FMI 3 SIDED RECESSED JOINERY THERMAL INSTALLATION METHOD TL45/55 SUITE
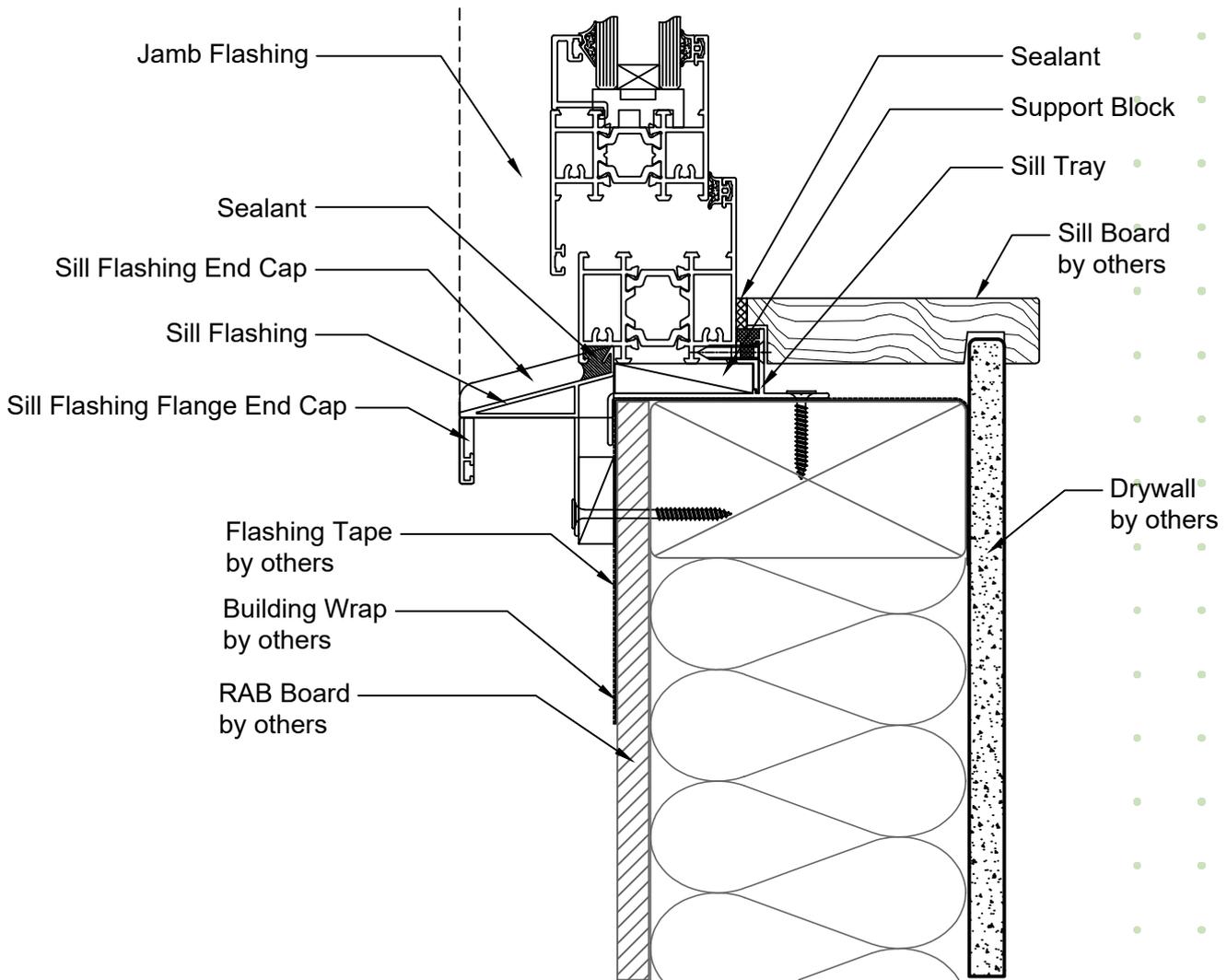
fmi Building innovation.

FMI 3 SIDED RECESSED JOINERY THERMAL INSTALLATION METHOD TL45/55 SUITE

Cavity details allow window and door units to be fully sealed to
the cladding. These details are suitable for cleaning with hose water

Jamb Flashing

Sealant

Sill Flashing End Cap

Sill Flashing

Sill Flashing Flange End Cap

Flashing Tape
by others

Building Wrap
by others

RAB Board
by others

Sealant

Support Block

Sill Tray
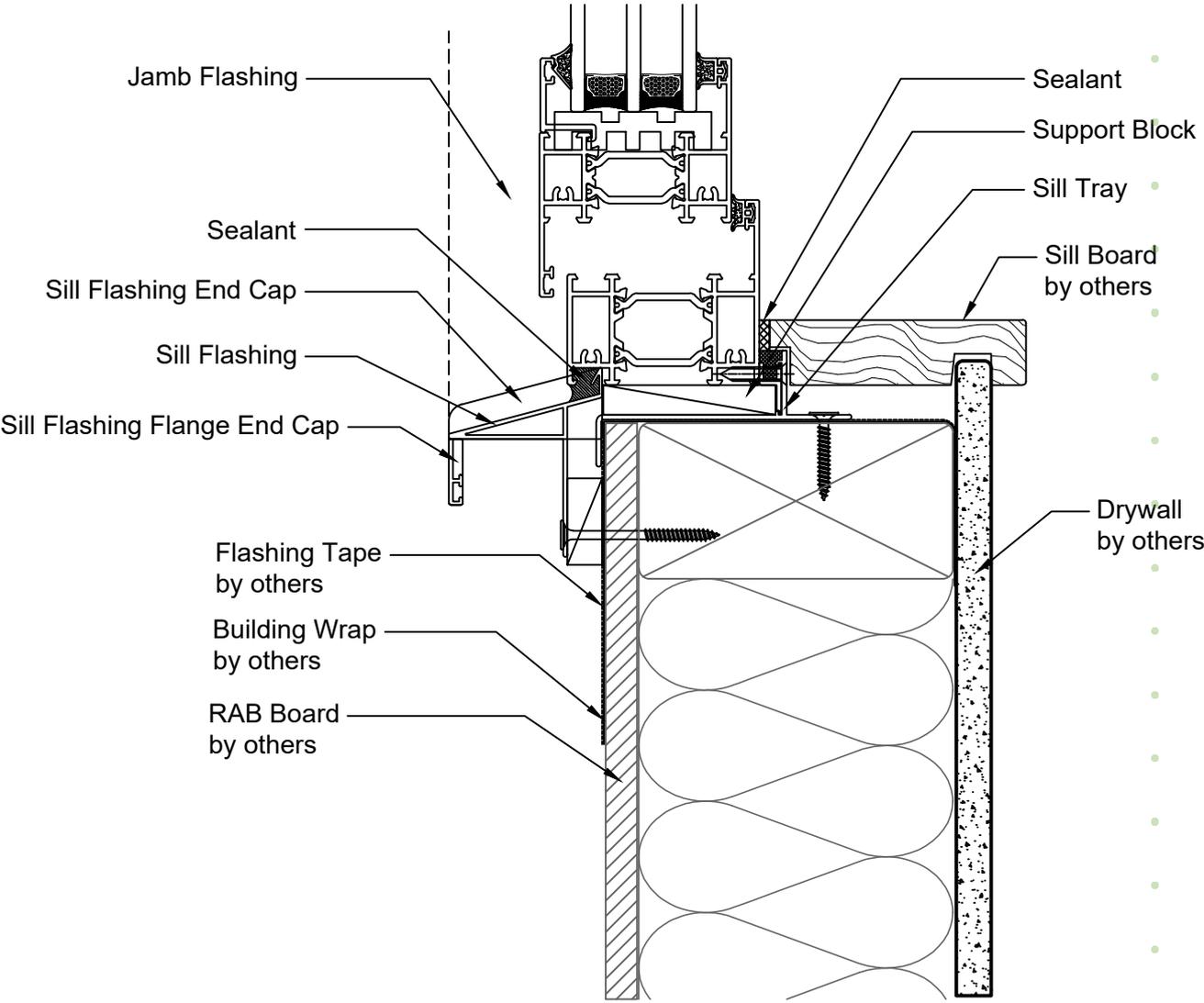
Sill Board
by others

Drywall
by others

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howsoever arising, associated with the use, application or modification of the FMI BI
described herein or any losses, costs or expenses associated therewith.

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CMNZ70193

| | fmi building innovation. | TL45 | Three sided thermal installation | Edition 2 02/05/2024 | Page 01/38 |
| | | | | Scale A4 N.T.S. | |

FMI Building Innovation
Three Sided Thermal Installation Method
TL55

Cavity details allow window and door units to be fully sealed to
the cladding. These details are suitable for cleaning with hose water

Jamb Flashing

Sealant

Sill Flashing End Cap

Sill Flashing

Sill Flashing Flange End Cap

Flashing Tape
by others

Building Wrap
by others

RAB Board
by others

Sealant

Support Block

Sill Tray

Sill Board
by others

Drywall
by others

FMI Building Innovation Limited will not accept direct or consequential liability of any kind,
howsoever arising, associated with the use, application or modification of the FMI BI
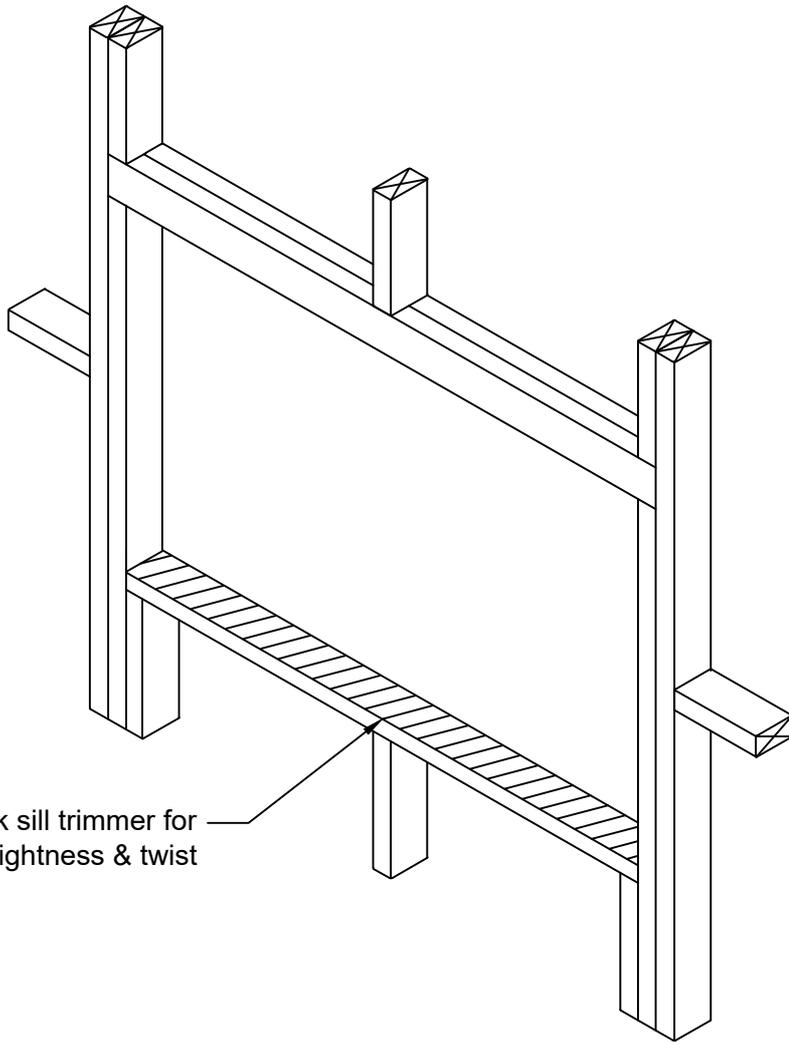described herein or any losses, costs or expenses associated therewith.

| | fmi building innovation. | TL55 | Three sided thermal installation | Edition 2 02/05/2024 | Page 02/38 |
| | | | | Scale A4 N.T.S. | |

Check sill trimmer for
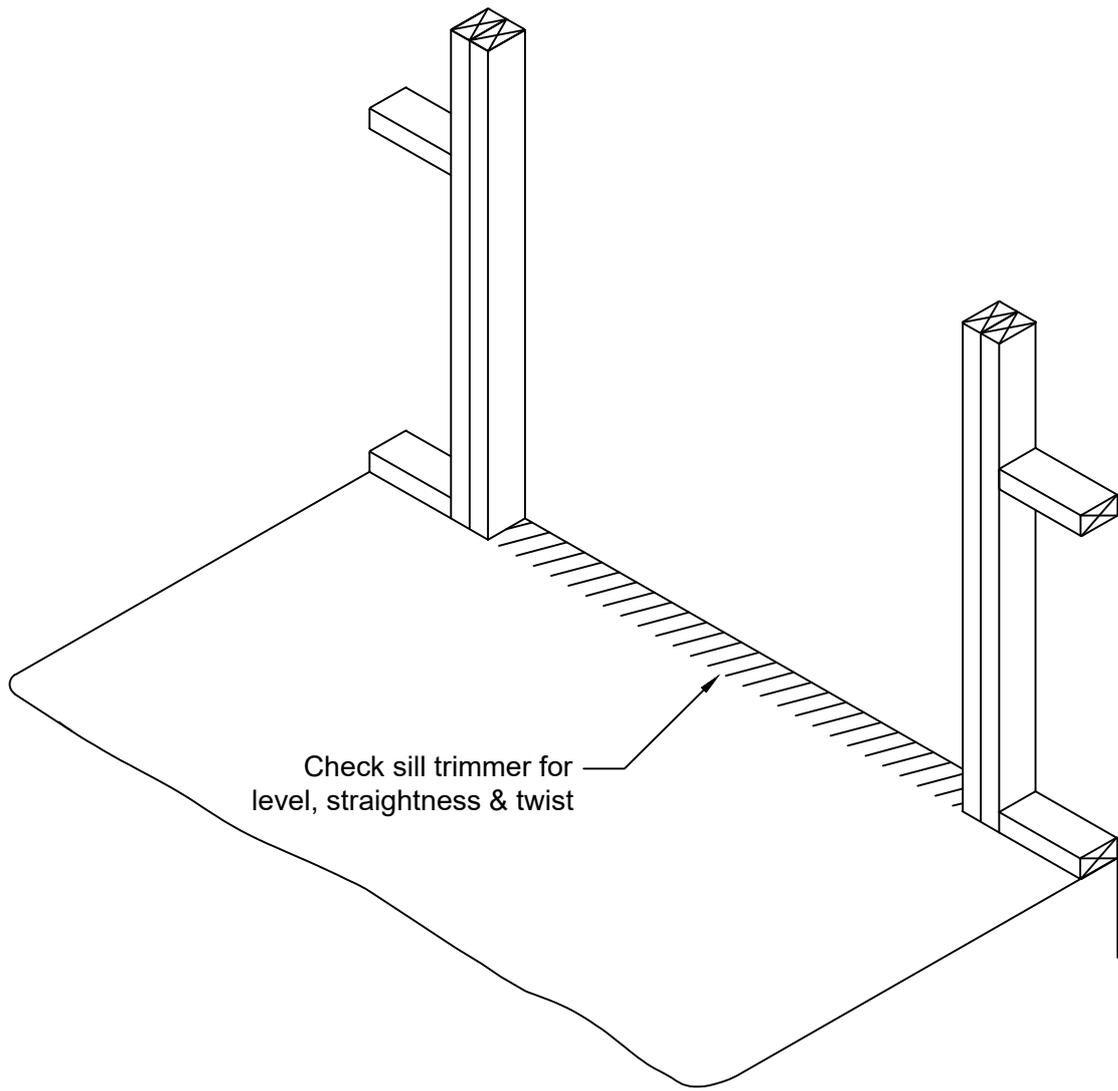level, straightness & twist

IMPORTANT NOTE

Before the house wrap is cut and prepared,
the sill trimmer is checked for level, straightness
and twist.
If required the sill trimmer should be planed
level to ensure optimum performance of the
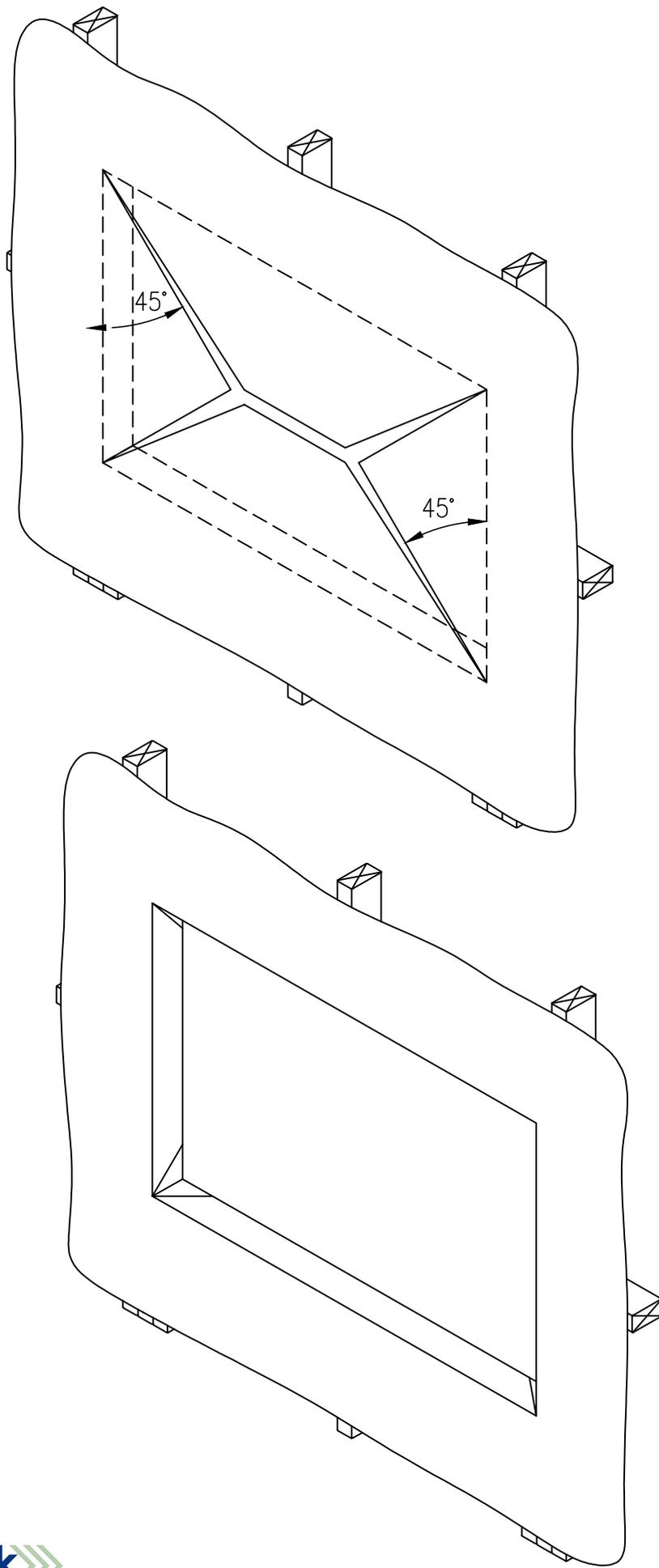FMI BI Installation System.

