

**WARRANTY PROVIDER
ACCEPTED**

**A REFERENCE GUIDE OF
TYPICAL RAINSCREEN
WALL AND WINDOW
DETAILS**

Per: 2006 B.C.B.C.
Part 9

DISCLAIMER:

THE INFORMATION CONTAINED IN THIS DOCUMENT REPRESENTS CURRENT WOOD FRAME BUILDING PRACTICES IN THE BRITISH COLUMBIA COASTAL REGION AND HAS BEEN REVIEWED BY A SPECTRUM OF INDUSTRY PARTICIPANTS.

THE READER IS ADVISED TO EVALUATE THE INFORMATION, MATERIALS AND TECHNIQUES CAUTIOUSLY AND TO CONSULT APPLICABLE BUILDING CODES AND GUIDELINES TO DETERMINE WHETHER THE INFORMATION, MATERIALS AND TECHNIQUES ARE SUITABLE IN EACH INSTANCE.

THE DRAWINGS AND TEXT ARE INTENDED AS A GENERAL REFERENCE GUIDE ONLY. PROJECT AND SITE SPECIFIC FACTORS INCLUDING CLIMATE, EXPOSURE, COMPLEXITY, AESTHETICS MUST ALWAYS BE TAKEN INTO CONSIDERATION.

LIMITATIONS:

THIS GUIDE IS INTENDED TO PROVIDE DETAILS FOR TYPICAL WALL CONSTRUCTION ELEMENTS OF WOOD FRAME HOUSES BUILT IN THE COASTAL CLIMATE OF BRITISH COLUMBIA THAT MEET REQUIREMENTS OF PART 9 OF THE 2006 BRITISH COLUMBIA BUILDING CODE AND REQUIRE A CAPILLARY BREAK. IN SOME INSTANCES THE DETAILS SHOWN ARE ABOVE THE BUILDING CODE MINIMUM BUT ARE CONSIDERED TO BE GOOD BUILDING PRACTICE.

THESE DETAILS ARE NOT INTENDED TO REPLACE PROFESSIONAL ADVICE.

ENSURE THAT ALL PROPOSED PRODUCTS AND SYSTEMS ARE ACCEPTABLE TO THE BUILDING AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLATION.

ENSURE THAT MATERIALS USED IN CONJUNCTION WITH ONE AND ANOTHER ARE COMPATIBLE.

NOTE:

THERE ARE MANY DIFFERENT WAYS TO CONSTRUCT A RAINSCREEN WALL TO MEET THE NEW BUILDING CODE REQUIREMENTS THAT ARE ACCEPTABLE.

THIS PARTICULAR SET OF DETAILS DEPICTS LAP SIDING ON 10mm WOOD STRAPPING WITH TWO LAYERS OF BUILDING PAPER. THE AIR / VAPOUR BARRIER IS ACHIEVED BY THE USE OF POLYETHYLENE ON THE INSIDE AND SEALANTS AROUND THE WINDOWS AND DOORS.

ADDITIONAL INFORMATION AND RESOURCES

CODES

BC BUILDING CODE 2006 – AN ILLUSTRATED GUIDE TO CODE CHANGES AND CHANGES TO VANCOUVER BUILDING BYLAW 2007, PUBLISHED BY THE BUILDING OFFICIALS' ASSOCIATION OF BC. AVAILABLE AT WWW.BCCODES.CA

BRITISH COLUMBIA BUILDING CODE 2006, PUBLISHED BY QUEEN'S PRINTERS. AVAILABLE AT WWW.BCCODES.CA

CITY OF VANCOUVER BUILDING BY-LAW 2007, PUBLISHED BY THE CITY OF VANCOUVER. AVAILABLE AT WWW.BCCODES.CA

GUIDES

BUILDING ENVELOPE GUIDE FOR HOUSES – PART 9 RESIDENTIAL CONSTRUCTION, PUBLISHED BY THE HOMEOWNER PROTECTION OFFICE. AVAILABLE AT WWW.HPO.BC.CA/WHATSNEW

BEST PRACTICE GUIDE: WOOD-FRAME ENVELOPES, PUBLISHED BY CANADA MORTGAGE AND HOUSING CORPORATION. AVAILABLE AT WWW.CMHC.CA

BUILDER INSIGHT BULLETINS, PUBLISHED BY THE HOMEOWNER PROTECTION OFFICE. AVAILABLE AT WWW.HPO.BC.CA

BUILDERS' MANUAL, PUBLISHED BY THE CANADIAN HOME BUILDERS' ASSOCIATION. AVAILABLE AT WWW.CHBA.CA

BUILDING SOLUTIONS – A PROBLEM SOLVING GUIDE FOR BUILDERS AND RENOVATORS, PUBLISHED BY CANADA MORTGAGE AND HOUSING CORPORATION. AVAILABLE AT WWW.CMHC.CA

CANADIAN WOOD-FRAME HOUSE CONSTRUCTION, PUBLISHED BY CANADA MORTGAGE AND HOUSING CORPORATION. AVAILABLE AT WWW.CMHC.CA

WOODFRAME ENVELOPES IN THE COASTAL CLIMATE OF BRITISH COLUMBIA – BEST PRACTICE GUIDE, PUBLISHED BY CANADA MORTGAGE AND HOUSING CORPORATION. AVAILABLE AT WWW.CMHC.CA

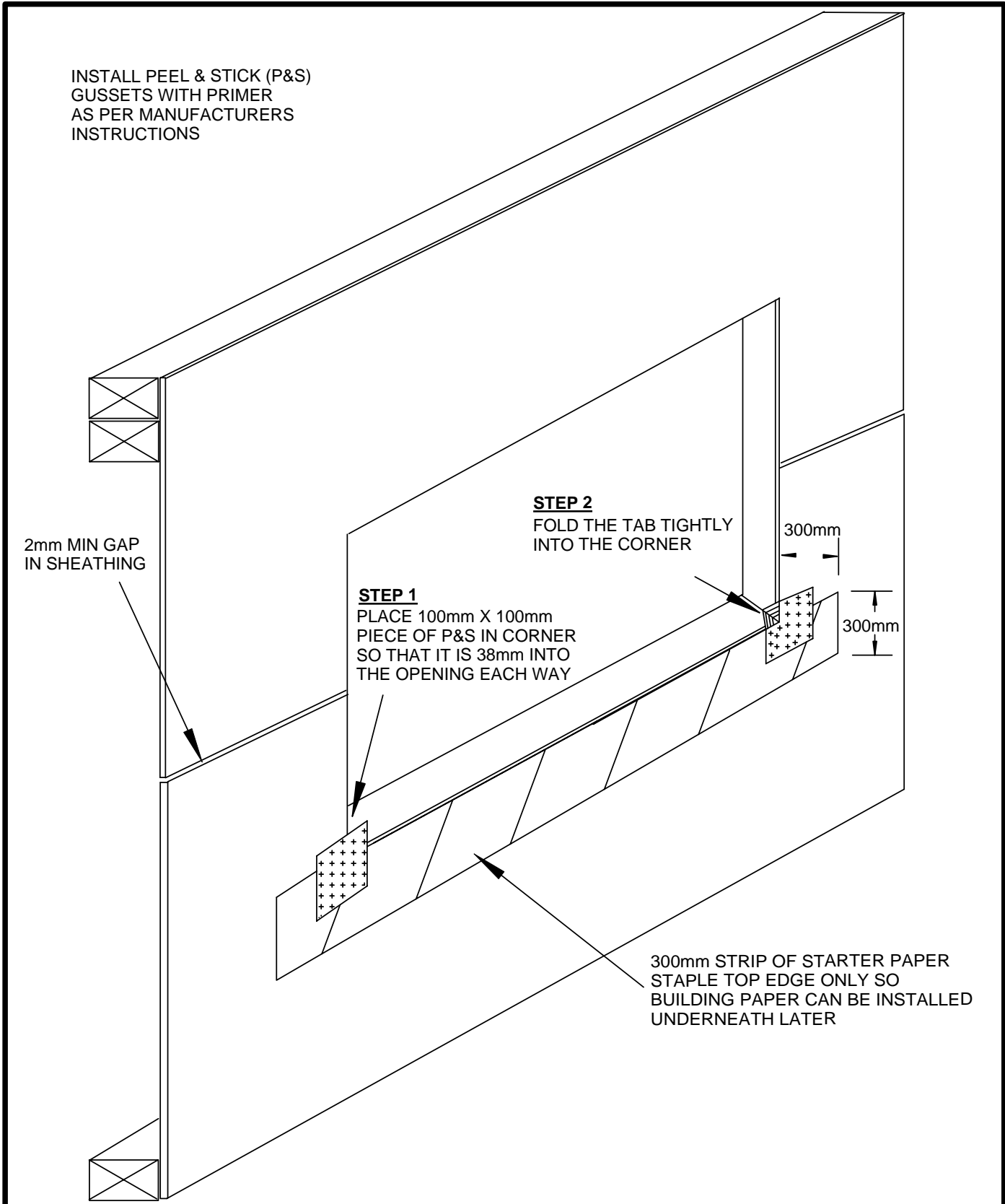
INSTALL PEEL & STICK (P&S)
GUSSETS WITH PRIMER
AS PER MANUFACTURERS
INSTRUCTIONS

2mm MIN GAP
IN SHEATHING

STEP 1
PLACE 100mm X 100mm
PIECE OF P&S IN CORNER
SO THAT IT IS 38mm INTO
THE OPENING EACH WAY

STEP 2
FOLD THE TAB TIGHTLY
INTO THE CORNER

300mm STRIP OF STARTER PAPER
STAPLE TOP EDGE ONLY SO
BUILDING PAPER CAN BE INSTALLED
UNDERNEATH LATER



Sill Flashing Paper & Gussets

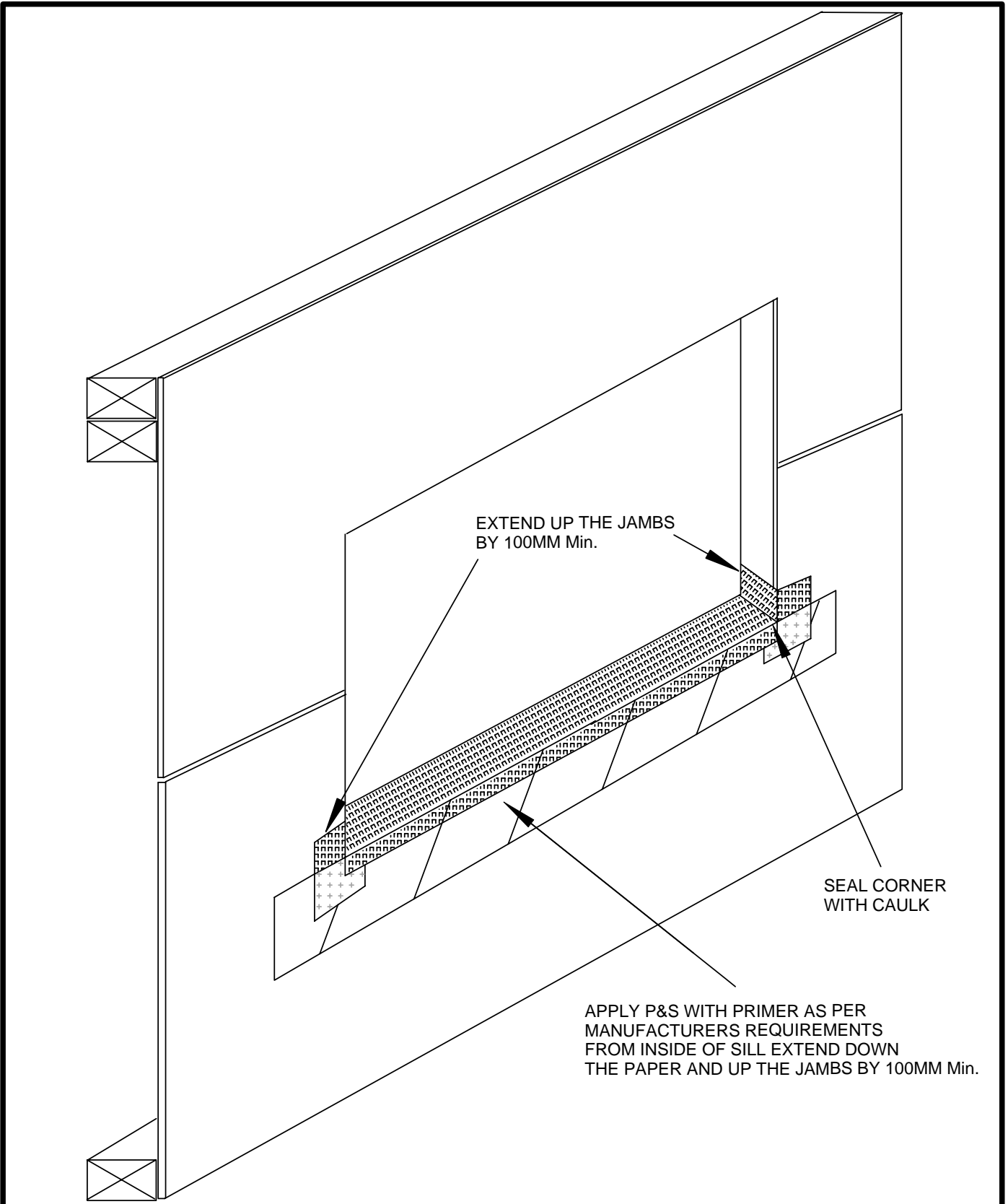
NTS

Detail

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1.0



EXTEND UP THE JAMBS
BY 100MM Min.

