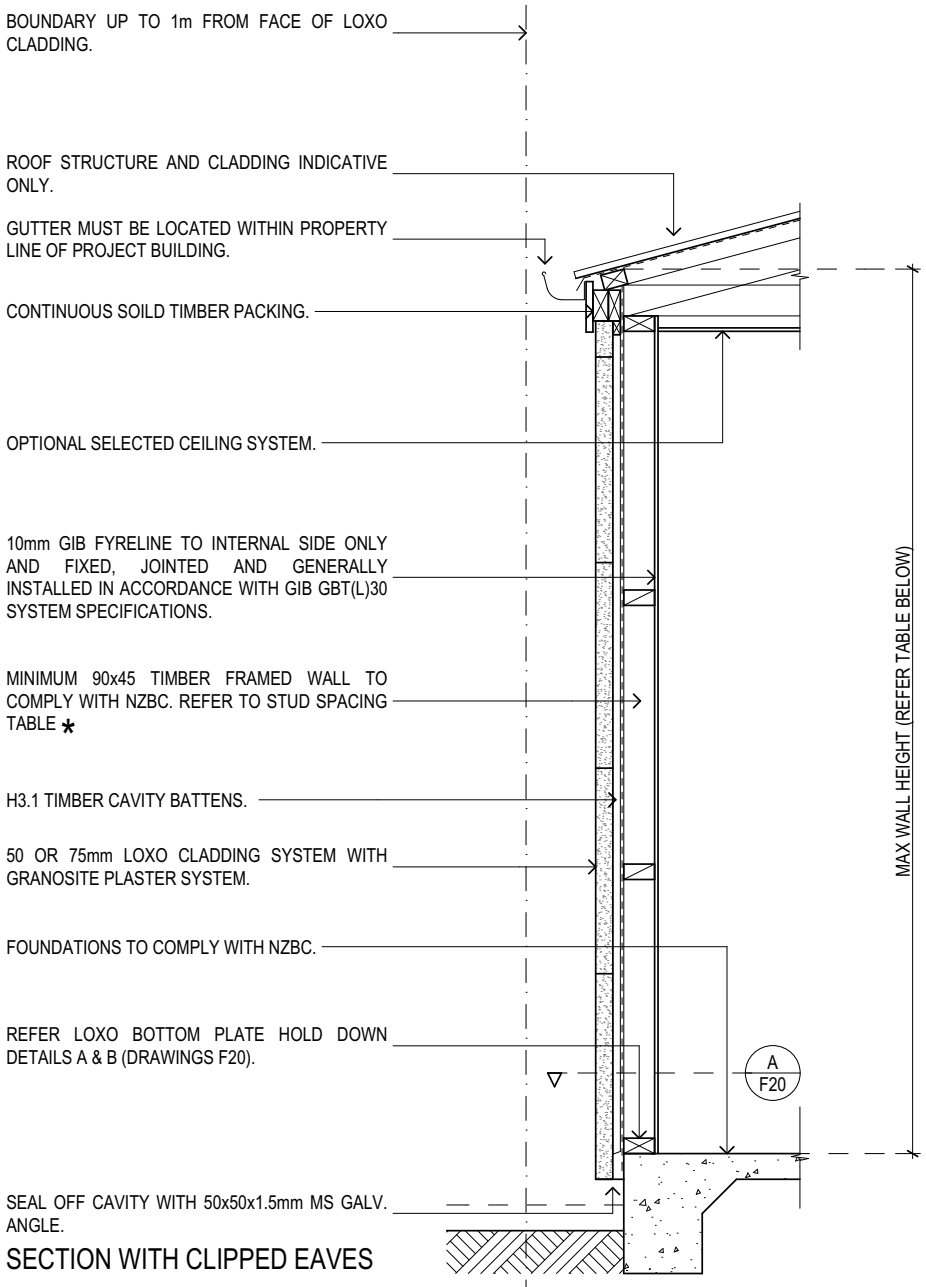
FOR 140mm WIDE STUDS AND BOTTOM PLATES
FIRE RATED 30/30/30

NOTES:

DETAILS INDICATIVE AND INTENDED FOR THE FIRE RATED SYSTEM ILLUSTATION ONLY. REFER TO LOXO TECHNICAL MANUAL IN ALL CASES FOR SPECIFIC JUNCTION DETAILS. DETAILS FOR 140mm STUDS AND BOTTOM PLATES ONLY. FOR STUDS AND BOTTOM PLATE WIDTHS OF 90mm, BOTTOM PLATE HOLD DOWNS ARE TO BE IN ACCORDANCE WITH DETAIL A

LOXO CLADDING SYSTEMS

TITLE: FIRE RATED GARAGE BOUNDARY WALL DETAILS
REVISION: A
DATE: 08.04.2018
DRAWING NUMBER: F06



SECTION WITH CLIPPED EAVES

BOUNDARY WALL DETAILS (GARAGE)

FIRE RATED 30/30/30 - NO VENTS

NOTES:

SECTIONS INDICATIVE AND INTENDED FOR THE FIRE RATED SYSTEM ILLUSTRATION ONLY. REFER TO LOXO TECHNICAL MANUAL IN ALL CASES FOR SPECIFIC JUNCTION DETAILS.

* REFER TO ALLOWABLE STUD SIZE AND CENTRES FOR THE APPLICABLE MAXIMUM WALL HEIGHT.

STUD TABLE		
STUD(MSG8, mm)	CENTRES(mm)	MAX. WALL HT.(mm)
90x45	300	2970
90x45	400	2570
90x45	450	2420
140x45	600	3040