Recommendation
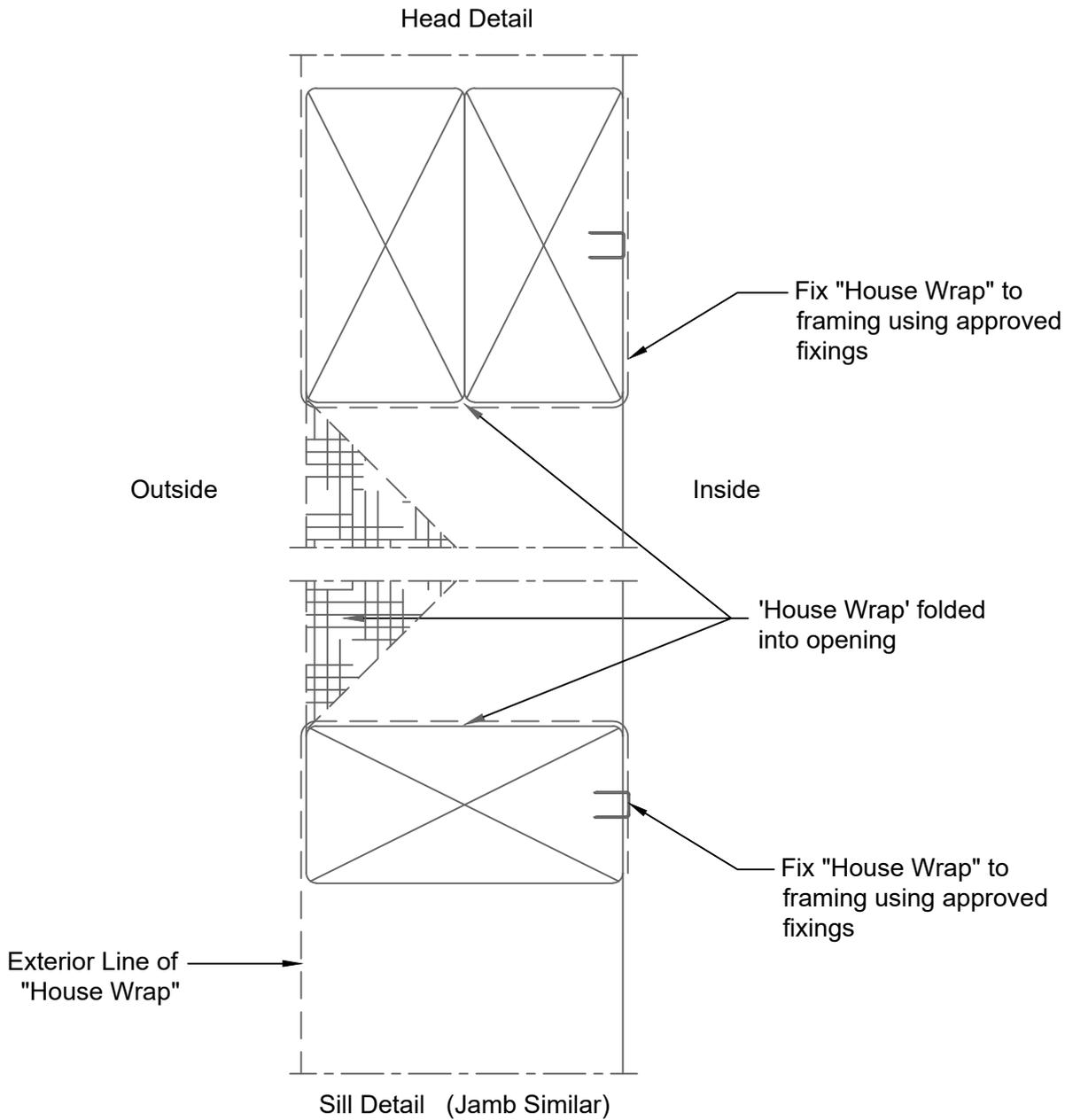FMI BI recommend the use of stable timber for
the sill trmmer.

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	Step 1	Preliminary check of sill trim	Edition 2 02/05/2024	Page 03/38
fmi Building Innovation			Scale A4 N.T.S.	

Check sill trimmer for
level, straightness & twist

	Step 1	Preliminary check of sill trim	Edition 2 02/05/2024	Page 04/38
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Step 2 | Building wrap preparation

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Scale A4
N.T.S.

Page 05/38

45°

45°

Head Detail

Outside   Inside

Fix "House Wrap" to framing using approved fixings

'House Wrap' folded into opening

Fix "House Wrap" to framing using approved fixings

Exterior Line of "House Wrap"

Sill Detail   (Jamb Similar)

2.1   Cut 'House Wrap' at 45° away from each corner.

> NOTE:
> 45° gives maximum possible coverage of timber when the wrap is folded in.

2.2   Fold flaps tightly into opening and secure on all sides, ensure fixings are on the inside face of framing.

2.3   Trim off excess after fixing.

3.2

3.5

50mm min

Align tape with inside edge of framing

3.4

50mm min

200mm min

3.8

3.6

CodeMark〉〉〉
CMNZ70193
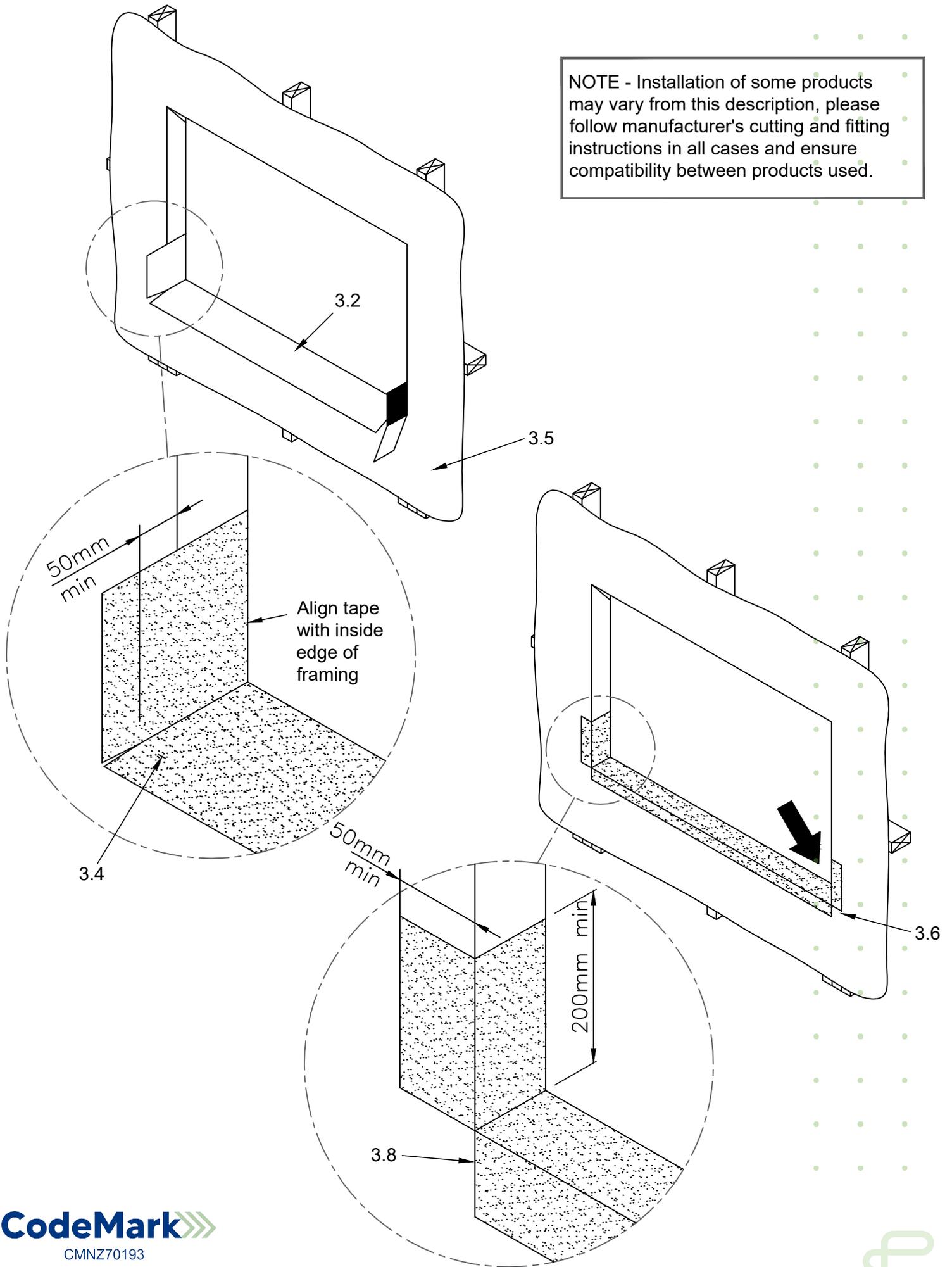
Step 3   Flexible sill flashing

3.1   Cut sill flashing tape at least 400mm longer than
       the opening width, to ensure <u>bare framing is covered.</u>

3.2   Remove first piece of release paper, align the back
       edge of sill flashing tape with inside edge of sill.

       NOTE - Do not wrap sill flashing tape onto the
       interior surface of the framing where it may interfere
       with the wall linings.

3.3   Front edge of the sill flashing tape should project
       out from the front of wall framing for ease of
       installation. Adhere into opening across sill and up
       each jamb (min. 200mm) to cover bare framing.

3.4   Trim corners of sill flashing tape so that the front
       edge extends to approximately 50mm out from front
       of wall framing to enable tape to be folded around
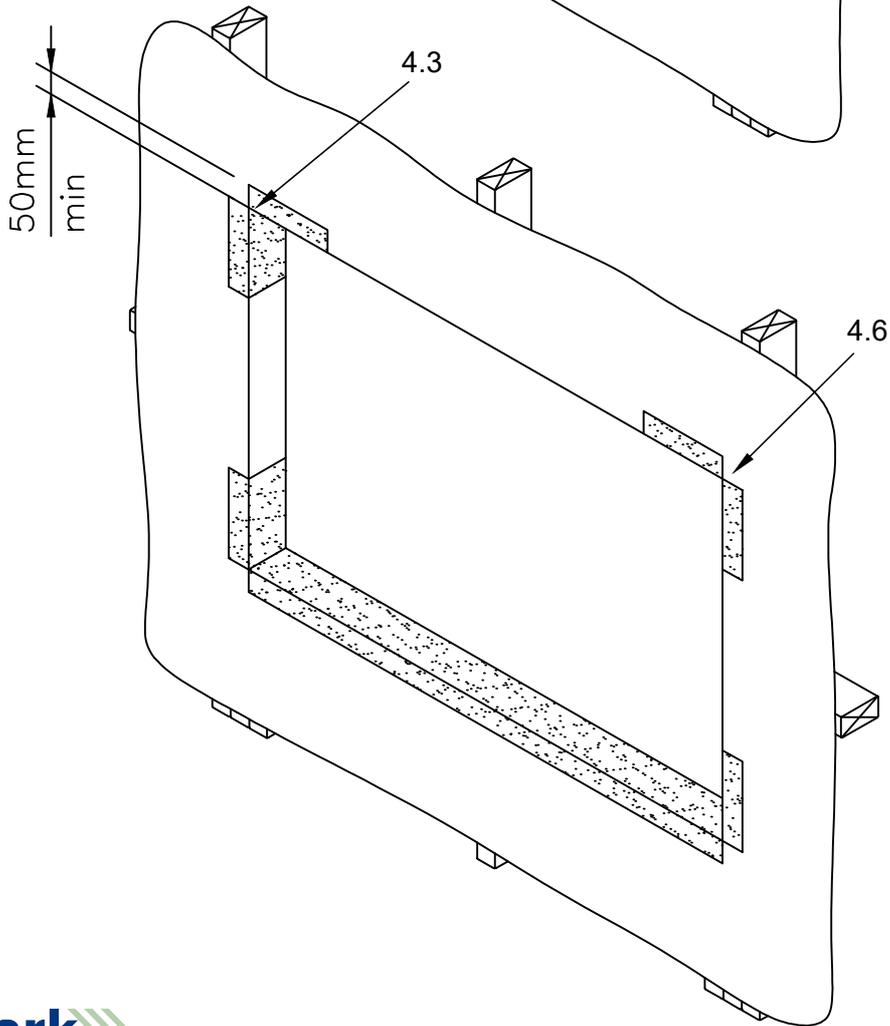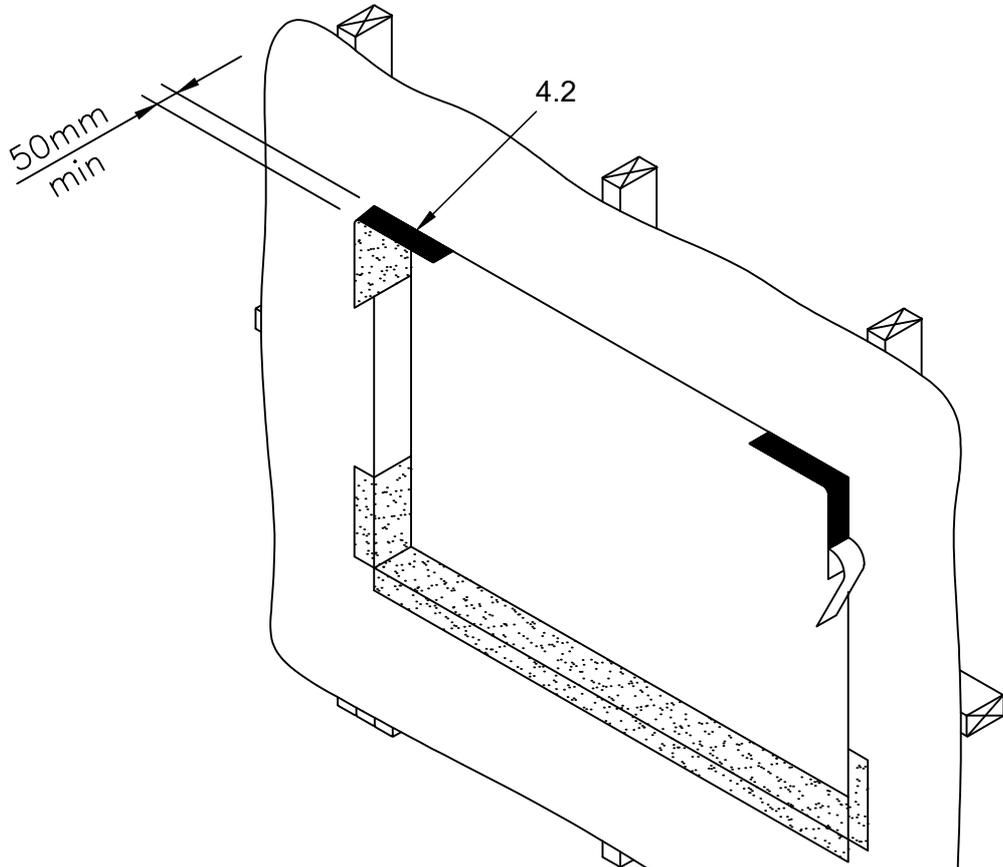   easily.