SEAL CORNER
WITH CAULK

APPLY P&S WITH PRIMER AS PER
MANUFACTURERS REQUIREMENTS
FROM INSIDE OF SILL EXTEND DOWN
THE PAPER AND UP THE JAMBS BY 100MM Min.

Sill Flashing P&S	NTS	Detail 1.01
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OVERLAP ALL FLASHING PAPER
SHINGLE STYLE (AS SHOWN)

RETURN BUILDING PAPER
INTO ROUGH OPENING

300MM

300MM

Place plastic horseshoe shims or doubled
up strips of P&S or P.T. blocking on sill
spaced as per window manufacturers
specifications.
Ensure that the shims do not extend
past the inside of the window frame.

300MM

STARTER
STRIP OF
BUILDING
PAPER

Peel & Stick & Flashing Paper

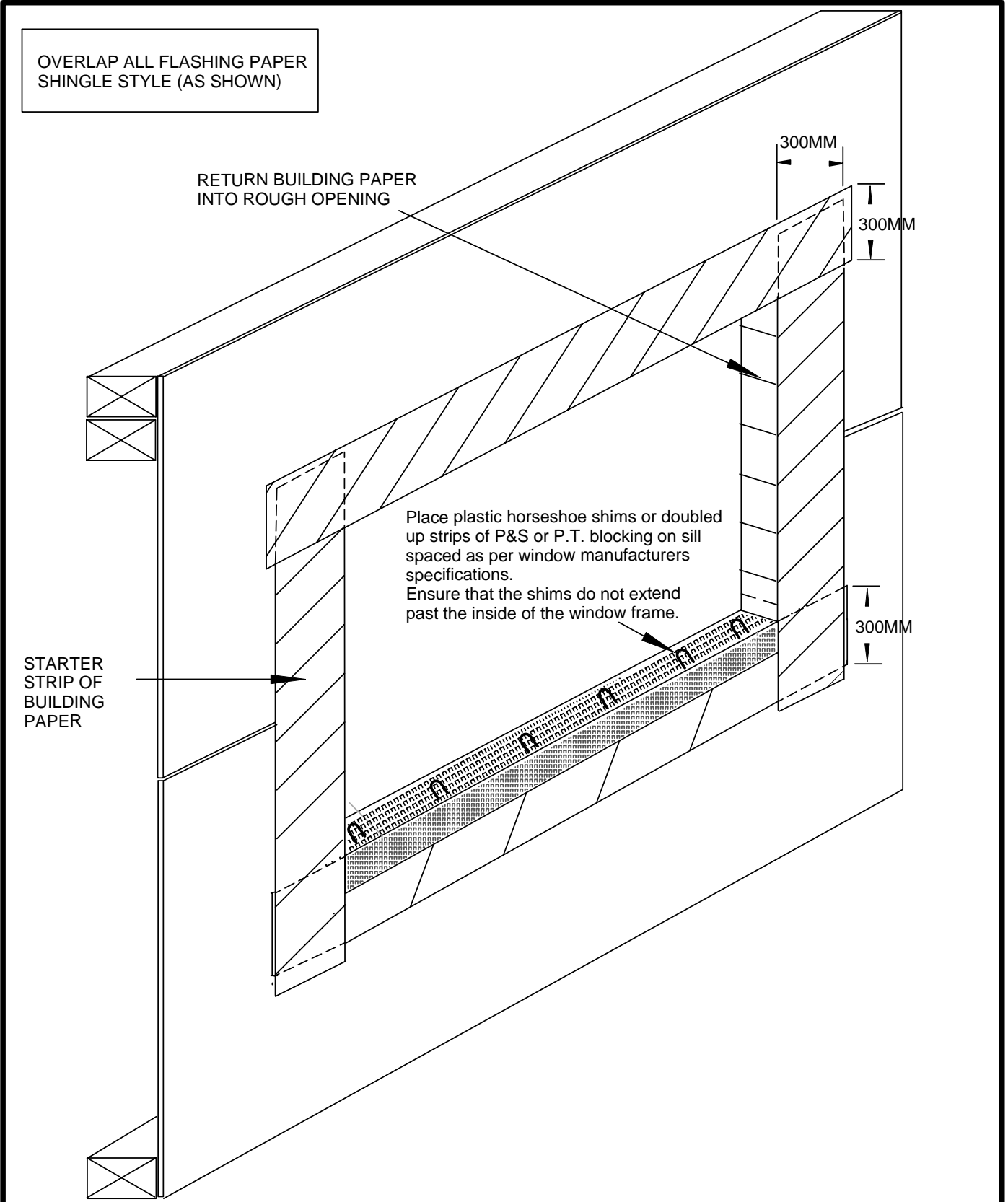
NTS

Detail

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1.1

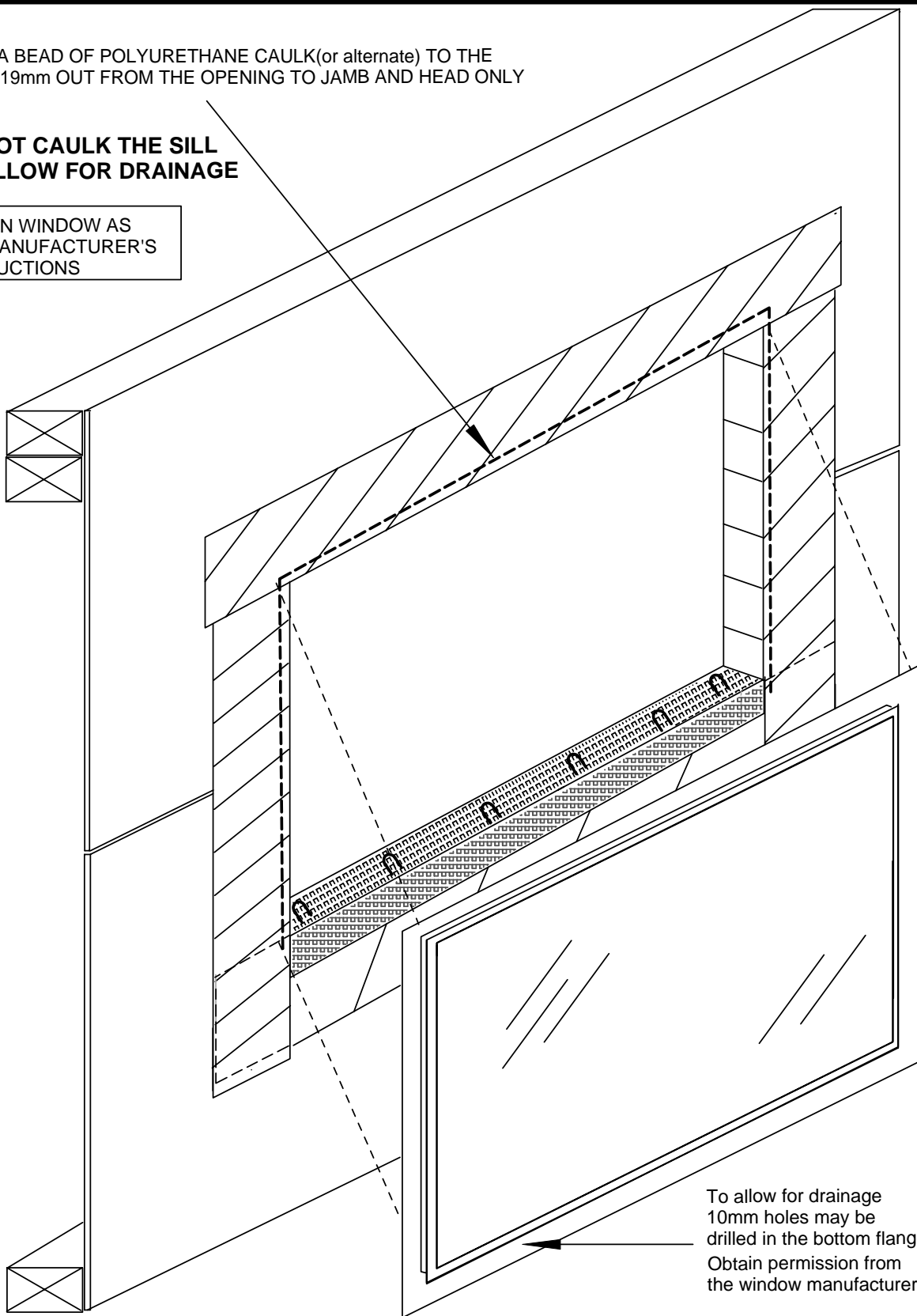
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APPLY A BEAD OF POLYURETHANE CAULK(or alternate) TO THE PAPER 19mm OUT FROM THE OPENING TO JAMB AND HEAD ONLY

DO NOT CAULK THE SILL TO ALLOW FOR DRAINAGE

FASTEN WINDOW AS PER MANUFACTURER'S INSTRUCTIONS



To allow for drainage 10mm holes may be drilled in the bottom flange. Obtain permission from the window manufacturer

Window Installation

NTS

Detail

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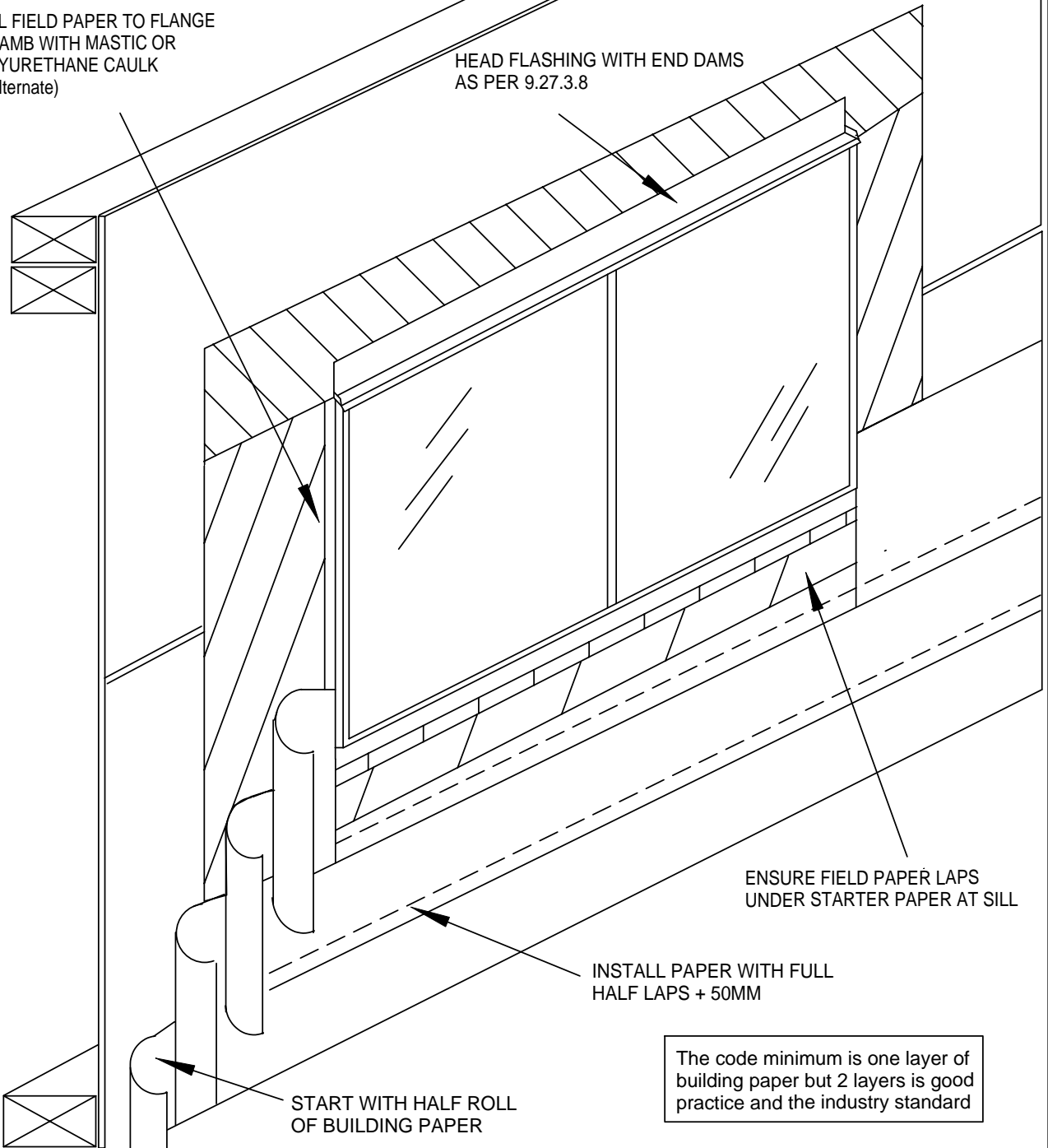
1.2

ALL VERTICAL LAPS TO BE 100mm Min. AND STAGGERED

THE INSIDE OF THE FRAME IS TO BE SEALED TO THE AIR/VAPOUR BARRIER (A.B & V.B.) ON ALL FOUR SIDES WITH POLYURETHANE CAULK AT THE SILL AND ROD & CAULK AT THE JAMBS & HEAD
(See details 3.0 to 3.2)

SEAL FIELD PAPER TO FLANGE AT JAMB WITH MASTIC OR POLYURETHANE CAULK (or alternate)

HEAD FLASHING WITH END DAMS AS PER 9.27.3.8



ENSURE FIELD PAPER LAPS UNDER STARTER PAPER AT SILL

INSTALL PAPER WITH FULL HALF LAPS + 50MM

START WITH HALF ROLL OF BUILDING PAPER

The code minimum is one layer of building paper but 2 layers is good practice and the industry standard

Building paper installation

NTS

Detail

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1.3

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STRAPPING MUST BE INSTALLED OVER STUDS UNLESS SHEATHING IS A MIN OF 12.5mm THICK (BCBC 9.27.5.1.2)

SEAL BUILDING PAPER TO HEAD FLASHING AND TO FLANGE OF WINDOW AT JAMB WITH POLYURETHANE CAULK (or alternate)

HEAD FLASHING WITH END DAM

10MM GAP BETWEEN STRAPPING AND WINDOW

1. HALF ROLL STARTER STRIP UNDER

CLADDING

SILL PEEL & STICK

SILL STARTER PAPER

BUG SCREEN

10MM. Min. STRAPPING AS PER 9.27.2.2 @ 400mm O/C Max. PRESSURE TREATED MATERIAL IS RECOMMENDED

VERIFY THAT THE FASTENERS USED ARE SUITABLE FOR THE TYPE OF PRESSURE TREATMENT CHEMICALS USED (PARTICULARLY WITH ACQ)

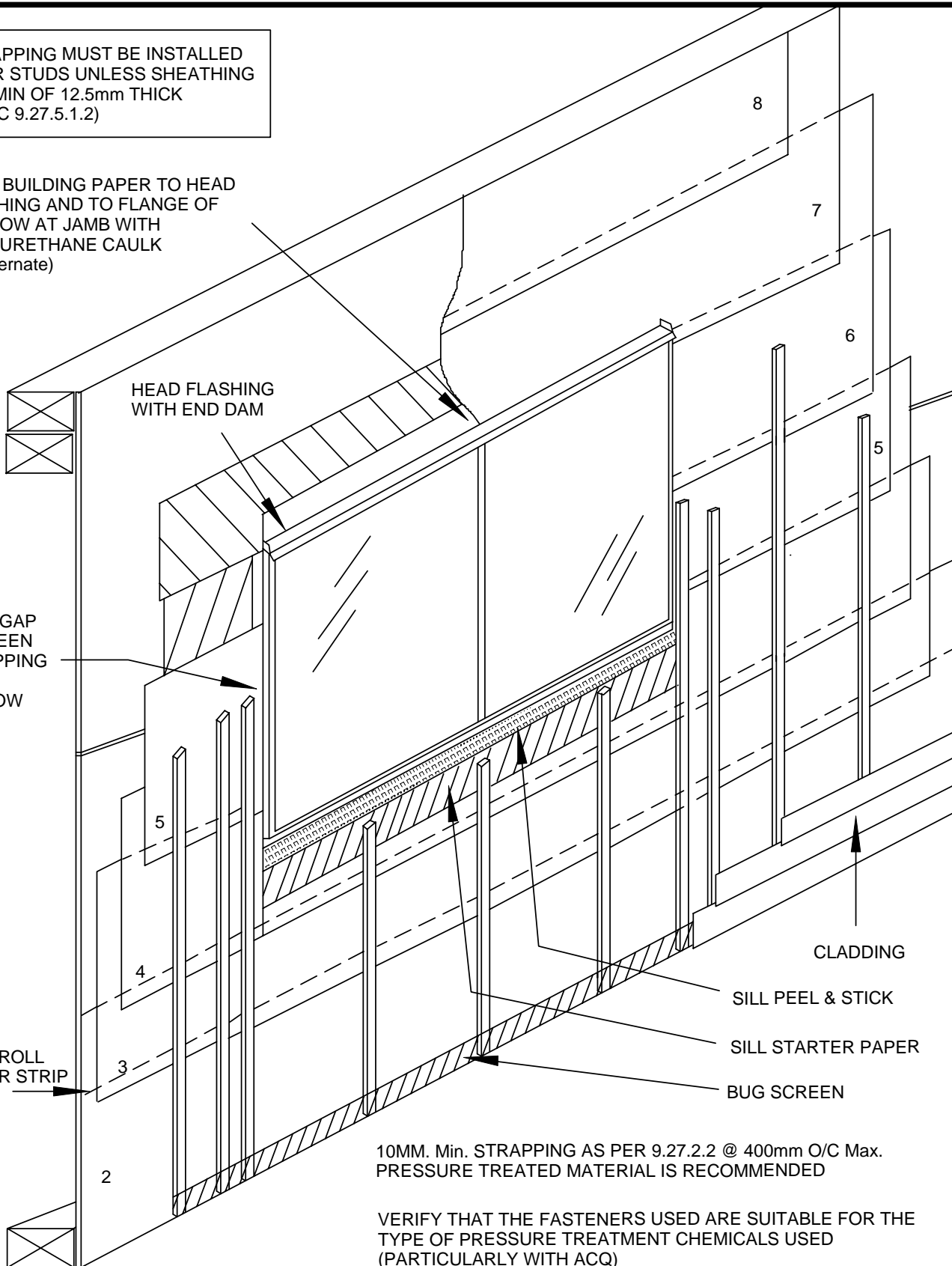
Building paper and strapping installation

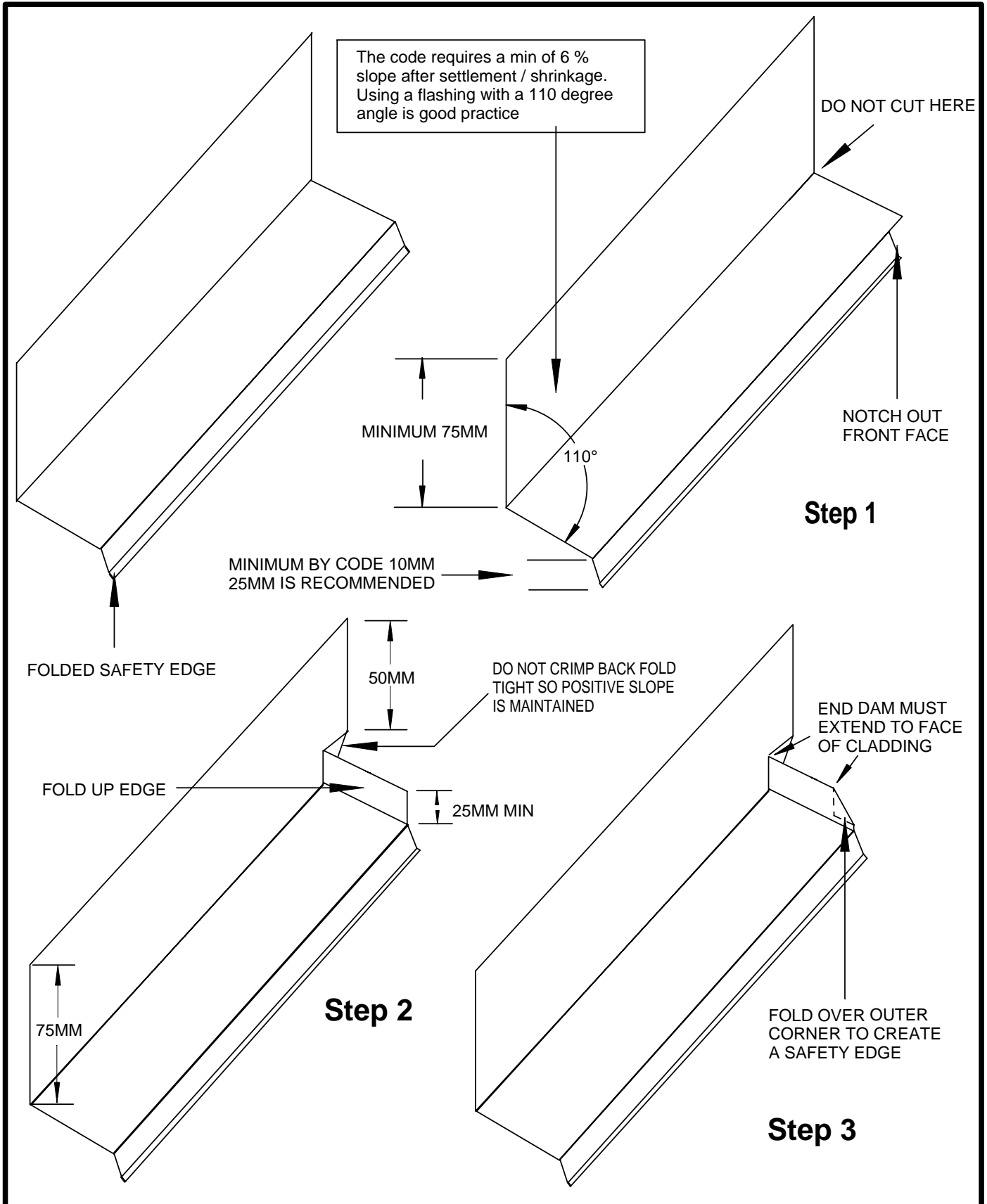
NTS

Detail
1.4

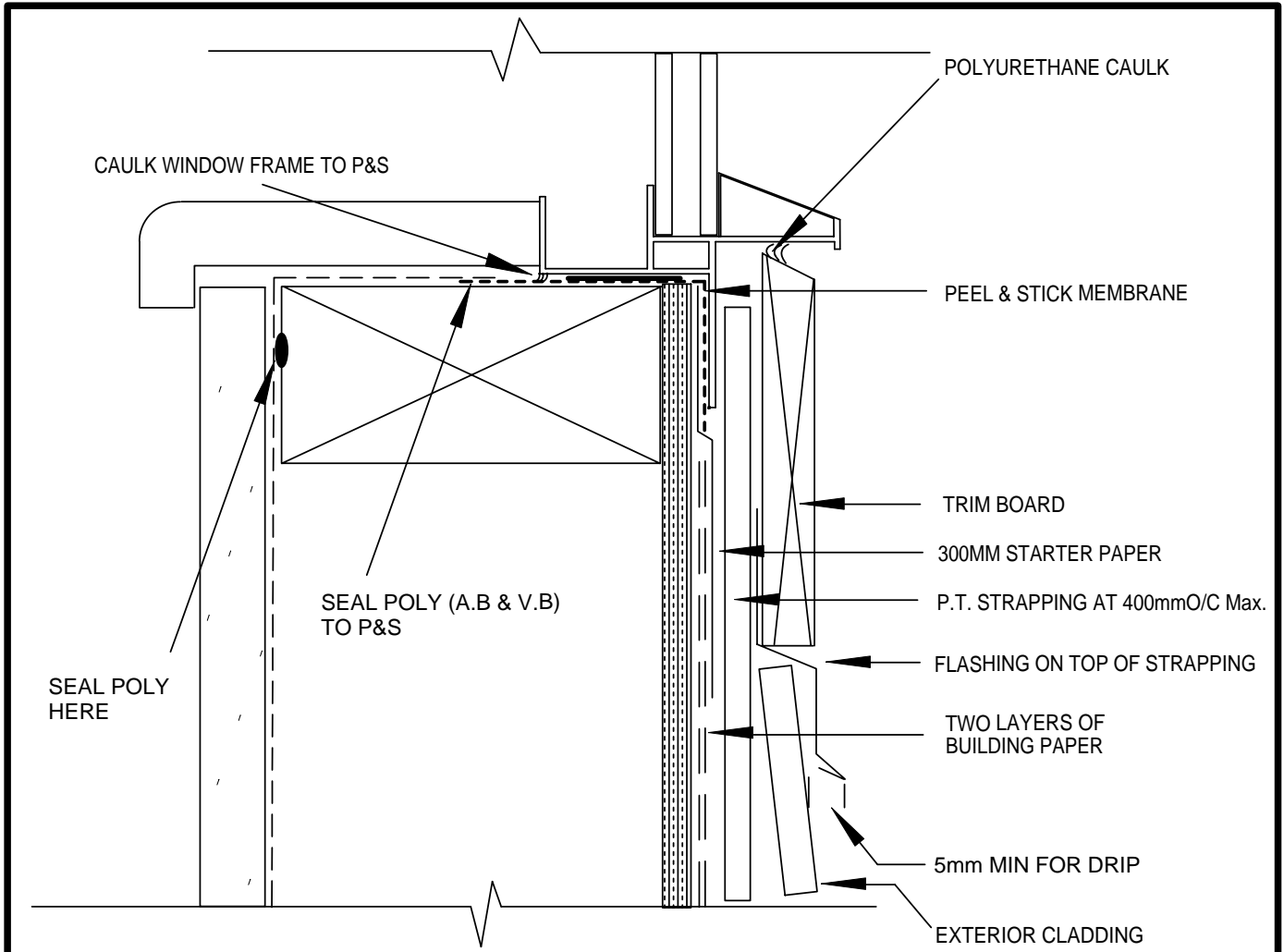
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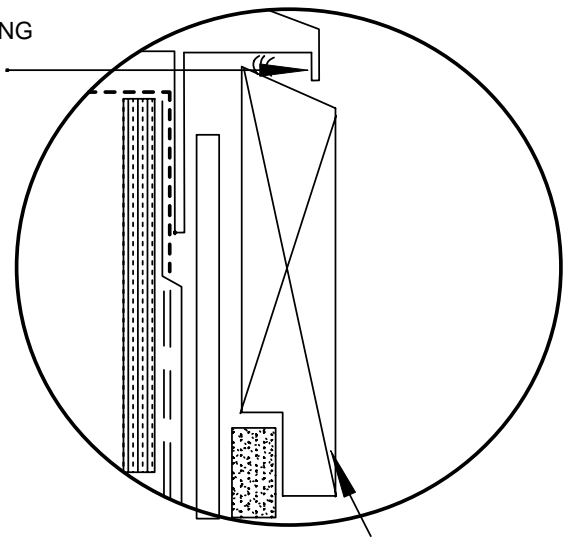




Window Head Flashing with End Dam - Per: 9.27.3.8	NTS	Detail 2.0
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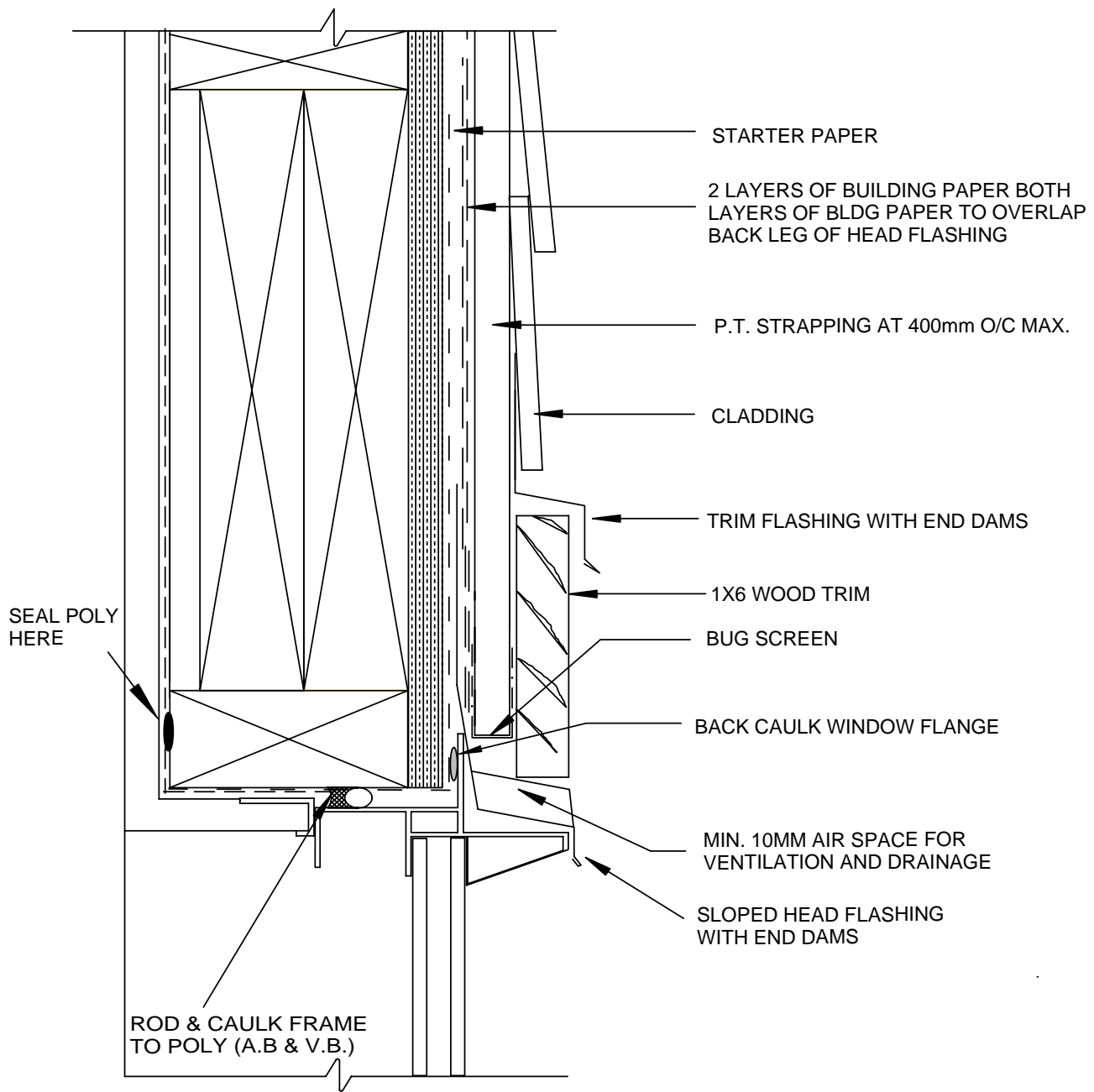


IF WINDOW IS NOT SELF FLASHING
A SILL FLASHING IS REQUIRED
(BCBC 9.27.3.8.5)

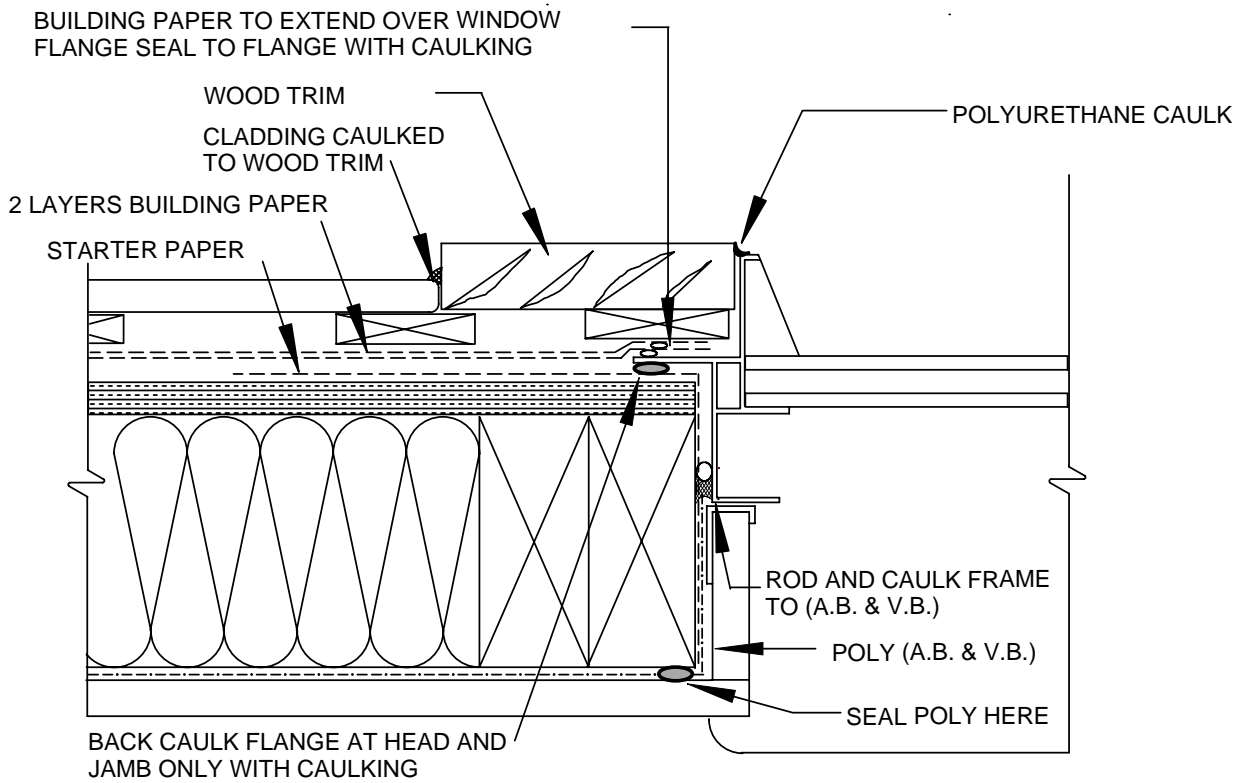


ALTERNATE 2 X 6 TRIM WITH 25mm MIN. NOTCH IN BOTTOM

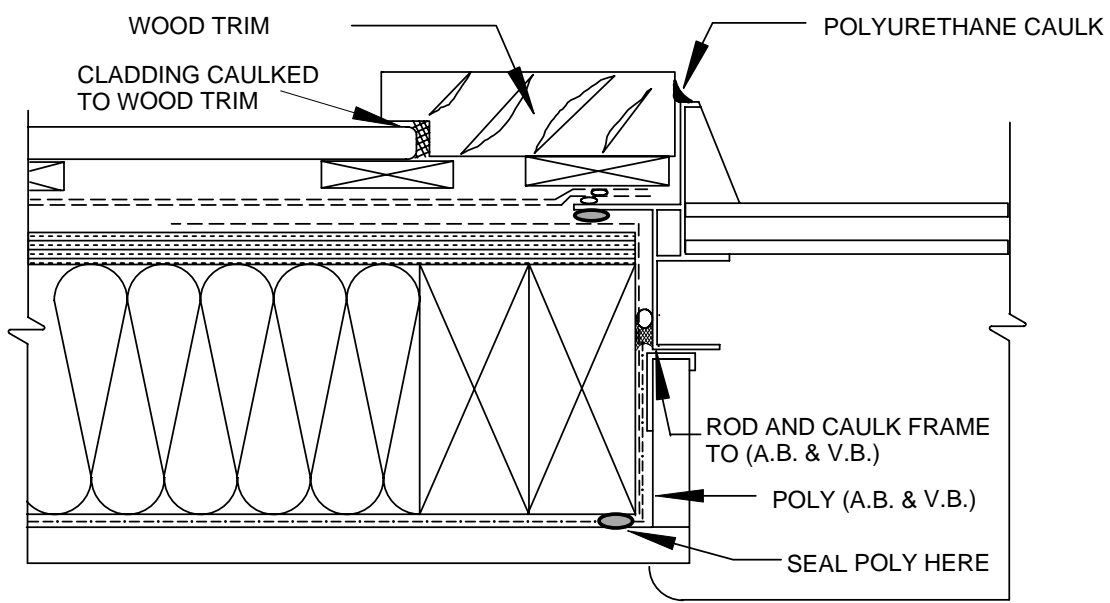
Window Sill (flanged window with trim)	NTS	Detail 3.0
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Window Head (section)	NTS	Detail 3.1
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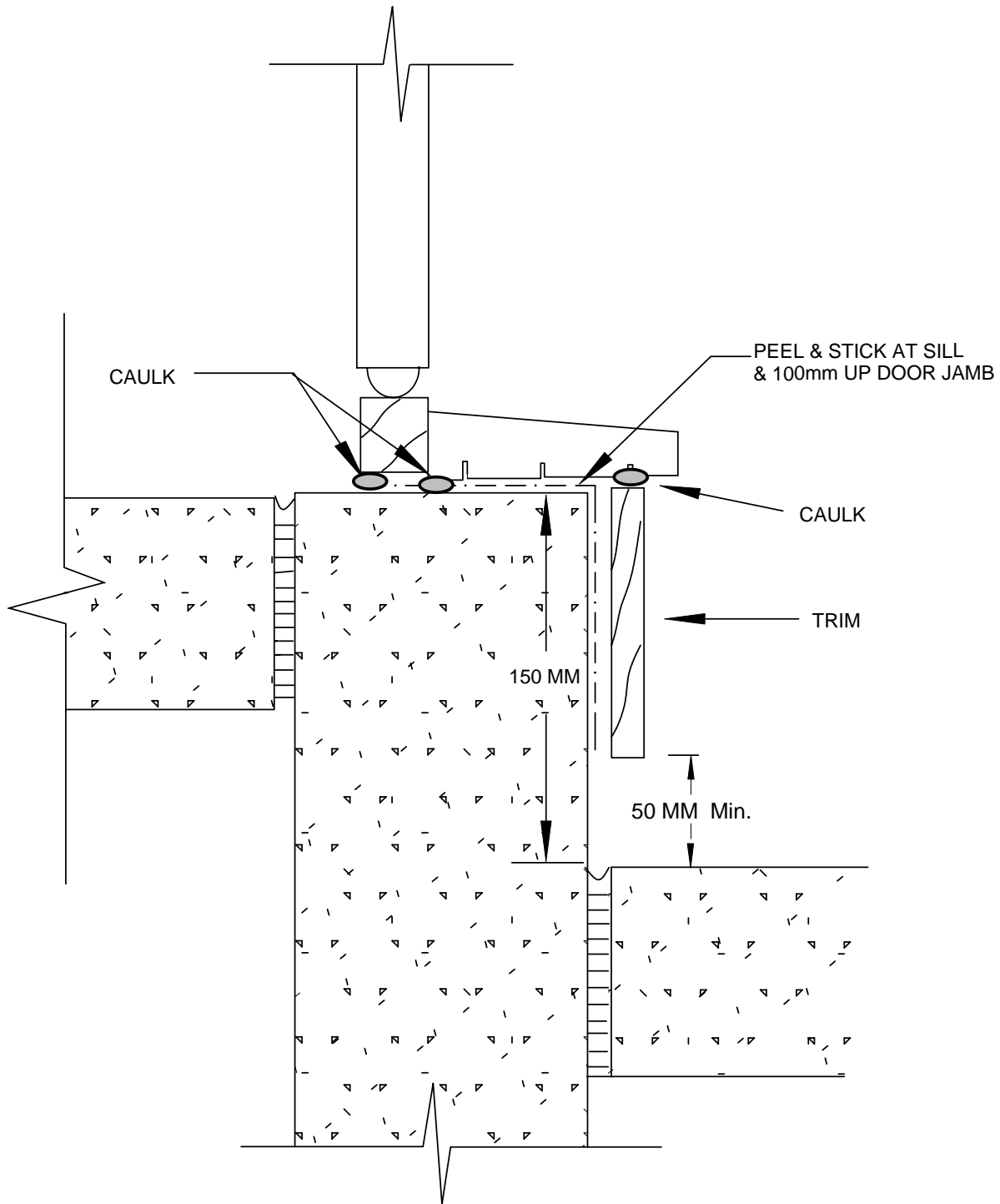


WINDOW JAMB WITH 1 x 6 TRIM

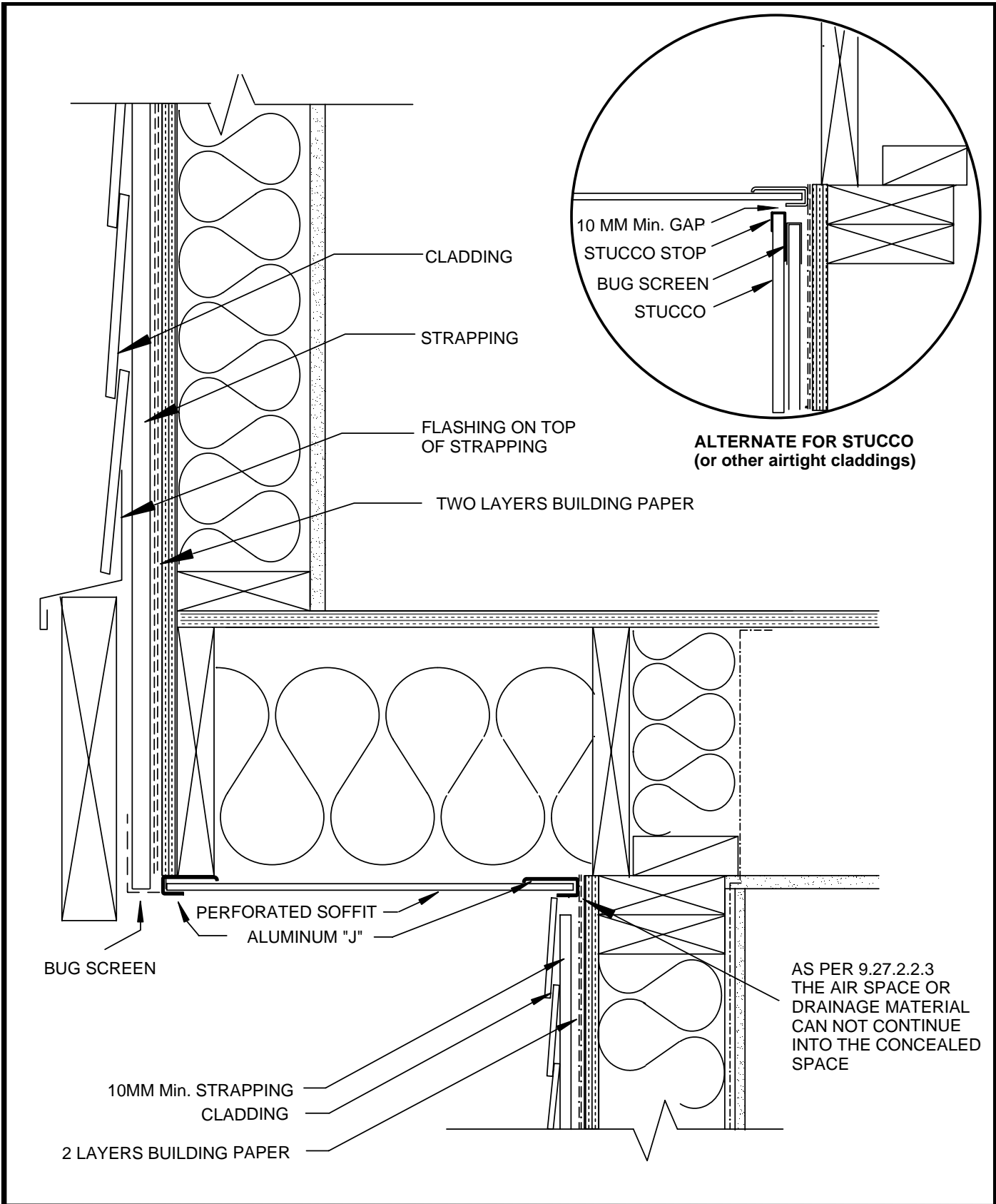


WINDOW JAMB WITH 2 x 6 TRIM

Window Jamb (section)	NTS	Detail 3.2
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Entry Door Sill	NTS	Detail 4.0
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Bottom & Top of Walls at Cantilever	NTS	Detail 5.0
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STARTER PAPER ON SHEATHING BEHIND ROOF FRAMING AND FLASHING

15LB ROOFING FELT

METAL FLASHING

2 LAYERS OF BUILDING PAPER TO LAP FLASHING MIN 100 mm

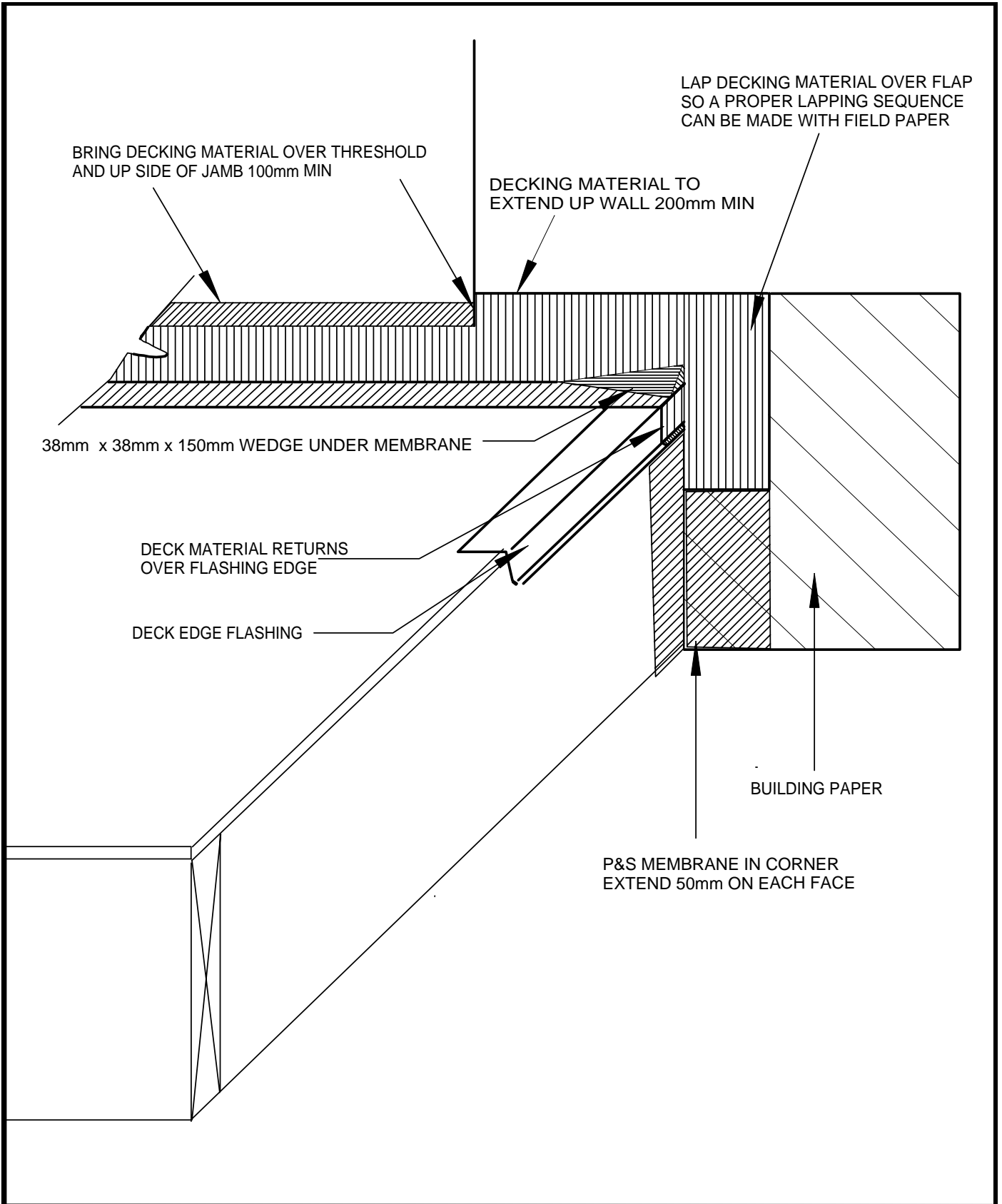
P.T. STRAPPING

CLADDING 12mm LOWER THAN STRAPPING

BUG SCREEN

FLASHING TO HAVE 125mm BACKLEG UP WALL
CLADDING TO LAP FLASHING BY 100mm
MIN 50mm CLEARANCE BETWEEN CLADDING AND ROOFING

Roof to Wall Intersection	NTS	Detail 5.1
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Deck to Wall Interface	NTS	Detail 5.2
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VINYL OUTSIDE CORNER TRIM

TWO LAYERS OF BUILDING PAPER
DOUBLE LAPPED AT CORNERS

CLADDING

FOR VINYL SIDING
(if strapping is used)

CLADDING

TWO LAYERS OF BUILDING PAPER
DOUBLE LAPPED AT CORNERS

VINYL INSIDE CORNER TRIM
(BACK TO BACK STOPS
WILL NOT BE ACCEPTED)

LEAVE 10MM GAP IN CORNER

CAULK CLADDING TO 2 X 2

ALL LAYERS OF BUILDING PAPER TO
LAP AROUND THE CORNER BY 150mm MIN.

FOR SIDING

1 X 4

1 X 4

CAULK

LEAVE GAP IN STRAPPING AT CORNER

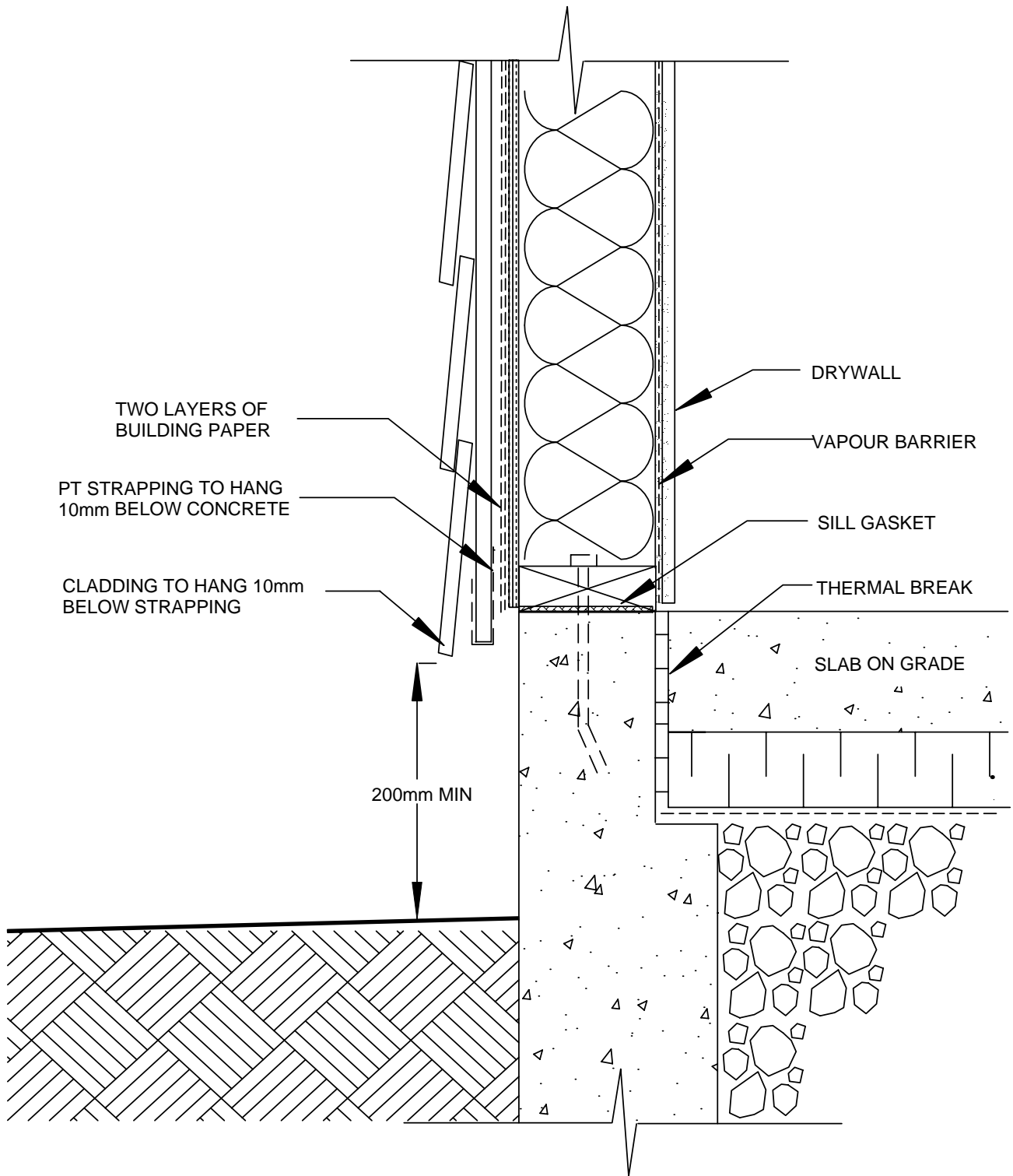
Typical Corners

NTS

**Detail
6.0**

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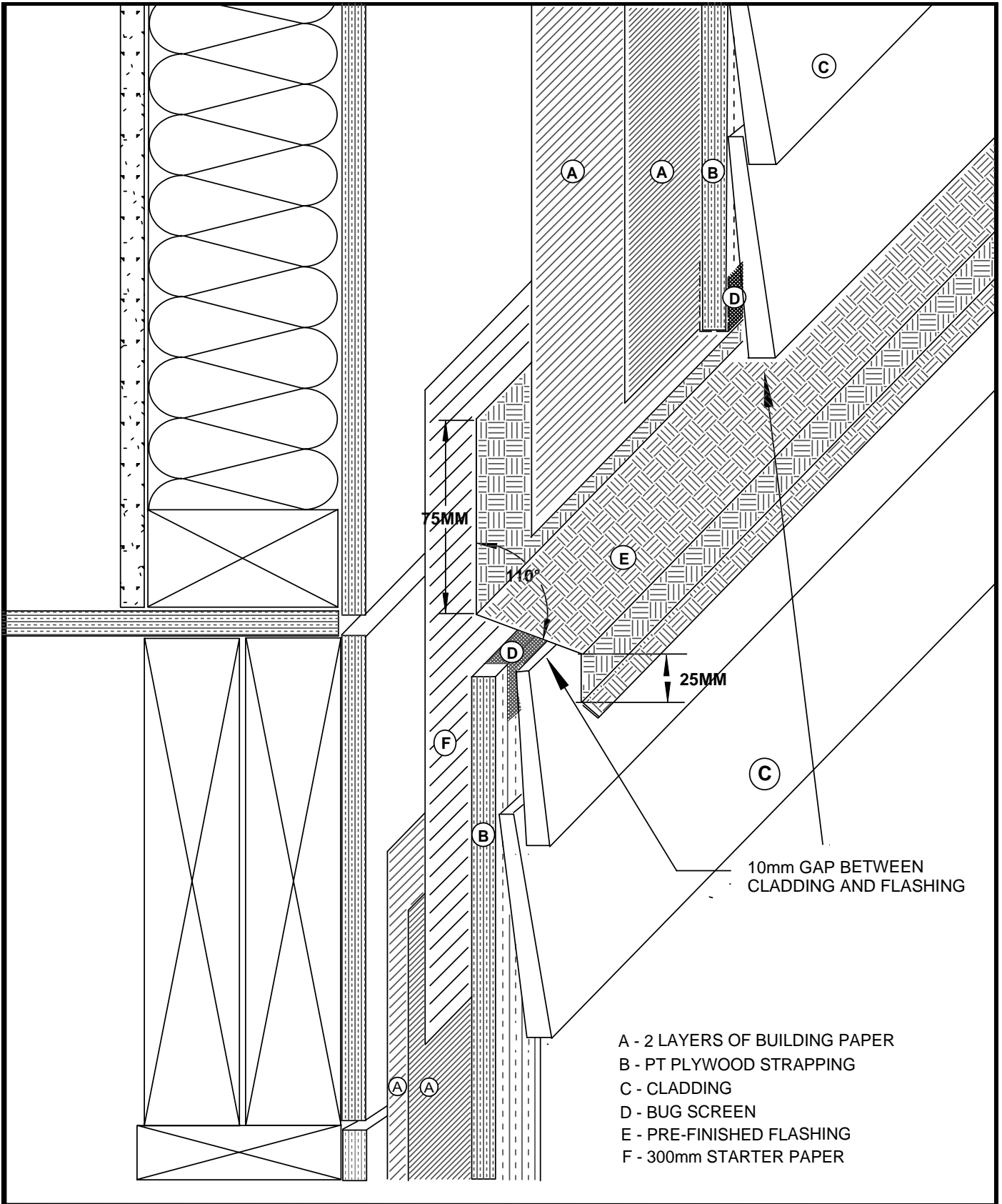
Base of Wall

NTS

**Detail
7.0**

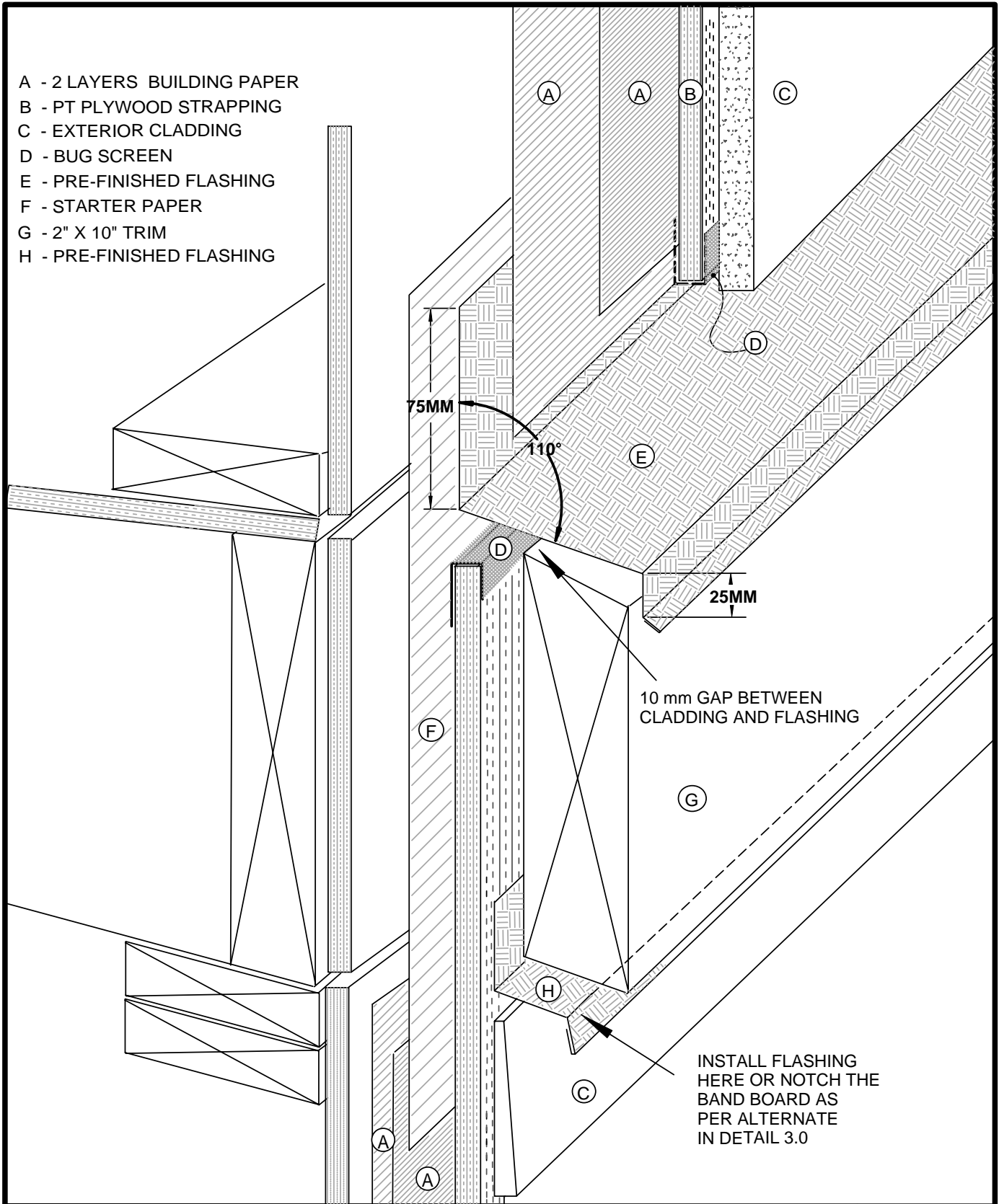
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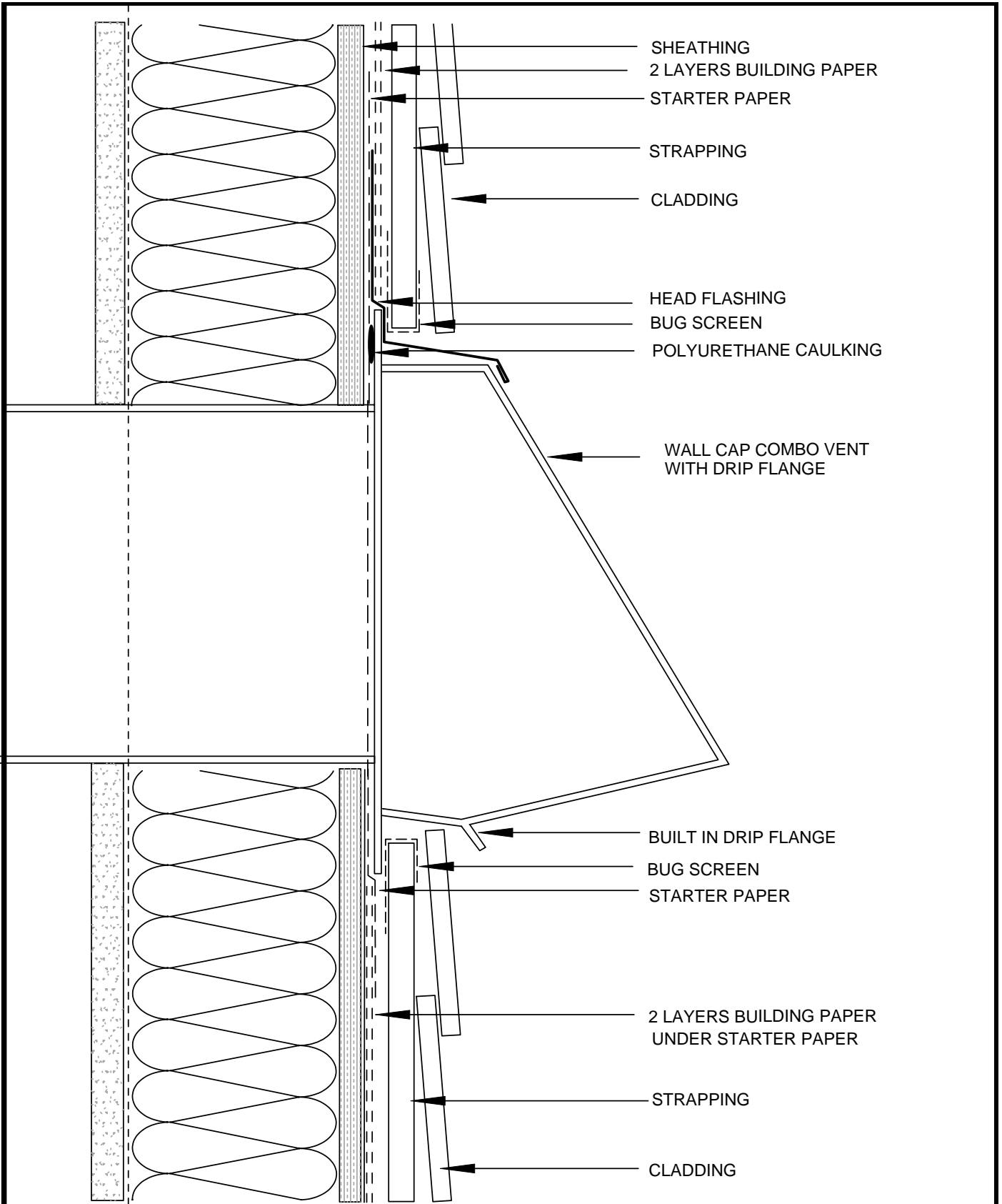


Through Wall Flashing	NTS	Detail 8.0
Warranty Provider Accepted		
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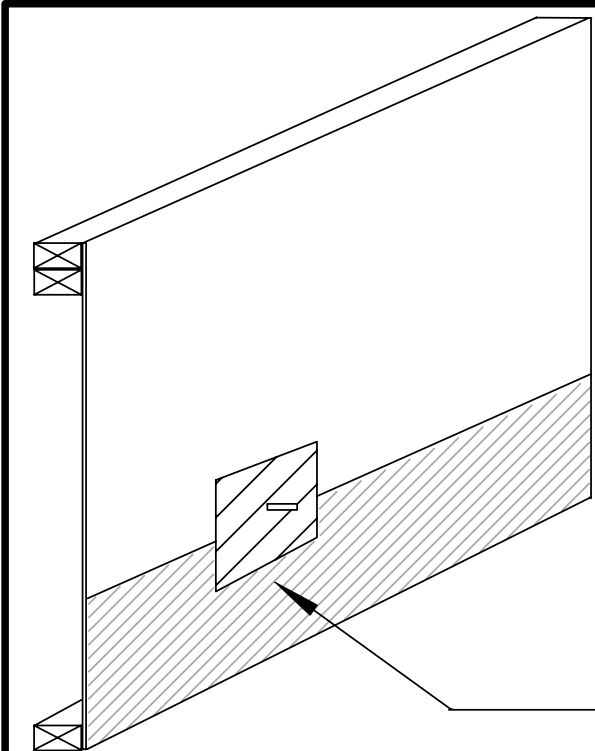
- A - 2 LAYERS BUILDING PAPER
- B - PT PLYWOOD STRAPPING
- C - EXTERIOR CLADDING
- D - BUG SCREEN
- E - PRE-FINISHED FLASHING
- F - STARTER PAPER
- G - 2" X 10" TRIM
- H - PRE-FINISHED FLASHING



Through Wall Flashing & Band Board	NTS	Detail 8.1
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Vent Cap Installation	NTS	Detail 9.1
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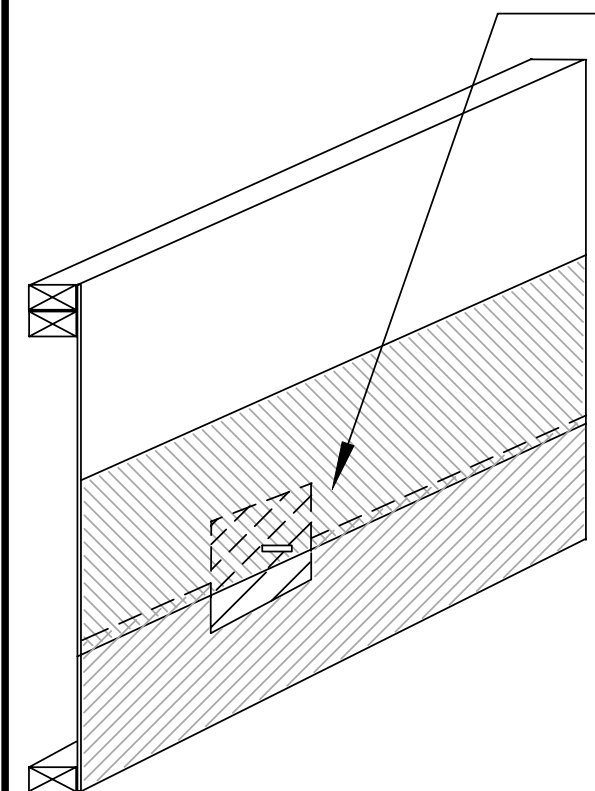
Drill or punch (do NOT cut with a knife) a 5mm hole in the middle of a 300mm x 300mm square of EPDM rubber roofing membrane and push the pipe through it. IT MUST MAKE A TIGHT FIT.

Place the pipe in the wall and staple only the top of the membrane to the wall sheathing. Solder the pipe into the plumbing system at the inside of the wall. Take care not to heat the EPDM membrane.

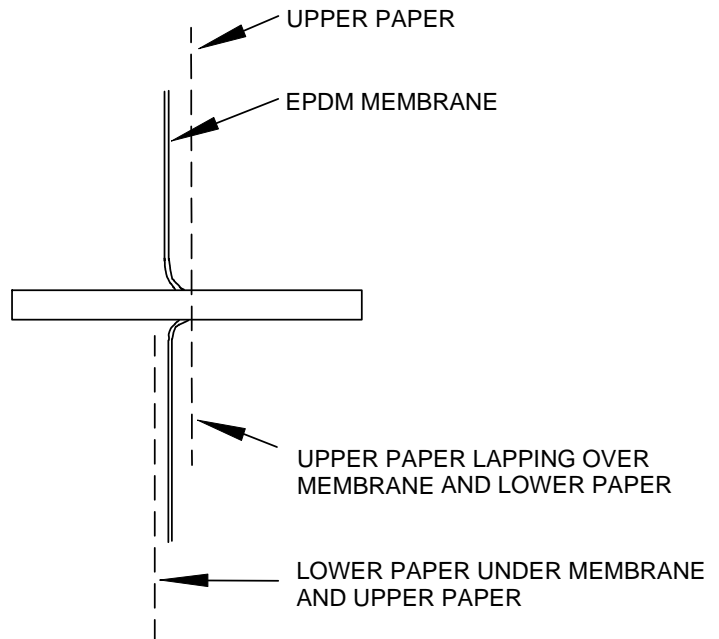
When applying the building paper, pull the bottom of the EPDM membrane outwards and then push it back along the pipe so it bulges OUT NOT IN at the pipe.

Apply the lower paper under the membrane and the upper paper over the membrane as shown. Be sure that the upper paper laps over the joint between the lower paper and the membrane by at least 100mm as shown.

LOWER PAPER UNDER THE EPDM MEMBRANE



UPPER PAPER LAPPED OVER THE MEMBRANE AND THE LOWER PAPER BY 100mm MIN.



Hose Bib Installation

NTS

Detail

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9.2

ALL ELECTRICAL BOXES MUST HAVE GASKETS AND FLANGES

Attach the flanged box on the wall with a piece of strapping behind the flange.

Apply polyurethane caulk to the flange of the box.

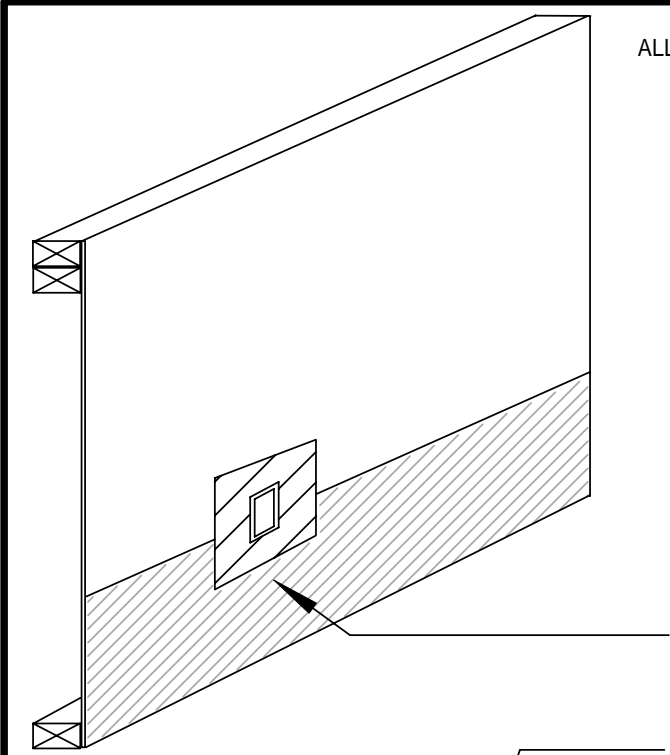
Cut a hole 25mm smaller in both directions than the size of the opening in the box in the middle of a 300mm x 300mm square of EPDM rubber roofing membrane.

Stretch the membrane over the opening of the box and seal it to the flange.

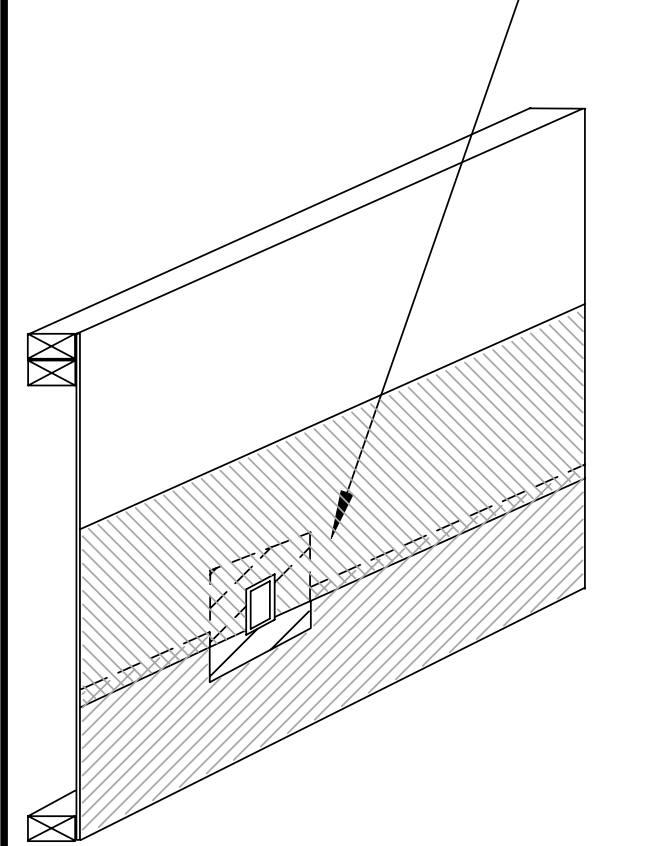
IT MUST BE A TIGHT FIT,

Staple only the top of the membrane to the wall.

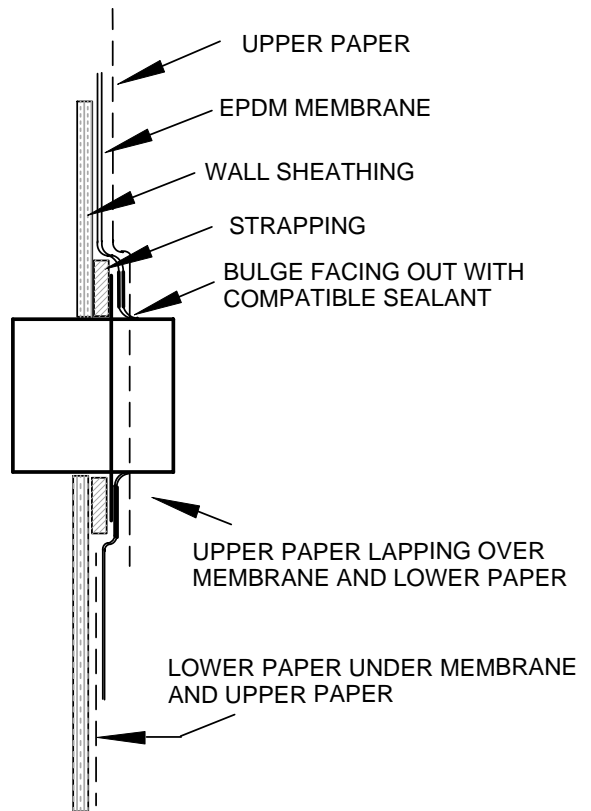
Apply the lower paper under the membrane and the upper paper over the membrane as shown. Be sure that the upper paper laps over the joint between the lower paper and the membrane by at least 100mm as shown.



LOWER PAPER UNDER THE EPDM MEMBRANE



UPPER PAPER LAPPED OVER THE MEMBRANE AND THE LOWER PAPER BY 100mm MIN.



Electrical Box Installation

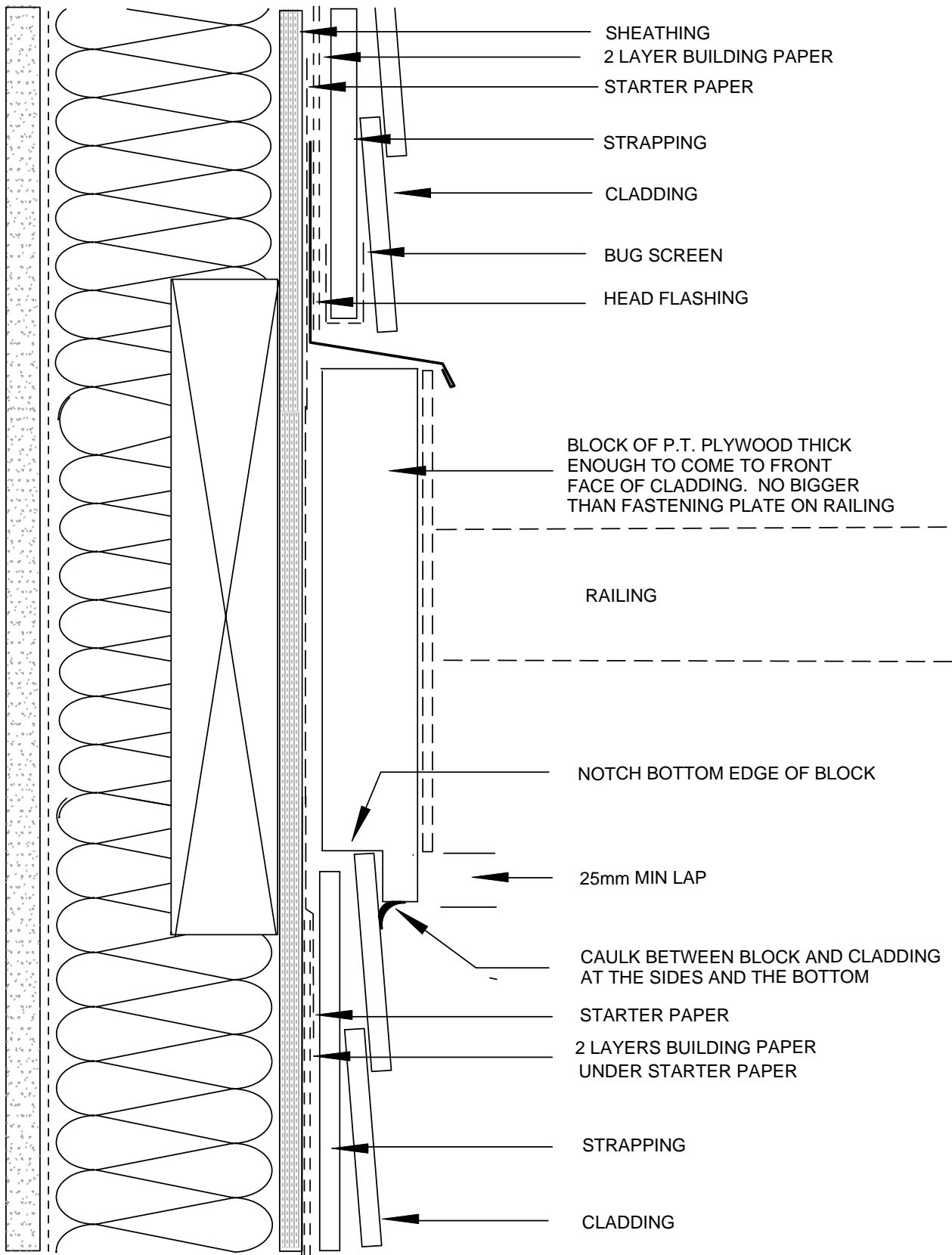
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Detail

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9.3



Blocking For Railing Bracket

NTS

**Detail
9.4**

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