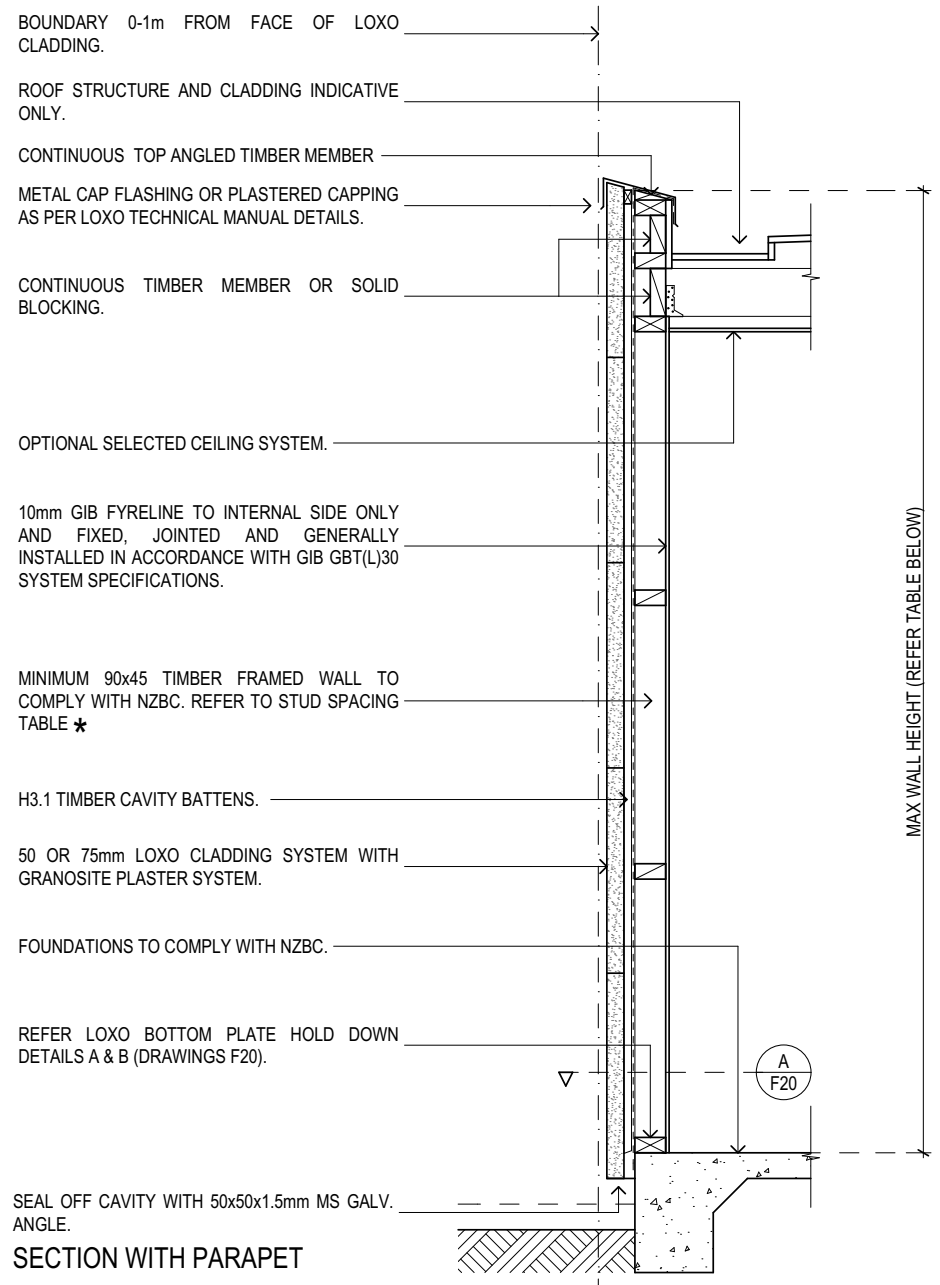
LOXO CLADDING SYSTEMS

TITLE: FIRE RATED GARAGE BOUNDARY WALL - OVERHANGING PANEL

REVISION: C

DATE: 08.04.2018

DRAWING NUMBER: F17



SECTION WITH PARAPET

BOUNDARY WALL DETAILS (GARAGE)

FIRE RATED 30/30/30 - NO VENTS

NOTES:

SECTIONS INDICATIVE AND INTENDED FOR THE FIRE RATED SYSTEM ILLUSTRATION ONLY. REFER TO LOXO TECHNICAL MANUAL IN ALL CASES FOR SPECIFIC JUNCTION DETAILS.

* REFER TO ALLOWABLE STUD SIZE AND CENTRES FOR THE APPLICABLE MAXIMUM WALL HEIGHT.

STUD TABLE		
STUD(MSG8, mm)	CENTRES(mm)	MAX. WALL HT.(mm)
90x45	300	2970
90x45	400	2570
90x45	450	2420
140x45	600	3040

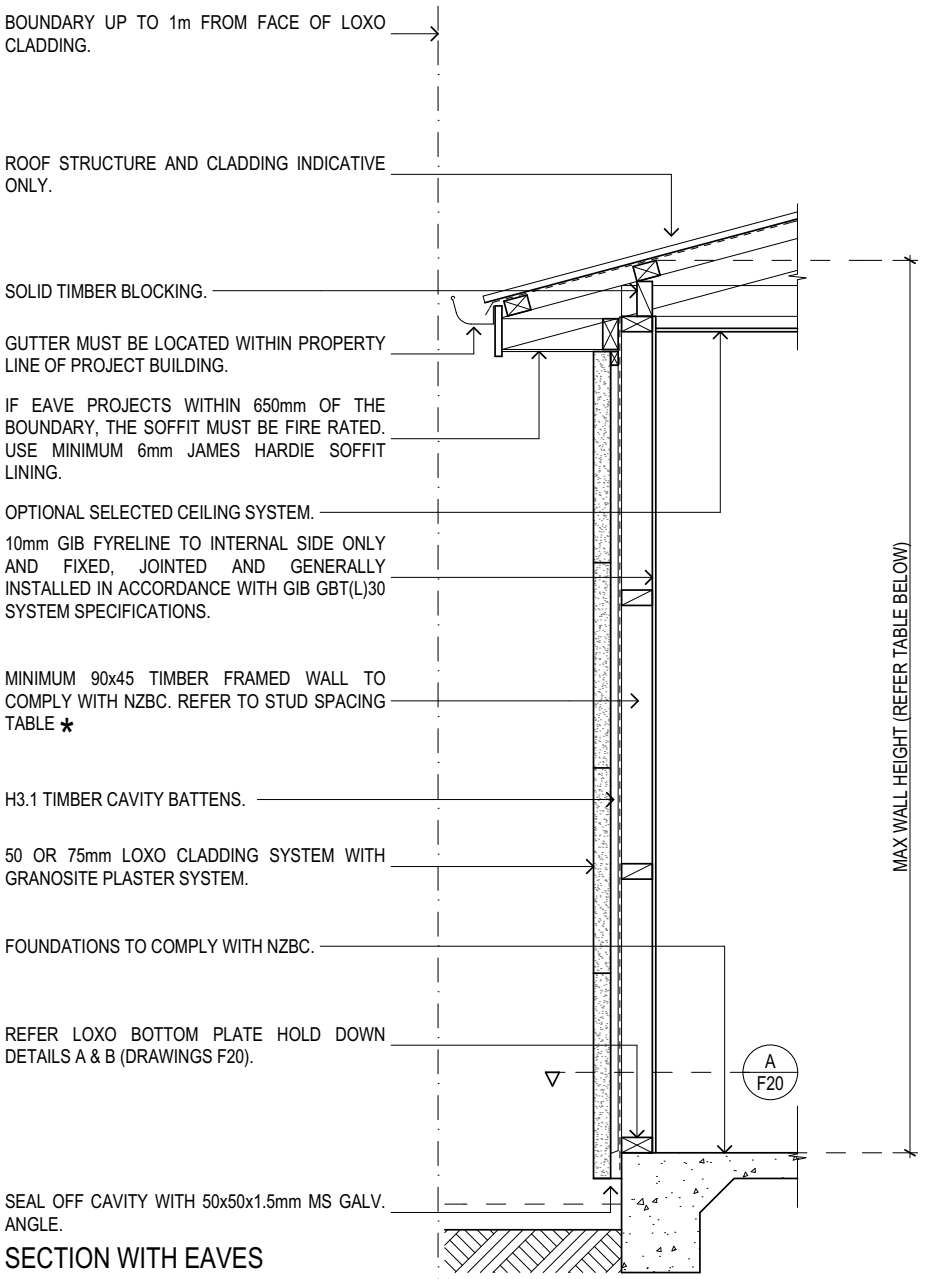
LOXO CLADDING SYSTEMS

TITLE: FIRE RATED GARAGE BOUNDARY WALL - OVERHANGING PANEL

REVISION: C

DATE: 08.04.2018

DRAWING NUMBER: F18



SECTION WITH EAVES

BOUNDARY WALL DETAILS (GARAGE)

FIRE RATED 30/30/30 - NO VENTS

NOTES:

SECTIONS INDICATIVE AND INTENDED FOR THE FIRE RATED SYSTEM ILLUSTRATION ONLY. REFER TO LOXO TECHNICAL MANUAL IN ALL CASES FOR SPECIFIC JUNCTION DETAILS.

* REFER TO ALLOWABLE STUD SIZE AND CENTRES FOR THE APPLICABLE MAXIMUM WALL HEIGHT.