3.5   Remove second release paper.

3.6   Fan sill flashing tape at bottom corners onto face
       of house wrap removing any wrinkles.

3.7   Firmly press sill flashing tape onto all surfaces to
       ensure full adhesion.

3.8   Secure edges of bottom corners with clouts or similar
   through the flashing tape into the framing.

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	Step 3	Flexible sill flashing	Edition 2 02/05/2024	
fmi Building Innovation.			Scale A4 N.T.S.	Page 08/38

4.2

50mm
min

4.3

50mm
min

4.6

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Step 4

Upper corners

Edition 2
02/05/2024

Scale A4
N.T.S.

Page 09/38

Step 4   Upper corners

4.1   Cut pieces of flashing tape at least 400mm long.

4.2   Remove release paper, and align the back edge of the flashing tape with the inside edge of framing and the front edge projecting a minimum of 50mm out from the front of wall framing. Adhere into opening across the head and down each jamb a minimum of 200mm in each direction.

> NOTE - Do not wrap flashing tape onto the interior surface of the framing where it may interfere with the wall linings.
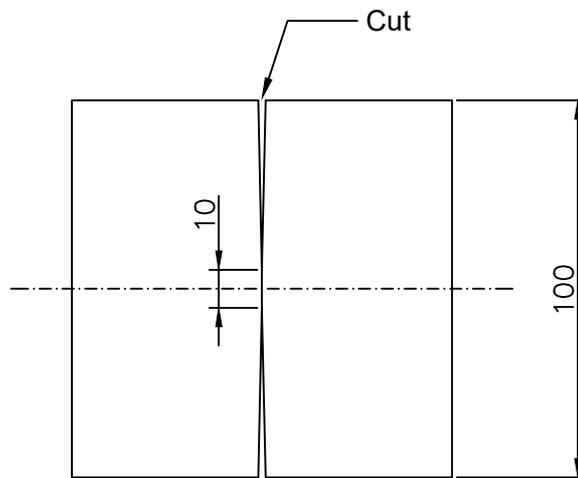
4.3   Fan flashing tape at top corners onto face of 'House Wrap'.

4.4   Firmly press flashing tape onto all surfaces to ensure full adhesion removing any wrinkles.

4.5   Trim excess tape from inside, flush with face of framing. Care must be taken not to cut house wrap.

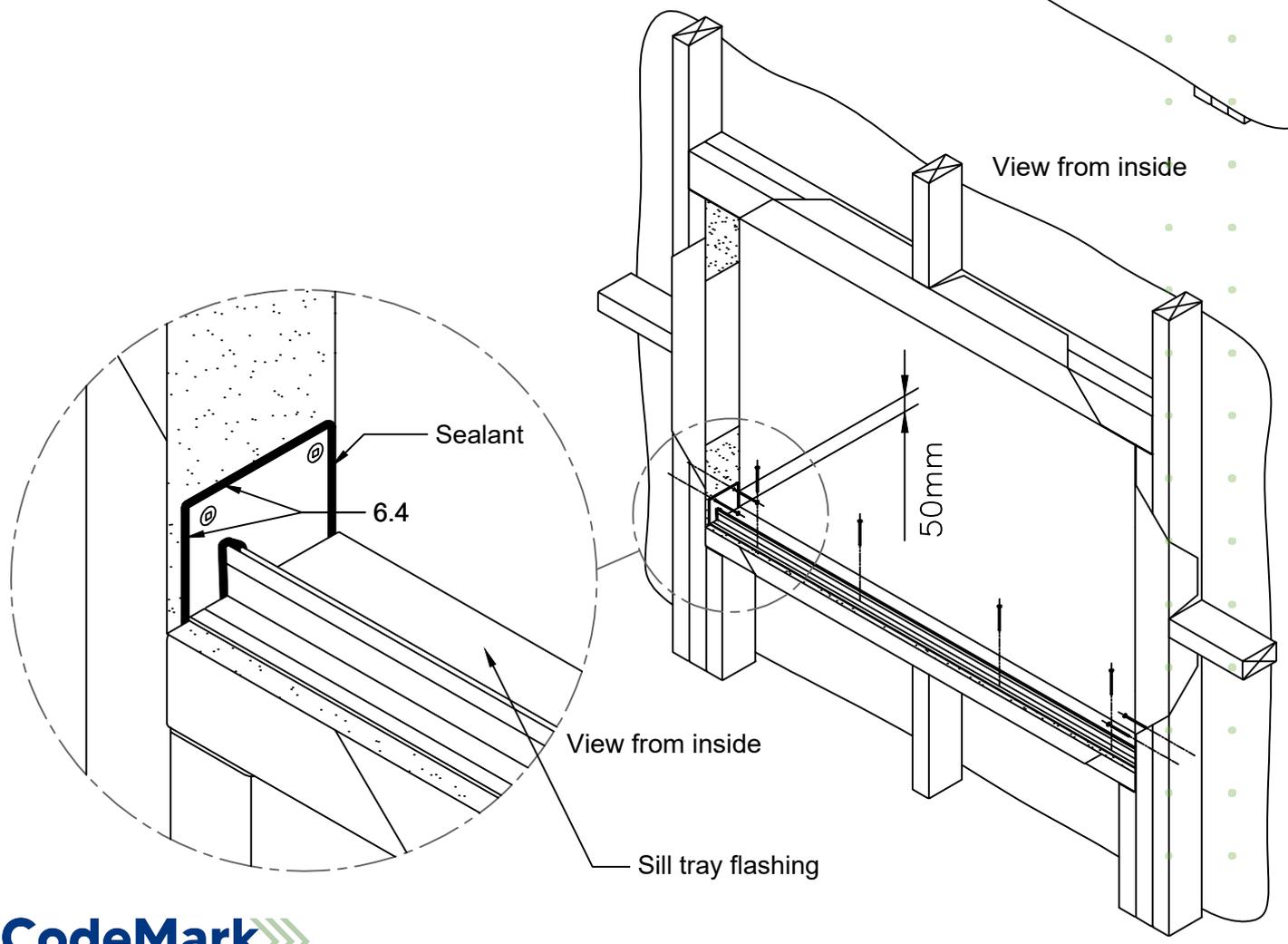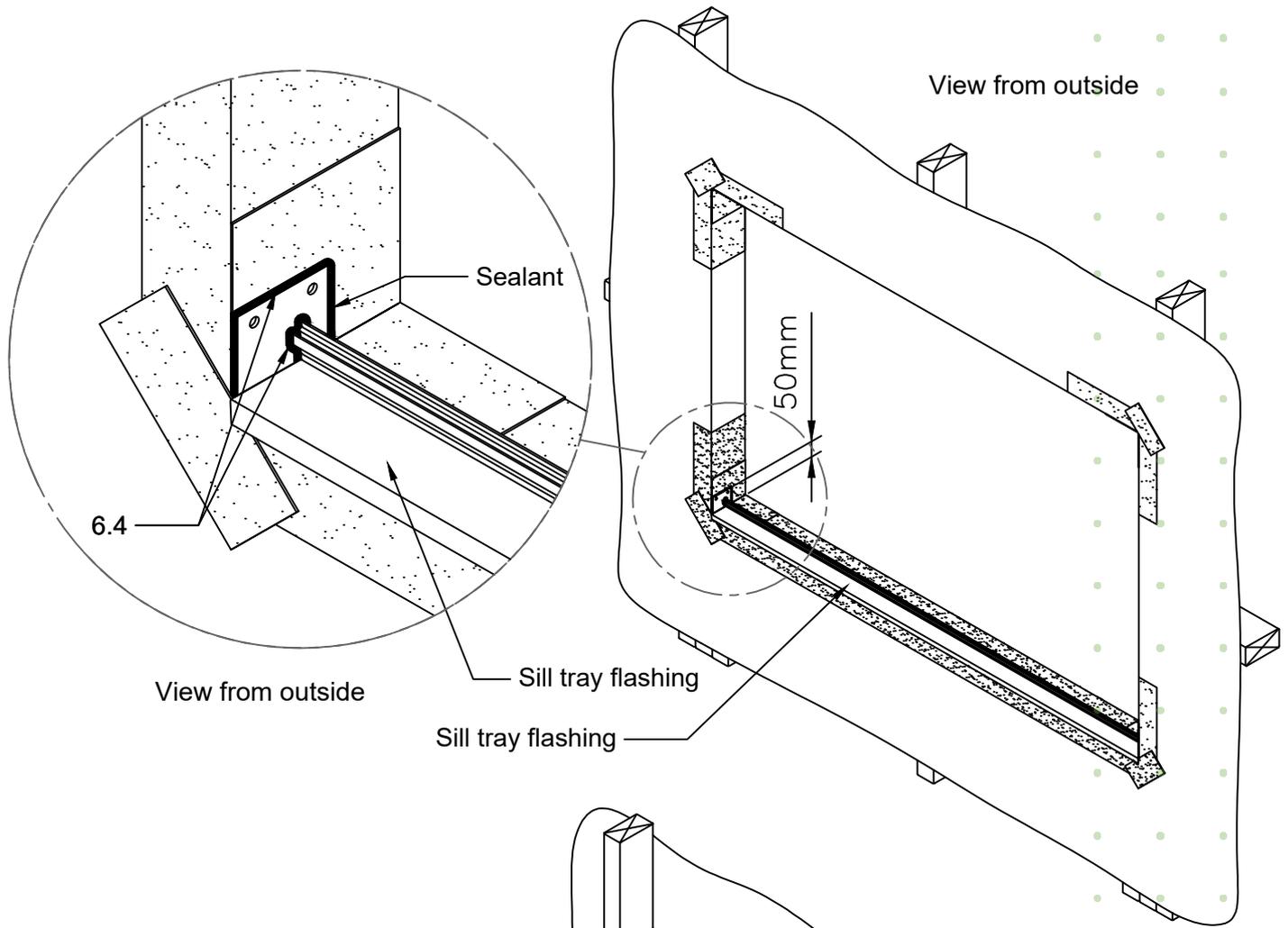4.6   Secure edges of top corners with a clout or similar through the flashing tape into the framing.
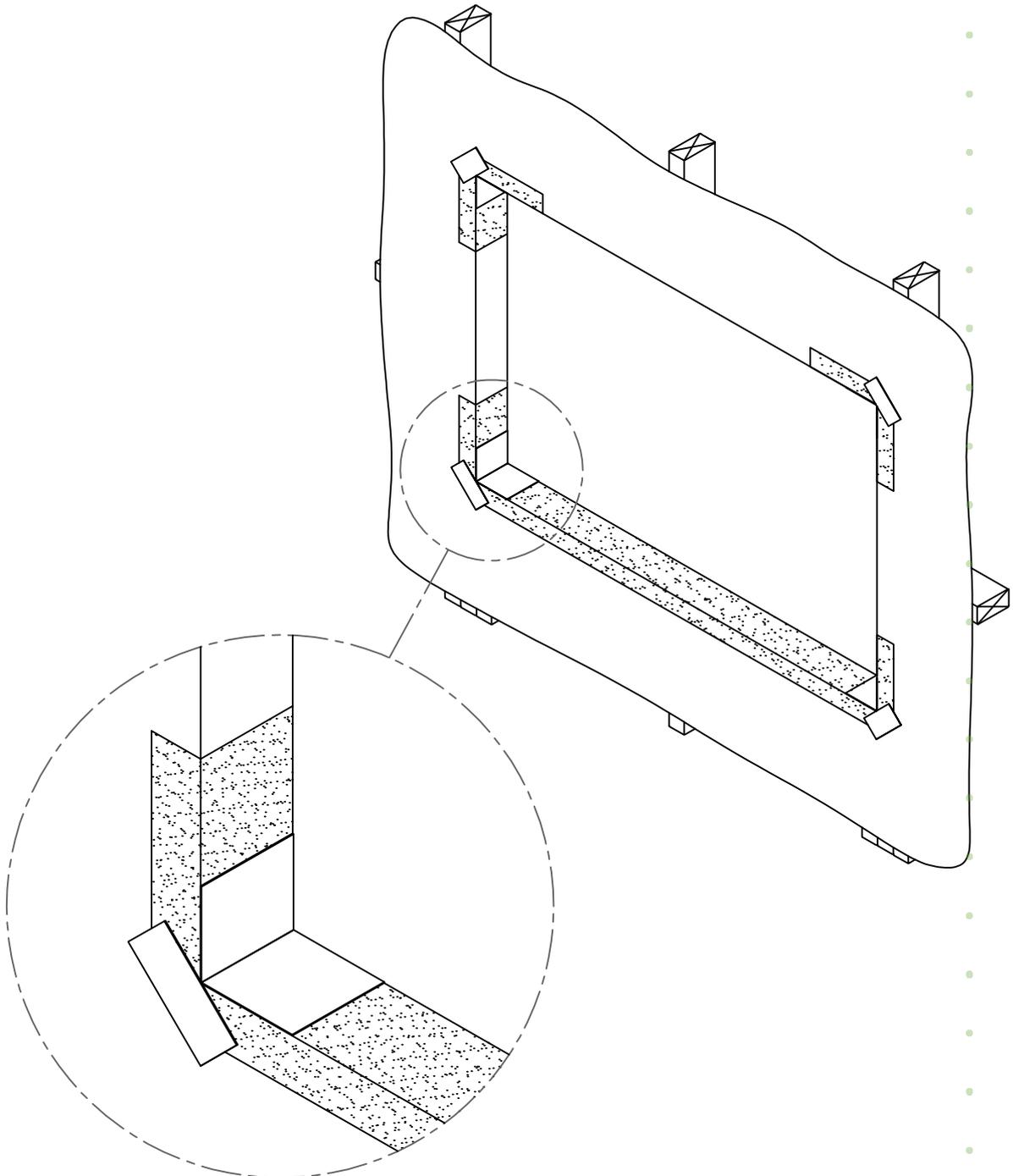
Step 5   Patching the corners

5.1   Finish the corners (see the drawing below).

5.2   Firmly press flashing tape onto all surfaces to ensure full adhesion removing any wrinkles.
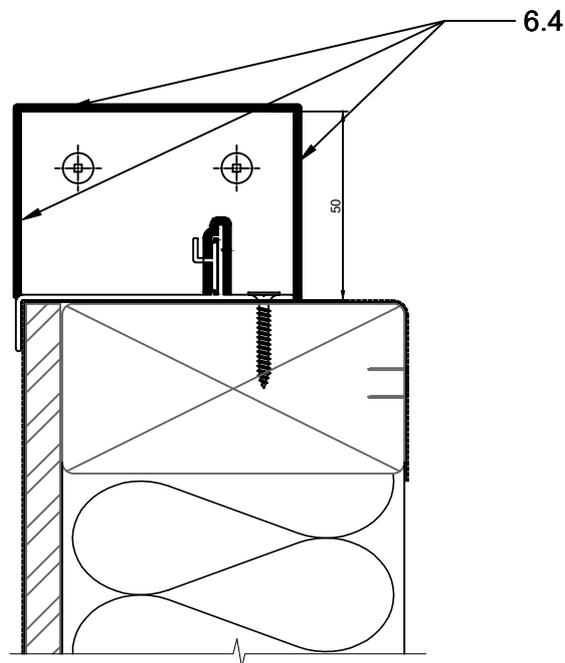

Flexible Flashing Tape

View from outside

Sealant

6.4

View from outside

Sill tray flashing

Sill tray flashing

50mm

View from inside

View from inside

Sealant

6.4

50mm

Sill tray flashing

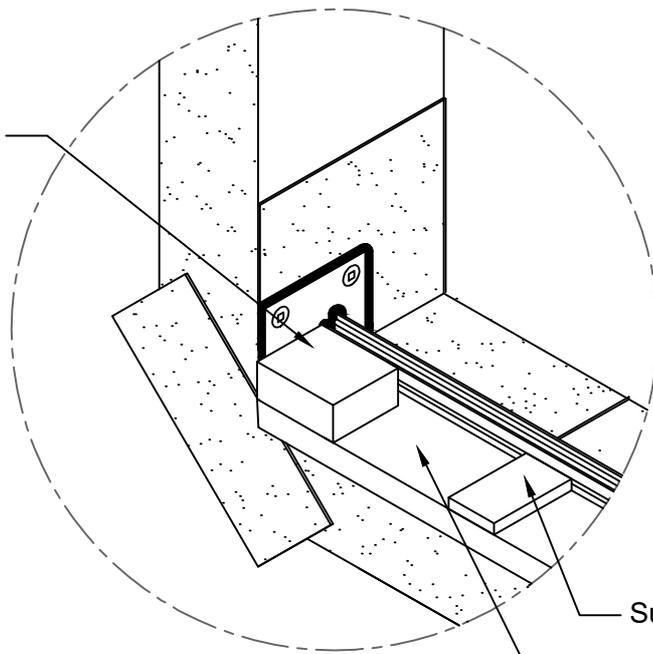|	fmi building innovation.	Step 6	Sill tray flashing	Edition 2 02/05/2024	Page 13/38
				Scale A4 N.T.S.	

