cbma
smarter building solutions

eboard™

fire rated boundary wall

CodeMark Australia
Certificate CM40448

INSTALLATION GUIDE

VERSION 2.0

Fire rated wall system

- Ideal for modular construction
- Fire rated 60/60/60
- Simple installation
- Mould resistant
- Many finishing options.

INDEX

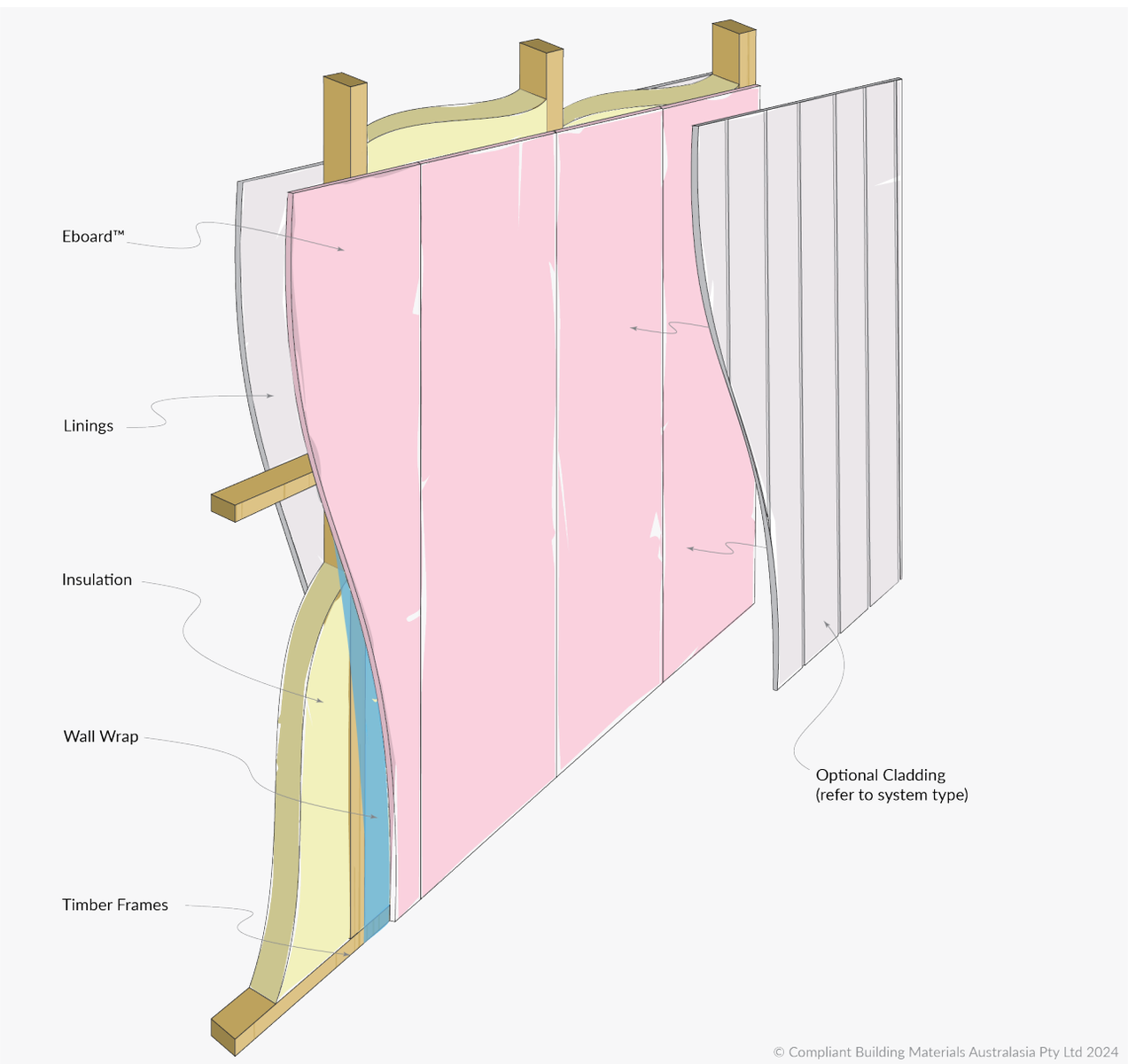
01. INTRODUCTION

Eboard™ is a low cost fire rated wall system to achieve a FRL60/60/60.

Offering a simple solution to masonry products, Eboard™ has been designed with prefabricated construction in mind. With panels that can be assembled in controlled factory situations or as required manual installation on site. Eboard™ can provide a cost effective solution for your fire rated wall.

Advantages

- Simple construction process with minimal components
- Minimal wall footprint (min. approx. wall width: 93mm - based on 70mm studs)
- Quick fire rated solution for pre-fabricated walls.
- FRL60/60/60

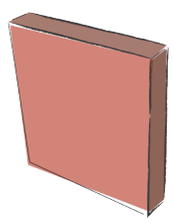


COMPONENTS

02.

The Eboard™ wall system has been designed to simplify the construction process with minimal components and trades required to complete the install of the system.

The following components are required to install Eboard™ panels:



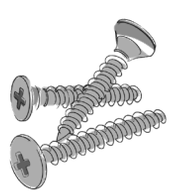
Eboard™ Panel

Code	Size (coverage)	m^2 per sheet	Weight per m^2
EB271210SQ	2700(w) x 1200 (h) x 10mm (d)	3.24m2	9.0 kg
EB301210SQ	3000(w) x 1200 (h) x 10mm (d)	3.60m2	9.0 kg
EB361210SQ	3600(w) x 1200 (h) x 10mm (d)	4.32m2	9.0 kg
EB270910SQ	2700(w) x 900 (h) x 10mm (d)	2.43m^2	9.0 kg
EB300910SQ	3000(w) x 900 (h) x 10mm (d)	2.70m2	9.0 kg
EB360910SQ	3600(w) x 900 (h) x 10mm (d)	3.24m2	9.0 kg
EB271210SQPP	2700(w) x 1200 (h) x 10mm (d) paper coated	3.24m2	9.0 kg

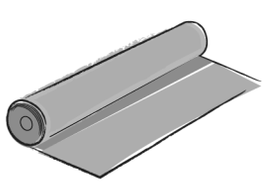
Fire Rated Sealant

Code	Description
Firesealant600	Fire rated sealant 600ml

Fixings



Code	Description
840CSKGALVTIMBER	8G x 40mm Galv Screw - 1000 unit
ZB2550CL3	2.5x50mm Galv Nails - 2000 units
8Gx25CL3	8G x 25mm Galv screw - 1000 unit



Builders Wrap

Code	Size
NCwrap405	Builders Wrap - 1350x30m (40.5m2)

Additional products maybe required to complete the install of the Eboard™ system. These items are to be sourced by the builder.

Additional items may include but are not limited to:

- Flashings
- Insulation
- Plasterboard lining
- Cladding materials
- Fire rated mineral wool

DESIGN CONSIDERATIONS

03.

General Design

IMPORTANT: Specific projects will require the use of particular construction techniques and products. It is the responsibility of the building designer, specifier and other relevant user(s) to determine that any product purchased by them from CBMA, including the chosen system, is suitable for all intended uses and the specific requirements of the relevant project. The user must ensure that its use of any products purchased from CBMA complies with the appropriate rules and regulations of the NCC and all other applicable laws and regulations. This installation guide does not cover all aspects of construction on a project and is produced by CBMA as a guide only. It is the responsibility of the building designer, builder, engineer and other relevant user(s) to confirm that all further details, or design considerations (whether or not referred to in this installation guide) are specified and approved by the relevant professionals and/or authorities prior to commencing construction.

Fire Resistance

Eboard™ wall system has been tested and assessed in accordance with AS1530.4 by accredited NATA approved laboratories.
Fire performance requirement for external walls of buildings that is satisfied by the Eboard™ wall cladding system that has a FRL of not less than 60/60/60 when using the 10mm panel for structural adequacy, integrity and insulation. Eboard™ was tested to AS1530.4 requirements in a full scale test. Eboard™ as a BAL rating of BAL-FZ as per AS3959. All fire rating are based on the product being installed strictly as per the Eboard™ install guide.

Termite and Moisture Management / Builders Wrap

Eboard™ panels are termite resistant and moisture resistant, however it is still the responsibility of the designer and builder to ensure that all termite and damp resistance requirements are implemented as per any NCC requirements and meet the requirements of AS/NZS4200.1.
The wrap/sarking or wall membranes do not have any effect on the fire rating of the Eboard™ system, however when installed due to condensation management requirements of the designed building, it is a requirement that any wall wrap/sarking meets NCC Clause C2D10 (6)(f), that does not exceed 1mm in thickness and have a flammability index not greater than 5. All builders wrap/sarking must be installed as per AS/NZS4200.2. Sarking requirements are to be determined by the building designer. Correct installation of the wall wrap is important to assist with any required condensation management of the building.

Structural and Framing Requirements

Eboard™ can be installed onto timber framing and must be designed in accordance with AS1684 – 'Residential timber-framed construction' the NCC, and all relevant standards and manufactured specifications. The external wall is to be designed and constructed in accordance with all NCC regulations with minimum stud dimensions of 70mm (depth) x 45mm (width) with maximum of 450mm stud spacings. Load bearing walls will be designed to meet all relevant standards and regulations for applied loads and wind pressures for AS4055 Wind Classifications N1, N2 or ultimate limit state wind pressure does not exceed 2.53kPa and serviceability limit state wind pressures do not exceed +0.55kPa and -0.83kPa.
It is important the frames are square and true, prior to installing Eboard™ panels. A recommended flush frame tolerance of up to 4mm over a 3000mm length will offer maximum results in construction and performance.
Eboard™ has been tested for bracing / racking capibilities, please contact CBMA for further inforamtion.
No product is to be fixed directly to the Eboard™ panel. Any product must be fixed through the Eboard™ panel and into the structural frames.

Weather Resistance

All framing, flashings, damp proof, building wrap to be installed as per manufacturers instructions and meet all applicable standards and building codes. Eboard™ has been tested to the requirements of AS/NZS 4284:2008 and Verification Method F3V1 & H2V1.
All exposed walls must use approved external fire rated sealant to seal gaps prior to coatings.

DESIGN CONSIDERATIONS 03.

Coastal Areas

Eboard™ utilise Class 3 Galv (min.) fixings as standard. However when used in areas within 1km of a coastal areas or subject to high salt spray or in a corrosivity zone as per AS4312, stainless steel fixings are required and additional coatings or protection may also be required. Eboard™ is not suitable for C5 zones. It is the responsibility of the builder/owner to confirm the correct fixings for the environment.

Coatings and boundary walls

Eboard™ panels are manufactured to be moisture resistant, however, Eboard™ panels must be coated or covered/removed from direct weather exposure within 4 months of installation. This may be paint, texture, render or additional non combustible cladding, depending on your finish and system type being used. All coatings must be installed as per the coating manufacturers instructions.
It is the responsibility of the relevant builder and other end user(s) to determine the appropriate coatings for the specific project and to ensure that the chosen method complies with all relevant laws, regulations, codes and industry standards.

Generally, render systems require a mesh system and should be applied to the rough side of the panels, as well as correct application of an acceptable primer to offer maximum adhesion - this must be confirmed with the approved coating manufacturer and applied as per their recommendations. It is important that a membrane/sealer as recommended by the render manufacturer is used to ensure no moisture ingress can cause failure to the render system.

Eboard™ can also have non-combustible cladding such as Stonewood® applied over the top to offer an aesthetically pleasing and high quality finish on prominent walls, while still offering a FRL rating.
In some system types this is a requirement and not optional. It is the responsibility of the builder/owner to confirm they have selected the correct system type and followed the system requirements. All Cladding can be fixed direct or as a cavity system, depending on the project requirements.
It is important to ensure that all fixings for the cladding/battens are fixed through the Eboard™ panels and into the frames. Eboard™ panels are not to be used as a structural fixing point.
CBMA recommends screw fixings over nails to offer a better finish for the exposed wall prior to coating.
Any expansion/movement joints should be installed as required and is the responsibility of the building designer to determine and detail any locations to coincide with the building movement joints/requirements or at a recommended 6.0m (approx) and floor levels.

All coatings must be maintained as per the coating manufacturers requirements.

Boundary/Cavity clearance

It is the responsibility of the builder/designer to ensure that the building is designed to meet all NCC and local regulations regarding boundary clearances and fire requirements.

Ground Clearance

Eboard™ ust not be incontact with soil or pooling water and must be installed from ground as per NCC and/ or local requirements. It is the responsibility of the builder/designer to ensure that the building is designed to meet all NCC and local regulations regarding boundary clearances and fire requirements.

Battens

Battens can be either timber or metal battens. Battens are to be fixed to the frames at a maximum of 800mm spacings for 20mm timber battens and a maximum of 1300mm for metal battens and 35mm thick timber battens.
20mm timber battens are to be on stud only. All battens are to be maximum of 450mm spaced.

Certifications

All CBMA testing and assessments have been performed by accredited NATA Laboratories, and professional engineers. However, all installs should be inspected by a building surveyor or another licensed professional to ensure that the product has been installed correctly and the construction meets all relevant building regulations.
It is the responsibility of the builder and other relevant user(s) to ensure that the construction has met all building regulations and that Eboard™ has been installed as per the installation guide and/or any other laws, regulations, industry standards or requirements.

SYSTEM SELECTION

04.

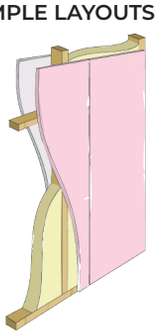
System Selection

CBMA have a selection of wall designs to meet your building requirements, to ensure you meet the fire rating of the Eboard™ wall system.

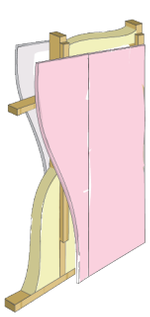
System	FRL	Timber Stud (minimum)	Requirements	Insulation	Total Wall Thickness (excluding Battens if required)
EB704513	60/60/60	70x45mm	Exposed Wall: 10mm **Eboard™ Panel** Internal lining: **13mm Plasterboard (8.2kg/m2)**	R2.0 Fibreglass Batts	93mm
EB904510	60/60/60	90x45mm	Exposed Wall: 10mm **Eboard™ Panel** Internal lining: **10mm Plasterboard (6.2kg/m2)**	R2.5 Fibreglass Batts	110mm
EB70451008	60/60/60	70x45mm	Exposed Wall: 10mm **Eboard™ Panel** **+ 8mm (min) Stonewood® Panel (or Fc)** Internal lining: **10mm Plasterboard (6.2kg/m2)**	R2.0 Fibreglass Batts	98mm
EB90451008	60/60/60	90x45mm	Exposed Wall: 10mm **Eboard™ Panel** **+ 8mm (min) Stonewood® Panel (or Fc)** Internal lining: **10mm Plasterboard (6.2kg/m2)**	R2.0 Fibreglass Batts	118mm

SYSTEM SELECTION TABLE
TABLE 1

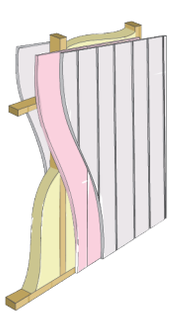
EXAMPLE LAYOUTS



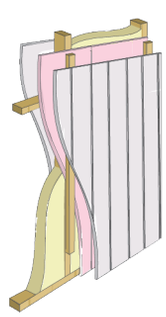
EBOARD™ DIRECT



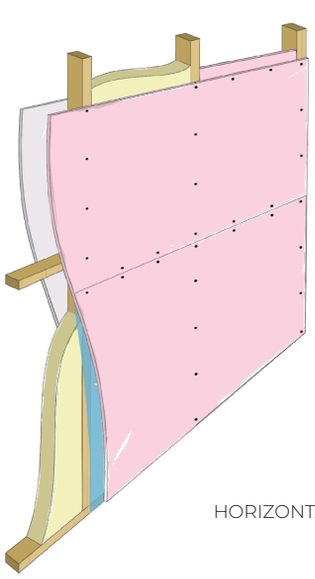
EBOARD™ ON BATTEN



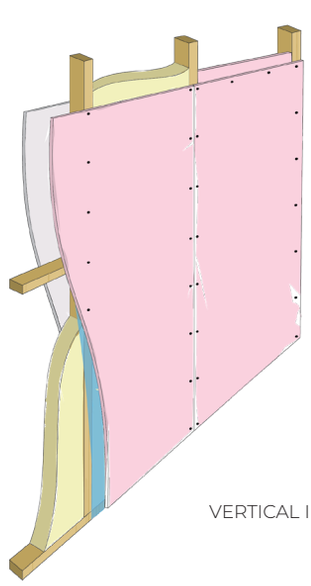
EBOARD™ WITH STONEWOOD®



EBOARD™ WITH STONEWOOD® ON BATTEN



HORIZONTAL INSTALL



VERTICAL INSTALL

FIXINGS 05.

Fixing Layout

To ensure the Eboard™ system works to its maximum performance requirements, fixing placement must be followed as outlined below.

All fixings are to be a minimum of class 3 Galvanised fixings in general corrosion zones. Higher grade such as Stainless steel maybe required in high corrosiveness zones or high risk areas. This is to be determined by others.