STUD TABLE		
STUD(MSG8, mm)	CENTRES(mm)	MAX. WALL HT.(mm)
90x45	300	2970
90x45	400	2570
90x45	450	2420
140x45	600	3040

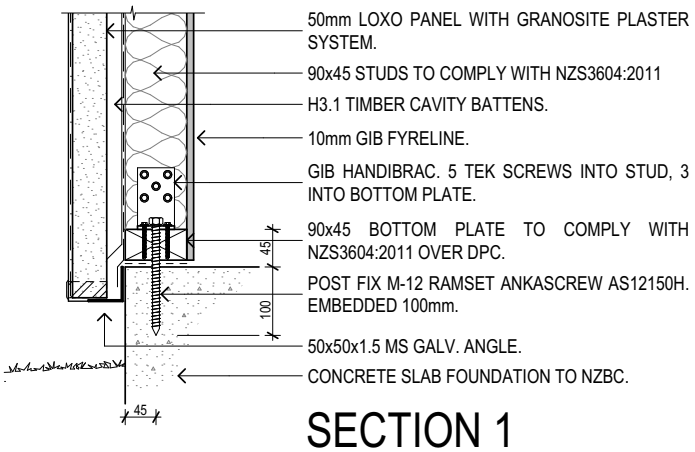
LOXO CLADDING SYSTEMS

TITLE: FIRE RATED GARAGE BOUNDARY WALL - OVERHANGING PANEL

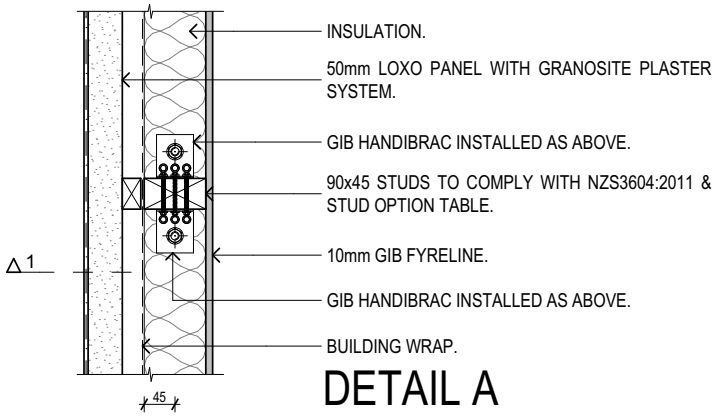
REVISION: C

DATE: 08.04.2018

DRAWING NUMBER: F19



SECTION 1



DETAIL A

LOXO BOTTOM PLATE HOLD DOWN DETAILS

FOR 90mm WIDE STUDS AND BOTTOM PLATES
FIRE RATED 30/30/30

NOTES:

DETAILS INDICATIVE AND INTENDED FOR THE FIRE RATED SYSTEM ILLUSTRATION ONLY. REFER TO LOXO TECHNICAL MANUAL IN ALL CASES FOR SPECIFIC JUNCTION DETAILS. DETAILS FOR 90mm STUDS AND BOTTOM PLATES ONLY. FOR STUDS AND BOTTOM PLATE WIDTHS OF 140mm, BOTTOM PLATE HOLD DOWNS ARE TO BE LOCATED AT 70mm SLAB EDGE DISTANCE.

LOXO CLADDING SYSTEMS	TITLE:	FIRE RATED GARAGE BOUNDARY WALL DETAILS - OVERHANGING PANEL
	REVISION:	C
	DATE:	08.04.2018
	DRAWING NUMBER:	F20

Engenuity CONSULTING ENGINEERS
027 491 5349
john@engenuity.co.nz
www.engenuity.co.nz

9 July 2018 Job No: 18013001

Loxo Cladding NZ Limited
Attn Marcus Stufkens

Via email: m.stufkens@loxocladding.co.nz

RE: Loxo 60/60/60 Fire Rated Boundary Wall Systems

Dear Marcus,

Following a review of the testing and assessments completed by CSIRO (FSV 1525, FCO 2915 & FCO 2944) and specific discussions with Hans Gerlich (Technical Manager, Building Systems, Winstone Wallboards Ltd), Engenuity Consulting Engineers Limited conclude that the Loxo Boundary Wall Systems detailed in drawings 'Fire Rated Garage Boundary Wall', sheets F21-F29, dated 19.06.18 will provide a 60/60/60 fire resistance rating in accordance with AS 1530.4.

No unrated penetrations are permitted through the GIB linings. Where penetrations are required, these shall be fire stopped using an appropriate stopping medium installed strictly in accordance with the manufacturers requirements for the product used.

Note that this standard detail is not appropriate alone for typical 'side by side' or 'one above another' type terrace housing, and that additional specific fire rated junction details are necessary to ensure fire separation between units are achieved.

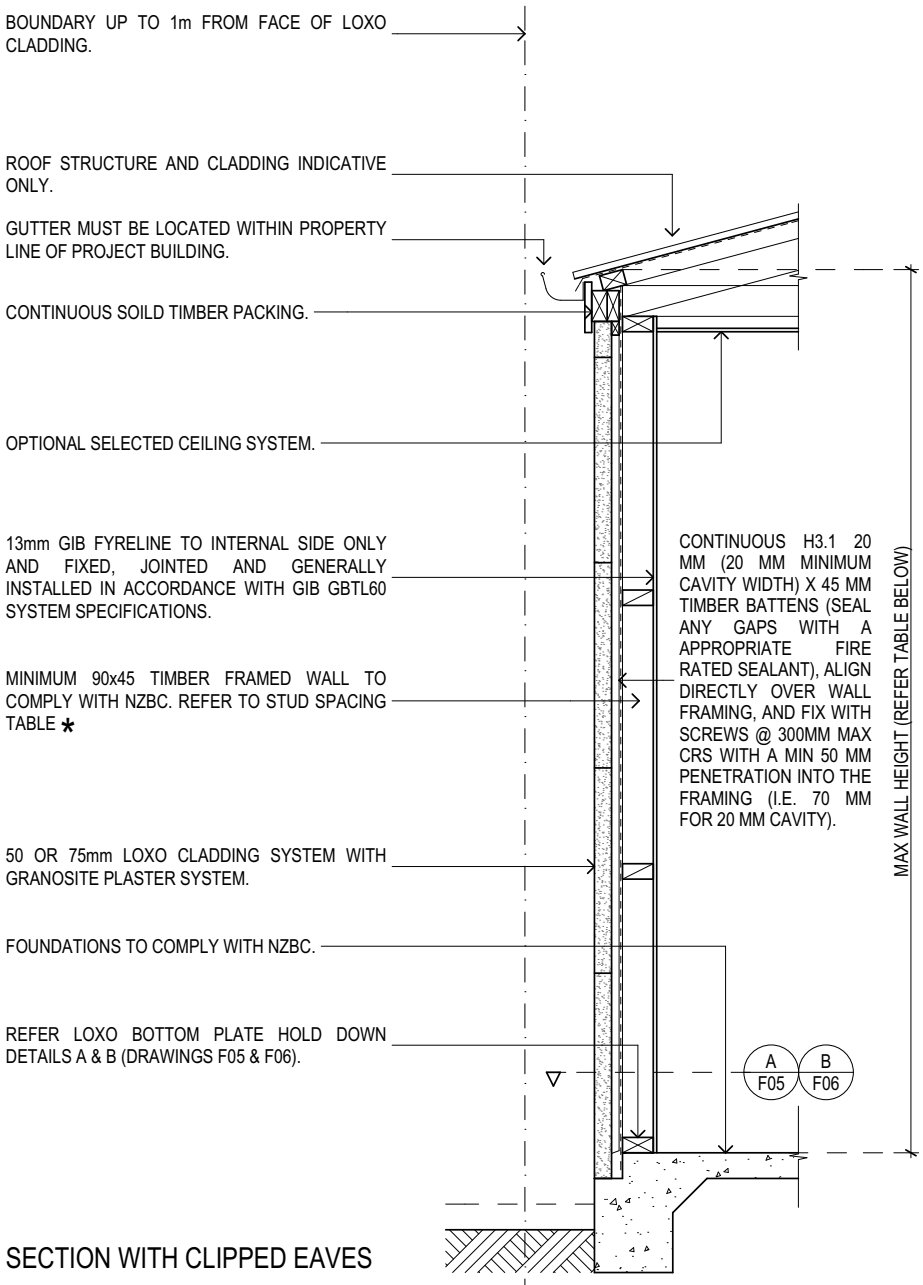
Take note that this letter does not address the durability or post fire structural stability requirements of the New Zealand Building Code.