Step 6   Sill tray flashing

6.1   Cut the sill tray flashing 90mm longer than the opening and fold back the ends to create 50mm
        high end dams.

6.2   Fix the sill tray flashing into the sill trimmer through the rear leg using either clouts or 8g SS pan
        head screws positioned 150mm max from each end and at 450mm max centres between.

6.3   Fix the folded back sections of the sill tray flashing into the vertical stud using clouts or 8g SS pan
        head screws and overseal the head of the screws.

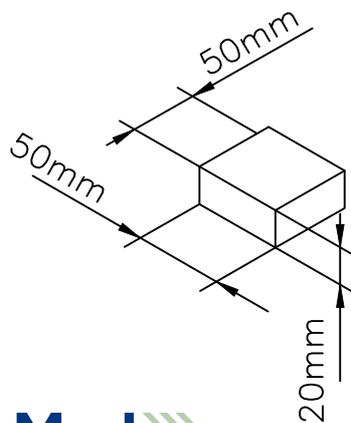6.4   Seal the gap between the folded back of the sill tray flashing and the stud (see the drawing).

CodeMark)))

CMNZ70193

	fmi Building Innovation	Step 6	Sill tray flashing	Edition 2 02/05/2024	Page 14/38
				Scale A4 N.T.S.	

Closed cell one-sided foam

Support block

Sill tray flashing

50mm

50mm

20mm

Closed cell one-sided foam

fmi Building Innovation.
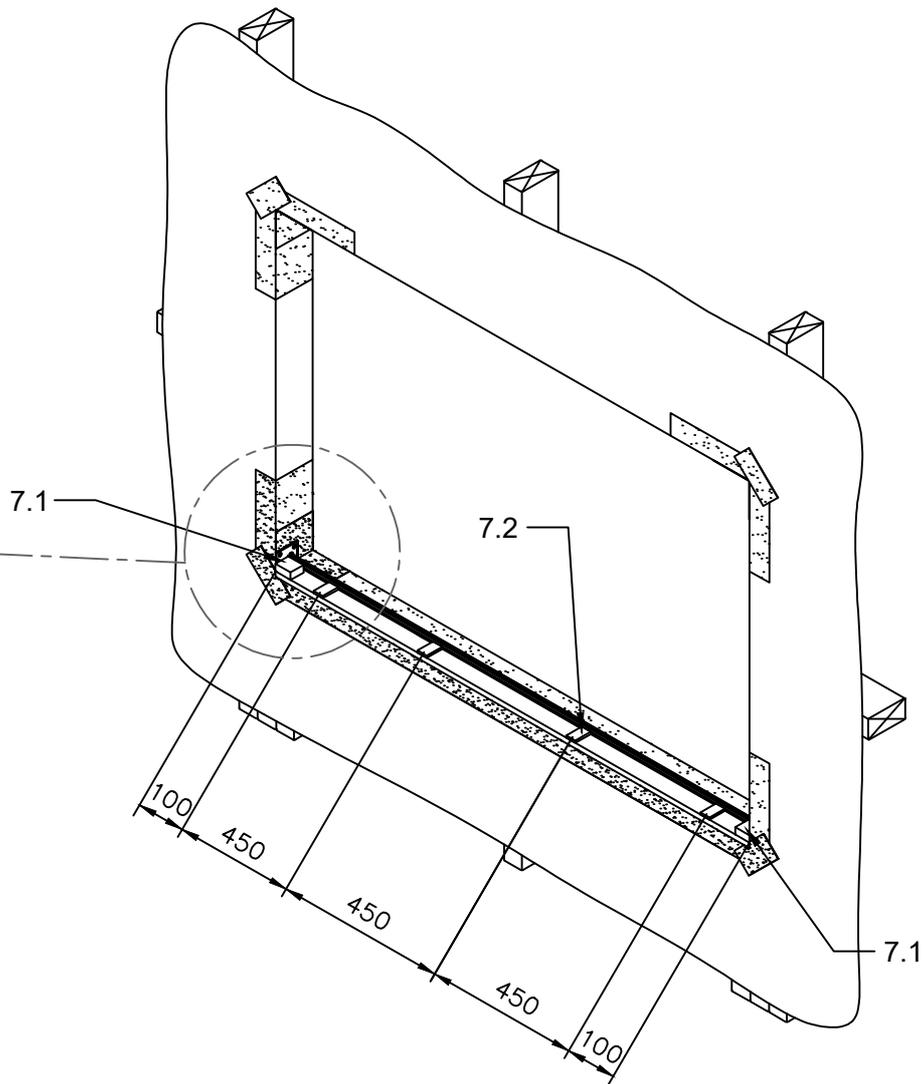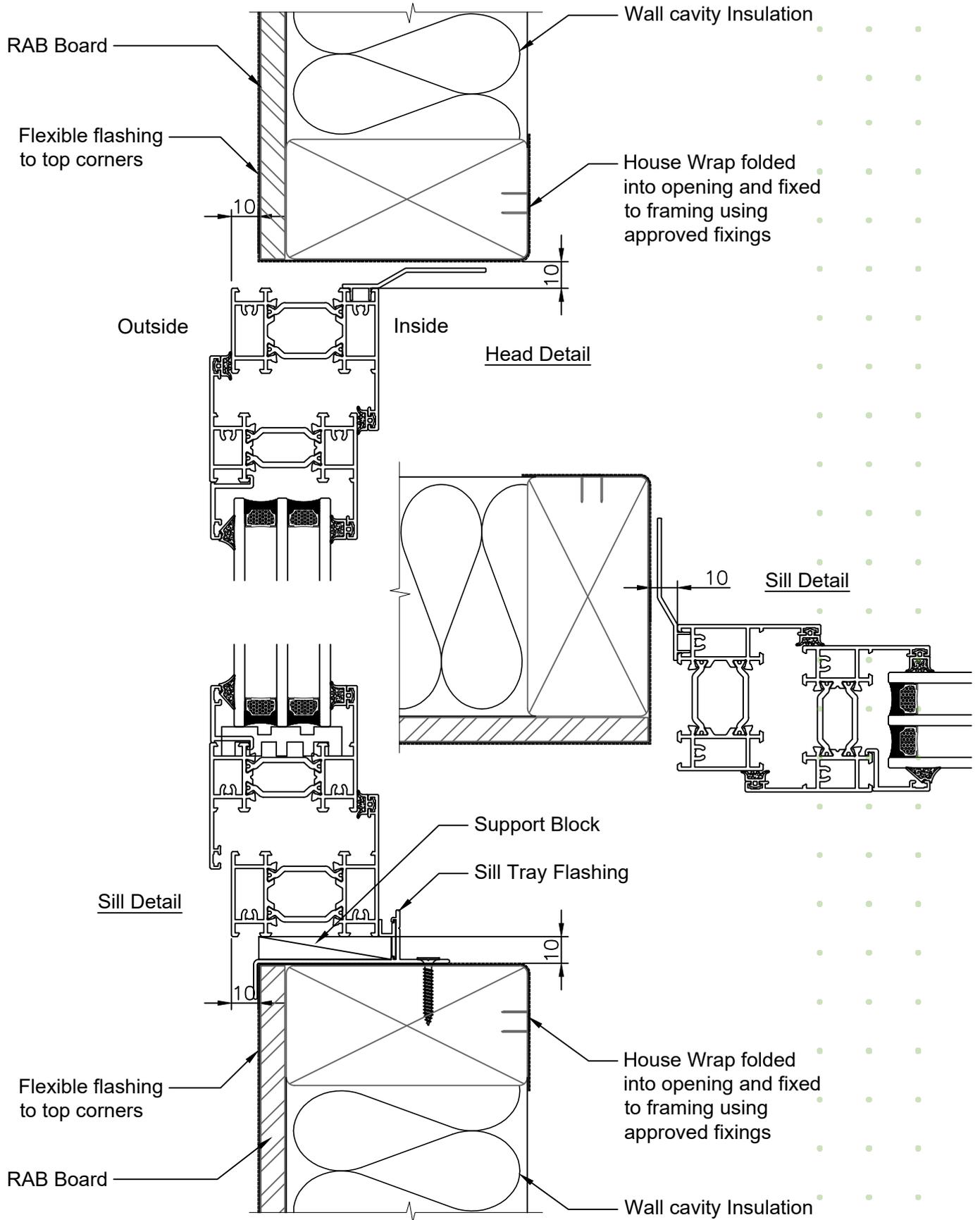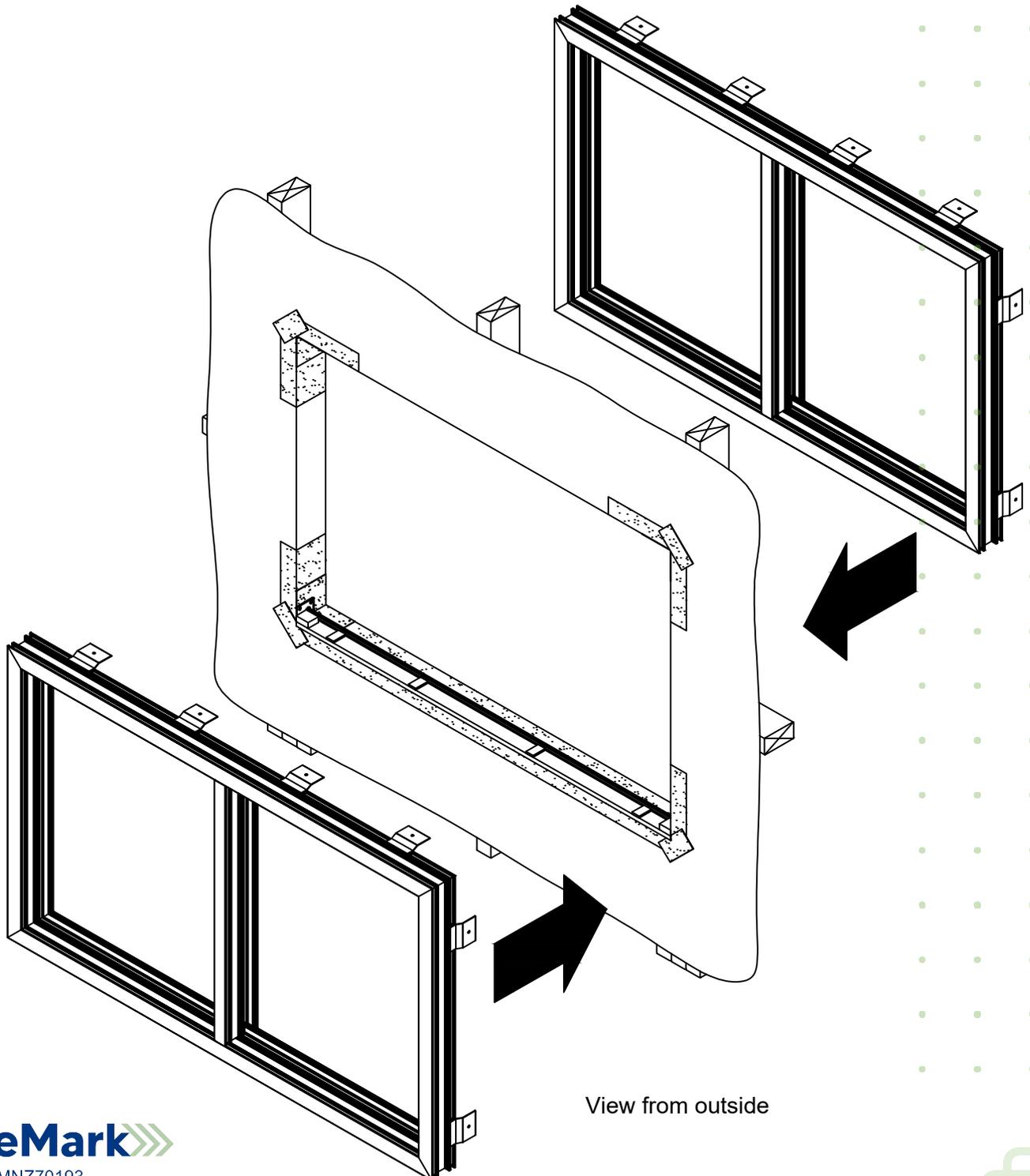
Step 7   Support blocks

7.1   Position the one-sided closed cell foams in the sill tray flashing corners.

7.2   Position the support blocks on the sill tray flashing 100mm from the corners
       and every 450mm centres.

7.1

7.2

7.1

100
450
450
450
100

RAB Board

Flexible flashing
to top corners

Wall cavity Insulation

House Wrap folded
into opening and fixed
to framing using
approved fixings

10

10

Outside

Inside

Head Detail

10

Sill Detail

Sill Detail

Support Block

Sill Tray Flashing

10

Flexible flashing
to top corners

RAB Board

House Wrap folded
into opening and fixed
to framing using
approved fixings

Wall cavity Insulation

10

				Edition 2 02/05/2024	
fmi building innovation.	Step 8	Position unit in opening		Scale A4 N.T.S.	Page 17/38

Step 8   Position unit in opening

8.1   Position unit into opening.

8.2   Ensure unit is positioned so that;
    i) interior linings finish in the correct
      plane.

    ii) a 10mm nominal gap is maintained
      between unit and trimmer.