Only The stated screws or fixings are to be used for fixing Eboard™.

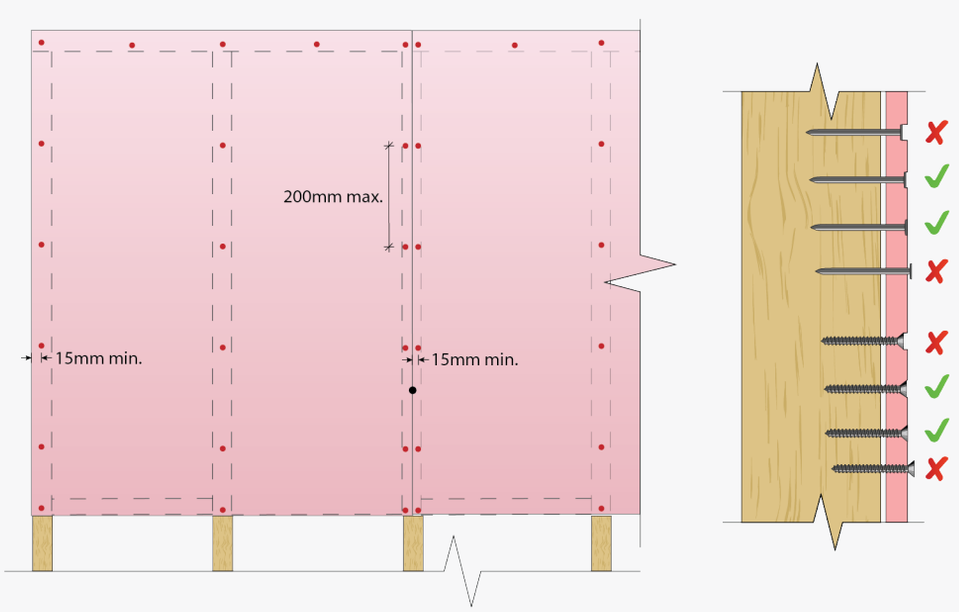
All fixings are to be 200mm spacings along all studs/battens.
All fixings are to be no less than 15mm from any Eboard™ panel edge.
Where Eboard™ backing boards are used at joints, all screws are to be no more than 200mm spacings.

Fixing Type	Purpose	Fixing Spacing
2.5 x 50mm Nails	Fixing to frame / back block	200mm
8G x 40mm CSK Timber Screw	Fixing to frame / back block	200mm
8G x 25mm CSK Timber Screw	Fixing Backing board (10mm)	200mm

EBOARD™ FIXING TABLE
TABLE 2

STUDS FIXINGS:
Fixings on all studs at a maximum of 200mm centres.

EGDE FIXINGS:
Fixings to be 15mm from any edge

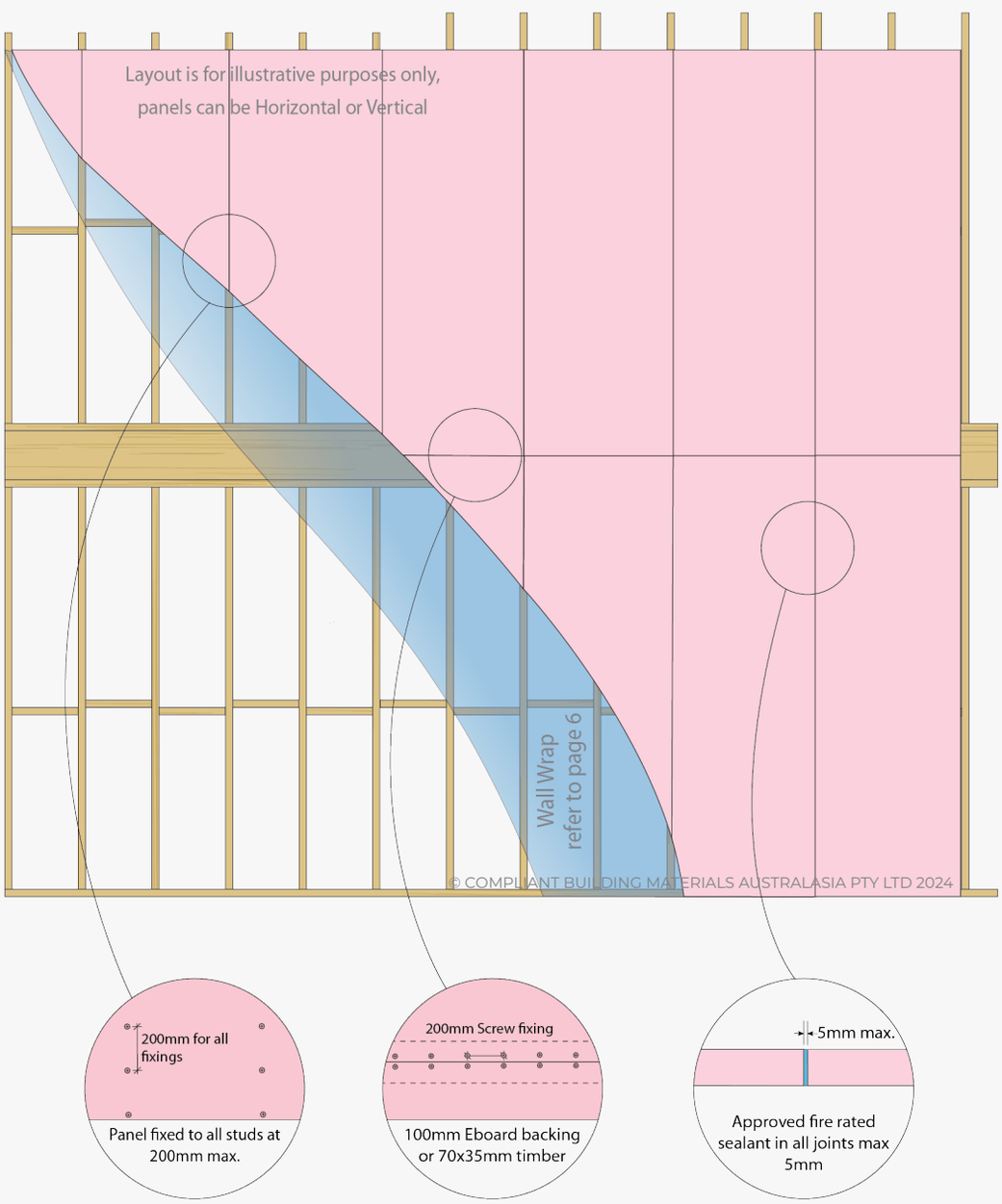


EBOARD™ SCREW LAYOUT EXAMPLE

OVERVIEW EXAMPLE

06.

The following example is for illustrative purposes and is to offer a quick reference guide to key points to installing the Eboard™ wall. However this diagram does not cover all aspects of the install. The Eboard™ guide must be read in full to ensure full compliance of the installation.



LAYOUT IS FOR ILLUSTRATIVE PURPOSES ONLY AND IS NOT TO SCALE. THIS EXAMPLE DOES NOT REPRESENT YOUR LAYOUT, BUILD OR ALL INSTALLATION REQUIREMENTS. THIS DIAGRAM IS NOT A REPLACEMENT FOR THE INSTALL GUIDE. INSTALL GUIDE MUST BE READ AND FOLLOWED IN FULL.

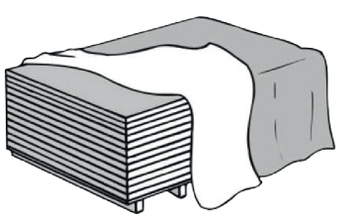
HANDLING & CUTTING 07.

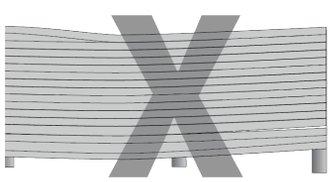
Handling and Cutting:
Eboard™ panels are developed to minimise hazardous materials without compromising performance. Safety precautions should always be taken and followed when handling and cutting panels.

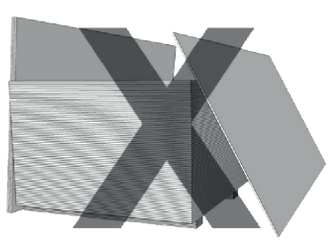
Carrying and handling:
Due to the fibreglass partials in the panels, long sleeve shirts and gloves should be worn when carrying the panels to avoid any irritation.

Cutting:
Eboard™ panels can be cut with a standard tungsten tip, Diamond tip or similar saw blade. It is not recommended to cut with FC blades or grinding discs as this will increase airbourne dust. Cutting should not be done in enclosed areas and an appropriate dust control/collection system should be used as per all worksafe recommendations, site requirements and all other Health & safety standards. CBMA recommend wearing appropriate Personal Protection Equipment (PPE) such as hearing protection, eye protection, dust mask, and gloves.

Storage:
Eboard™ panels should be flat and off the ground and protected from the weather. Extra care should be taken to not damage any edges.







Technical Data Sheet

The technical data sheet (TDS) and information on the Eboard™ panels including safe disposal and handling can be downloaded directly from the CBMA website.

CBMA recommends downloading the latest install guide directly from the CBMA website.

Warranty:

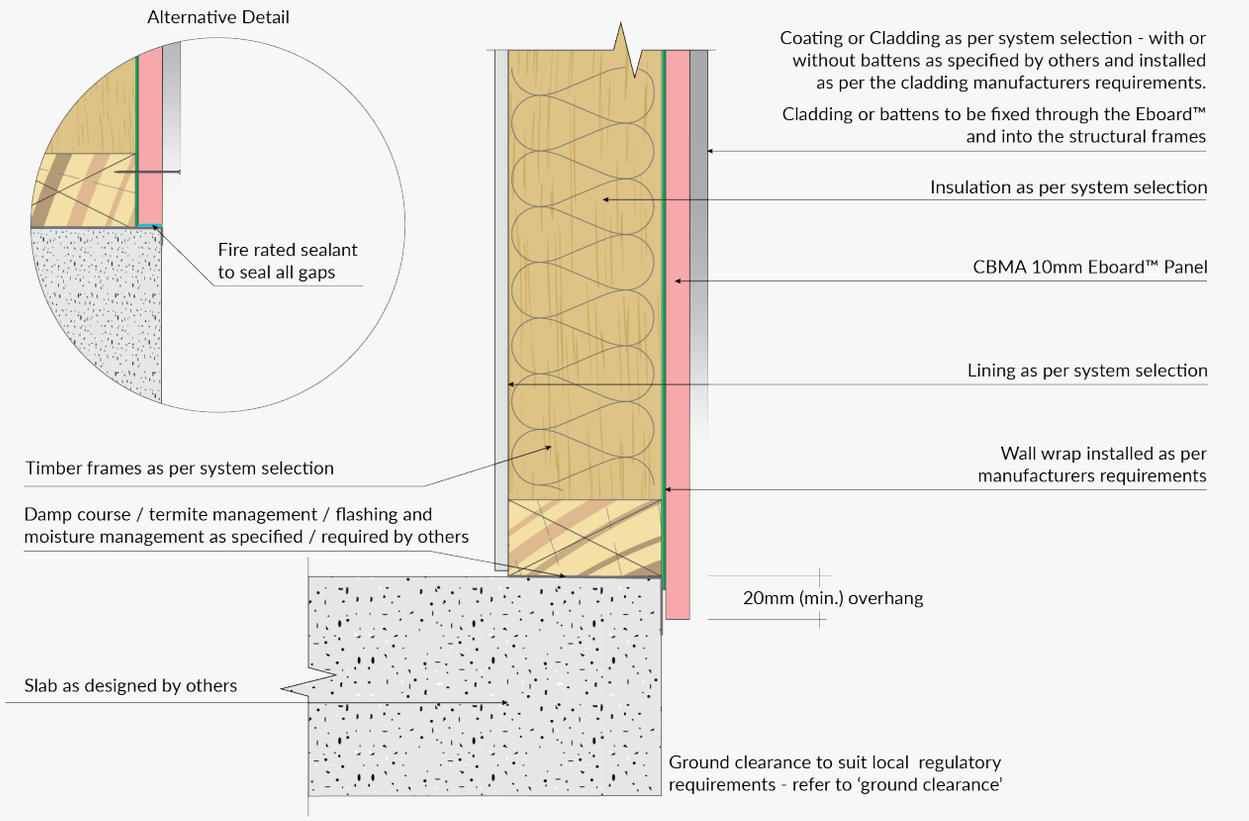
Compliant Building Materials Australia Pty Ltd (CBMA) warrants the Eboard™ panel to remain free of defects in material and manufacture for 10 years when installed as per this install guide. For further details on our product warranty please contact CBMA.

NOTES

Technical Drawings

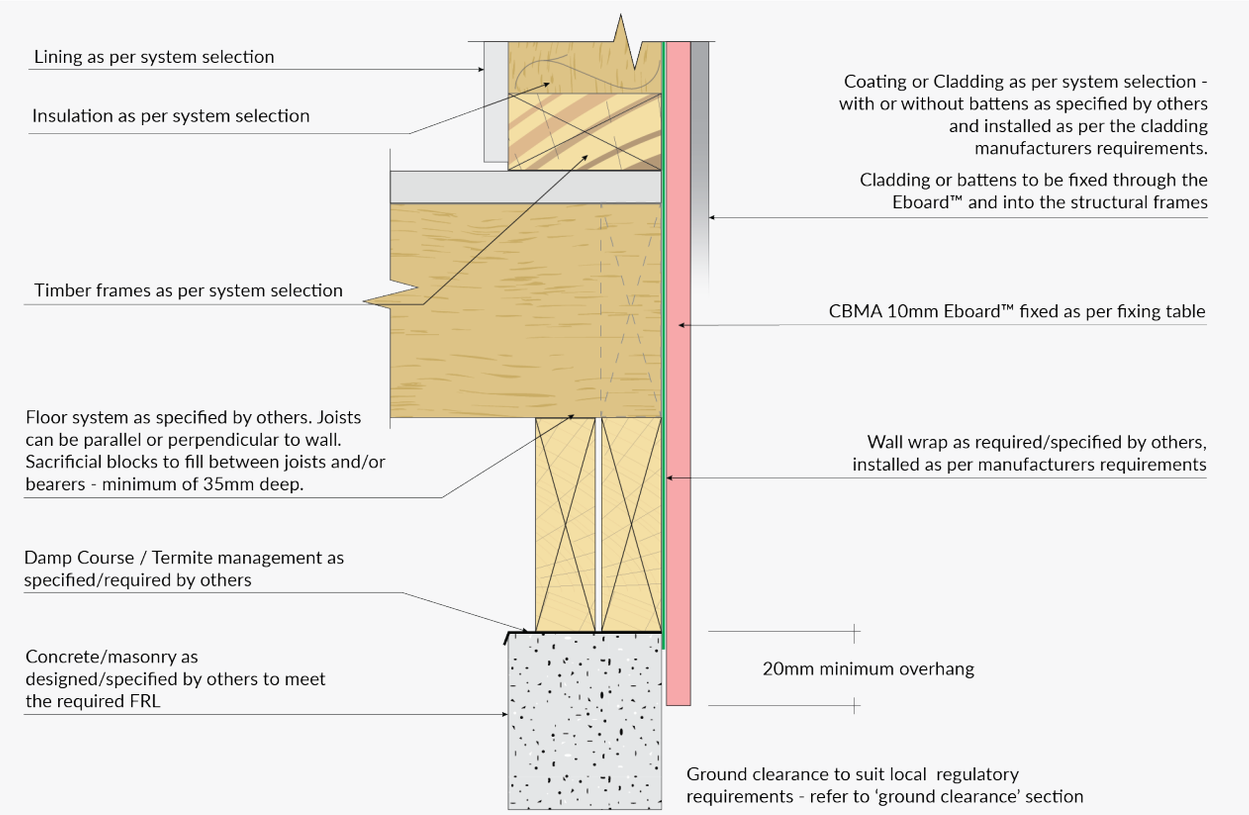
09.