Engenuity Consulting Engineers Limited reserves the right at any time to amend or withdraw this letter in the light of new knowledge.

If there are any questions, please do not hesitate to contact me.

Yours sincerely,
Engenuity Consulting Engineers Limited

John Collie
Director, Chartered Fire Engineer



SECTION WITH CLIPPED EAVES

BOUNDARY WALL DETAILS

FIRE RATED 60/60/60 - NON VENTED SYSTEM.

NOTES:

SECTIONS INDICATIVE AND INTENDED FOR THE FIRE RATED SYSTEM ILLUSTATION ONLY. REFER TO LOXO TECHNICAL MANUAL IN ALL CASES FOR SPECIFIC JUNCTION DETAILS.

* REFER TO ALLOWABLE STUD SIZE AND CENTRES FOR THE APPLICABLE MAXIMUM WALL HEIGHT.

STUD TABLE		
STUD(MSG8, mm)	CENTRES(mm)	MAX. WALL HT.(mm)
90x45	300	3010
90x45	400	2600
90x45	450	2460
140x45	600	3000

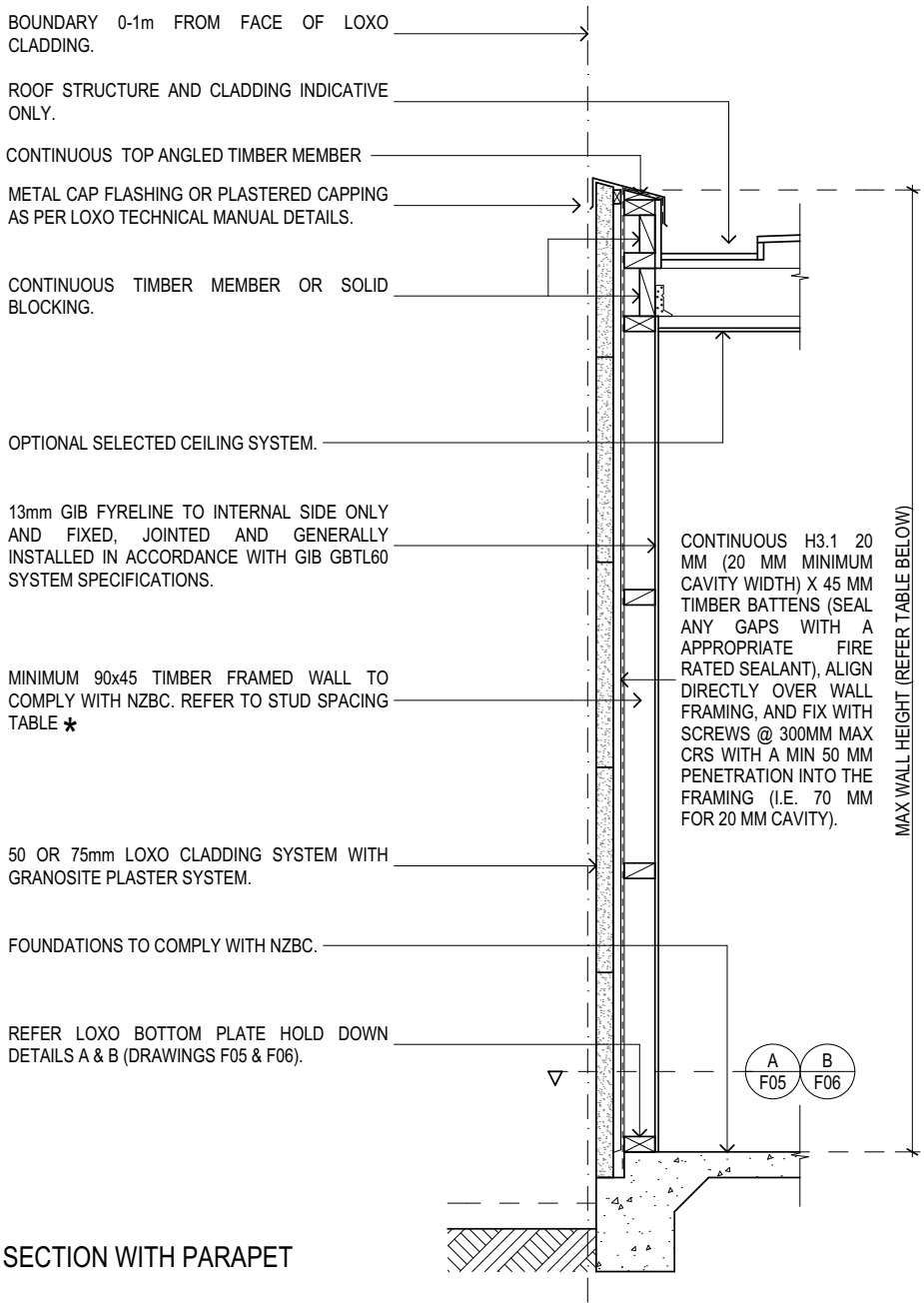
LOXO CLADDING SYSTEMS

TITLE: 60/60/60 FIRE RATED BOUNDARY WALL

REVISION:

DATE: 19.06.2018

DRAWING NUMBER: F21



SECTION WITH PARAPET

BOUNDARY WALL DETAILS

FIRE RATED 60/60/60 - NON VENTED SYSTEM.

NOTES:

SECTIONS INDICATIVE AND INTENDED FOR THE FIRE RATED SYSTEM ILLUSTATION ONLY. REFER TO LOXO TECHNICAL MANUAL IN ALL CASES FOR SPECIFIC JUNCTION DETAILS.

* REFER TO ALLOWABLE STUD SIZE AND CENTRES FOR THE APPLICABLE MAXIMUM WALL HEIGHT.

STUD TABLE		
STUD(MSG8, mm)	CENTRES(mm)	MAX. WALL HT.(mm)
90x45	300	3010
90x45	400	2600
90x45	450	2460
140x45	600	3000