View from outside

Head Detail

Packer

Wood screw

10

Inside

Outside

Packer

10

8g CSK Head Screws

Sill Detail

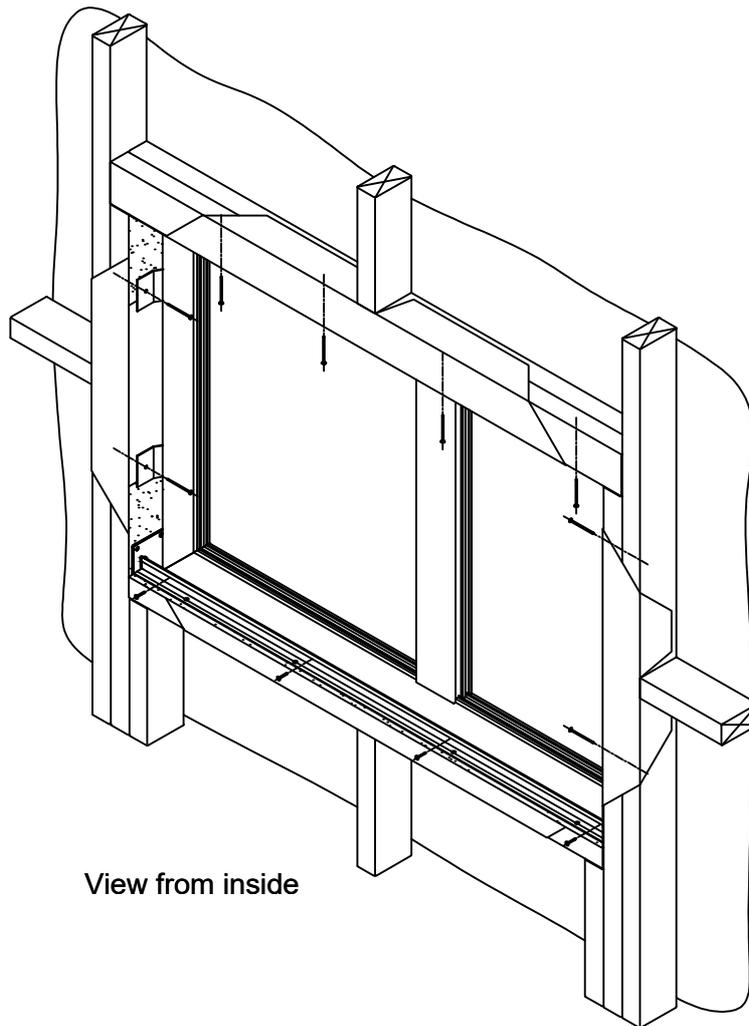Sill Tray Flashing

10

10
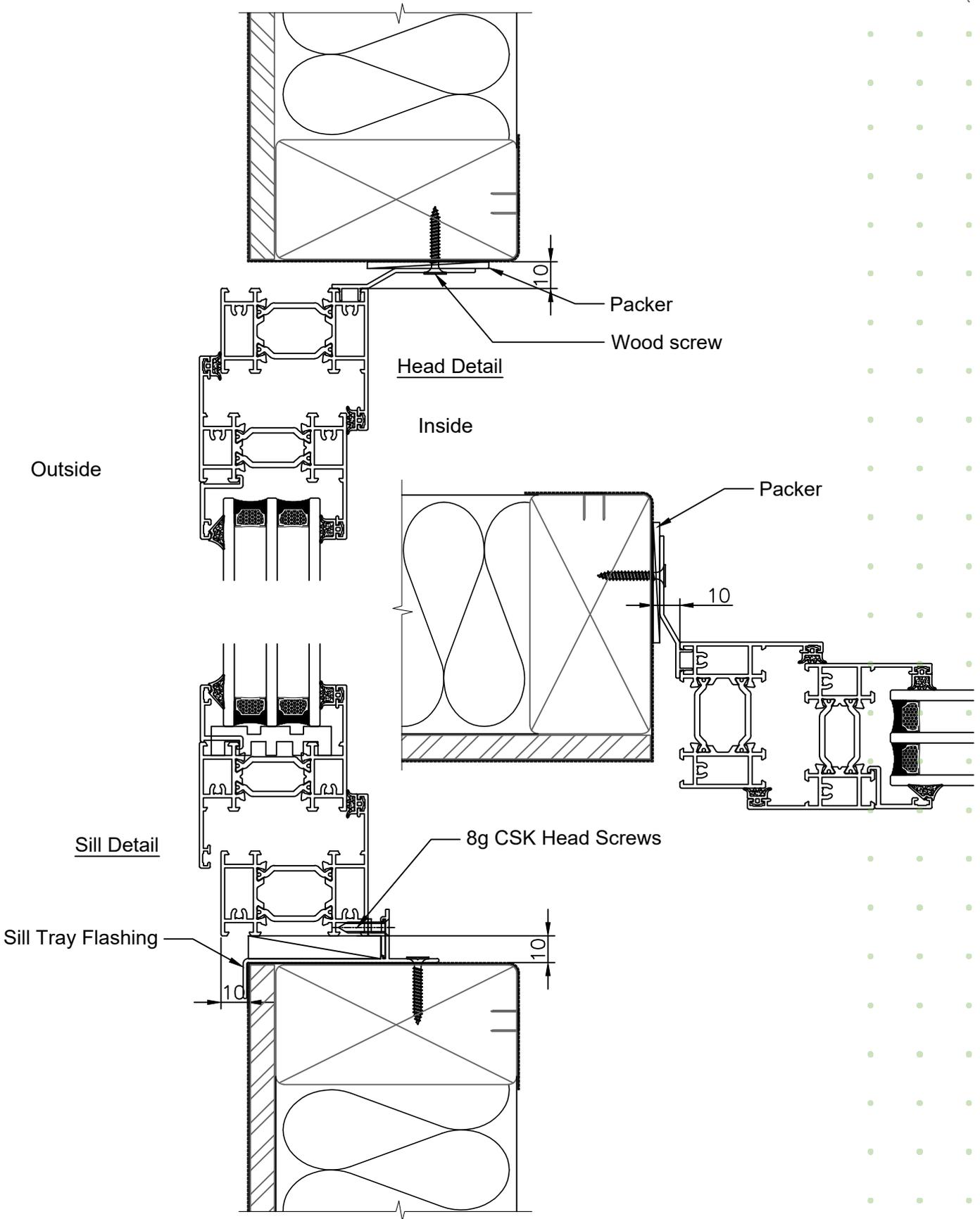
Step 9   Fix off inside of unit

9.1   Insert flat packers between wall framing and
         fixing lug at head and jambs.
         Do not use wedges.

9.2   Fix through fixing lug and packers into wall framing
         with 8g wood screws.

9.3   Fix the aluminium sill and the sill tray flashing together with
         8g CSK Head SS screws. 150mm from corners and at
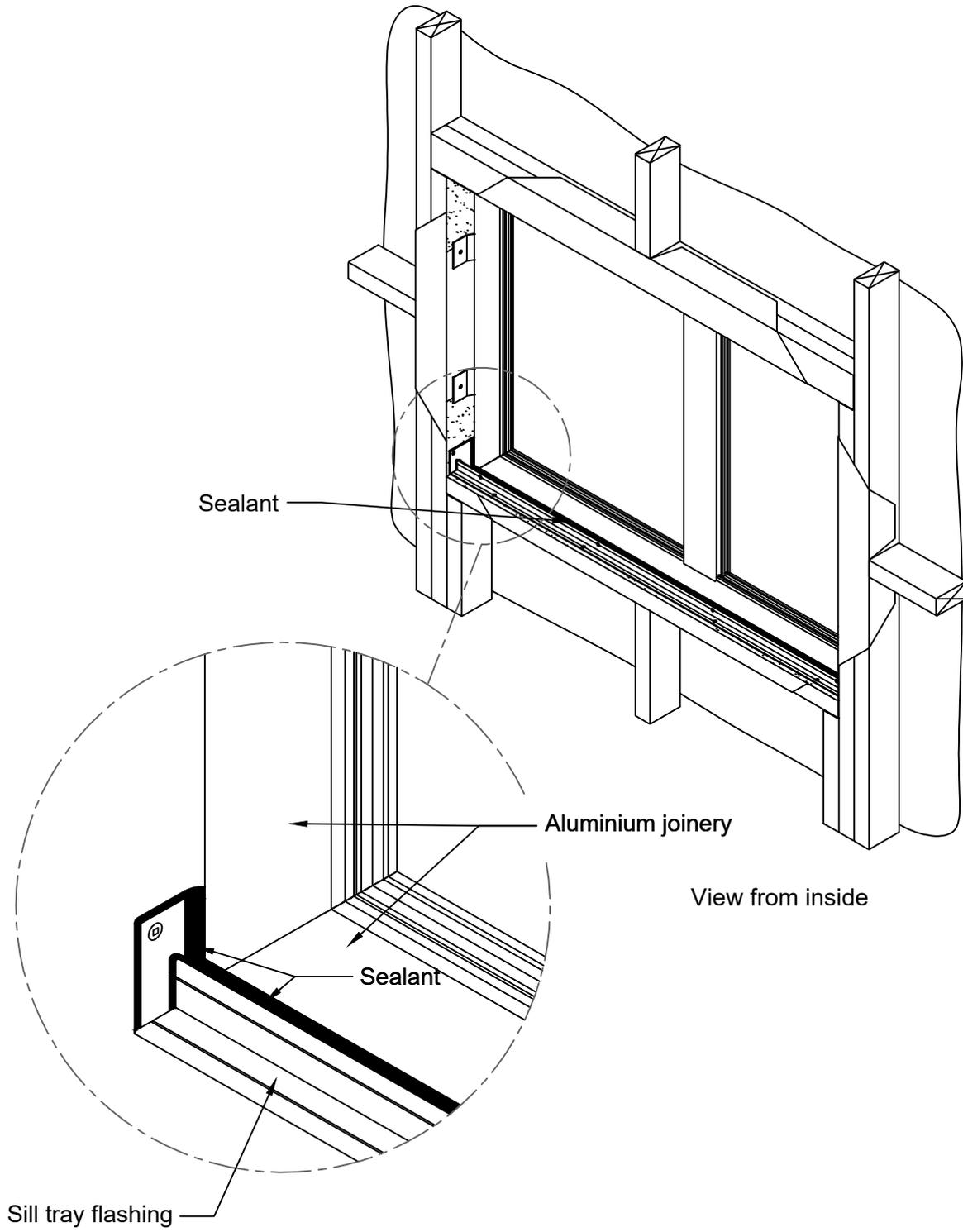   450mm centres.

9.4   Overseal the head of the screws.

> NOTE: Mechanical fixings only 150mm from corners
> and at 450mm centres.
>
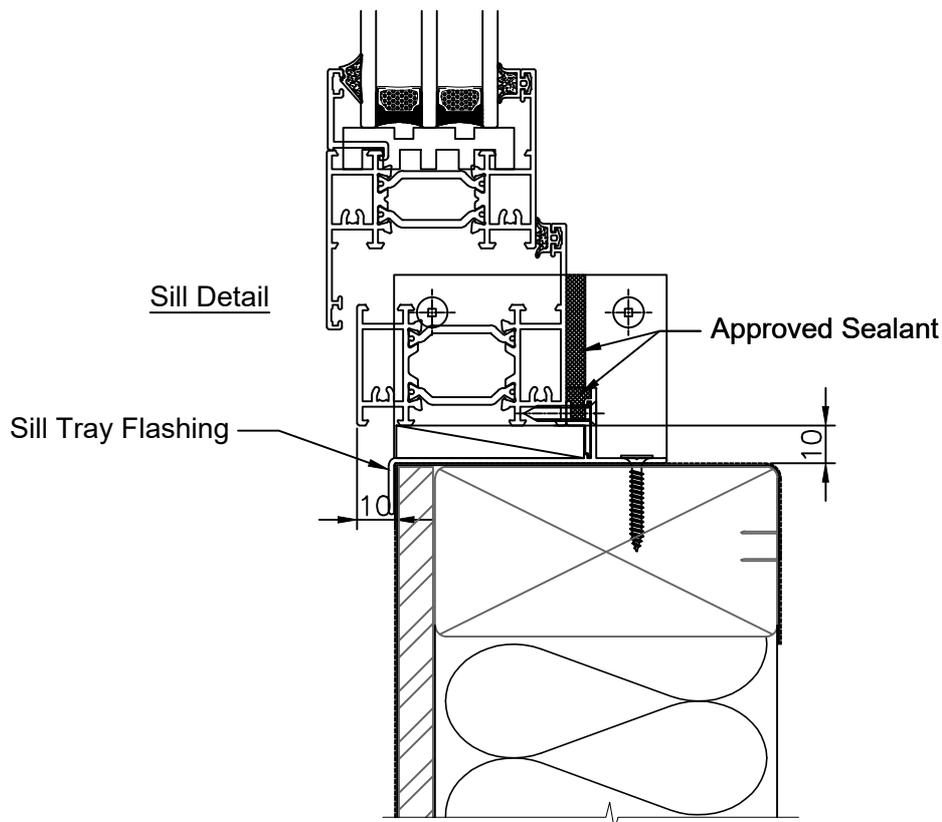> Expandable foam is NOT an approved fixing method.

View from inside

CodeMark》》》
CMNZ70193

Sealant

Aluminium joinery
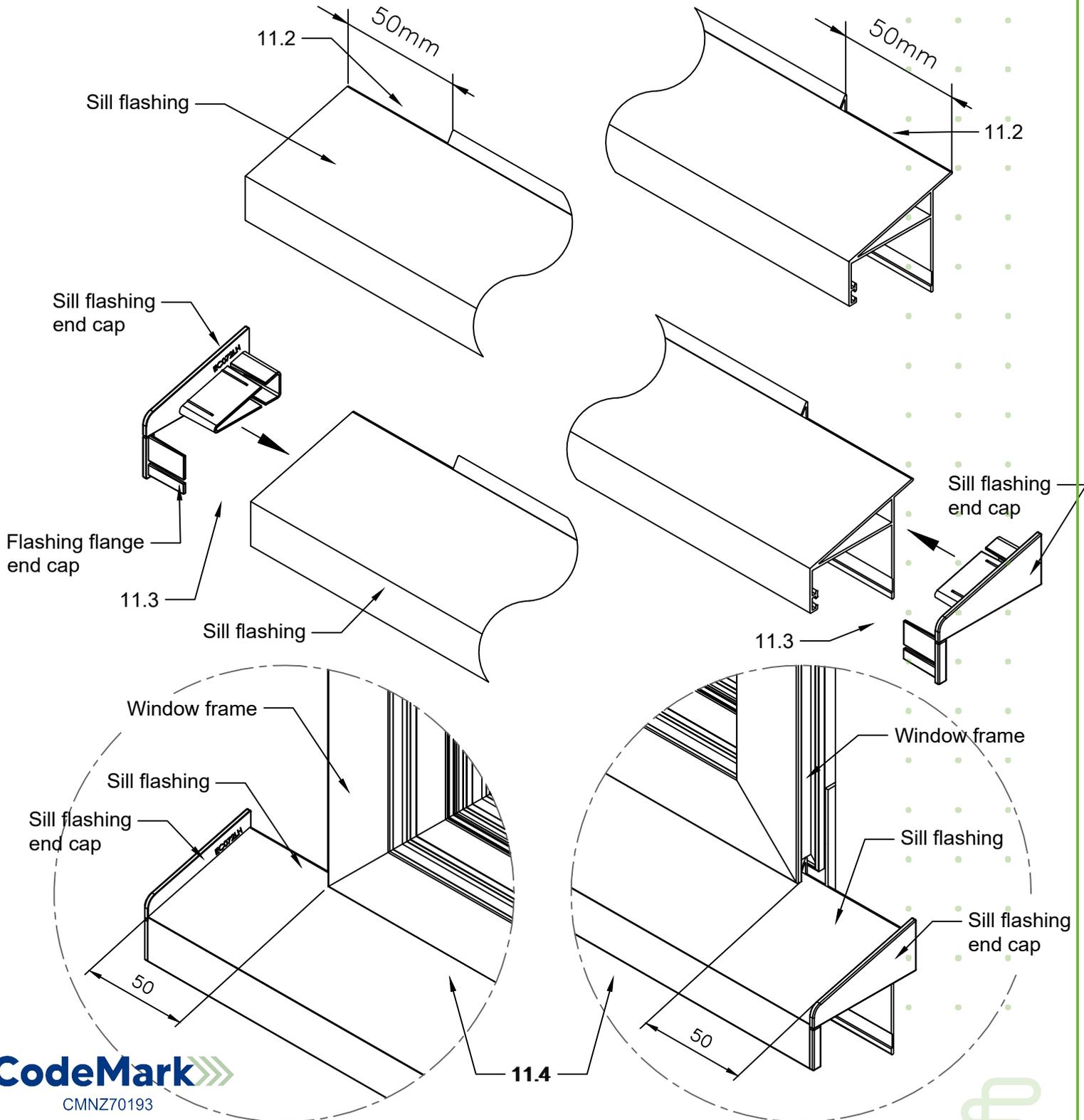
View from inside

Sealant

Sill tray flashing
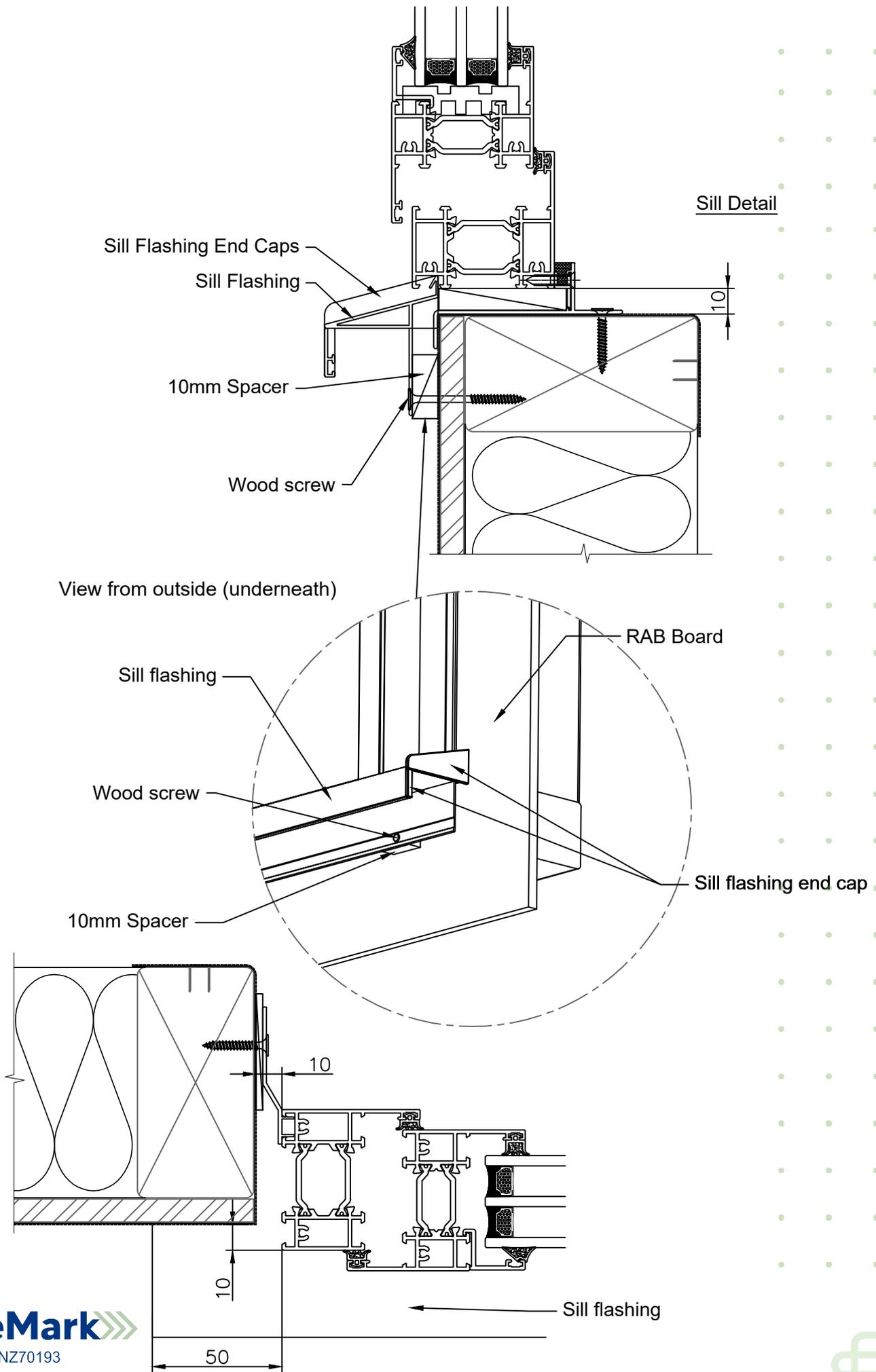
Step 10   Seal off the sill tray flashing