DIRECT FIX



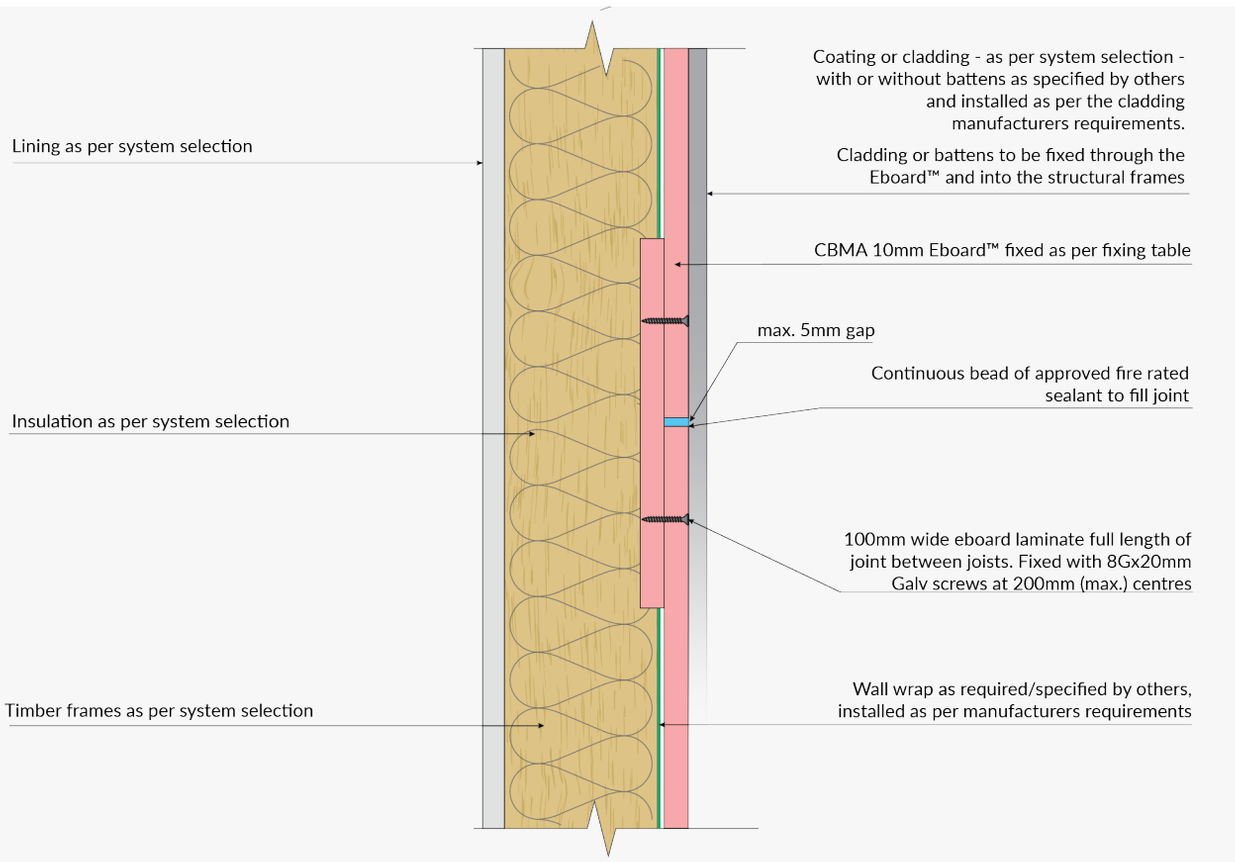
EBOARD™ TYPICAL SLAB DETAIL
DIAGRAM 1

DIRECT FIX



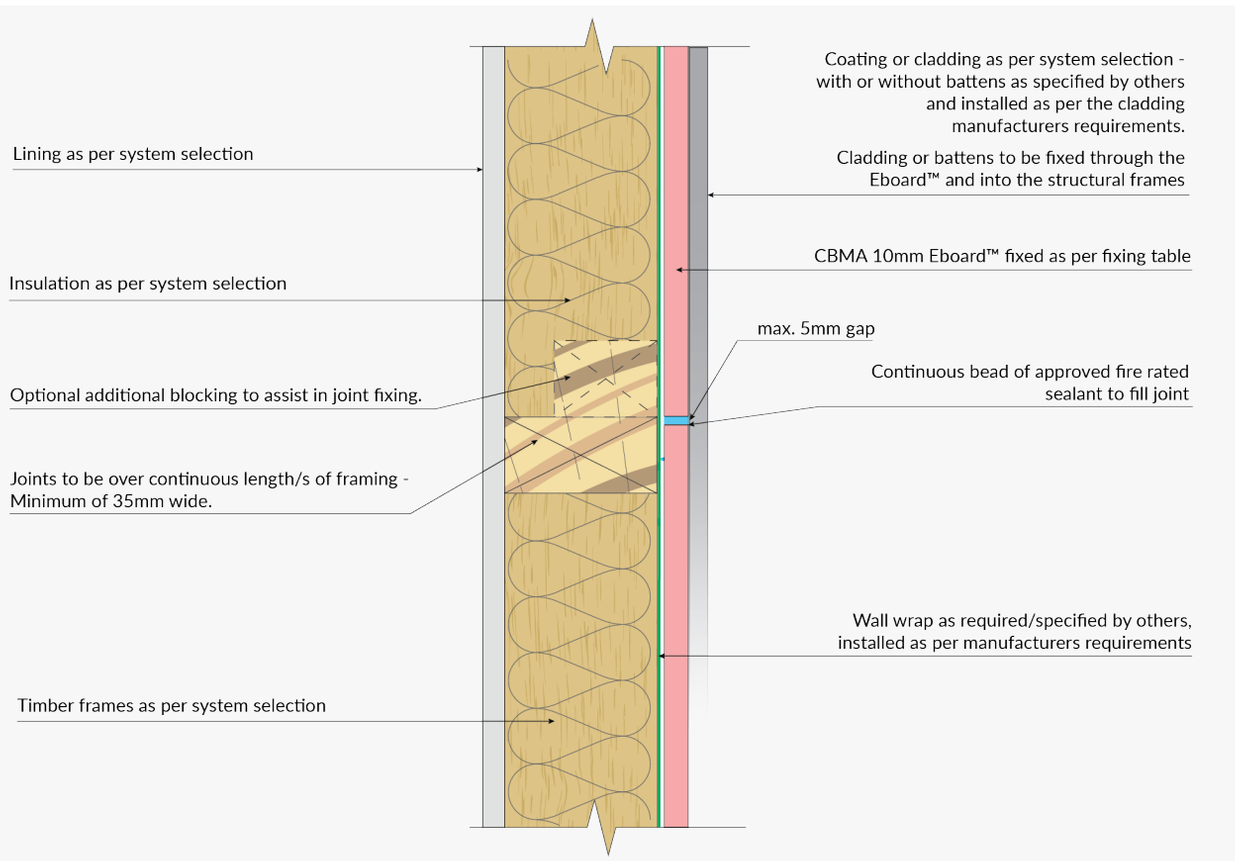
EBOARD™ TYPICAL PIER/WALL DETAIL
DIAGRAM 2

DIRECT FIX



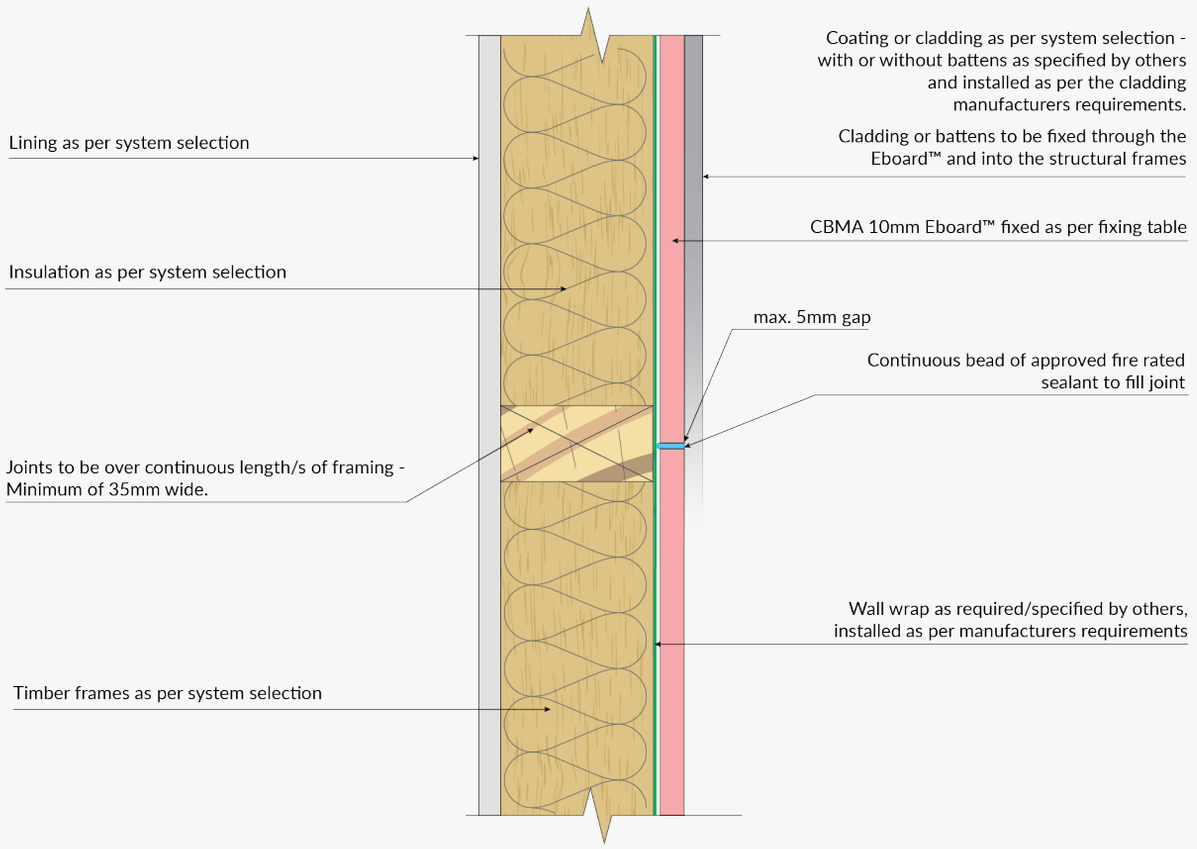
EBOARD™ TYPICAL BACKING JOINT DETAIL
DIAGRAM 3

DIRECT FIX



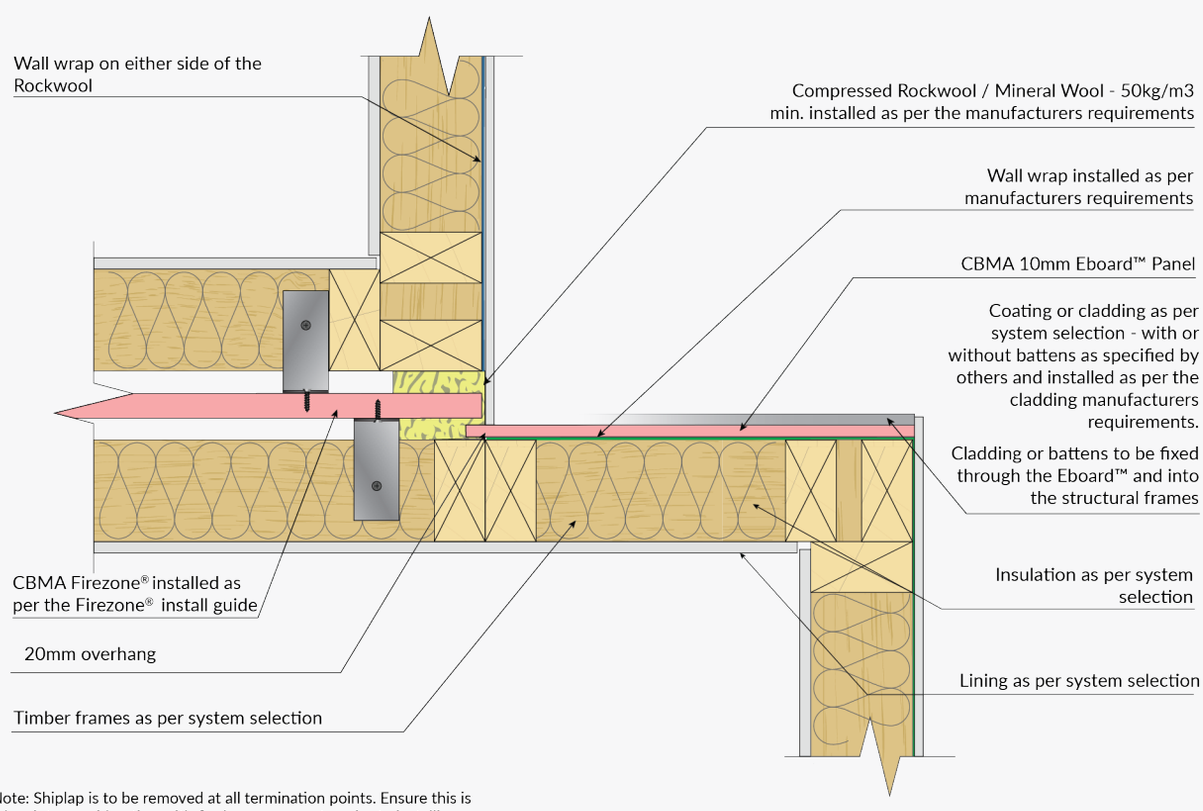
EBOARD™ TYPICAL BACKING BLOCK / EXPANSION JOINT DETAIL
DIAGRAM 4

DIRECT FIX



EBOARD™ TYPICAL BACKING BLOCK / EXPANSION JOINT DETAIL - ALT
DIAGRAM 5

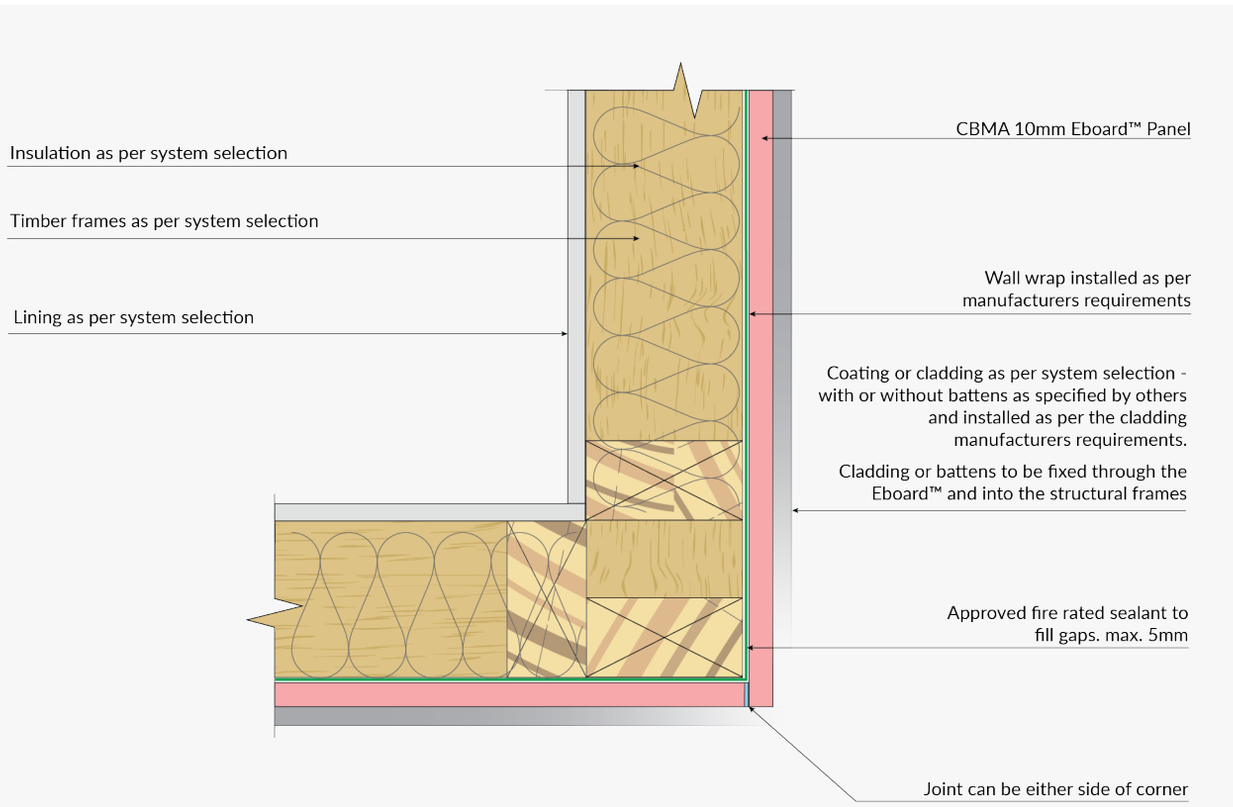
DIRECT FIX



Note: Shiplap is to be removed at all termination points. Ensure this is taken into consideration with final measurements prior to installing

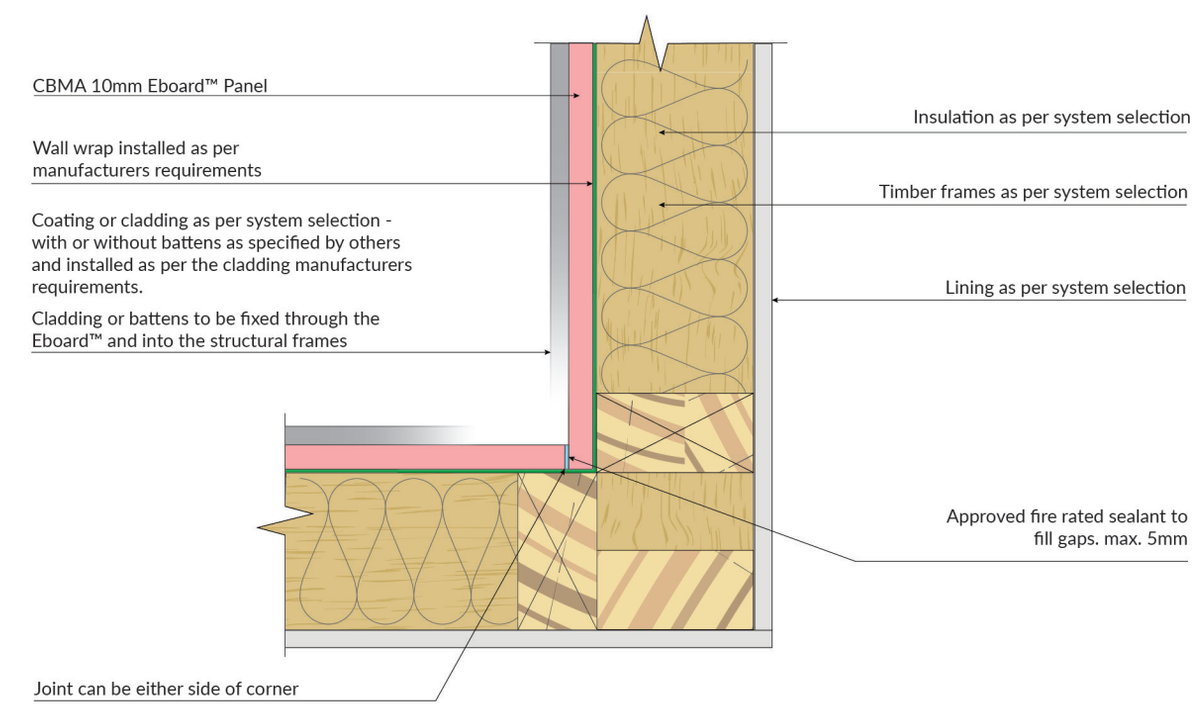
EBOARD™ TYPICAL FIREZONE® TO EBOARD™ JUNCTION DETAIL
DIAGRAM 6

DIRECT FIX



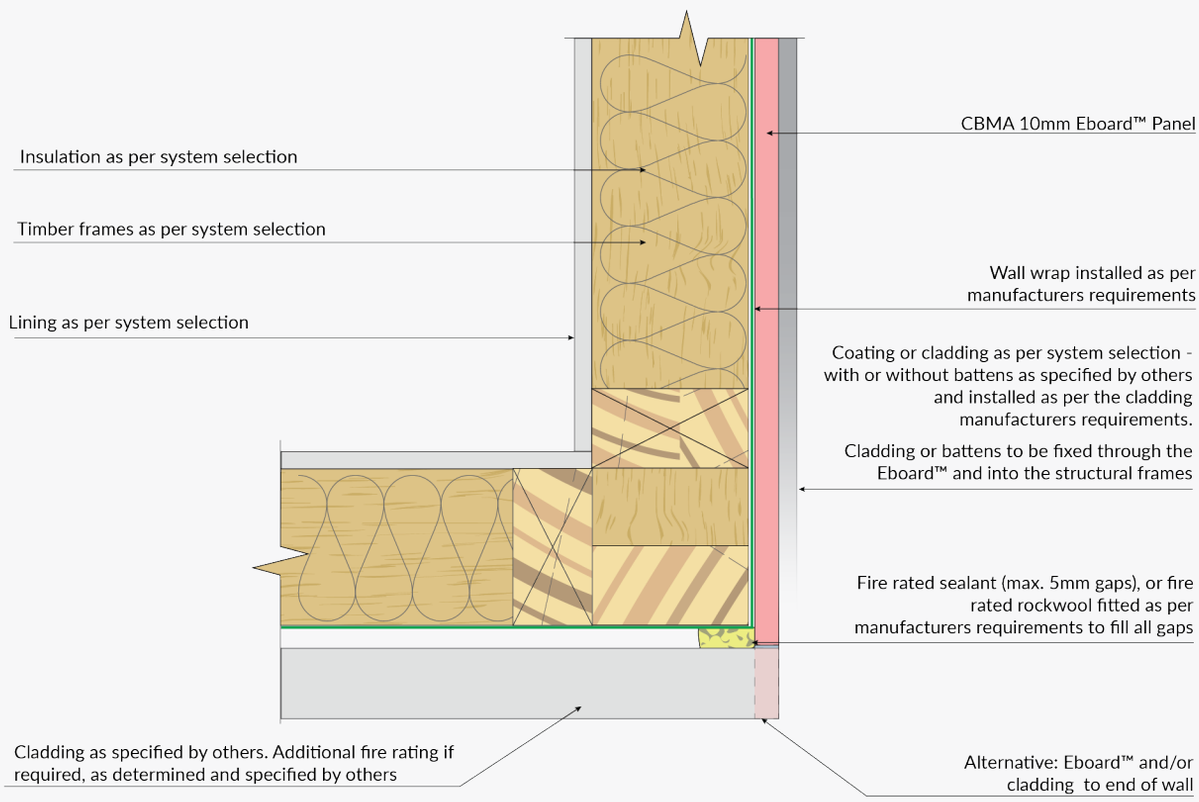
EBOARD™ TYPICAL EXTERNAL CORNER JUNCTION DETAIL
DIAGRAM 7

DIRECT FIX



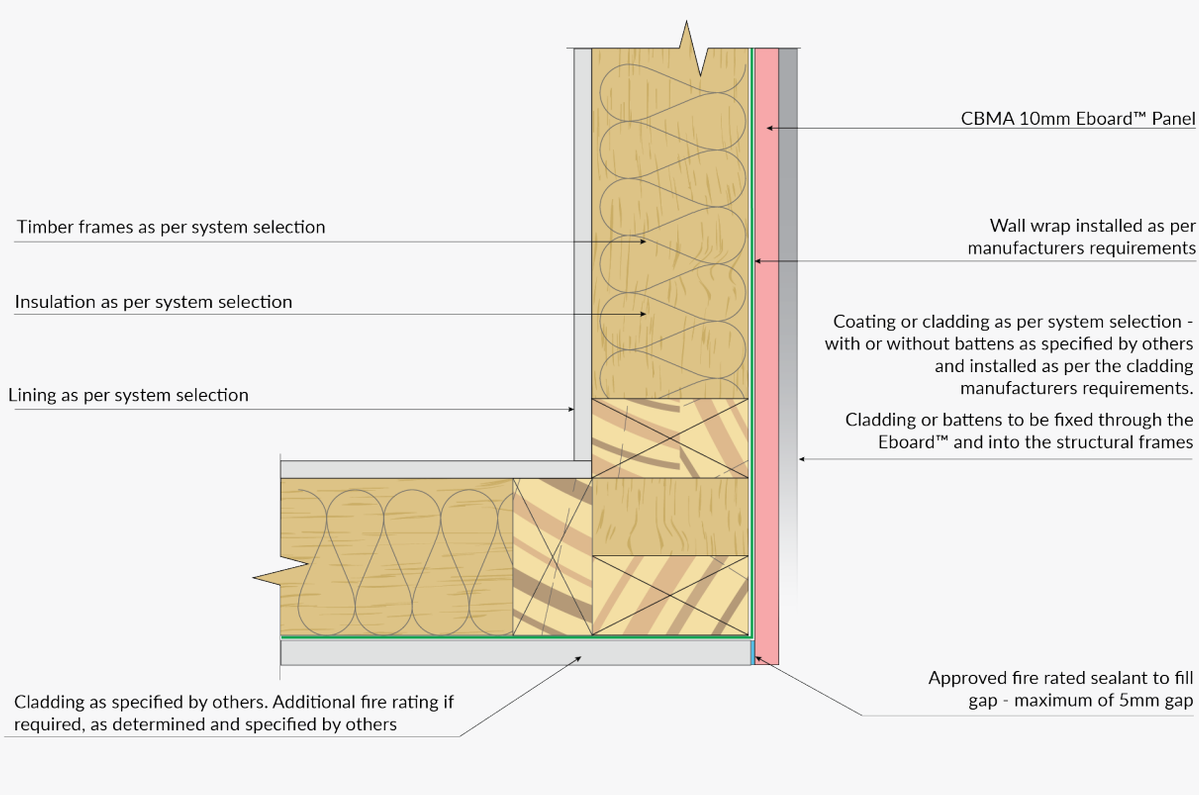
EBOARD™ TYPICAL INTERNAL CORNER JUNCTION DETAIL
DIAGRAM 8

DIRECT FIX



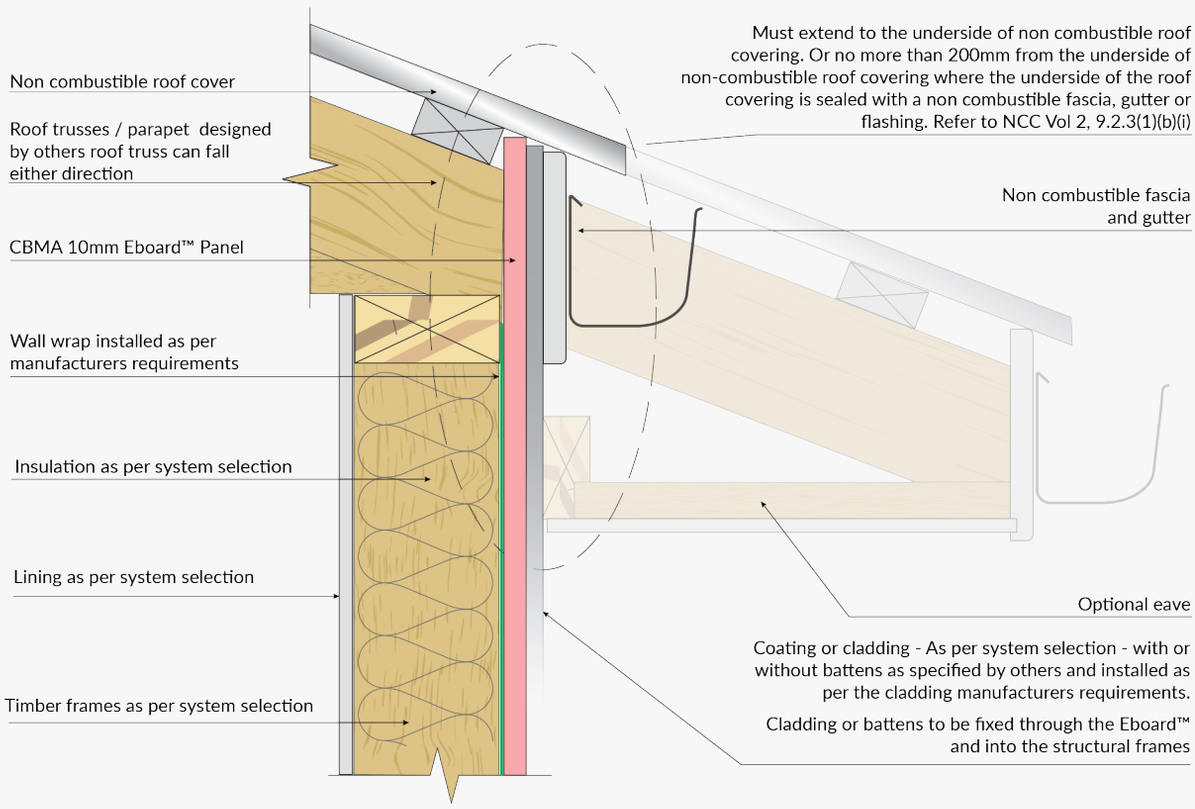
EBOARD™ TYPICAL CLADDING JUNCTION DETAIL
DIAGRAM 9

DIRECT FIX



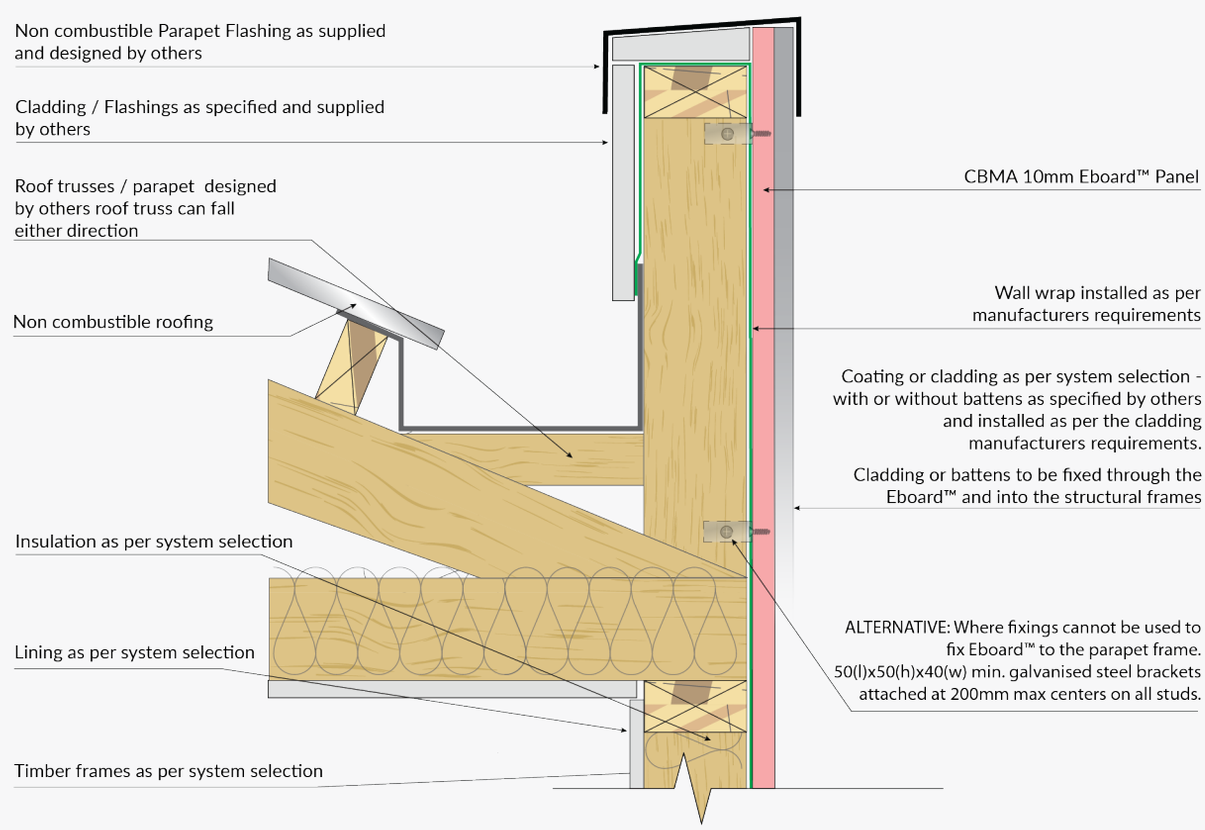
EBOARD™ TYPICAL LIGHTWEIGHT CLADDING JUNCTION DETAIL
DIAGRAM 10

DIRECT FIX



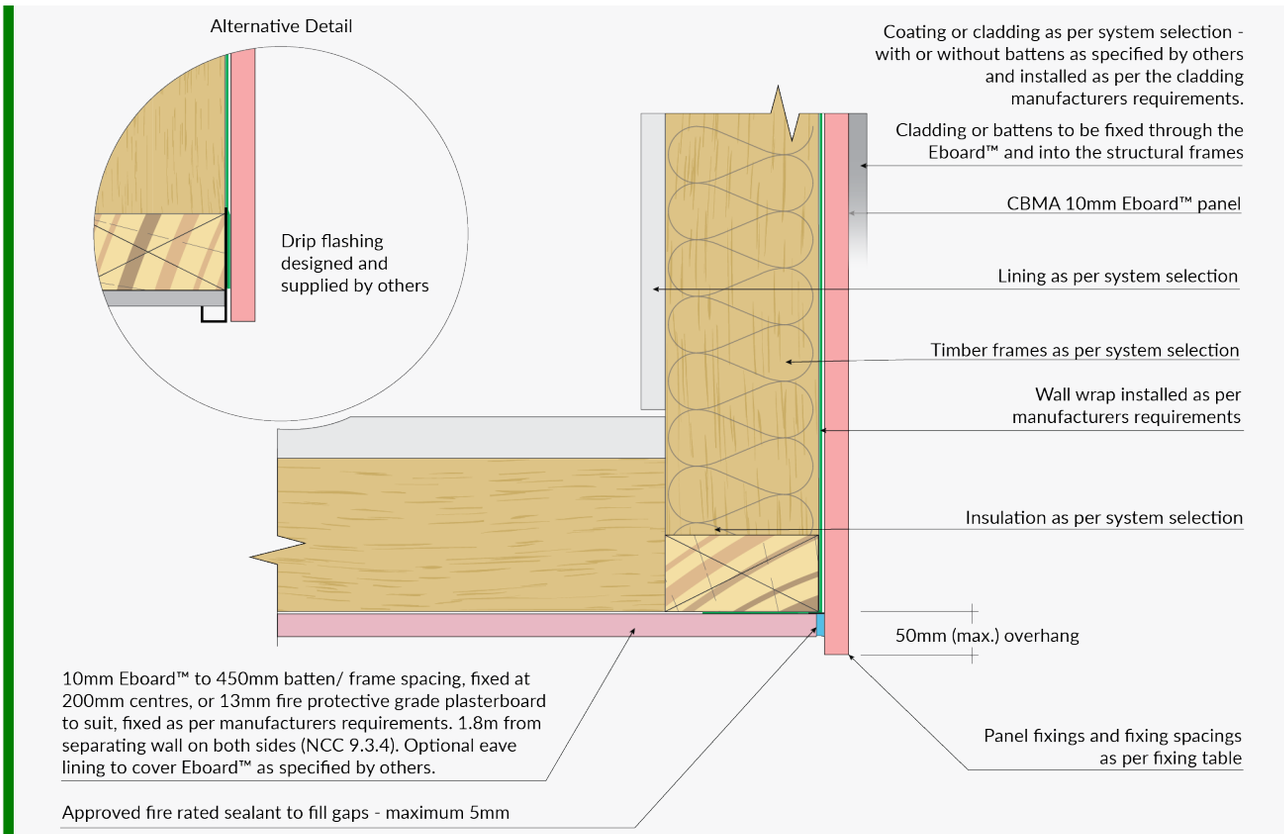
EBOARD™ TYPICAL ROOF JUNCTION DETAIL
DIAGRAM 11

DIRECT FIX



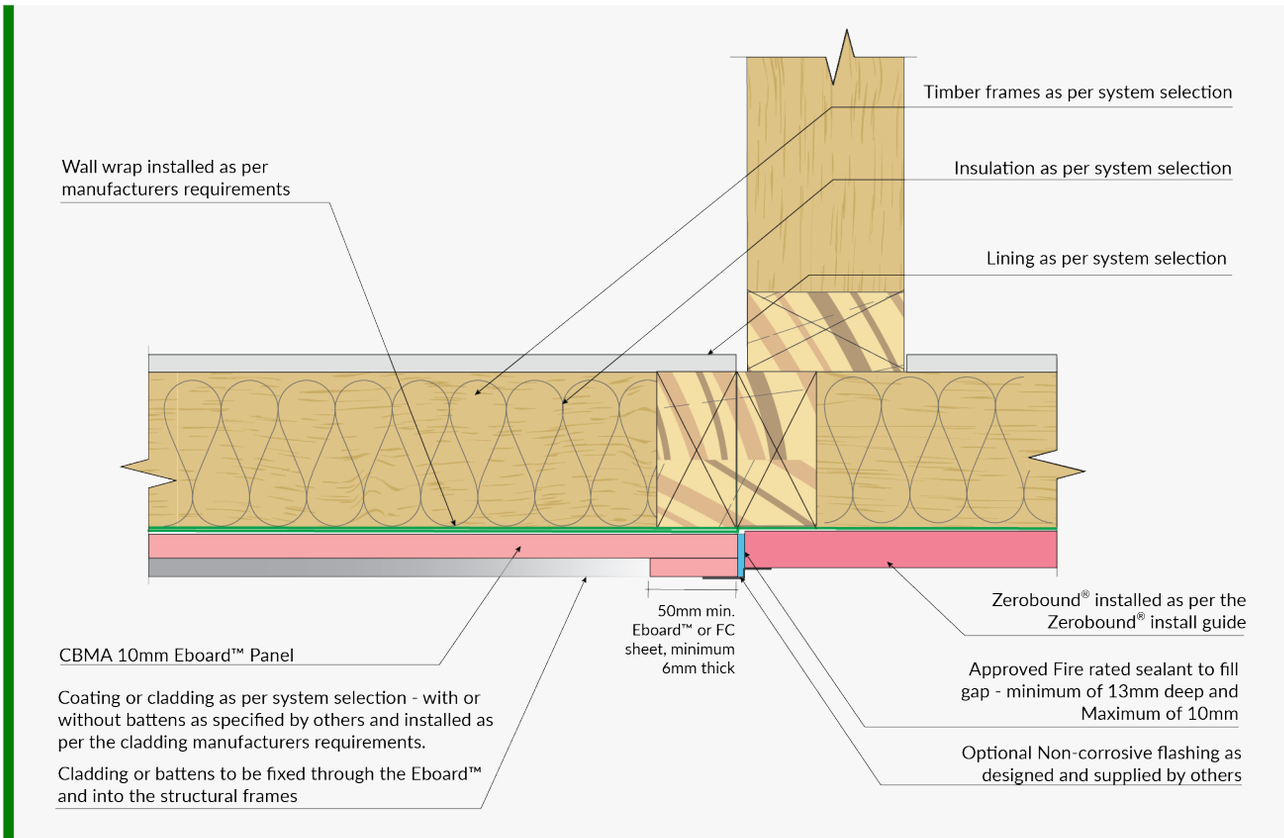
EBOARD™ TYPICAL PARAPET DETAIL
DIAGRAM 12

DIRECT FIX

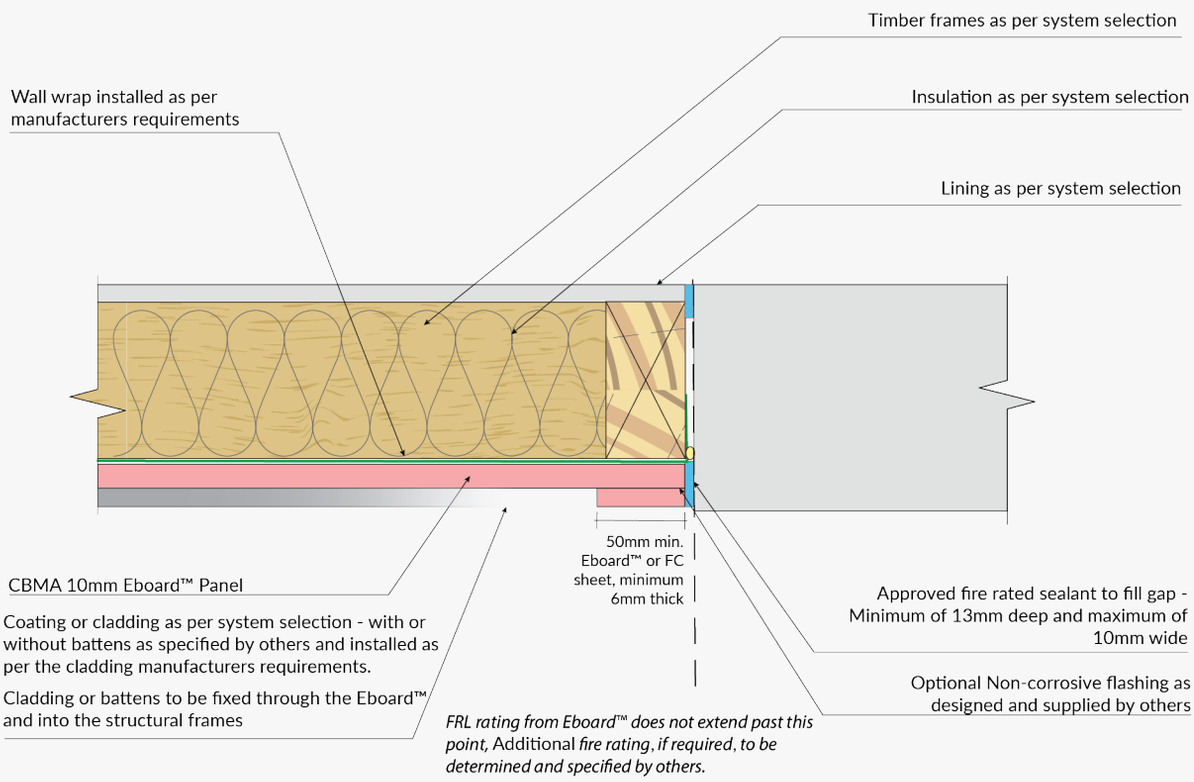


EBOARD™ TYPICAL EAVE / SOFFIT DETAIL
DIAGRAM 13

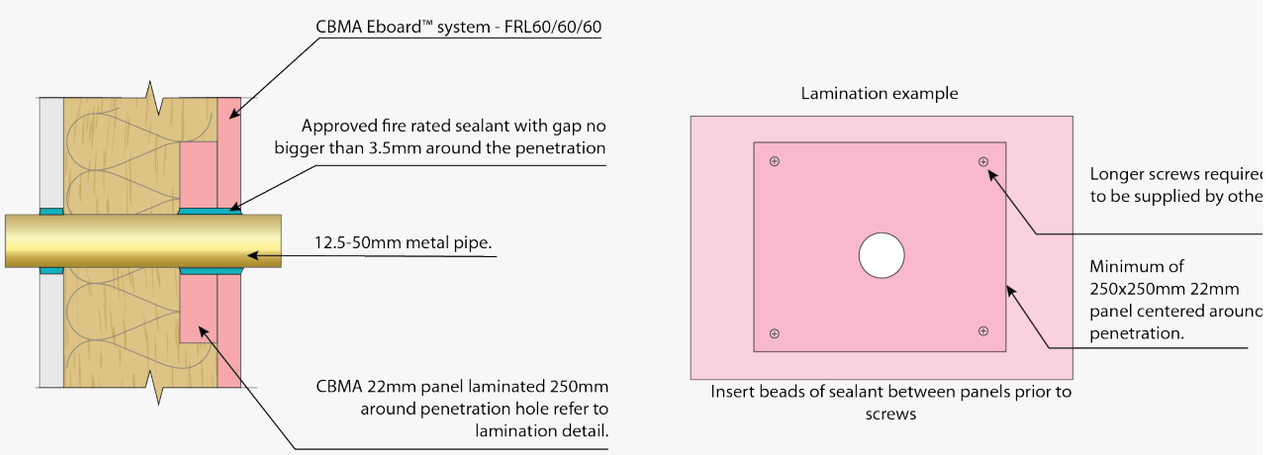
DIRECT FIX



EBOARD™ TYPICAL ZEROBOUND® TO EBOARD™ JUNCTION DETAIL
DIAGRAM 14

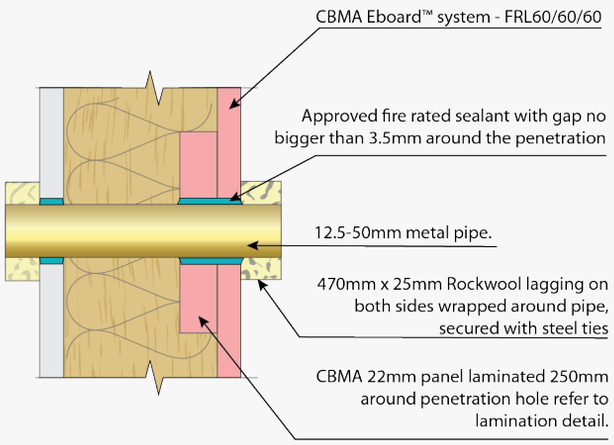


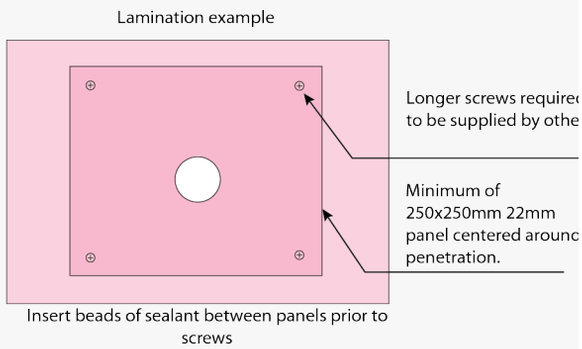
EBOARD™ TYPICAL EBOARD™ TO OTHER FRL RATED SYSTEM JUNCTION DETAIL
DIAGRAM 15



EBOARD™ TYPICAL PENETRATION - PIPE -/60/15 DETAIL
DIAGRAM 16

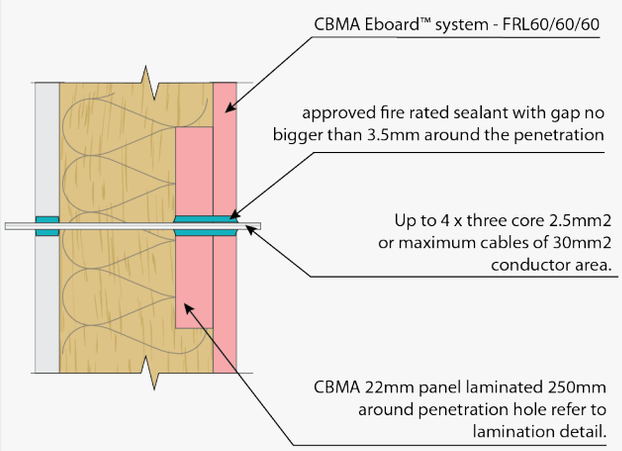
DIRECT FIX

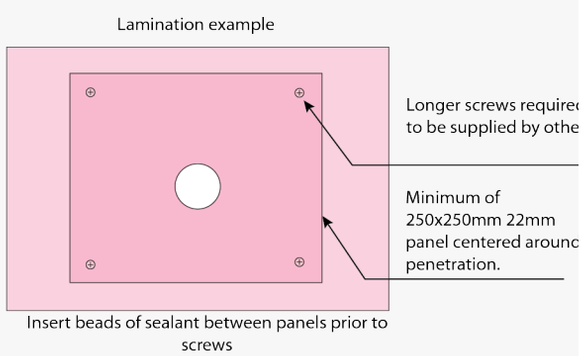




EBOARD™ TYPICAL PENETRATION - PIPE -/60/60 DETAIL
DIAGRAM 17

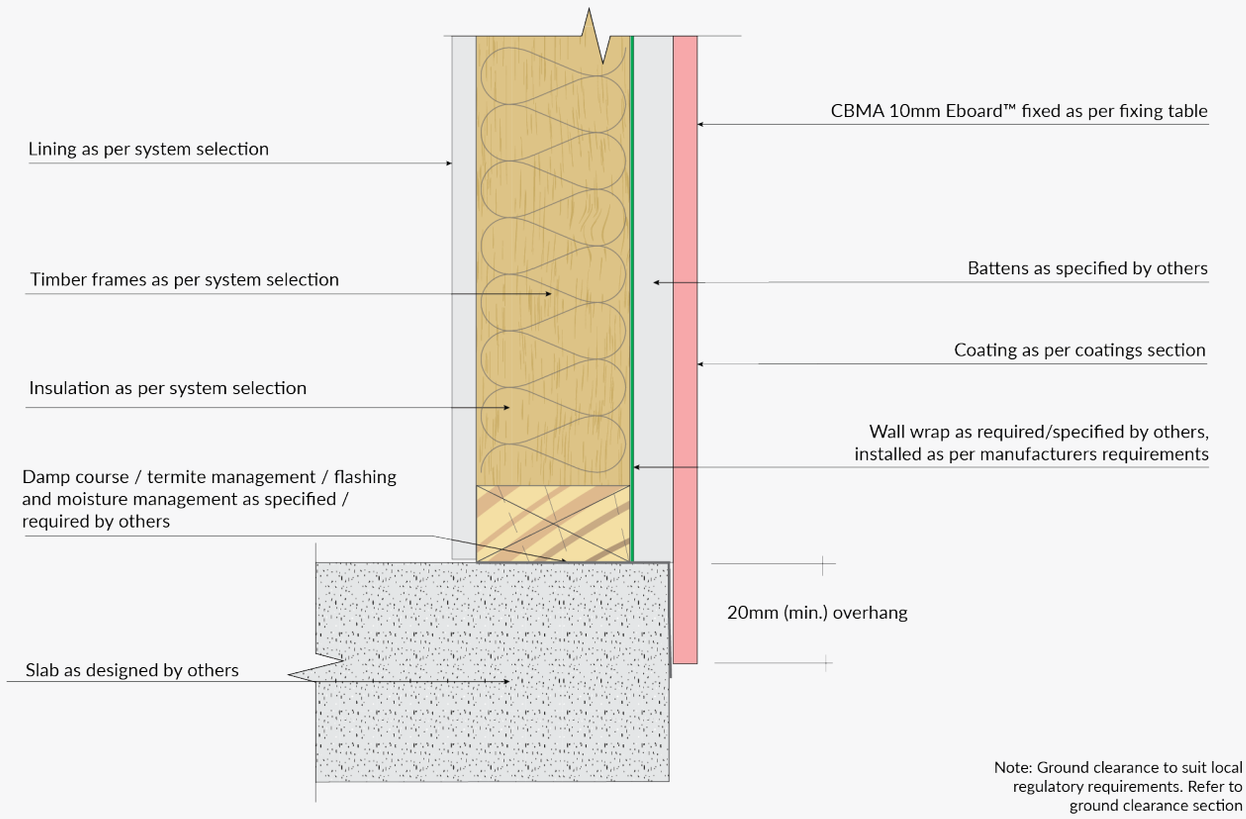
DIRECT FIX





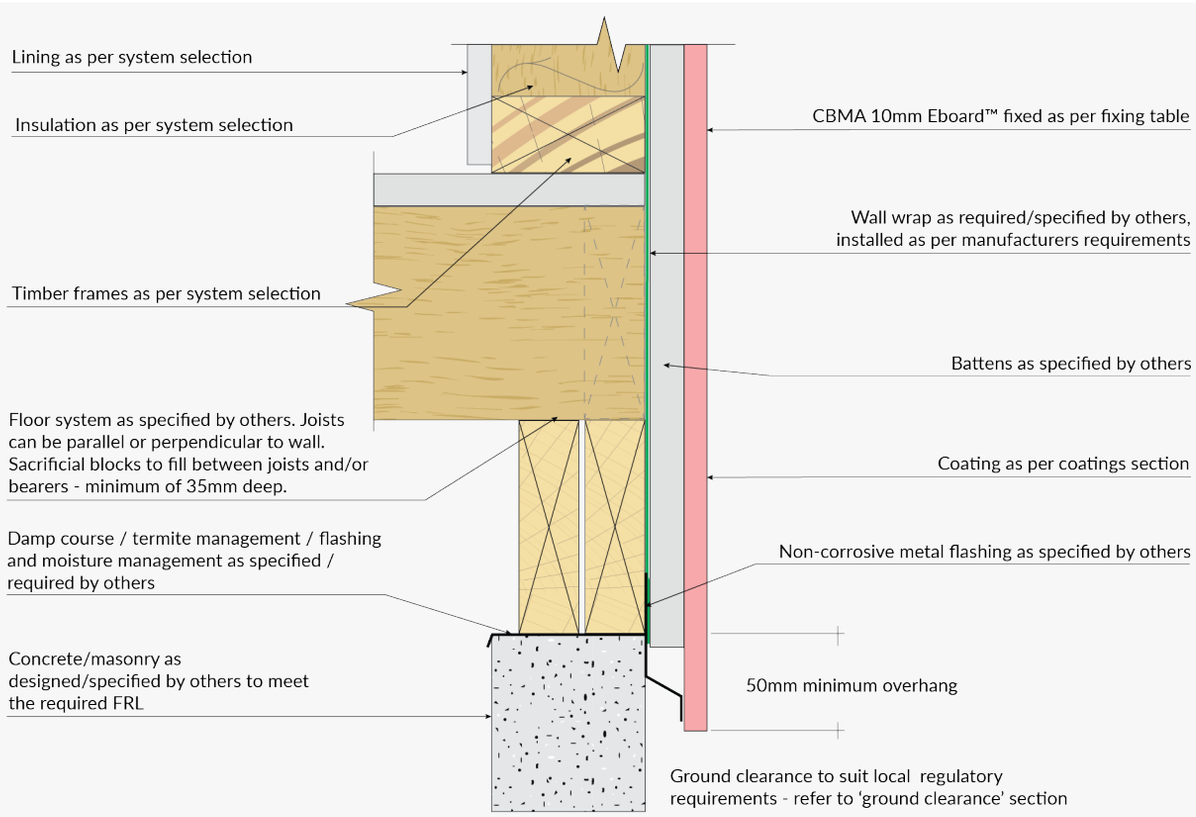
EBOARD™ TYPICAL PENETRATION - CABLES -/60/60 DETAIL
DIAGRAM 18

CAVITY FIX



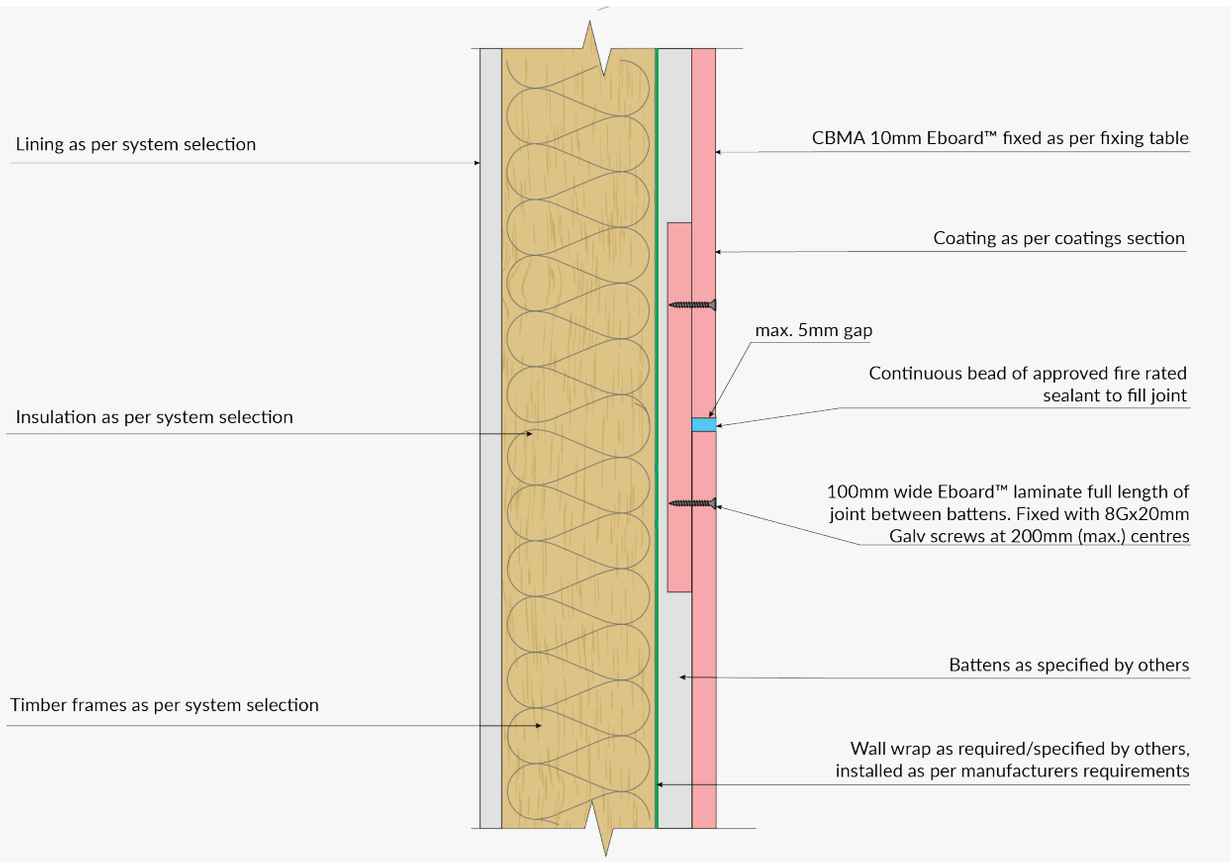
EBOARD™ TYPICAL CAVITY SLAB DETAIL
DIAGRAM 19

CAVITY FIX



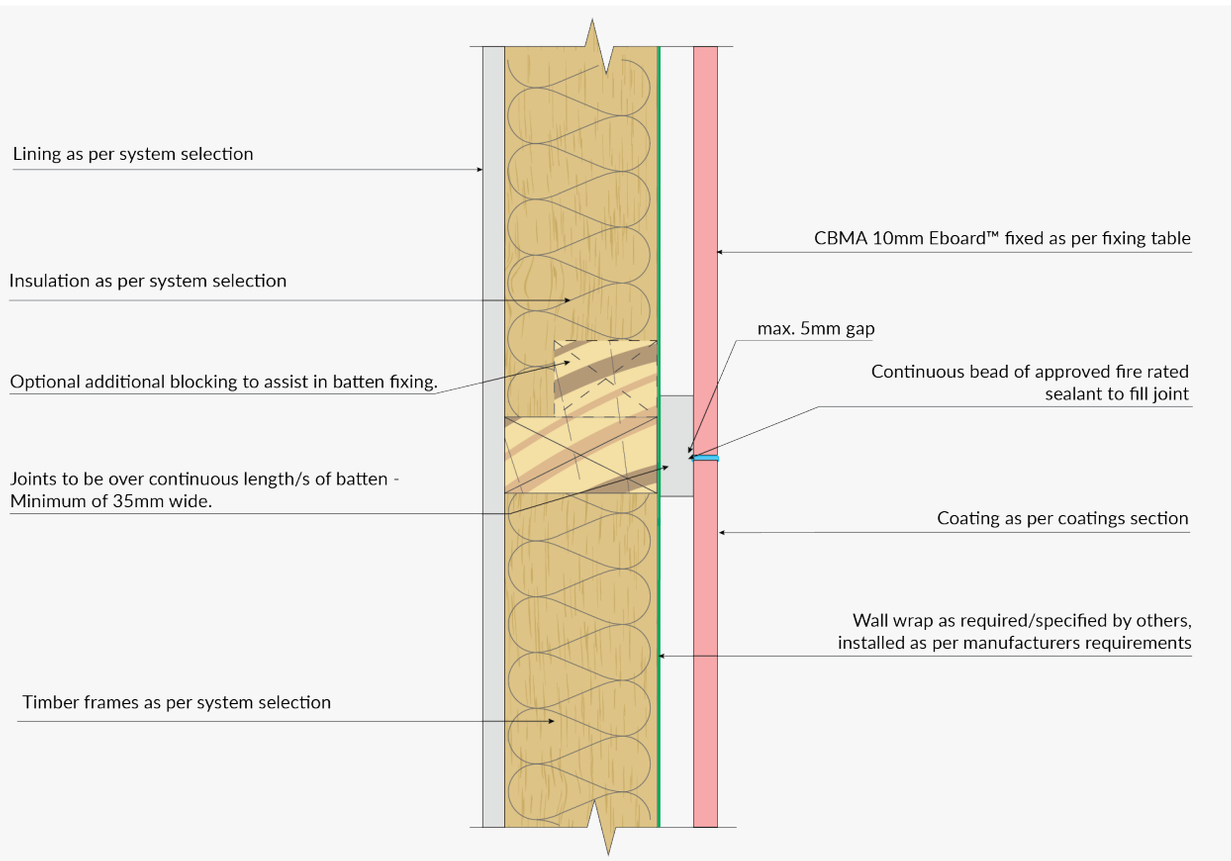
EBOARD™ TYPICAL CAVITY PIER/WALL DETAIL
DIAGRAM 20

CAVITY FIX



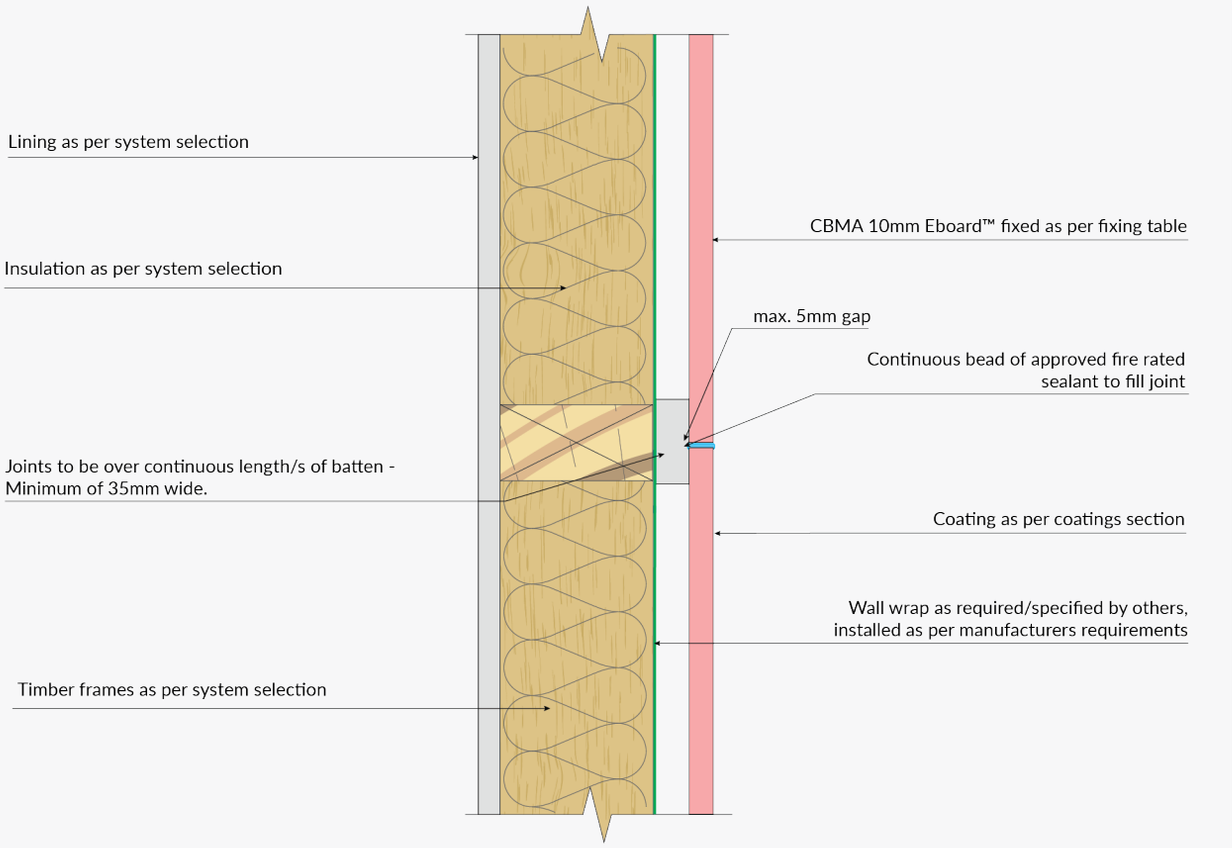
EBOARD™ TYPICAL CAVITY BACKING JOINT DETAIL
DIAGRAM 21

CAVITY FIX



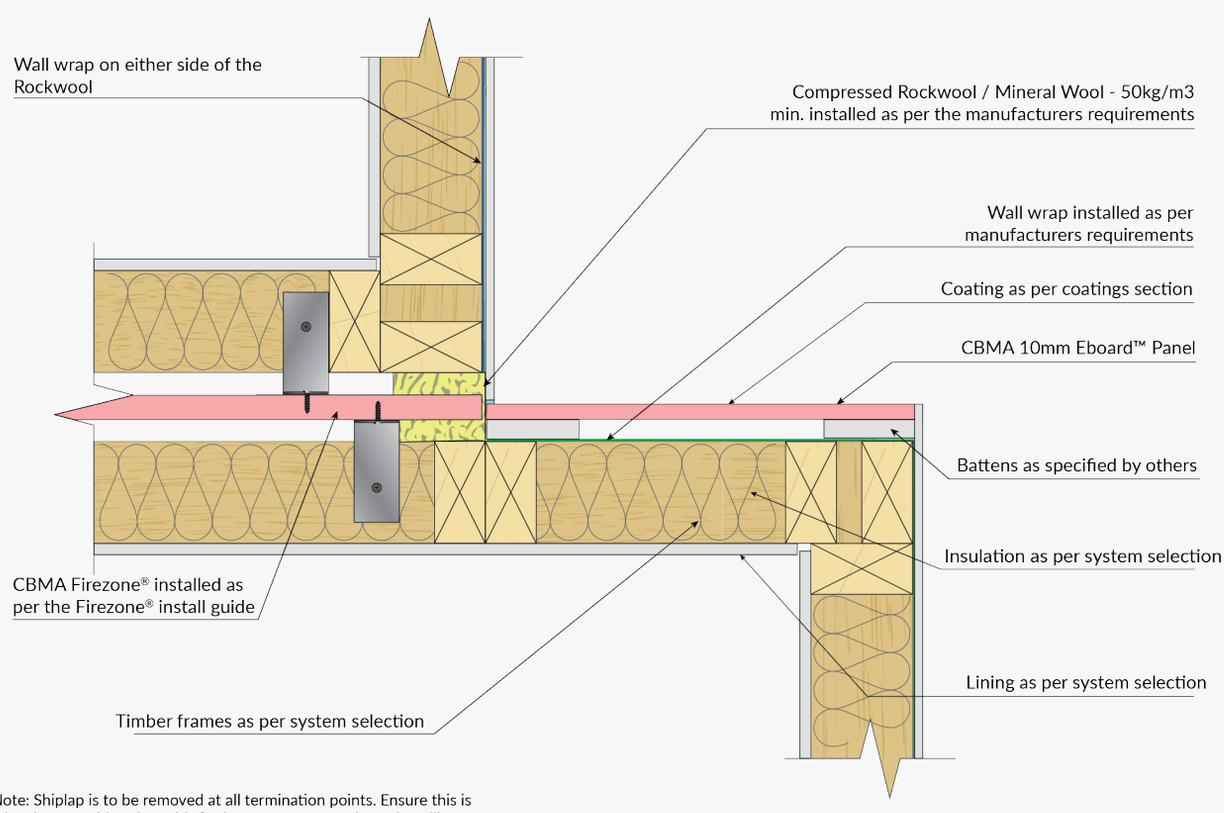
EBOARD™ TYPICAL CAVITY BACKING BLOCK / EXPANSION JOINT DETAIL
DIAGRAM 22

CAVITY FIX



EBOARD™ TYPICAL CAVITY BACKING BLOCK / EXPANSION JOINT DETAIL - ALT
DIAGRAM 23

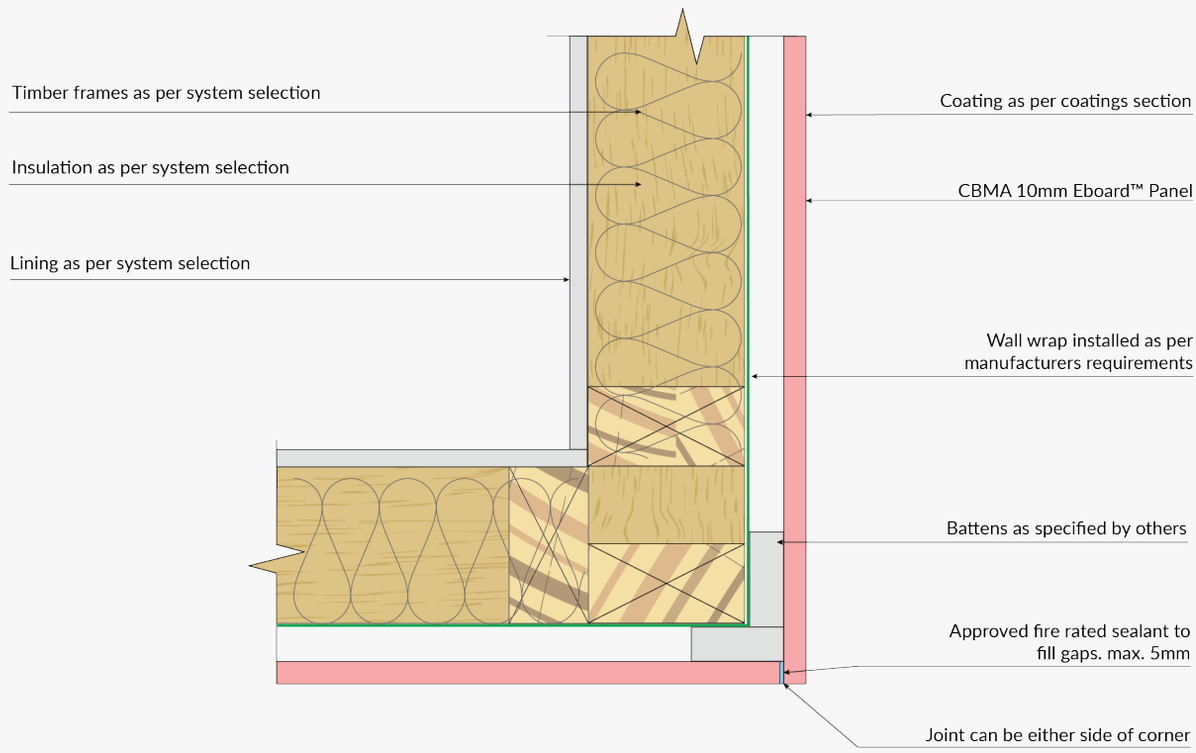
CAVITY FIX



Note: Shiplap is to be removed at all termination points. Ensure this is taken into consideration with final measurements prior to installing

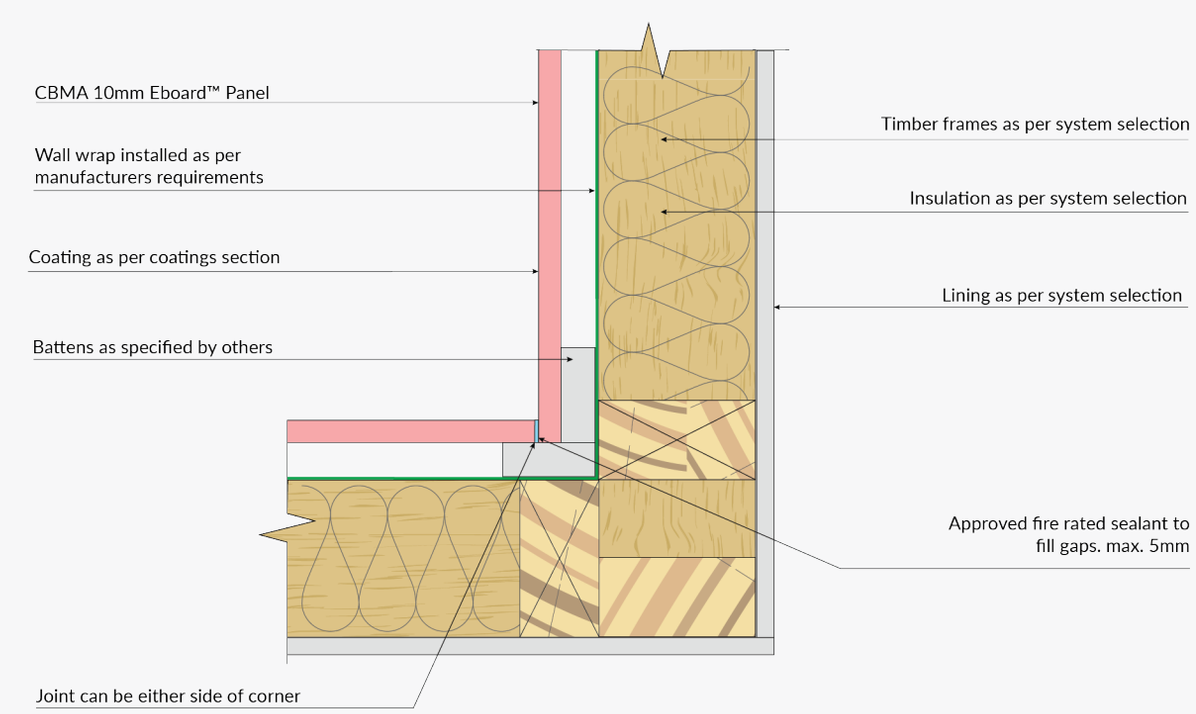
EBOARD™ TYPICAL CAVITY FIREZONE® TO EBOARD™ JUNCTION DETAIL
DIAGRAM 24

CAVITY FIX



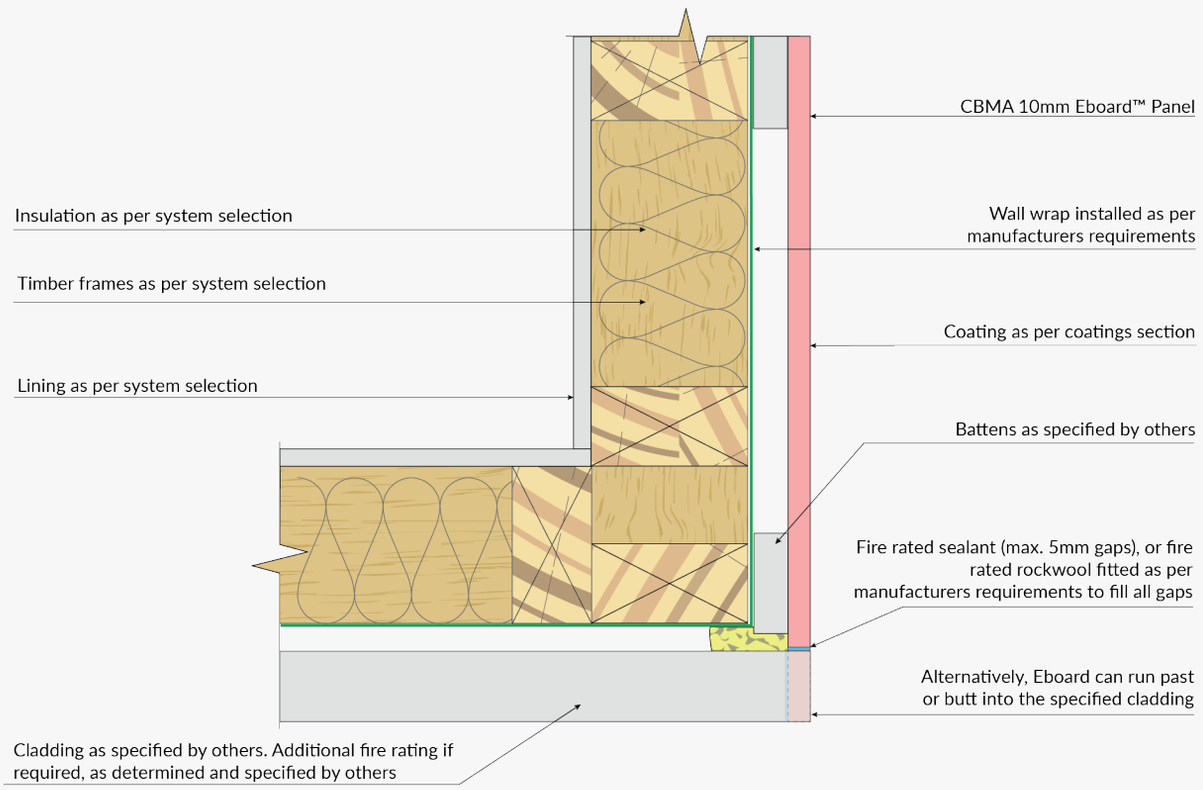
EBOARD™ TYPICAL CAVITY EXTERNAL CORNER JUNCTION DETAIL
DIAGRAM 25

CAVITY FIX



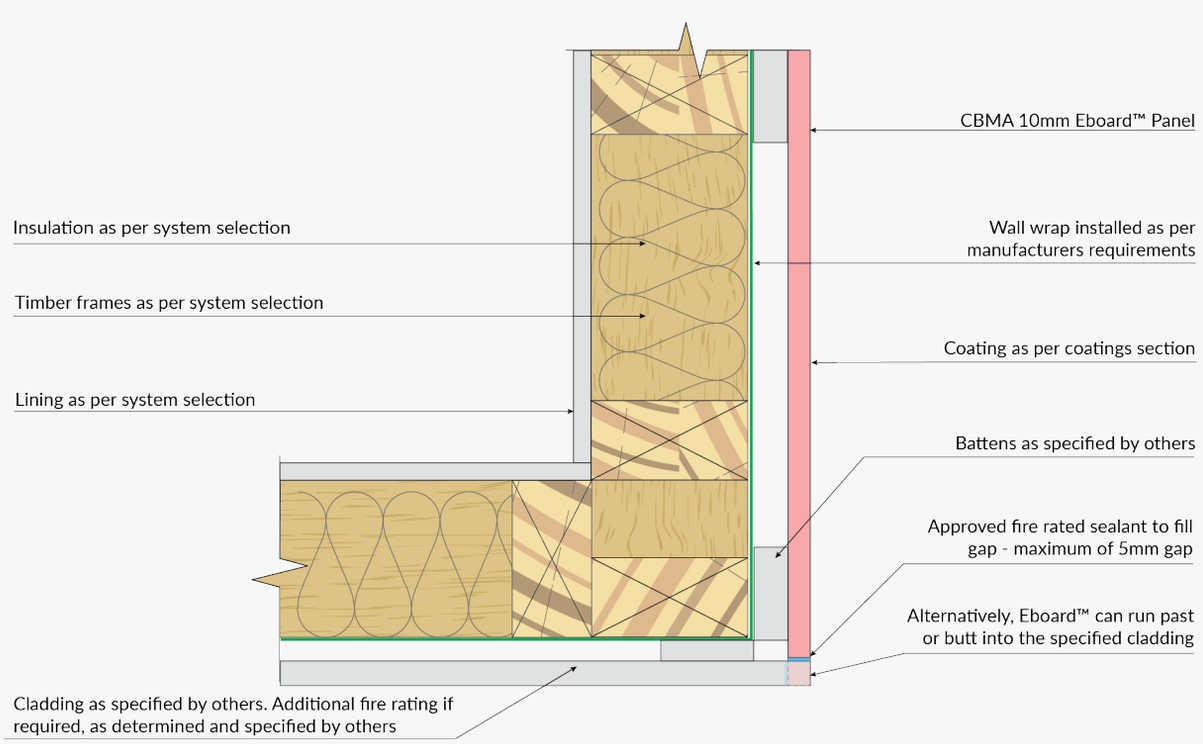
EBOARD™ TYPICAL CAVITY INTERNAL CORNER JUNCTION DETAIL
DIAGRAM 26

CAVITY FIX



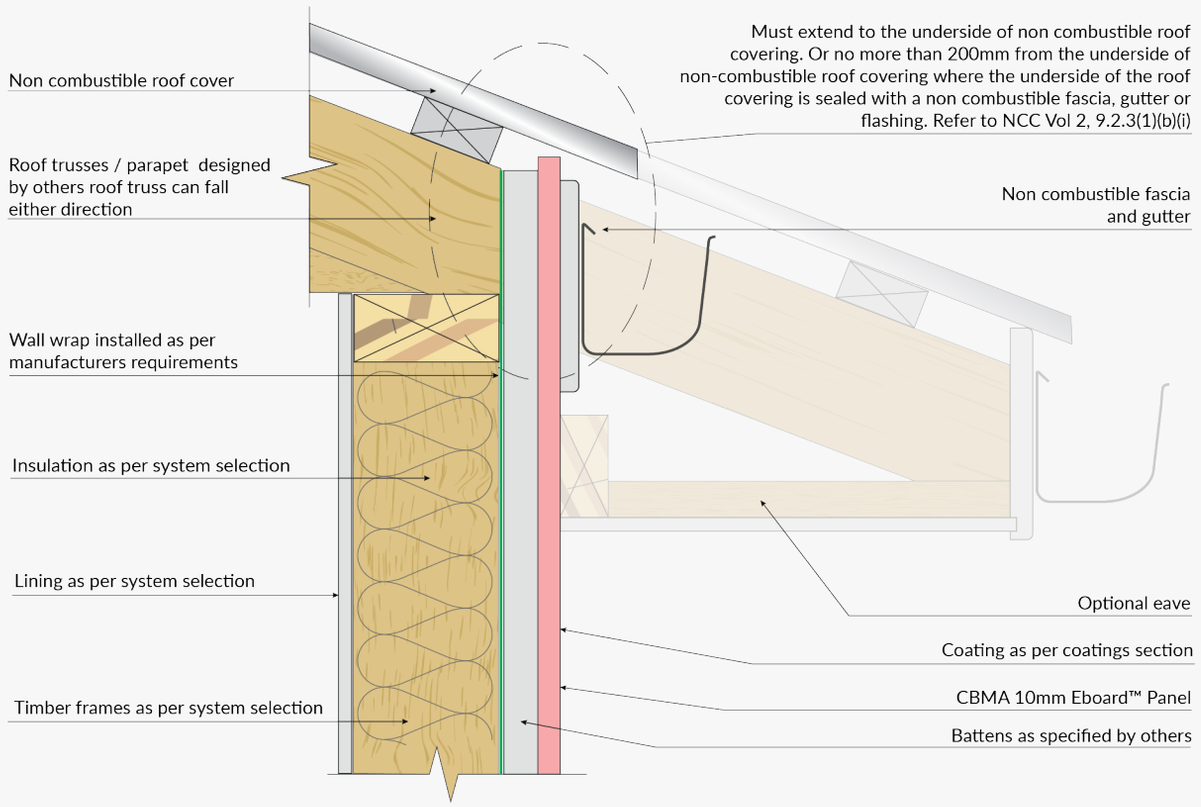
EBOARD™ TYPICAL CAVITY CLADDING JUNCTION DETAIL
DIAGRAM 27

CAVITY FIX



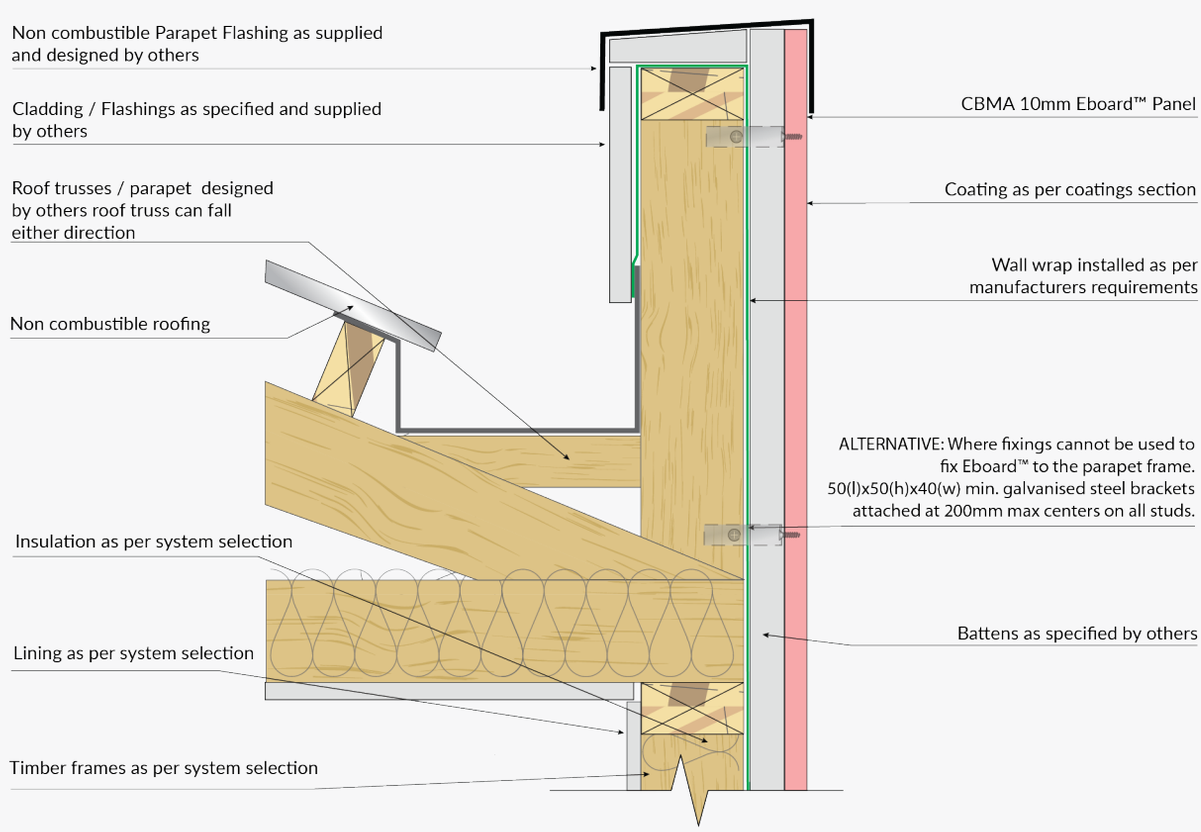
EBOARD™ TYPICAL CAVITY LIGHTWEIGHT CLADDING JUNCTION DETAIL
DIAGRAM 28

CAVITY FIX



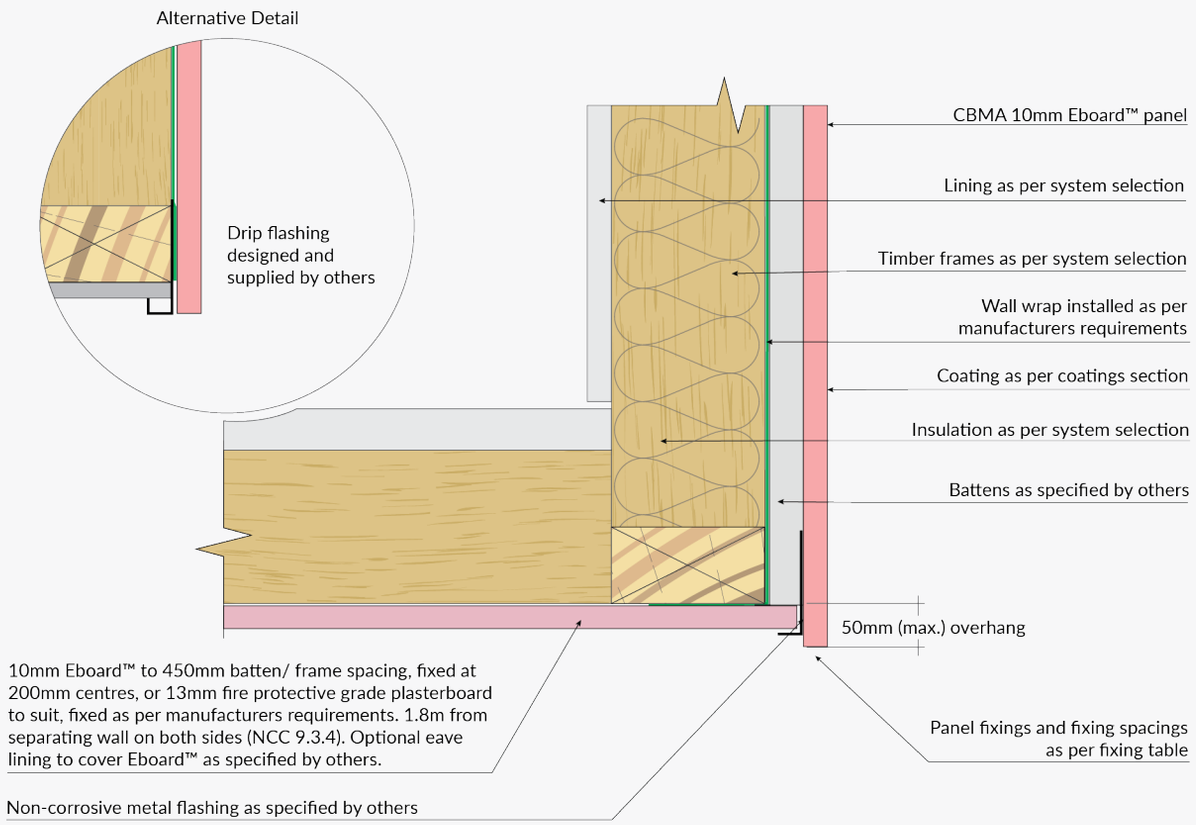
EBOARD™ TYPICAL CAVITY ROOF JUNCTION DETAIL
DIAGRAM 29

CAVITY FIX



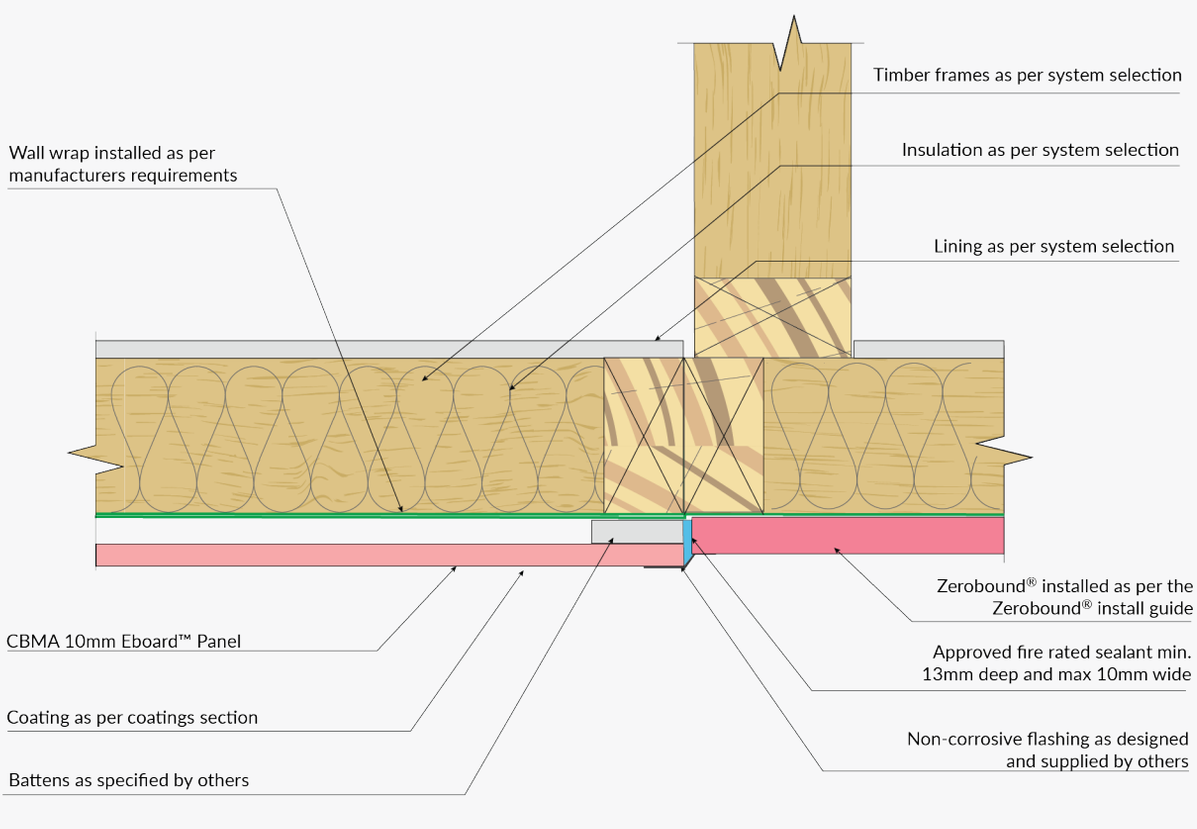
EBOARD™ TYPICAL CAVITY PARAPET DETAIL
DIAGRAM 30

CAVITY FIX

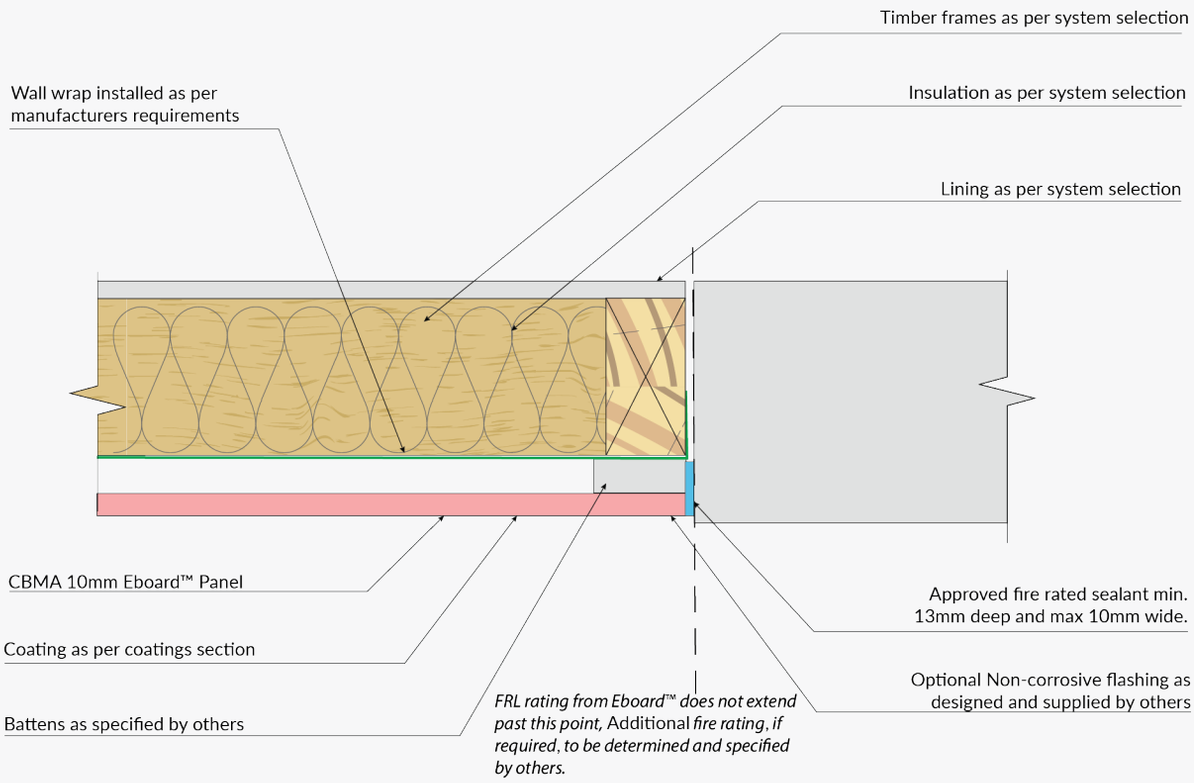


EBOARD™ TYPICAL CAVITY EAVE / SOFFIT DETAIL
DIAGRAM 31

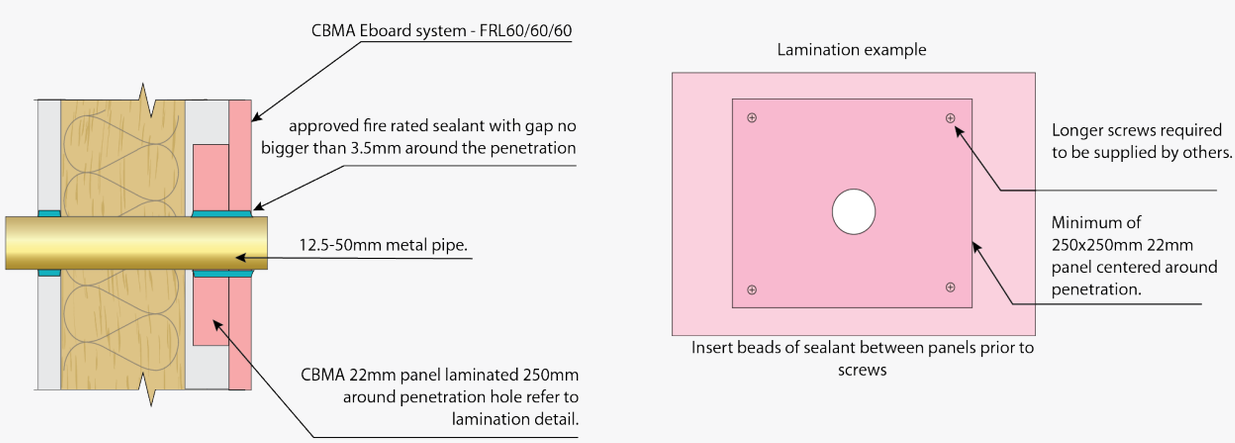
CAVITY FIX



EBOARD™ TYPICAL CAVITY ZEROBOUND® TO EBOARD™ JUNCTION DETAIL
DIAGRAM 32

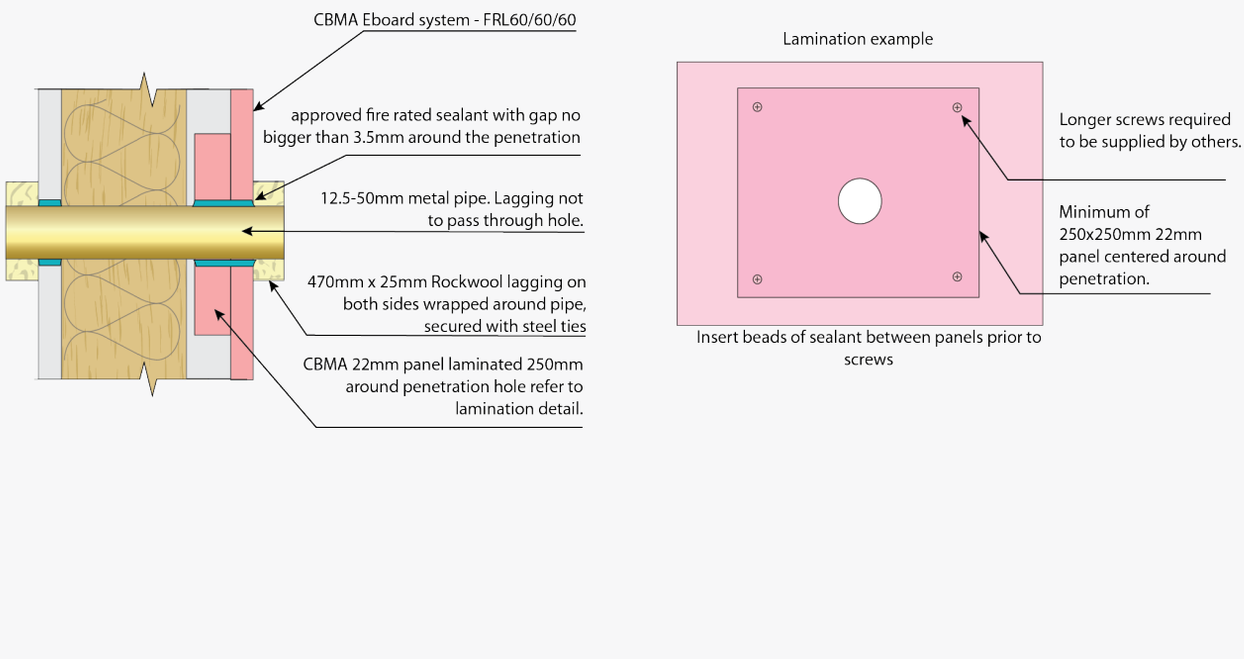


EBOARD™ TYPICAL CAVITY EBOARD™ TO OTHER FRL RATED SYSTEM JUNCTION DETAIL
DIAGRAM 33



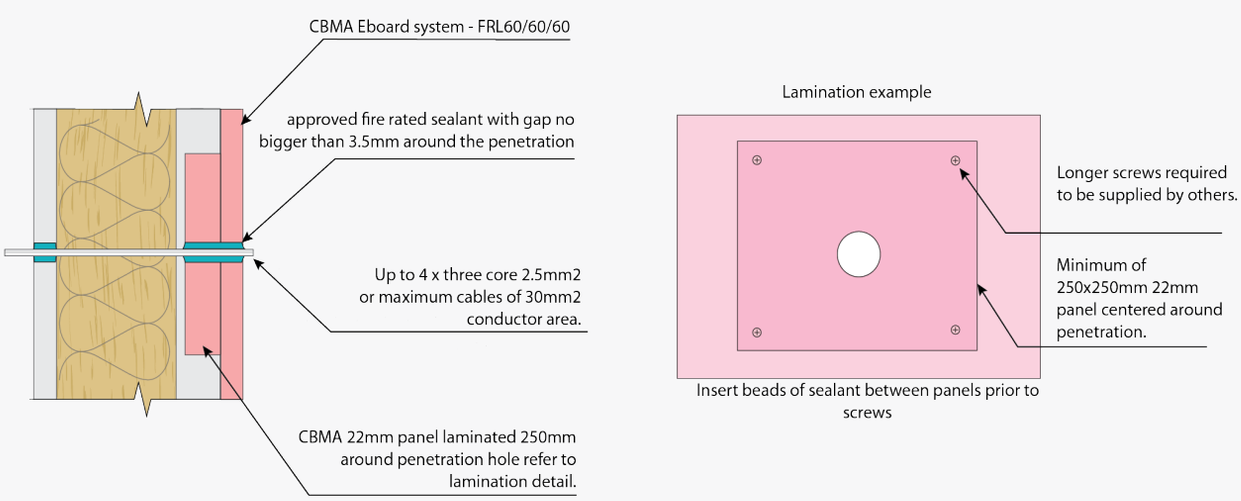
EBOARD™ TYPICAL CAVITY PENETRATION - PIPE -/60/15 DETAIL
DIAGRAM 34

CAVITY FIX



EBOARD™ TYPICAL CAVITY PENETRATION - PIPE -/60/60 DETAIL
DIAGRAM 35

CAVITY FIX



EBOARD™ TYPICAL CAVITY PENETRATION - CABLES -/60/60 DETAIL
DIAGRAM 36

HEAD OFFICE
59 Metrolink Circuit
Campbellfield, 3061
Victoria, Australia

PHONE
Phone 1300 47 37 00

WEB & EMAIL
Email support@cbma.com.au
Web www.cbma.com.au

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