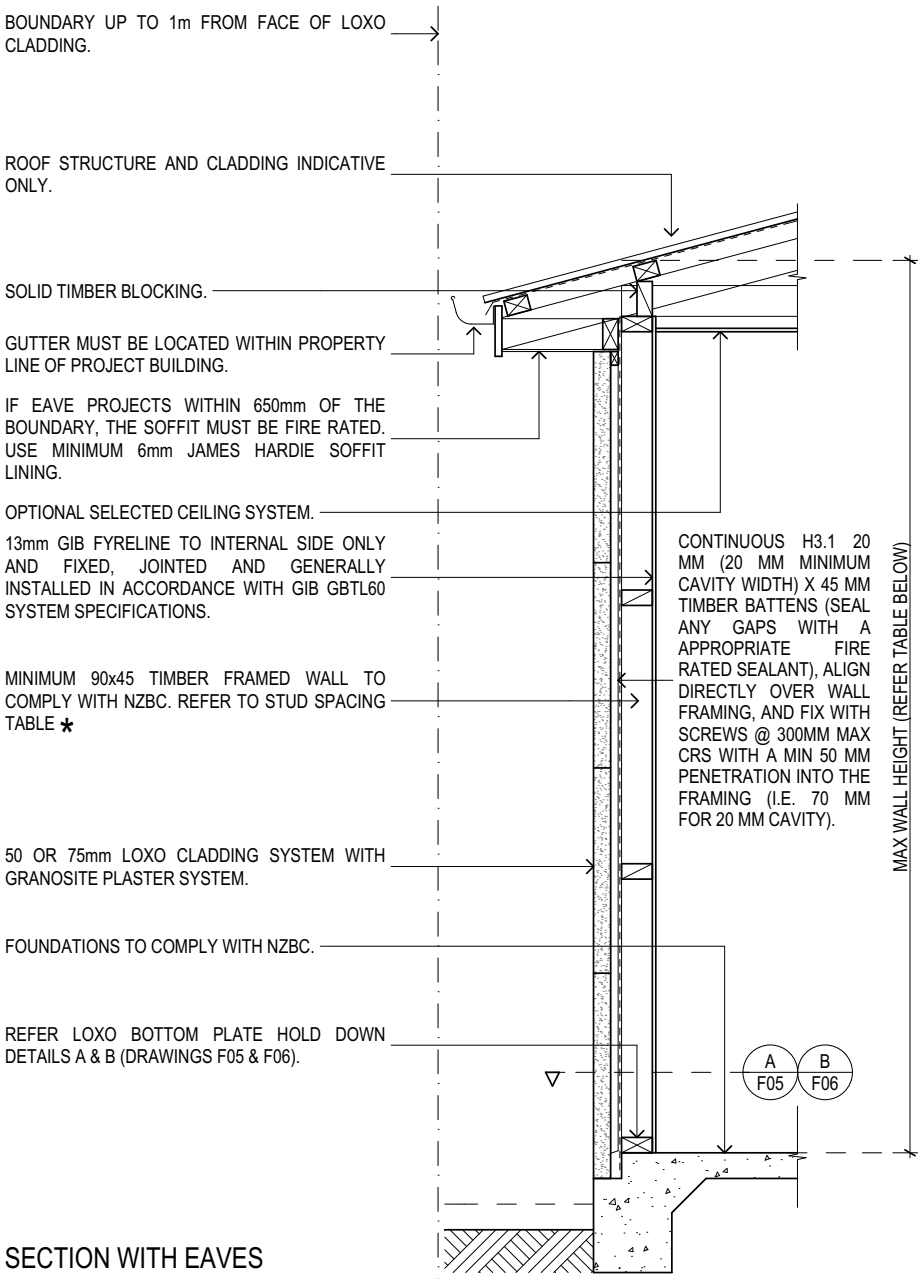
LOXO CLADDING SYSTEMS

TITLE: 60/60/60 FIRE RATED BOUNDARY WALL

REVISION:

DATE: 19.06.2018

DRAWING NUMBER: F22



SECTION WITH EAVES

BOUNDARY WALL DETAILS

FIRE RATED 60/60/60 - NON VENTED SYSTEM.

NOTES:

SECTIONS INDICATIVE AND INTENDED FOR THE FIRE RATED SYSTEM ILLUSTATION ONLY. REFER TO LOXO TECHNICAL MANUAL IN ALL CASES FOR SPECIFIC JUNCTION DETAILS.

* REFER TO ALLOWABLE STUD SIZE AND CENTRES FOR THE APPLICABLE MAXIMUM WALL HEIGHT.

STUD TABLE		
STUD(MSG8, mm)	CENTRES(mm)	MAX. WALL HT.(mm)
90x45	300	3010
90x45	400	2600
90x45	450	2460
140x45	600	3000

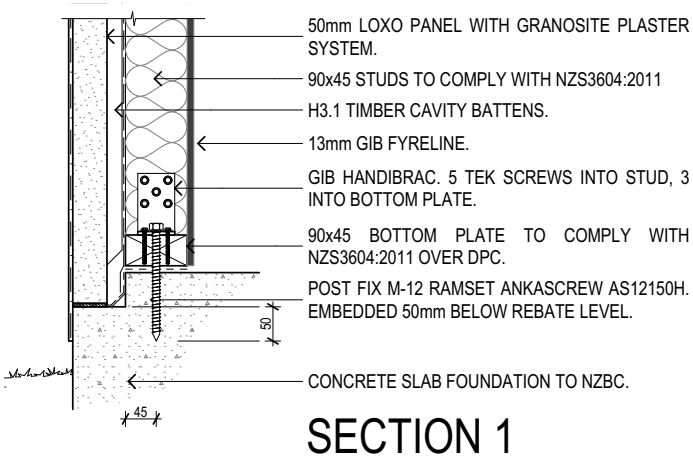
LOXO CLADDING SYSTEMS

TITLE: 60/60/60 FIRE RATED BOUNDARY WALL

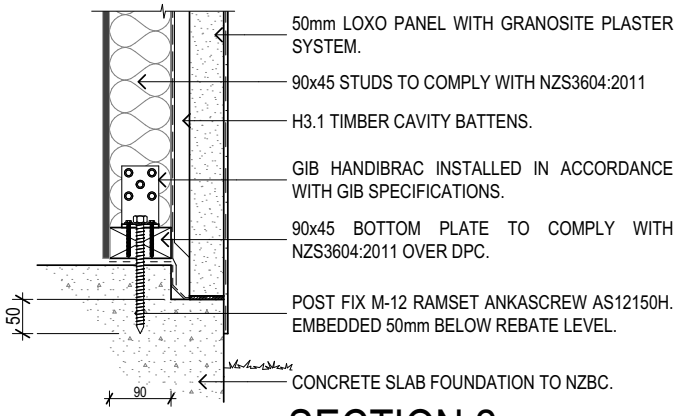
REVISION:

DATE: 19.06.2018

DRAWING NUMBER: F23



SECTION 1



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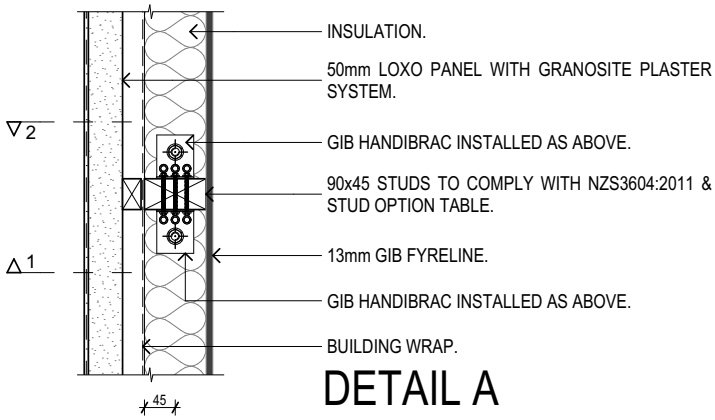


DETAIL A

LOXO BOTTOM PLATE HOLD DOWN DETAILS

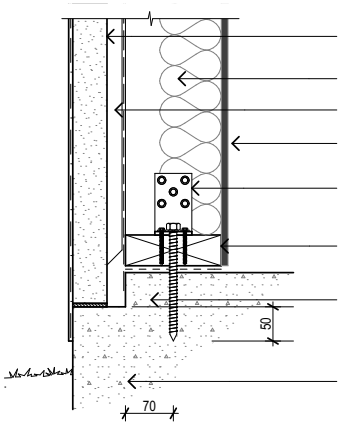
FOR 90mm WIDE STUDS AND BOTTOM PLATES
FIRE RATED 60/60/60

NOTES:

DETAILS INDICATIVE AND INTENDED FOR THE FIRE RATED SYSTEM ILLUSTATION ONLY. REFER TO LOXO TECHNICAL MANUAL IN ALL CASES FOR SPECIFIC JUNCTION DETAILS. DETAILS FOR 90mm STUDS AND BOTTOM PLATES ONLY. FOR STUDS AND BOTTOM PLATE WIDTHS OF 140mm, BOTTOM PLATE HOLD DOWNS ARE TO BE IN ACCORDANCE WITH DETAIL B

LOXO CLADDING SYSTEMS

TITLE: 60/60/60 FIRE RATED BOUNDARY WALL DETAILS
REVISION:
DATE: 19.06.2018
DRAWING NUMBER: F24



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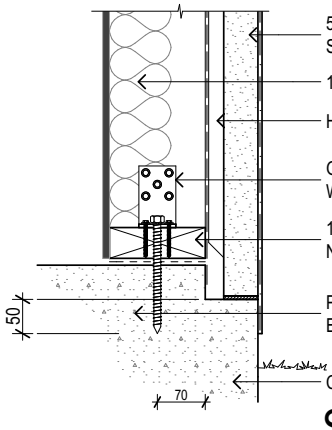
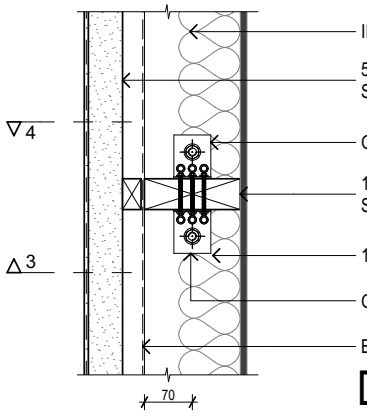


SECTION 4



DETAIL B

LOXO BOTTOM PLATE HOLD DOWN DETAILS

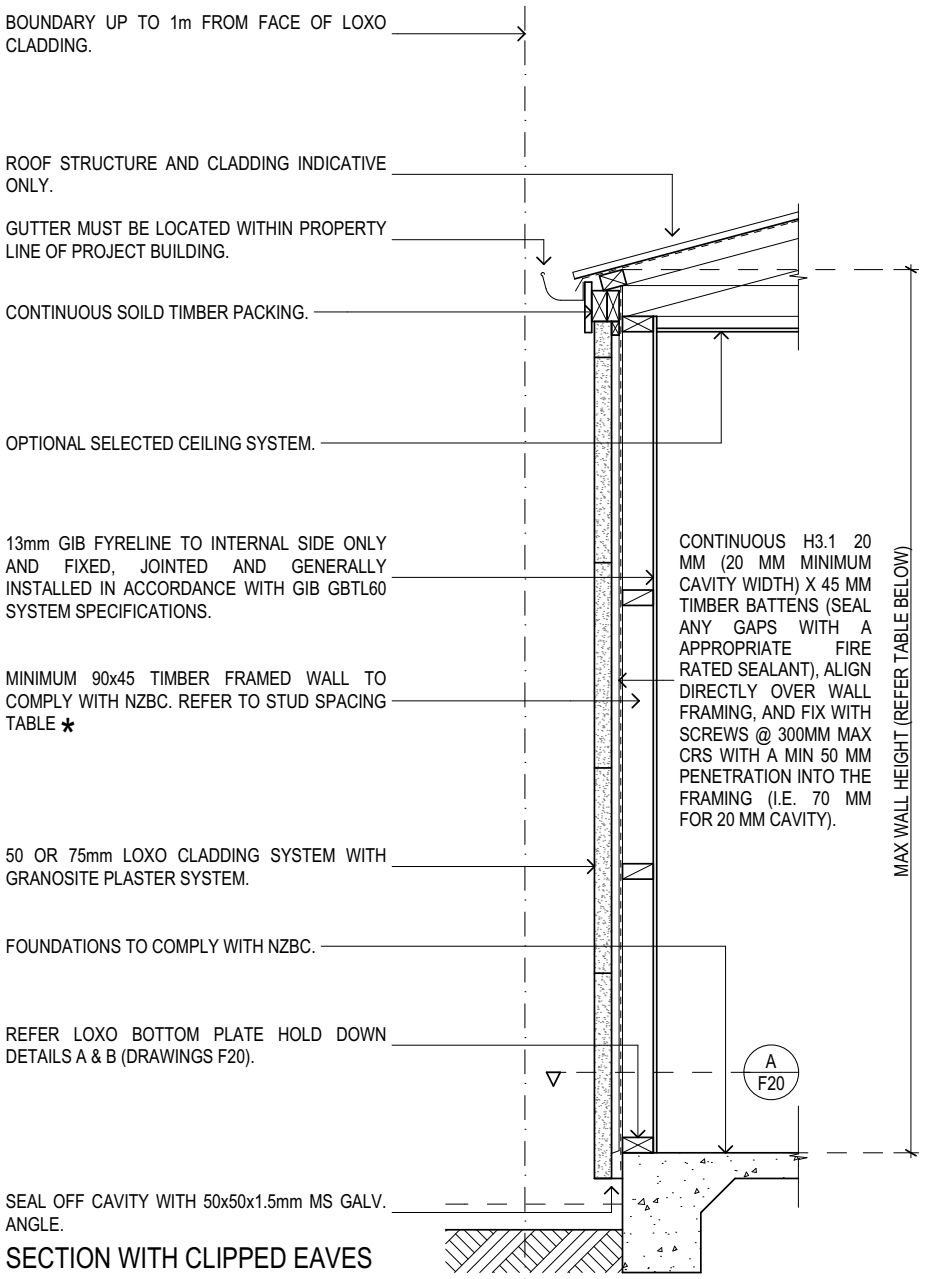
FOR 140mm WIDE STUDS AND BOTTOM PLATES
FIRE RATED 60/60/60

NOTES:

DETAILS INDICATIVE AND INTENDED FOR THE FIRE RATED SYSTEM ILLUSTATION ONLY. REFER TO LOXO TECHNICAL MANUAL IN ALL CASES FOR SPECIFIC JUNCTION DETAILS. DETAILS FOR 140mm STUDS AND BOTTOM PLATES ONLY. FOR STUDS AND BOTTOM PLATE WIDTHS OF 90mm, BOTTOM PLATE HOLD DOWNS ARE TO BE IN ACCORDANCE WITH DETAIL A

LOXO CLADDING SYSTEMS

TITLE: 60/60/60 FIRE RATED BOUNDARY WALL DETAILS
REVISION:
DATE: 19.06.2018
DRAWING NUMBER: F25



SECTION WITH CLIPPED EAVES

BOUNDARY WALL DETAILS

FIRE RATED 60/60/60 - NO VENTS

NOTES:

SECTIONS INDICATIVE AND INTENDED FOR THE FIRE RATED SYSTEM ILLUSTRATION ONLY. REFER TO LOXO TECHNICAL MANUAL IN ALL CASES FOR SPECIFIC JUNCTION DETAILS.

* REFER TO ALLOWABLE STUD SIZE AND CENTRES FOR THE APPLICABLE MAXIMUM WALL HEIGHT.