10.1   Seal off the gap between aluminium frame and the sill tray flashing (see the drawing below).

10.2   Seal the gap between the folded back of the sill tray flashing and the aluminium jamb (see the drawing below).

Sill Detail

Approved Sealant

Sill Tray Flashing

10

10

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Step 10   Seal Off the Sill Tray Flashing

Edition 2
02/05/2024

Scale A4
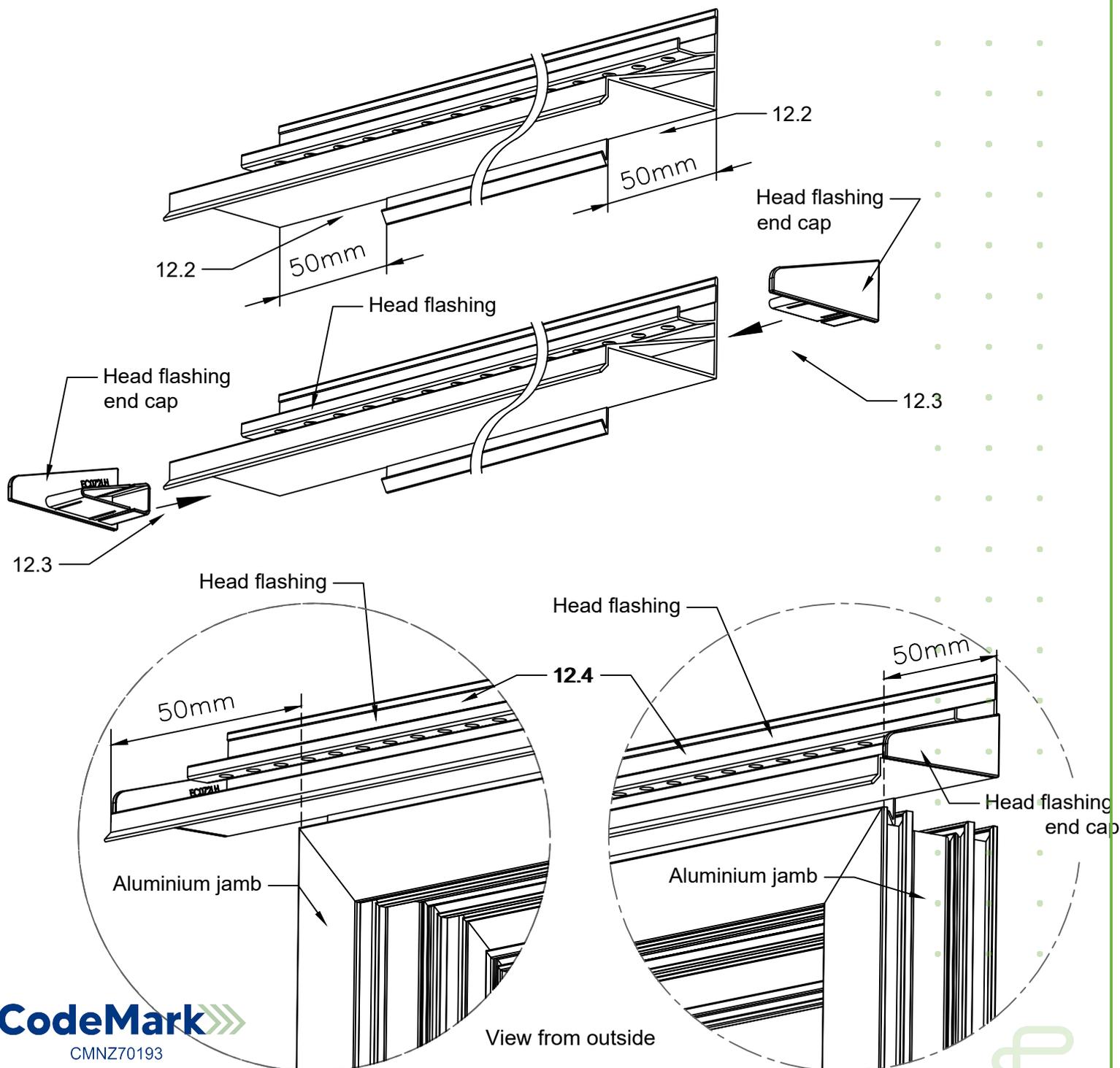N.T.S.

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Step 11   Install the sill flashing

11.1   Cut the sill tray flashing 100mm longer than the aluminium window/door frame.

11.2   Use pliers and remove "the hook" 50 mm long from each end.

11.3   Fit the sill tray flashing end caps.

11.4   Position the sill tray flashing hard against the aluminium window/door sill.
Position flashing to project 50mm on either side of the unit.
Fix the sill tray flashing through the 10mm spacers into the sill trimmer using either clouts
or 8g wood screws positioned 150mm max from each end and at 450mm max
centres between.

11.2

50mm

Sill flashing

50mm

11.2

Sill flashing
end cap

Flashing flange
end cap

Sill flashing
end cap

11.3

Sill flashing

11.3

Window frame

Sill flashing

Sill flashing
end cap

Window frame

Sill flashing

50

Sill flashing
end cap

50

11.4

Sill Detail

Sill Flashing End Caps

Sill Flashing

10mm Spacer

Wood screw

10

View from outside (underneath)

RAB Board

Sill flashing

Wood screw

10mm Spacer

Sill flashing end cap

10

10

50

Sill flashing

			Edition 2 02/05/2024	
fmi Building Innovation	Step 11	Install the sill flashing	Scale A4 N.T.S.	Page 24/38

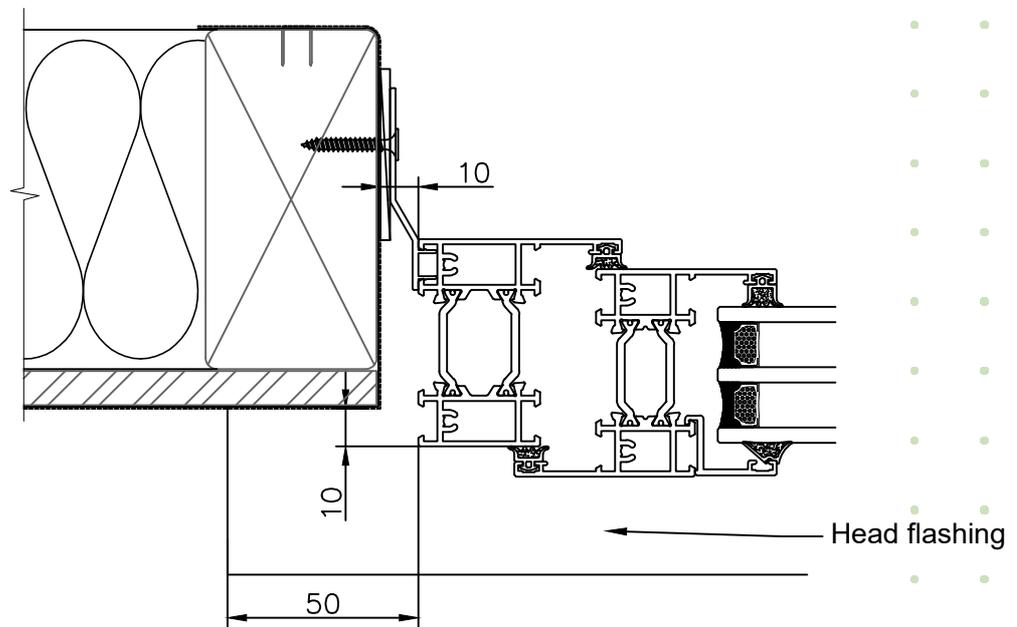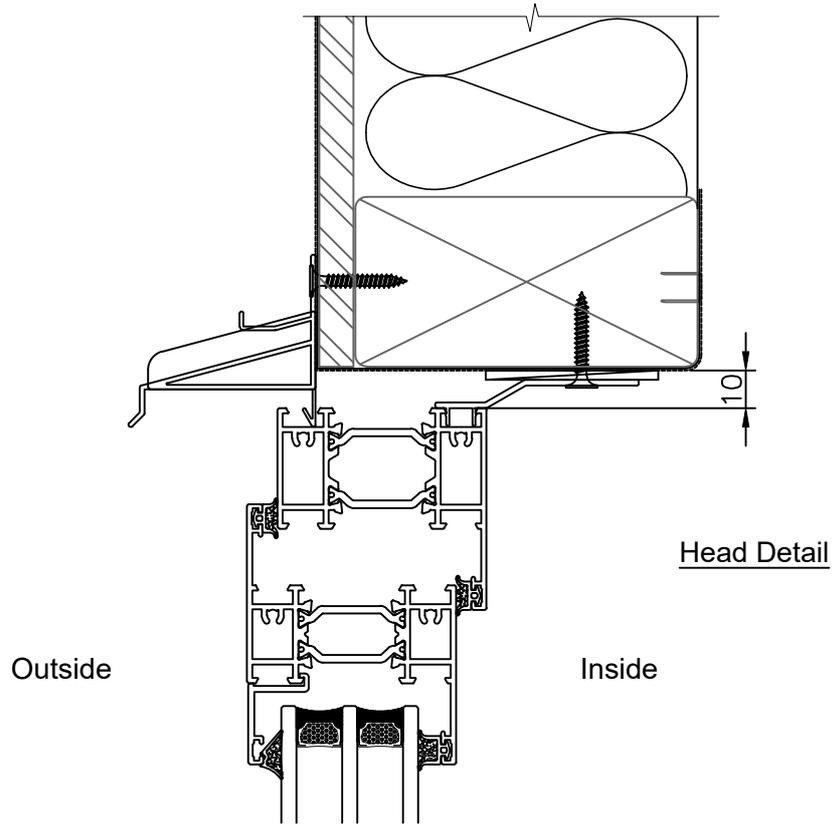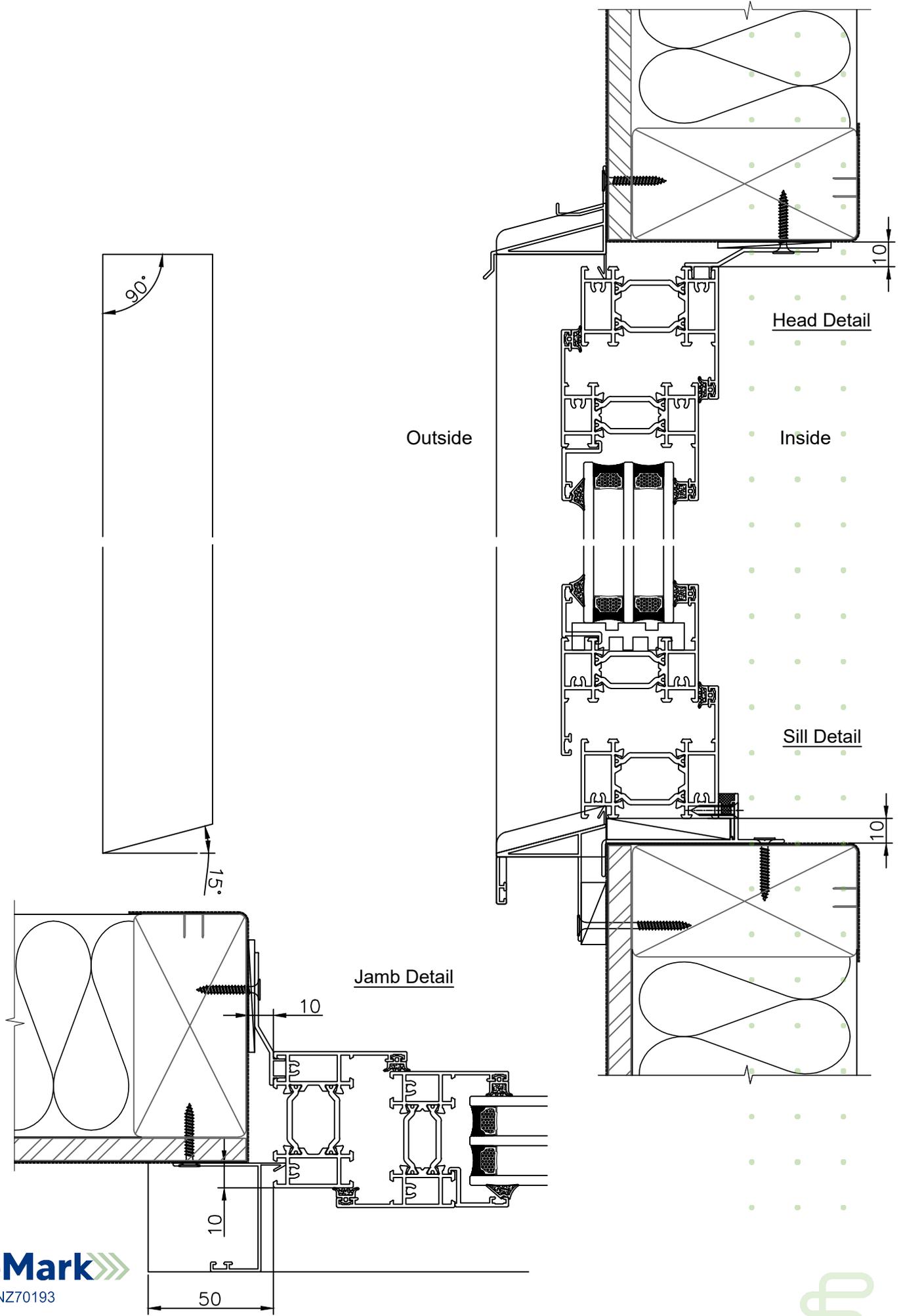# Step 12   Install the head flashing

12.1   Cut the head flashing 100mm longer than the aluminium window/door frame.

12.2   Use pliers and remove "the hook" 50 mm long from each end.

12.3   Fit the head flashing end caps.

12.4   Position the head flashing hard against the aluminium window/door head.
Position flashing to project 50mm on either side of the unit.
Fix the head flashing into the timber structure using either clouts
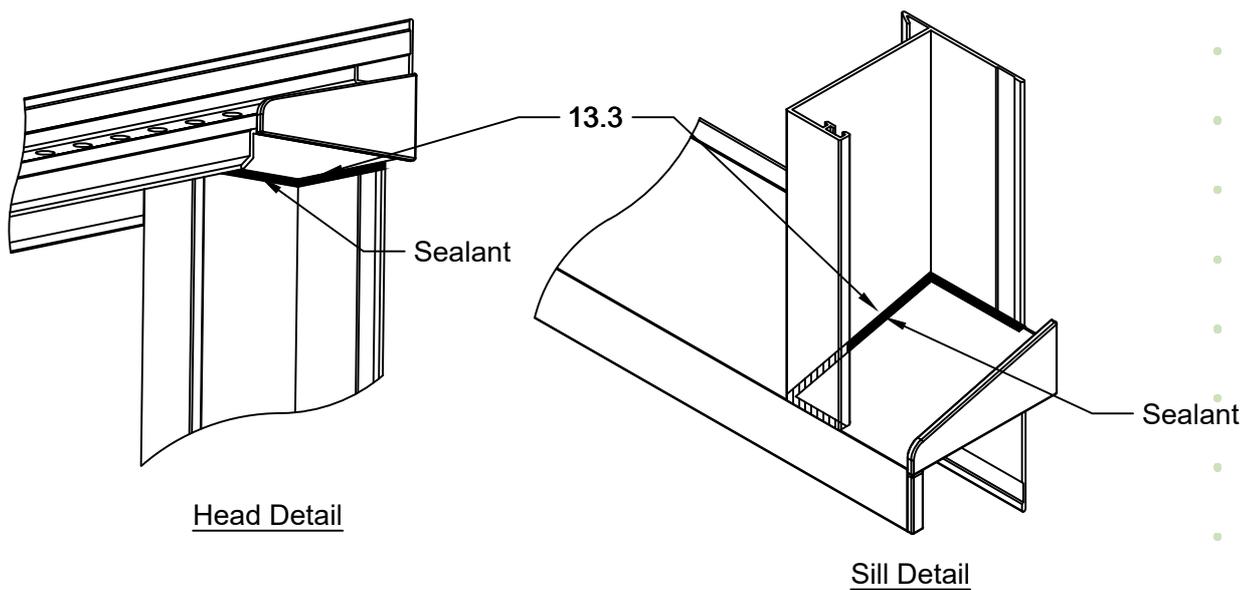or 8g wood screws positioned 150mm max from each end and at 450mm max
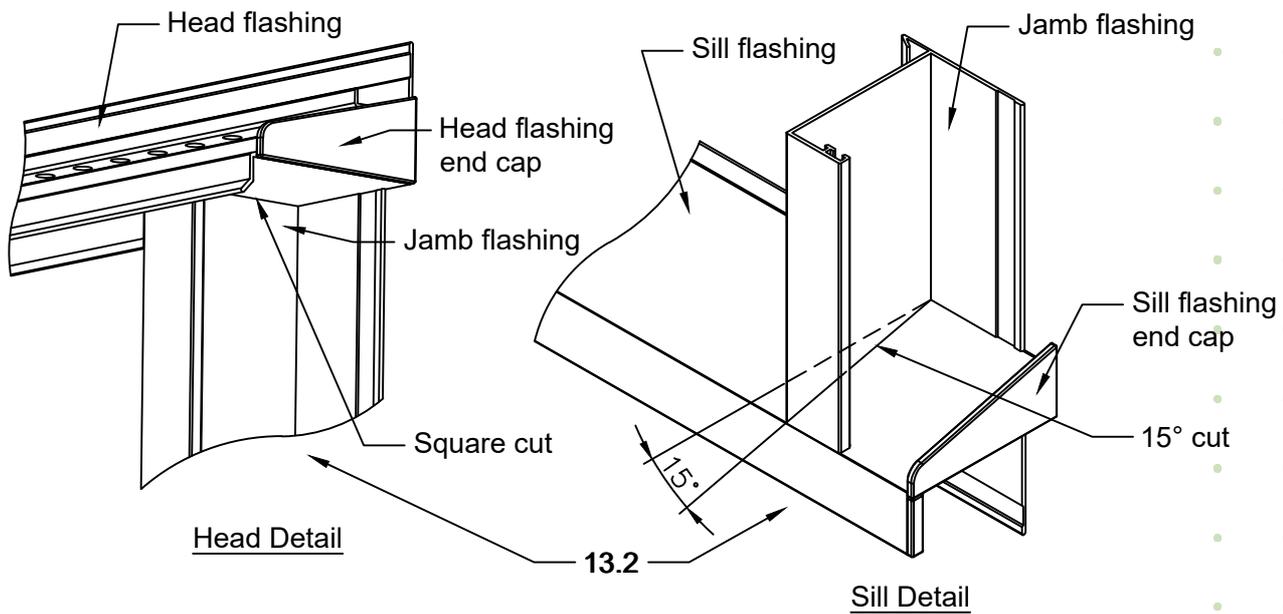centres between.

12.2

50mm

12.2

50mm

Head flashing
end cap

Head flashing

12.3

Head flashing
end cap

12.3

Head flashing

Head flashing

50mm

12.4

50mm

Head flashing
end cap

Aluminium jamb

Aluminium jamb

View from outside

Head Detail

Outside

Inside

10

10

10

50

Head flashing

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Step 12 | Install the head flashing

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02/05/2024

Scale A4
N.T.S.

Page 26/38

Head Detail

10

Outside

Inside

Sill Detail

10

90°

15°

Jamb Detail

10

10

50

Step 13   Install the jamb flashings

13.1   Cut the jamb flashing between head flashing and sill flashing. Square cut at the head and 15 degree at the sill (see drawing).

13.2   Position the jamb flashing hard against the aluminium window/door jamb.
Fix the jamb flashing into the timber structure using either clouts
or 8g wood screws positioned 150mm max from each end and at 450mm max
centres between.

13.3   Apply sealant between the head flashing and jamb flashing and between jamb flashing and sill flashing in the indicated area (see drawing below).

Head flashing

Head flashing end cap

Jamb flashing

Square cut

Head Detail

Sill flashing

Jamb flashing

Sill flashing end cap

15° cut

15°

13.2

Sill Detail

13.3

Sealant

Head Detail

Sealant

Sill Detail

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Flexible flashing tape
over head flashing
upstand

Head Detail

Outside

Inside

10

Sill Detail

10

No flashing tape
at the sill !!!

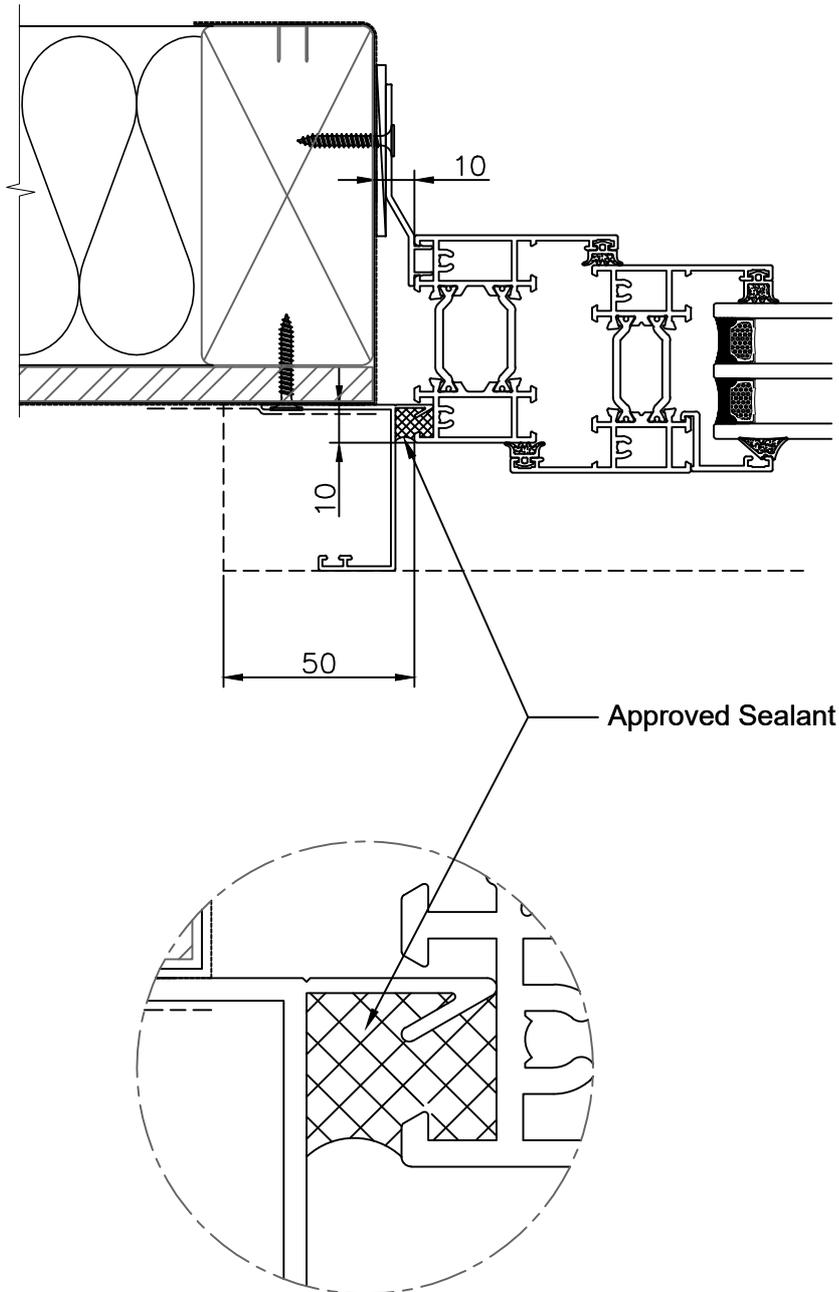|					
	fmi Building Innovation.	Step 14	Flexible flashing tape	Edition 2 02/05/2024	Page 29/38
				Scale A4 N.T.S.	

14.1   Install approved adhesive tape over the upstand of head and jamb flashings to assist with water diversion. Run past each end of the head flashing by at least 50mm.
No flashing tape at the sill.

Head flashing

50mm

Flashing tape

Head flashing end cap

Aluminium jamb

10

Flexible flashing tape over jamb flashing upstand

10

50

Flexible flashing tape
over head flashing
upstand

Approved Sealant

Outside

Inside

<u>Head Detail</u>
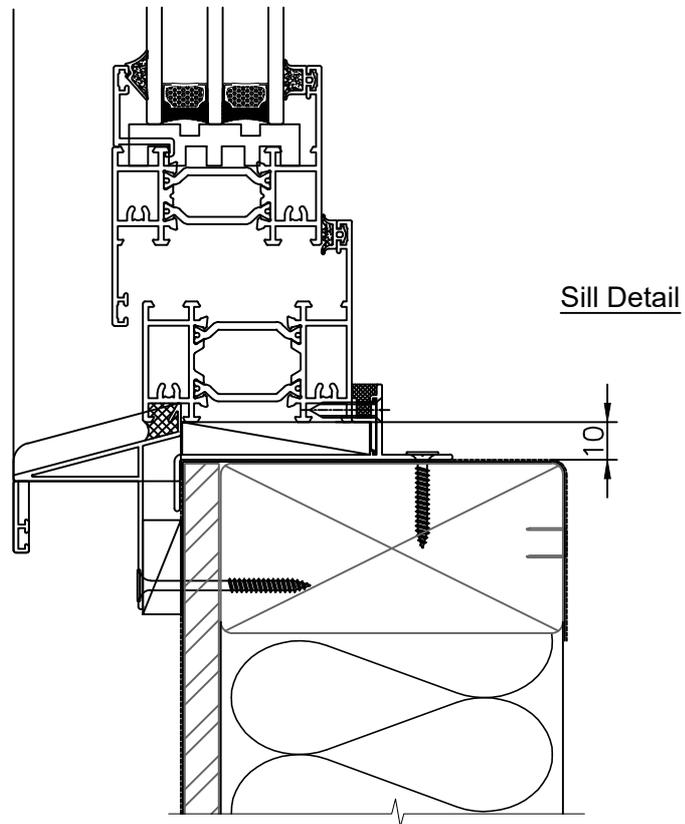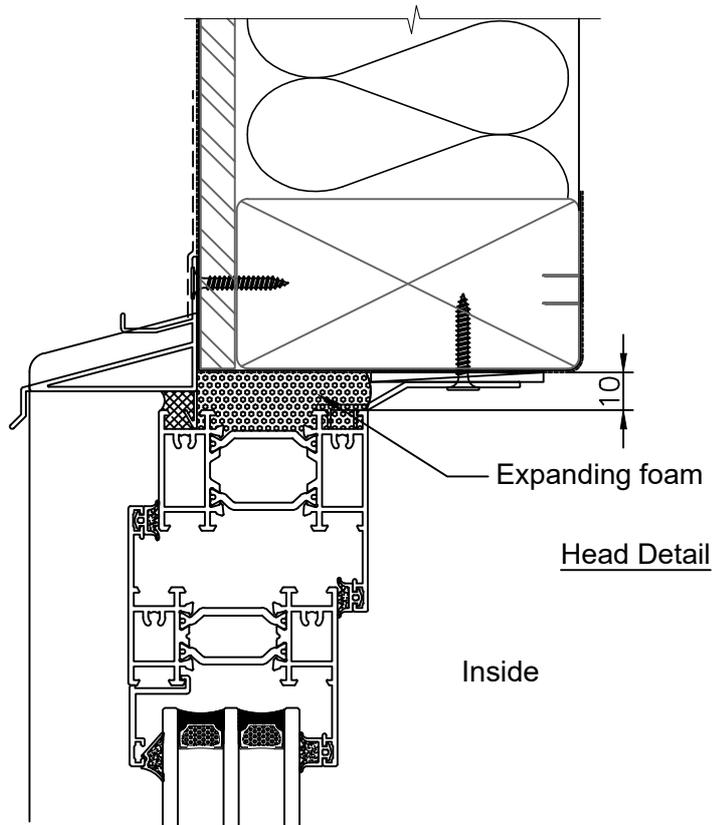
10

Approved Sealant

<u>Sill Detail</u>

10
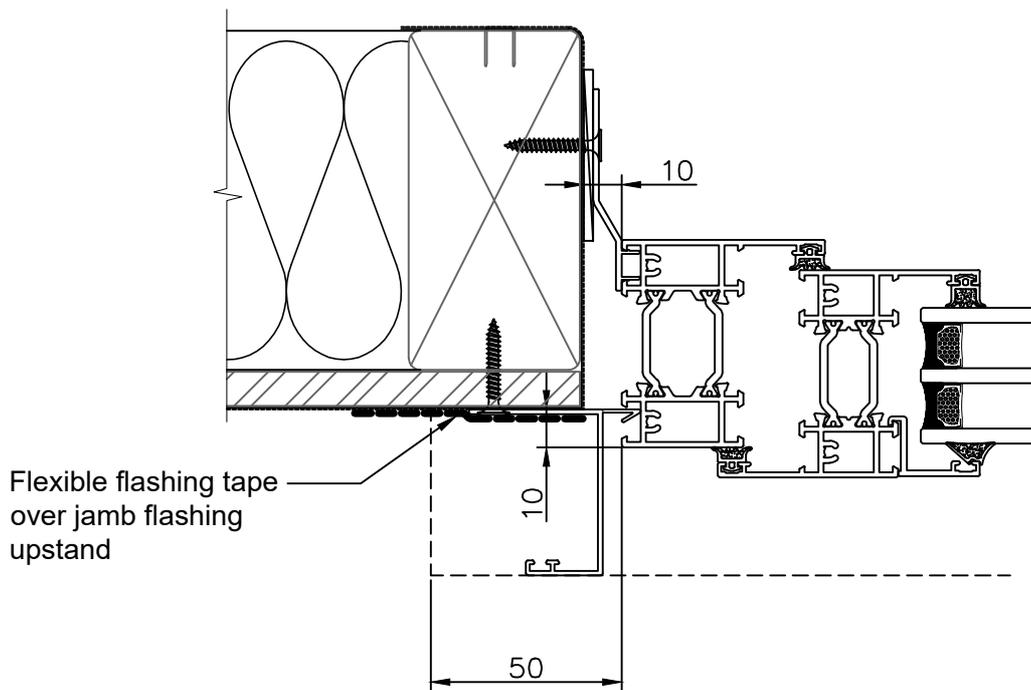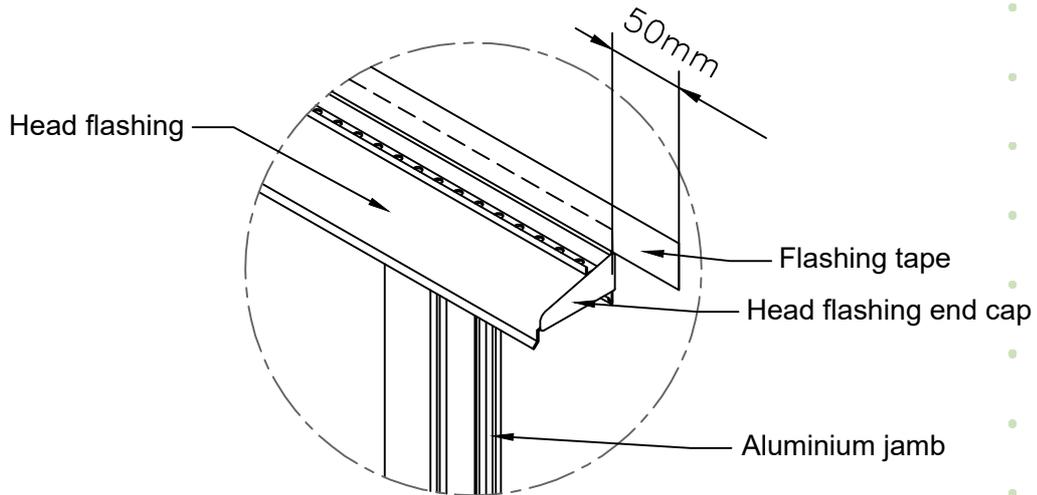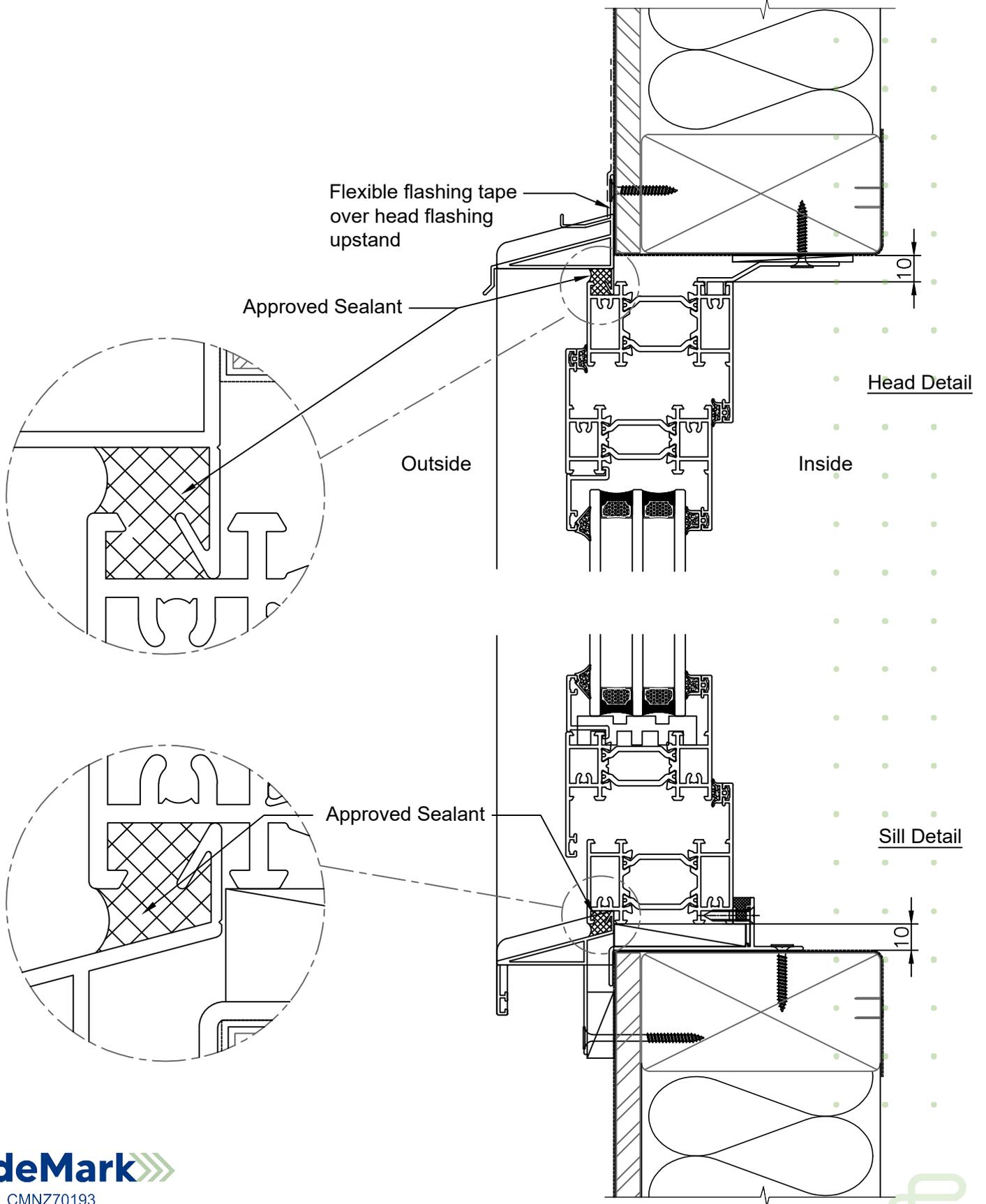
Step 15 Sealant outside

15.1 Seal between head, jamb and sill flashings and joinery with an approved sealant.

10

10

50

Approved Sealant

Expanding foam

Head Detail

Outside   Inside

10

Sill Detail

10

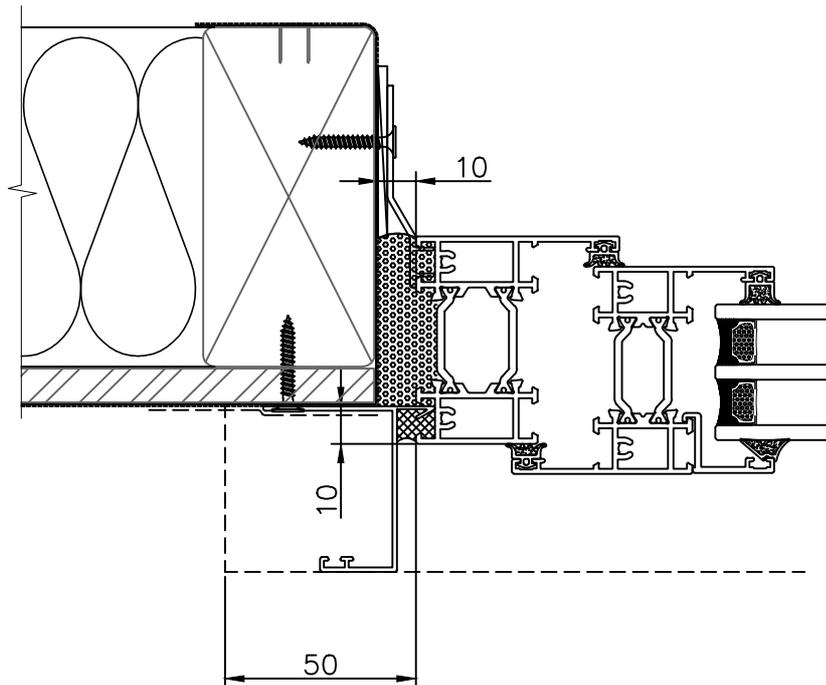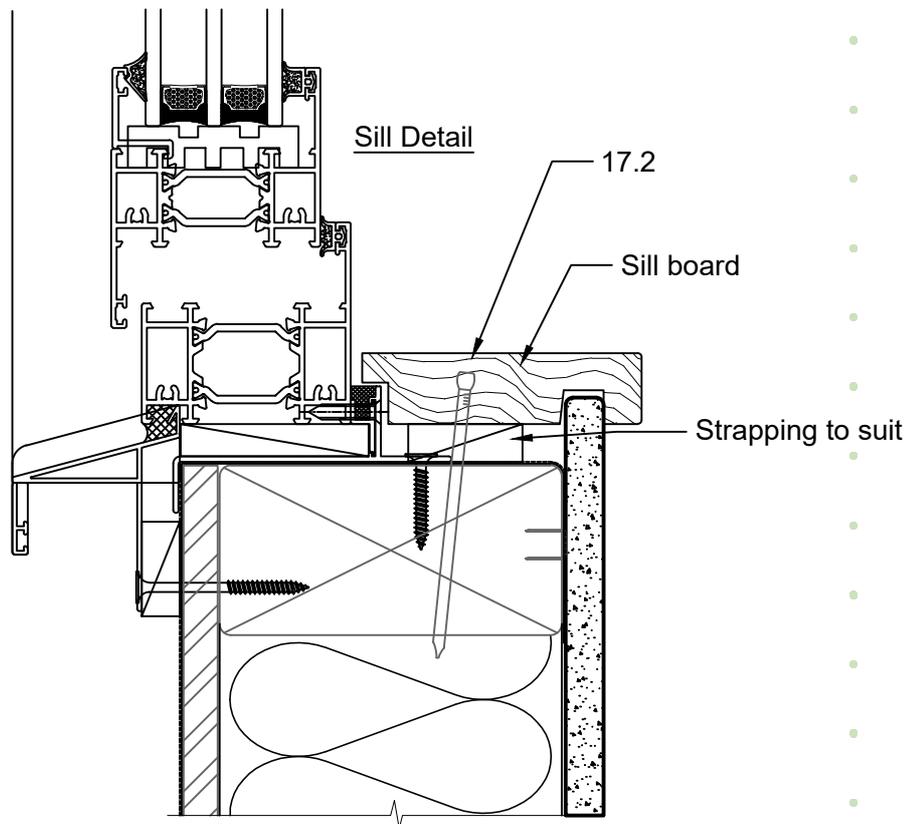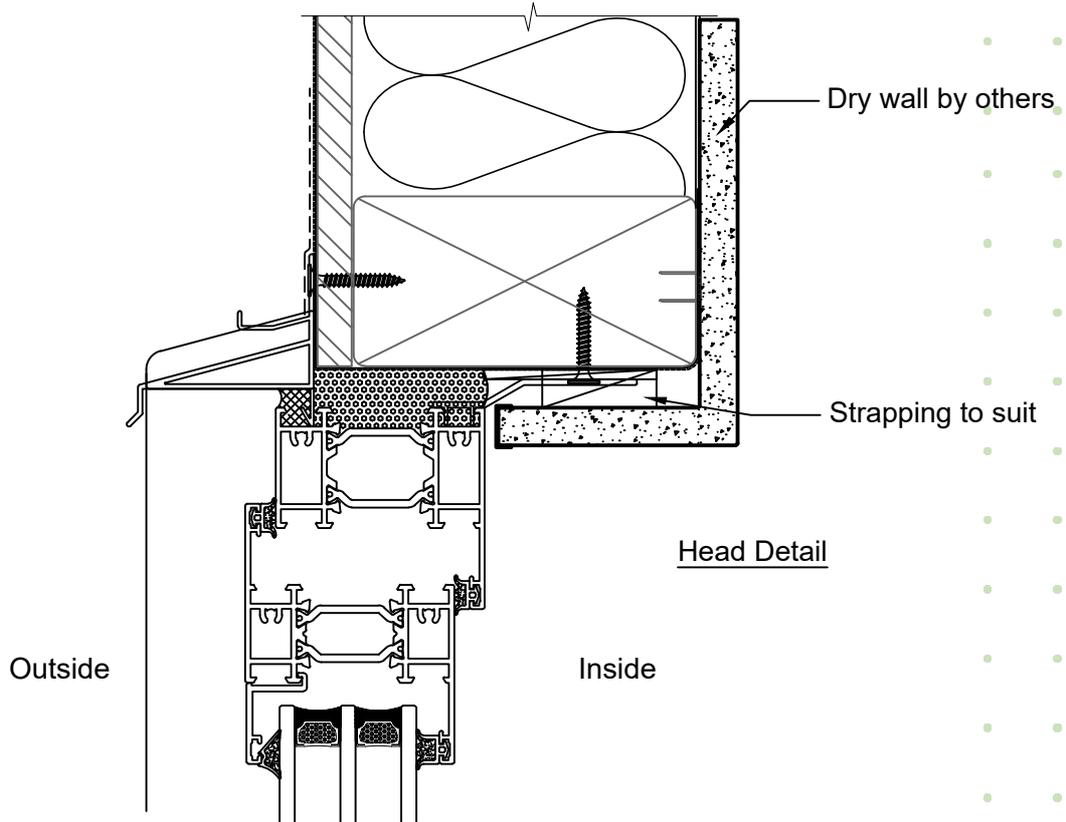|				
fmi Building Innovation.	Step 16	Expanding foam	Edition 2 02/05/2024	Page 33/38
			Scale A4 N.T.S.	

Step 16   Expanding foam

16.1   Apply a continuous bead of an approved expanding foam to the interior perimeter of the trim cavity, head and jambs only (see drawing). Run the seal around the inside edge of the trim cavity, ensuring contact with both window framing and House Wrap/Flexible flashings.
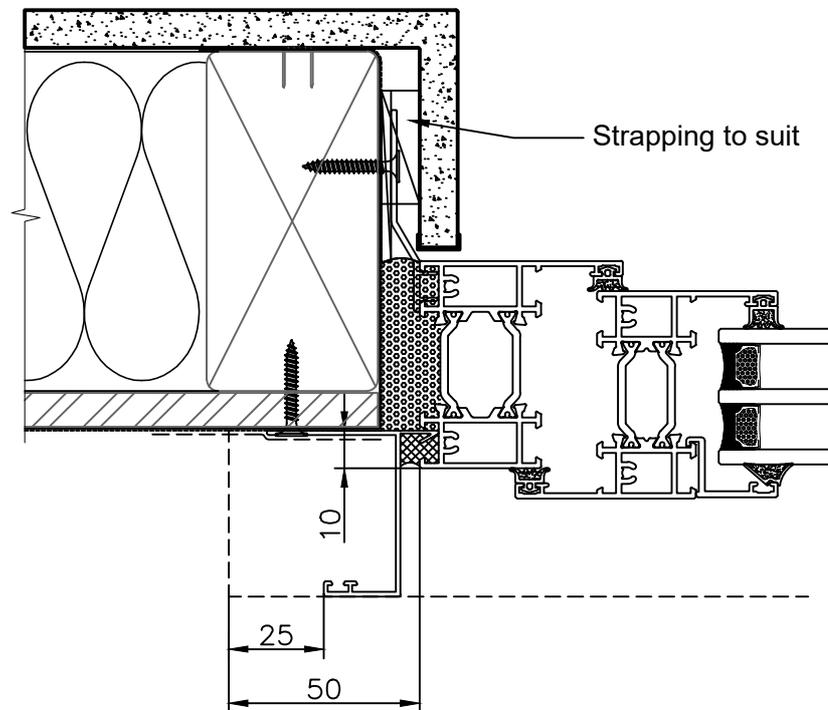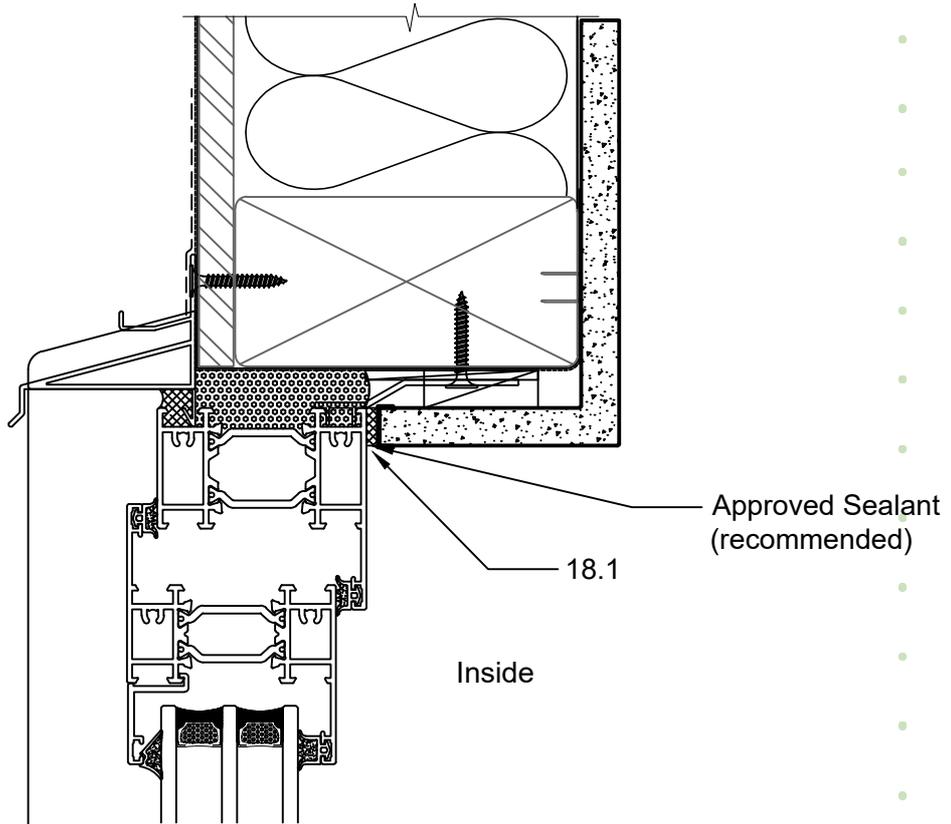
No expanding foam at the sill!

	fmi Building Innovation.	Step 16	Expanding foam	Edition 2 02/05/2024	Page 34/38
				Scale A4 N.T.S.	

Dry wall by others

Strapping to suit

Head Detail

Outside

Inside

Sill Detail

17.2

Sill board

Strapping to suit

	fmi building innovation.	Step 17	Dry wall/Sill board Installation	Edition 2 02/05/2024	Page 35/38
				Scale A4 N.T.S.	

Step 17   Dry wall/Sill board installation

17.1   Install the dry wall in accordance with the 'Manufacturers Recommendations'.
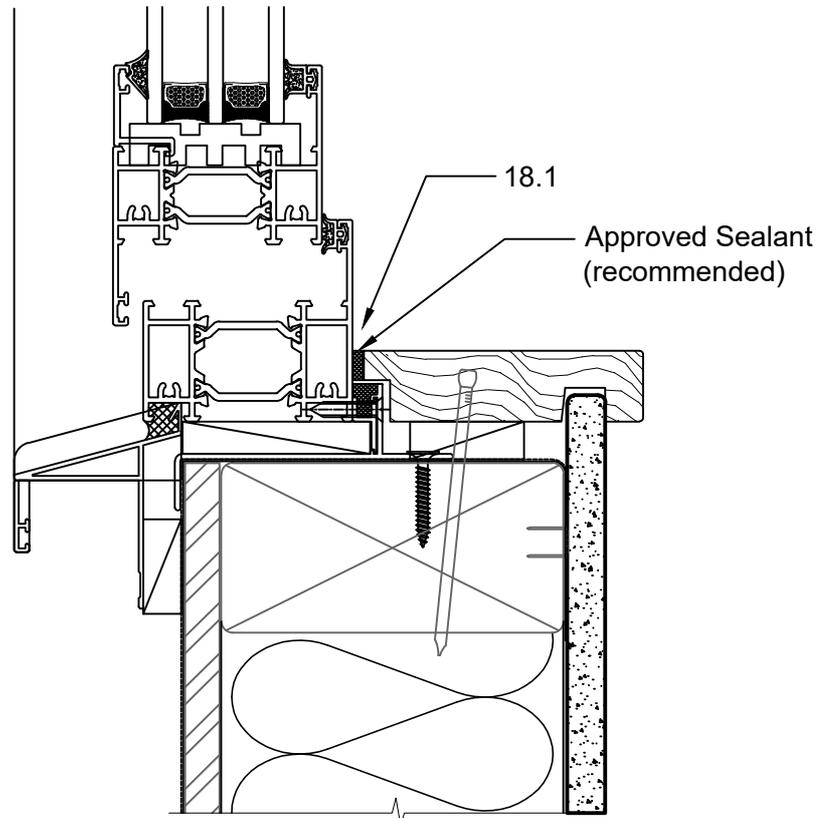
17.2   Install the sill board (see the drawing below)

Strapping to suit

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CodeMark>>>

CMNZ70193

Head Detail

Outside

Inside

Approved Sealant
(recommended)

18.1

Sill Detail

18.1

Approved Sealant
(recommended)

Step 18   Movement joint

18.1   Seal between dry wall/sill board and aluminium joinery with an approved sealant (see drawing). - Recommended.

Approved Sealant
(recommended)

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