STUD TABLE		
STUD(MSG8, mm)	CENTRES(mm)	MAX. WALL HT.(mm)
90x45	300	2970
90x45	400	2570
90x45	450	2420
140x45	600	3040

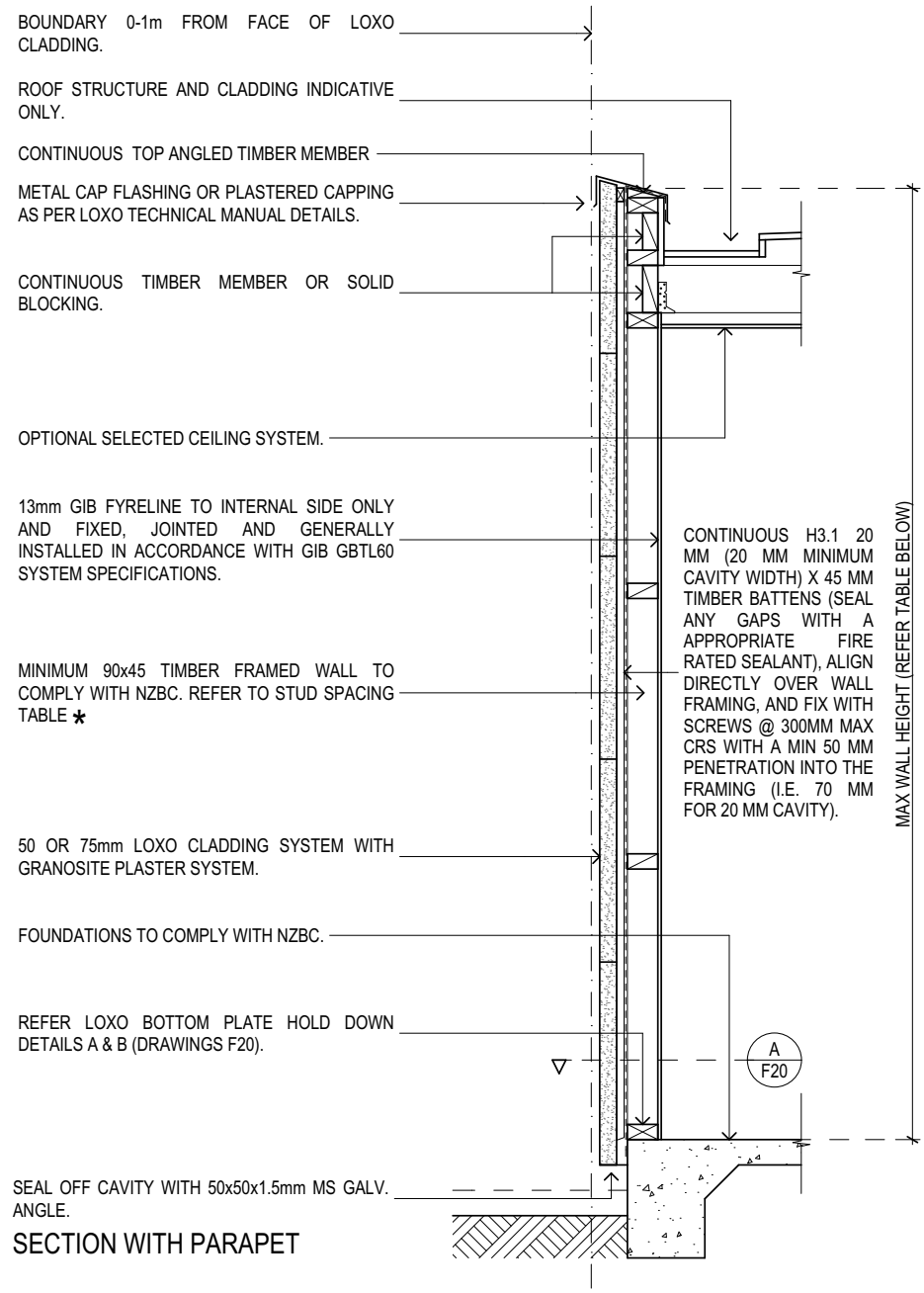
LOXO CLADDING SYSTEMS

TITLE: 60/60/60 FIRE RATED BOUNDARY WALL - OVERHANGING PANEL

REVISION:

DATE: 19.06.2018

DRAWING NUMBER: F26



SECTION WITH PARAPET

BOUNDARY WALL DETAILS

FIRE RATED 60/60/60 - NO VENTS

NOTES:

SECTIONS INDICATIVE AND INTENDED FOR THE FIRE RATED SYSTEM ILLUSTRATION ONLY. REFER TO LOXO TECHNICAL MANUAL IN ALL CASES FOR SPECIFIC JUNCTION DETAILS.

* REFER TO ALLOWABLE STUD SIZE AND CENTRES FOR THE APPLICABLE MAXIMUM WALL HEIGHT.

STUD TABLE		
STUD(MSG8, mm)	CENTRES(mm)	MAX. WALL HT.(mm)
90x45	300	2970
90x45	400	2570
90x45	450	2420
140x45	600	3040

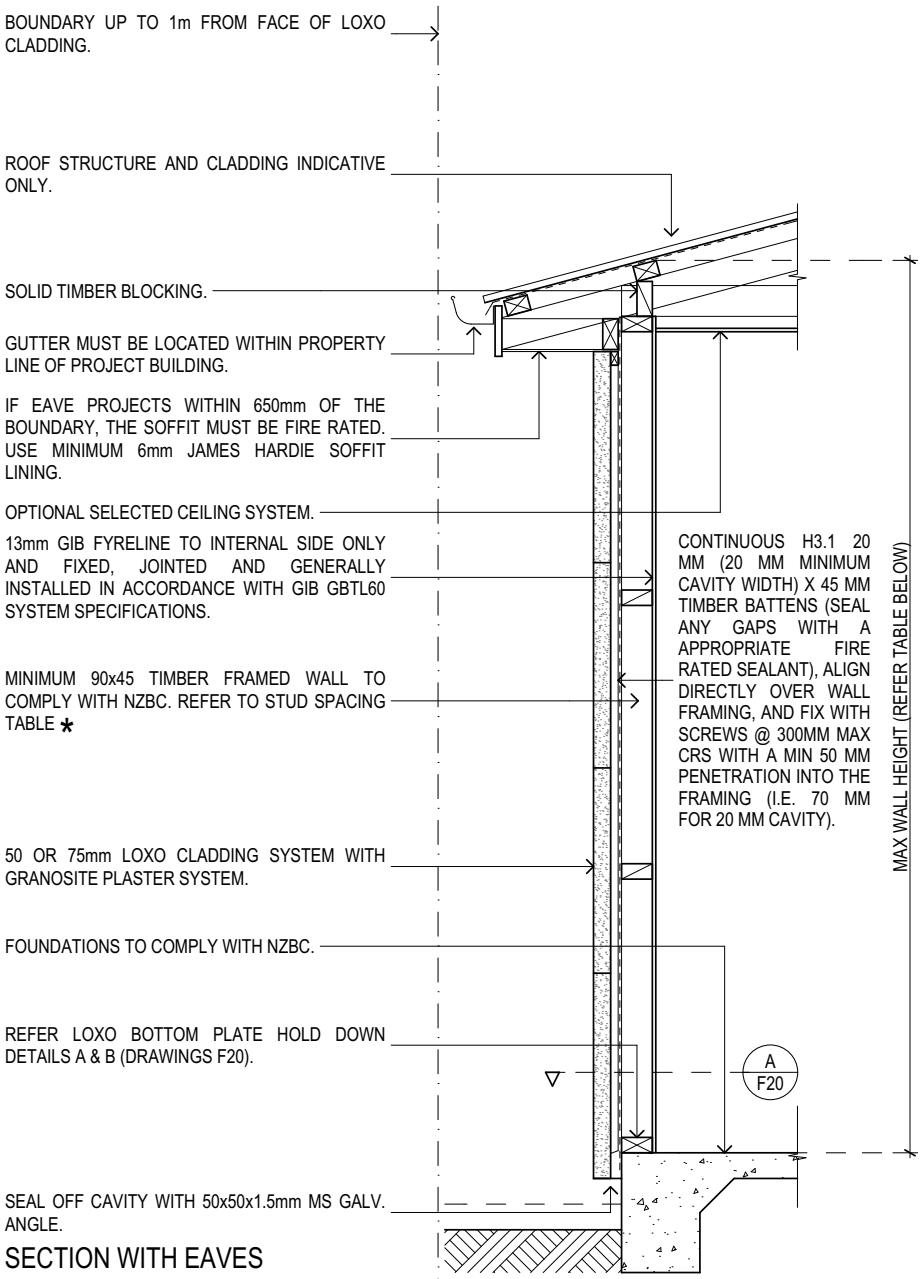
LOXO CLADDING SYSTEMS

TITLE: 60/60/60 FIRE RATED BOUNDARY WALL - OVERHANGING PANEL

REVISION:

DATE: 19.06.2018

DRAWING NUMBER: F27



SECTION WITH EAVES

BOUNDARY WALL DETAILS

FIRE RATED 60/60/60 - NO VENTS

NOTES:

SECTIONS INDICATIVE AND INTENDED FOR THE FIRE RATED SYSTEM ILLUSTRATION ONLY. REFER TO LOXO TECHNICAL MANUAL IN ALL CASES FOR SPECIFIC JUNCTION DETAILS.

* REFER TO ALLOWABLE STUD SIZE AND CENTRES FOR THE APPLICABLE MAXIMUM WALL HEIGHT.

STUD TABLE		
STUD(MSG8, mm)	CENTRES(mm)	MAX. WALL HT.(mm)
90x45	300	2970
90x45	400	2570
90x45	450	2420
140x45	600	3040

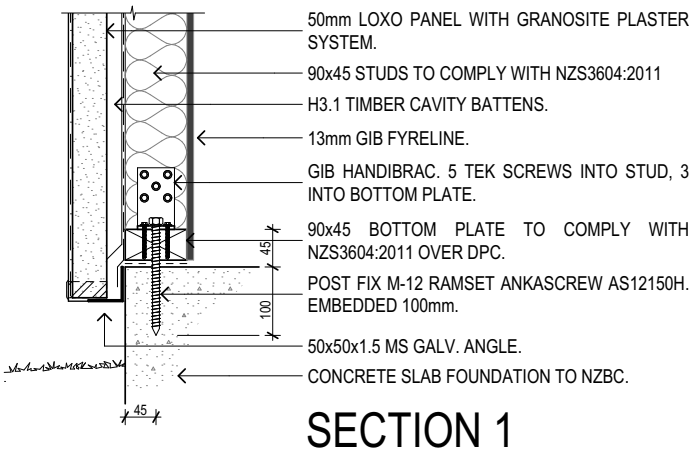
LOXO CLADDING SYSTEMS

TITLE: 60/60/60 FIRE RATED BOUNDARY WALL - OVERHANGING PANEL

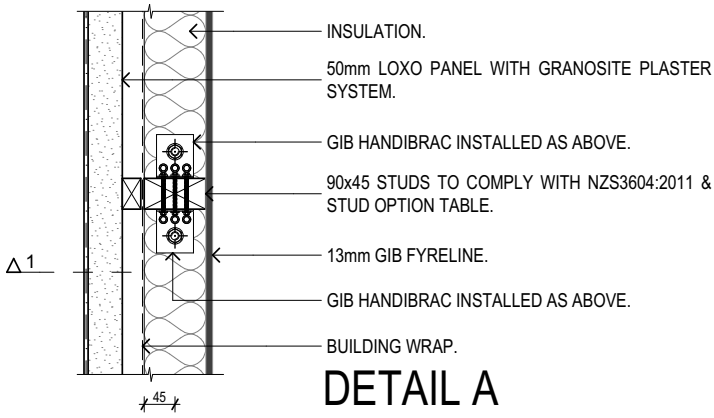
REVISION:

DATE: 19.06.2018

DRAWING NUMBER: F28



SECTION 1



DETAIL A

LOXO BOTTOM PLATE HOLD DOWN DETAILS

FOR 90mm WIDE STUDS AND BOTTOM PLATES
FIRE RATED 60/60/60

NOTES:

DETAILS INDICATIVE AND INTENDED FOR THE FIRE RATED SYSTEM ILLUSTRATION ONLY. REFER TO LOXO TECHNICAL MANUAL IN ALL CASES FOR SPECIFIC JUNCTION DETAILS. DETAILS FOR 90mm STUDS AND BOTTOM PLATES ONLY. FOR STUDS AND BOTTOM PLATE WIDTHS OF 140mm, BOTTOM PLATE HOLD DOWNS ARE TO BE LOCATED AT 70mm SLAB EDGE DISTANCE.

LOXO CLADDING SYSTEMS

TITLE: 60/60/60 FIRE RATED BOUNDARY WALL DETAILS - OVERHANGING PANEL
REVISION:
DATE: 19.06.2018
DRAWING NUMBER: F29

APPENDIX A

LOXO PANEL VENEER SYSTEM PRE CLADDING CHECKLIST

(for Licensed Installers and Building Inspectors)

All sections of this checklist is to be filled out by the Licensed Loxo Installer

Owner / Owner's Representative:
_____

Project Address: Date:
_____ _____

Consent No:
_____

Main Contractor: Phone:
_____ _____

Architect / Designer: _____ Phone: _____

Main Contractor is to have project prepared for the Loxo Panel Installation as per literature within the Loxo Technical Manual and Loxo Letter of Engagement.

Foundation & Floorslab

☐ For rebated step-down foundation, the rebate must be a minimum of 50 mm step-down from finished floor level.

Rebate

☐ Coated with bituminous membrane (refer to Loxo Manual)

☐ All top surfaces of rebates to be true, smooth and level.

Framing

☐ All framing must be straight, level and plumb. Major bending and bowing must be corrected by Builder / Main contractor.

☐ Where bracing plywood is used externally on framing, the remainder of that line of wall must be packed out to suit using ply between Loxo battens and framing.

☐ Exterior timber framed wall must be wrapped with an approved building paper prior to the Loxo batten installation.

☐ Builder / Main contractor is to make the installer aware of hidden pipes and services directly behind building paper to avoid penetration. They must also mark on the external surface of building paper the location of the unseen services.

- Windows / Doors

☐ Choose between the specified Classic or Deluxe batten to be used

☐ DPC side flashings to windows and doors to be supplied and installed by builder.

- Two Story Projects And Gable Roofs

☐ Check that scaffolding has Site Safety Certification

☐ Builder to protect all exposed roofing with protective sheeting to areas around Loxo panel installation.

☐ Check with Builder / Main Contractor that all water proofing details and associated flashings have been completed before installation.

Loxo Licensed Installer:

_____

Position:

_____

Signed:

_____

Date:

_____

Comment:

APPENDIX C

LOXO PANEL FLOOR SYSTEM PRE INSTALLATION CHECKLIST

All sections of this checklist is to be filled out by the Licenced Loxo Installer

Owner / Owner's Representative:
_____

Project Address:
_____

Date:
_____

Consent No:
_____

Main Contractor:
_____

Phone:
_____

Architect / Designer: _____

Phone:
_____

Main Contractor is to have project prepared for the Loxo Panel Installation as per literature within the Loxo Technical Manual and Loxo Letter of Engagement.

Floor Joists

☐ All floor joists to be sized in accordance with current NZS 3604 or project specific engineering design with a maximum spacing of 600mm centres.

☐ All substructure to comply with current NZS 3604 or project specific engineering design.

Loxo Licenced Installer:
_____

Position:
_____

Signed:
_____

Date:
_____

Comment: