

# Espan 340<sup>®</sup> / 470<sup>®</sup>

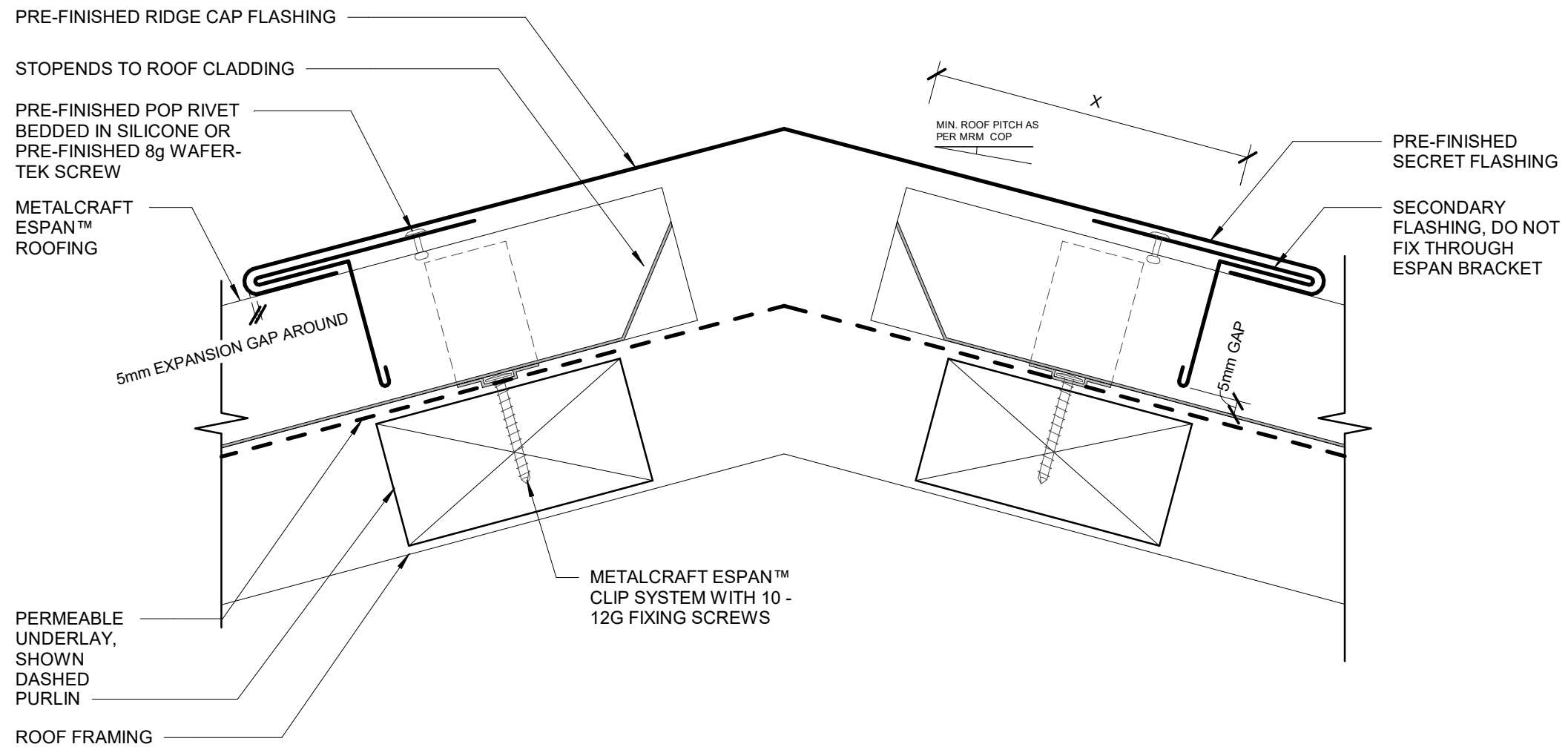
## RESIDENTIAL ROOFING

### DETAIL LIST

		<u>Revision</u>	<u>Date</u>
A 01	RIDGE FLASHING	2.0	JAN 2023
A 02	SAWTOOTH RIDGE	2.0	JAN 2023
A 03	SAWTOOTH EAVE	2.0	JAN 2023
A 04	ROOF VALLEY	2.0	JAN 2023
A 05	CHANGE IN PITCH	2.0	JAN 2023
A 06	EAVE WITH ROUND GUTTER	2.0	JAN 2023
A 07	EAVE WITH SQUARE	2.0	JAN 2023
A 08	BARGE FLASHING	2.0	JAN 2023
A 09	PARAPET WITH TRANSVERSE APRON	2.0	JAN 2023
A 10	TRANSVERSE APRON	2.0	JAN 2023
A 11	PARALLEL APRON	2.0	JAN 2023
A 12	PIPE PENETRATION DIRECT FIXED BOOT FLASHING	2.0	JAN 2023
A 13	PIPE PENETRATION BACK TRAY BOOT FLASHING	2.0	JAN 2023
A 14	3D RIDGE TO BARGE JUCTION	2.0	JAN 2023
A 15	3D DUTCH GABLE	2.0	JAN 2023
A 16	3D APRON	2.0	JAN 2023
A 17	3D BACK TRAY PENETRATION	2.0	JAN 2023
A 18	3D CHIMNEY PENETRATION	2.0	JAN 2023
A 19	PARALLEL HIDDEN GUTTER	2.0	JAN 2023
A 20	PARALLEL HIDDEN GUTTER (2 PART FLASHING)	2.0	JAN 2023

ACCEPTABLE SOLUTION AS PER E2/AS1			
	SITUATION 1	SITUATION 2	SITUATION 3
	1. LOW, MEDIUM, HIGH WIND ZONES, WHERE ROOF PITCH $\geq 10^\circ$	1. VERY HIGH WIND ZONE 2. LOW, MEDIUM AND HIGH WIND ZONES WHERE ROOF PITCH $\leq 10^\circ$	1. ALL ROOF PITCHES IN EXTRA HIGH WIND ZONE
X	MIN. 130mm	MIN. 200mm	MIN. 200mm
Z	MIN. 50mm	MIN. 70mm	MIN. 90mm

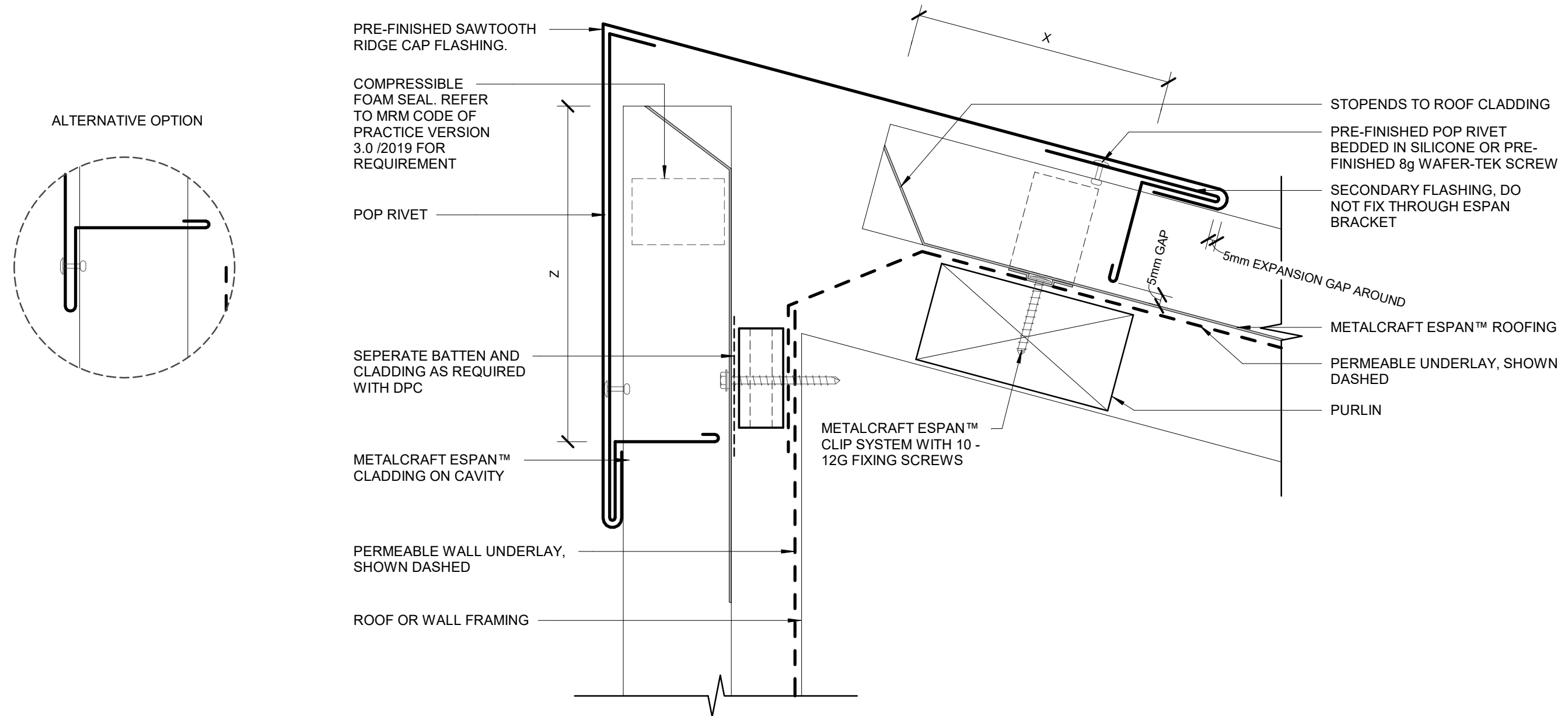
ALTERNATIVE SOLUTION AS PER MRM CODE OF PRACTICE			
	CATEGORY A	CATEGORY B	
	1. NORMAL EXPOSURE 2. ROOF PITCH $>10^\circ$	1. EXPOSED (HIGHER RISK) & WIND LOAD EXCEEDS 1.5 kPa. 2. ROOF PITCH $<10^\circ$	
X	MIN. 130mm	MIN. 200mm	
Z	MIN. 50mm (VERTICALLY DOWN FACE - SMOOTH) MIN. 75mm (VERTICALLY DOWN FACE - PROFILED)	MIN. 75mm (VERTICALLY DOWN FACE - SMOOTH) MIN. 100mm (VERTICALLY DOWN FACE - PROFILED)	



ACCEPTABLE SOLUTION AS PER E2/ASI			
	SITUATION 1	SITUATION 2	SITUATION 3
	1. LOW, MEDIUM, HIGH WIND ZONES, WHERE ROOF PITCH $\geq 10^\circ$	1. VERY HIGH WIND ZONE 2. LOW, MEDIUM AND HIGH WIND ZONES WHERE ROOF PITCH $\leq 10^\circ$	1. ALL ROOF PITCHES IN EXTRA HIGH WIND ZONE
X	MIN. 130mm	MIN. 200mm	MIN. 200mm
Z	MIN. 50mm	MIN. 70mm	MIN. 90mm

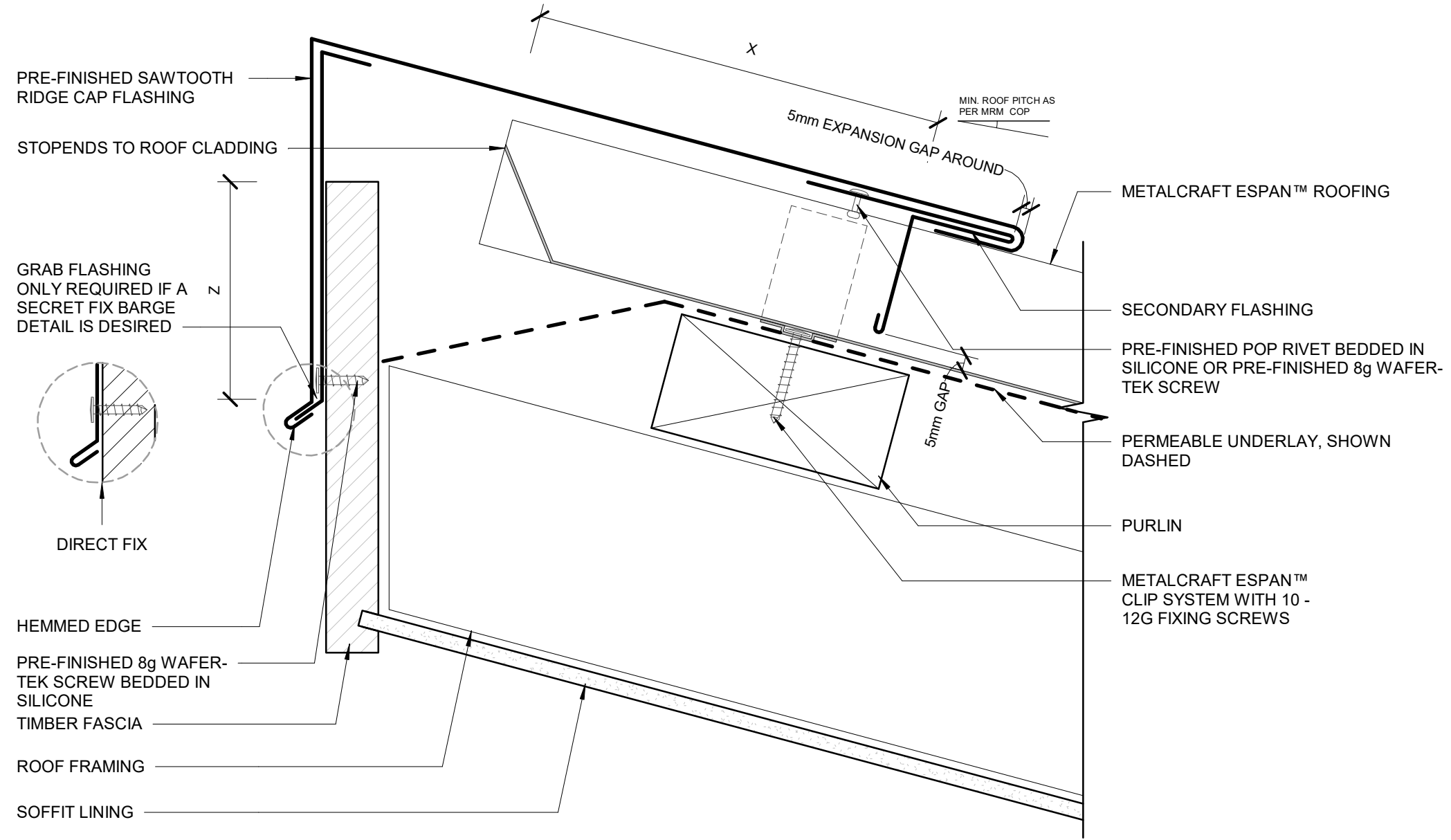
ALTERNATIVE SOLUTION AS PER MRM CODE OF PRACTICE			
	CATEGORY A	CATEGORY B	
	1. NORMAL EXPOSURE 2. ROOF PITCH $> 10^\circ$	1. EXPOSED (HIGHER RISK) & WIND LOAD EXCEEDS 1.5 kPa. 2. ROOF PITCH $< 10^\circ$	
X	MIN. 130mm	MIN. 200mm	
Z	MIN. 50mm (VERTICALLY DOWN FACE - SMOOTH) MIN. 75mm (VERTICALLY DOWN FACE - PROFILED)	MIN. 75mm (VERTICALLY DOWN FACE - SMOOTH) MIN. 100mm (VERTICALLY DOWN FACE - PROFILED)	

MIN. ROOF PITCH AS PER MRM COP



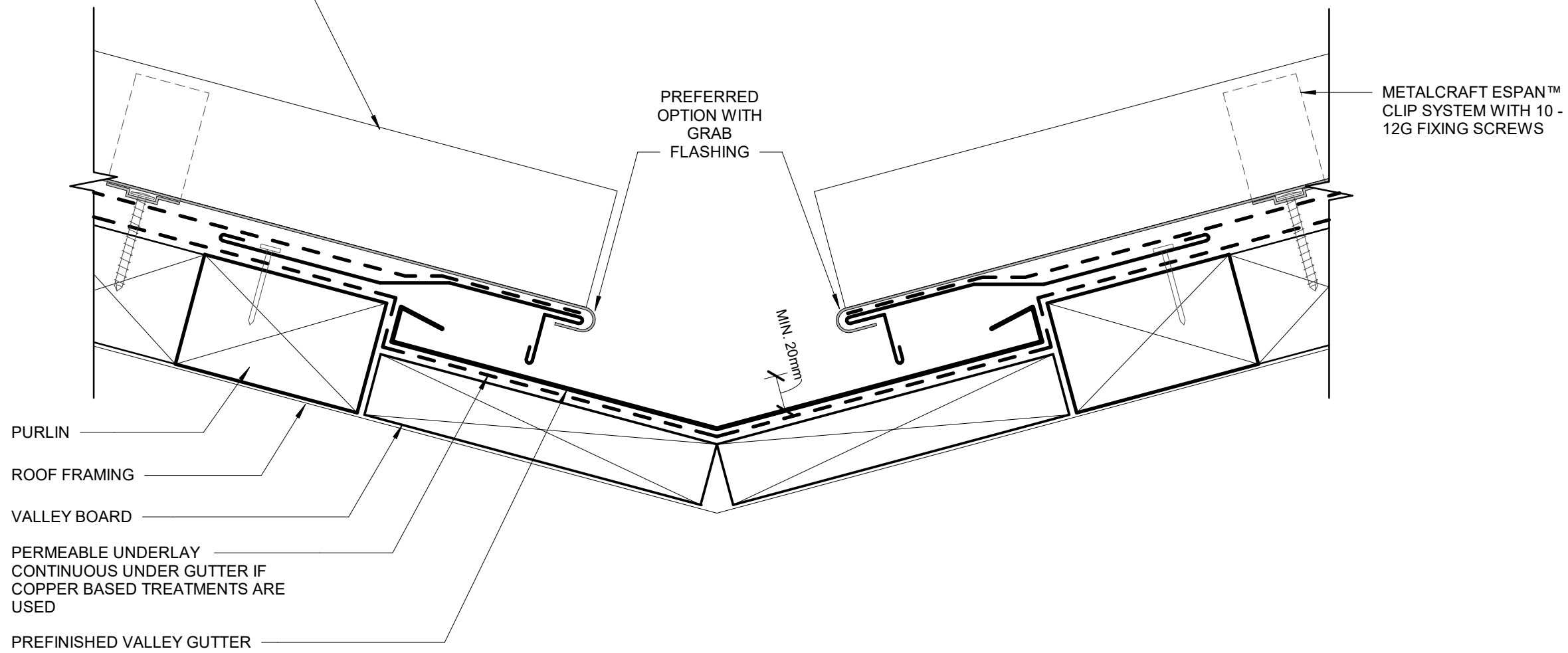
ACCEPTABLE SOLUTION AS PER E2/AS1			
	SITUATION 1	SITUATION 2	SITUATION 3
	1. LOW, MEDIUM, HIGH WIND ZONES, WHERE ROOF PITCH $\geq 10^\circ$	1. VERY HIGH WIND ZONE 2. LOW, MEDIUM AND HIGH WIND ZONES WHERE ROOF PITCH $\leq 10^\circ$	1. ALL ROOF PITCHES IN EXTRA HIGH WIND ZONE
X	MIN. 130mm	MIN. 200mm	MIN. 200mm
Z	MIN. 50mm	MIN. 70mm	MIN. 90mm

ALTERNATIVE SOLUTION AS PER MRM CODE OF PRACTICE			
	CATEGORY A	CATEGORY B	
	1. NORMAL EXPOSURE 2. ROOF PITCH $> 10^\circ$	1. EXPOSED (HIGHER RISK) & WIND LOAD EXCEEDS 1.5 kPa. 2. ROOF PITCH $< 10^\circ$	
X	MIN. 130mm	MIN. 200mm	
Z	MIN. 50mm (VERTICALLY DOWN FACE - SMOOTH) MIN. 75mm (VERTICALLY DOWN FACE - PROFILED)	MIN. 75mm (VERTICALLY DOWN FACE - SMOOTH) MIN. 100mm (VERTICALLY DOWN FACE - PROFILED)	



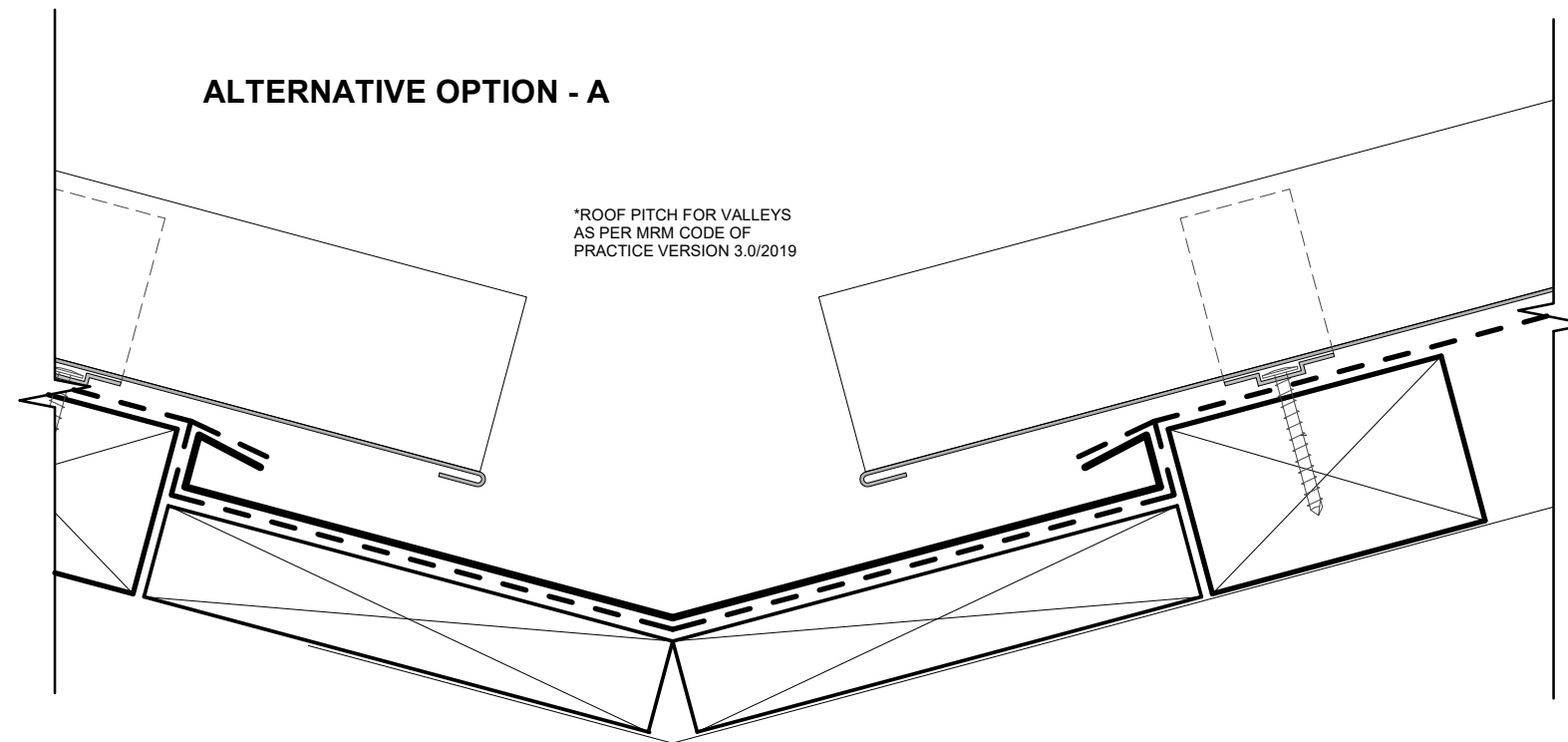
METALCRAFT ESPAN™  
ROOFING

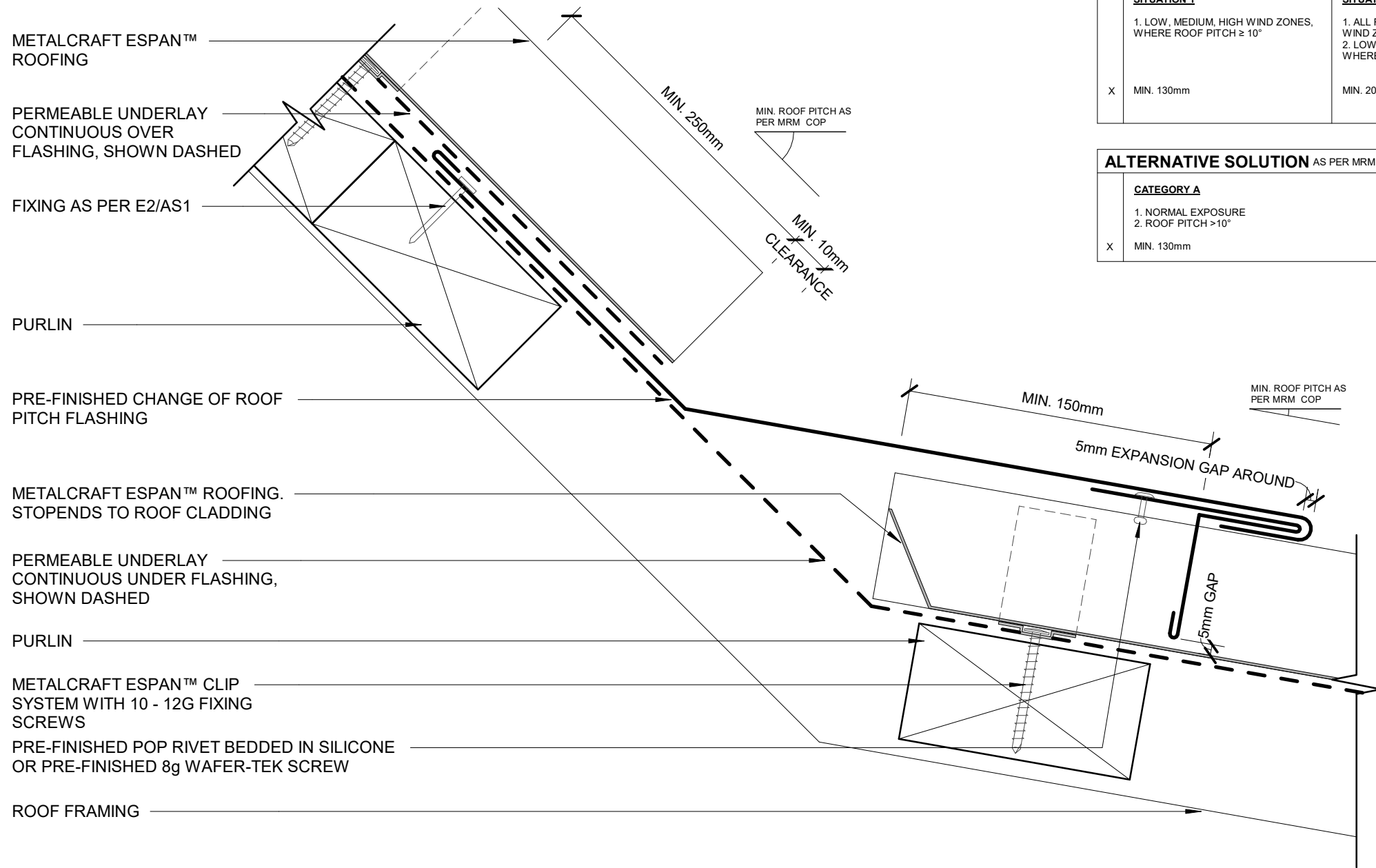
REFER TO NZ METAL ROOF & WALL  
CLADDING CODE OF PRACTICE V3.0  
FOR MINIMUM DIMENSION



### ALTERNATIVE OPTION - A

\*ROOF PITCH FOR VALLEYS  
AS PER MRM CODE OF  
PRACTICE VERSION 3.0/2019

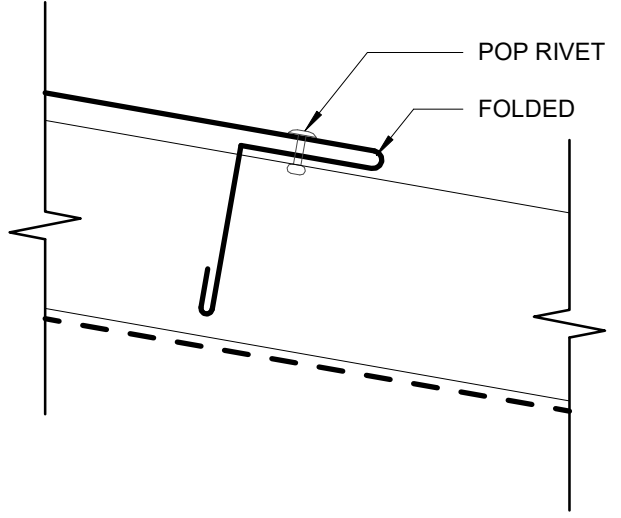




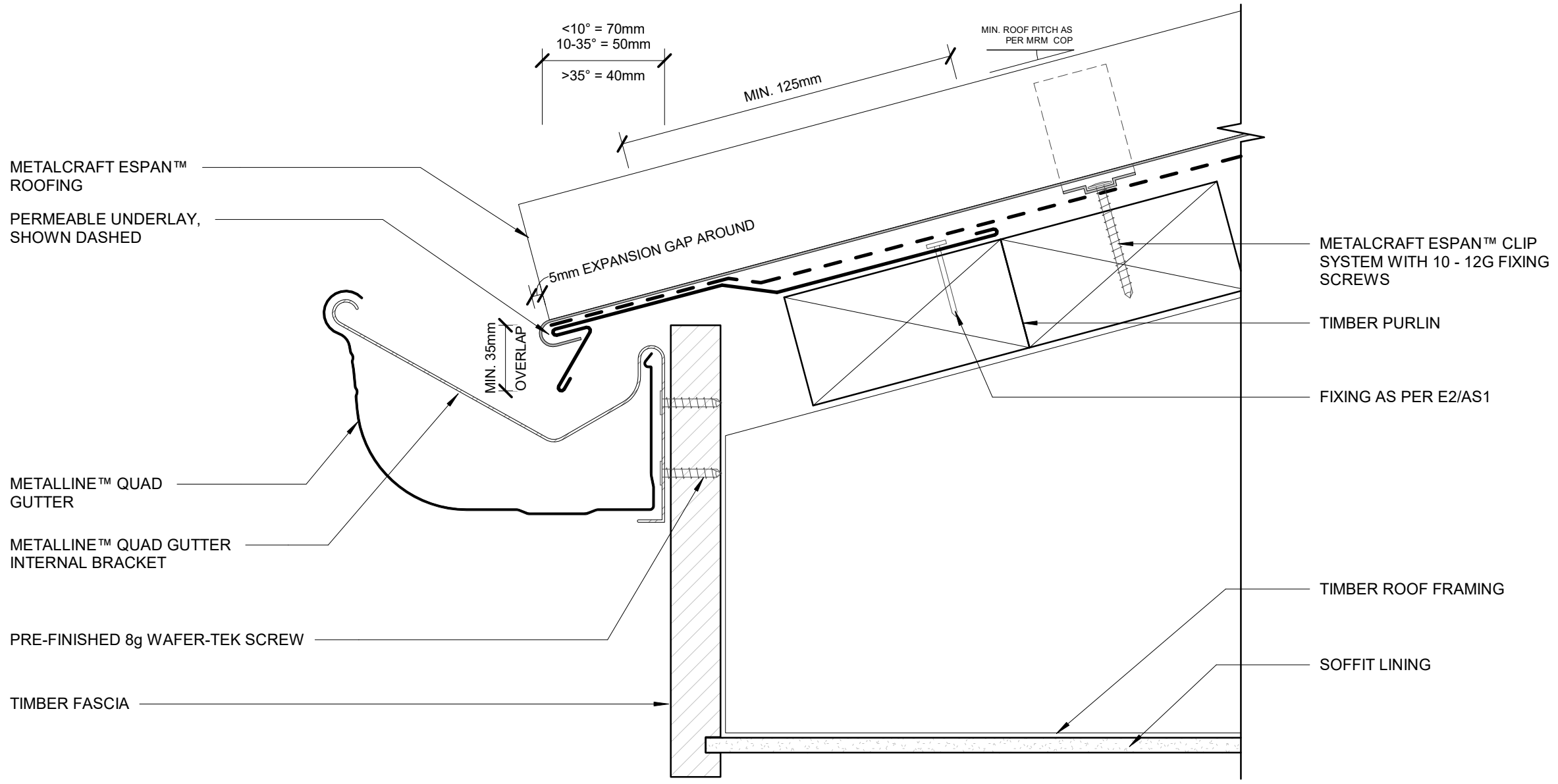
ACCEPTABLE SOLUTION AS PER E2/AS1		
<b>SITUATION 1</b> 1. LOW, MEDIUM, HIGH WIND ZONES, WHERE ROOF PITCH $\geq 10^\circ$	<b>SITUATION 2</b> 1. ALL ROOF PITCHES IN VERY HIGH WIND ZONE 2. LOW, MEDIUM, HIGH WIND ZONES WHERE ROOF PITCH $\leq 10^\circ$	<b>SITUATION 3</b> 1. NOT PERMITTED UNDER E2/AS1
X MIN. 130mm	MIN. 200mm	

ALTERNATIVE SOLUTION AS PER MRM CODE OF PRACTICE	
<b>CATEGORY A</b> 1. NORMAL EXPOSURE 2. ROOF PITCH $>10^\circ$	<b>CATEGORY B</b> 1. EXPOSED (HIGHER RISK) & WIND LOAD EXCEEDS 1.5 kPa. 2. ROOF PITCH $<10^\circ$
X MIN. 130mm	MIN. 200mm

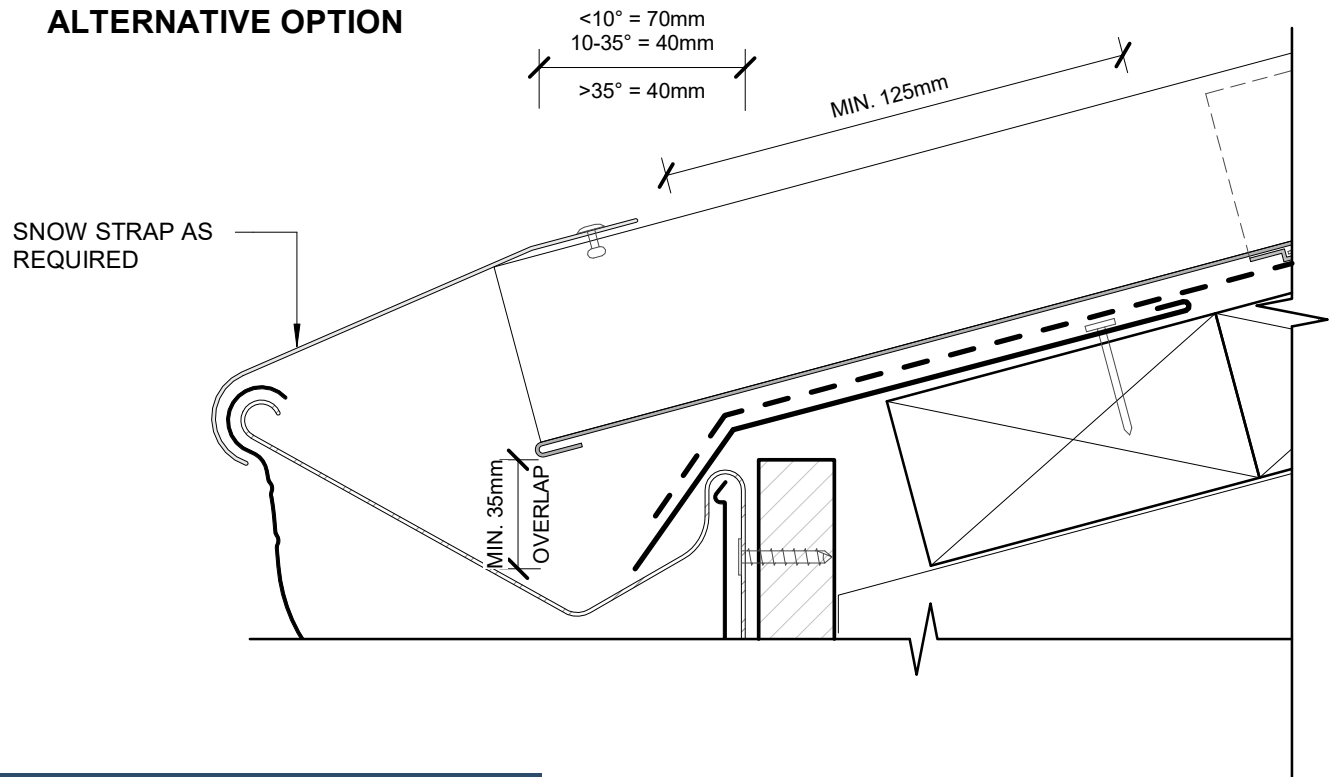
**ALTERNATIVE OPTION**



EAVE FLASHING IS ALWAYS REQUIRED



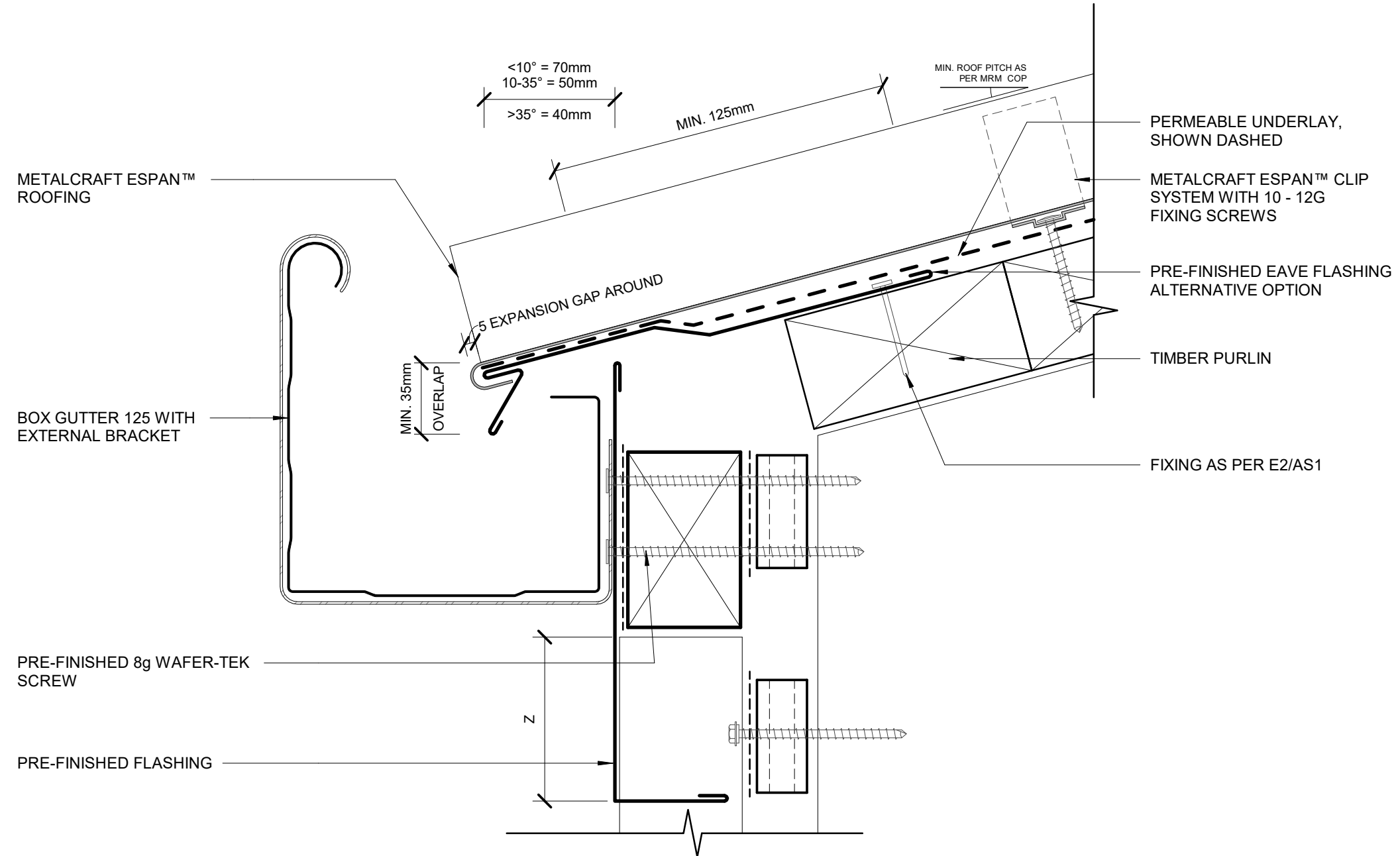
**ALTERNATIVE OPTION**



ACCEPTABLE SOLUTION AS PER E2/AS1		
<b>SITUATION 1</b>	<b>SITUATION 2</b>	<b>SITUATION 3</b>
1. LOW, MEDIUM, HIGH WIND ZONES, WHERE ROOF PITCH $\geq 10^\circ$	1. ALL ROOF PITCHES IN VERY HIGH WIND ZONE 2. LOW, MEDIUM, HIGH WIND ZONES WHERE ROOF PITCH $\leq 10^\circ$	1. FOR ALL ROOF PITCHES IN EXTRA HIGH WIND ZONES
Z MIN. 50mm	MIN. 70mm	MIN. 90mm

ALTERNATIVE SOLUTION AS PER MRM CODE OF PRACTICE	
<b>CATEGORY A</b>	<b>CATEGORY B</b>
1. NORMAL EXPOSURE 2. ROOF PITCH $>10^\circ$	1. EXPOSED (HIGHER RISK) & WIND LOAD EXCEEDS 1.5 kPa. 2. ROOF PITCH $<10^\circ$
Z MIN. 50mm (VERTICALLY DOWN FACE - SMOOTH) MIN. 75mm (VERTICALLY DOWN FACE - PROFILED)	MIN. 75mm (VERTICALLY DOWN FACE - SMOOTH) MIN. 100mm (VERTICALLY DOWN FACE - PROFILED)

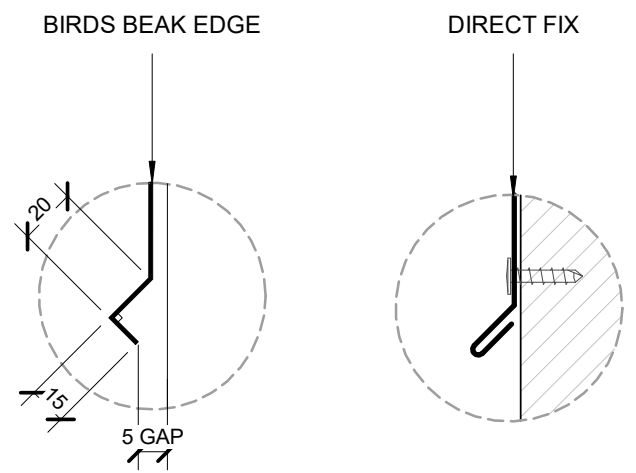
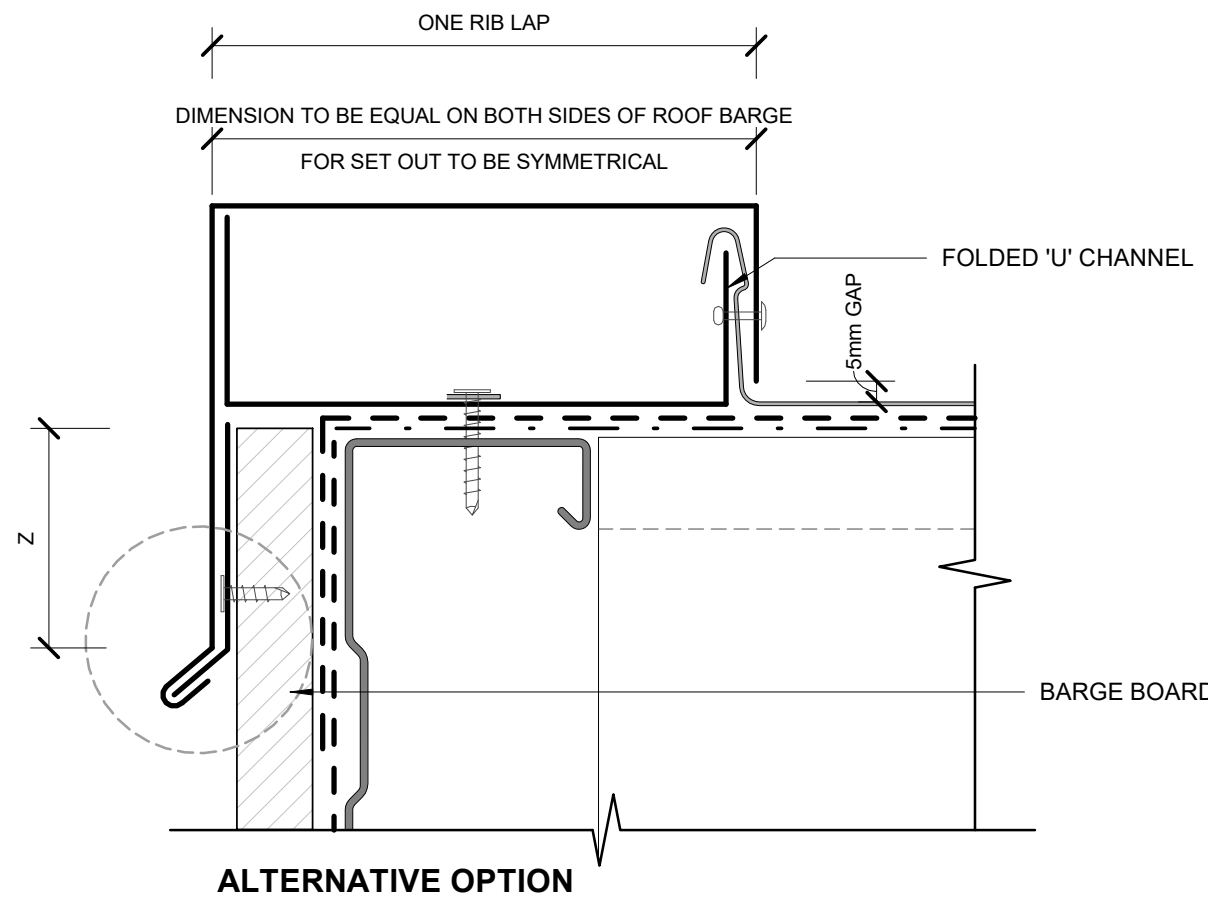
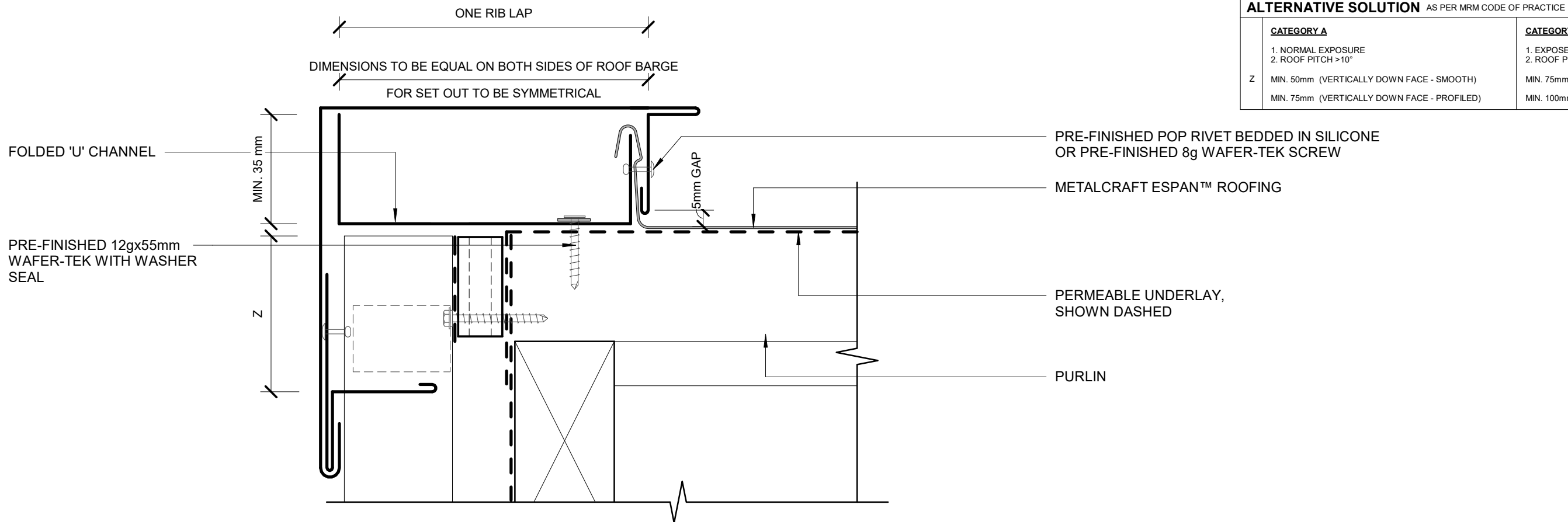
EAVE FLASHING IS ALWAYS REQUIRED

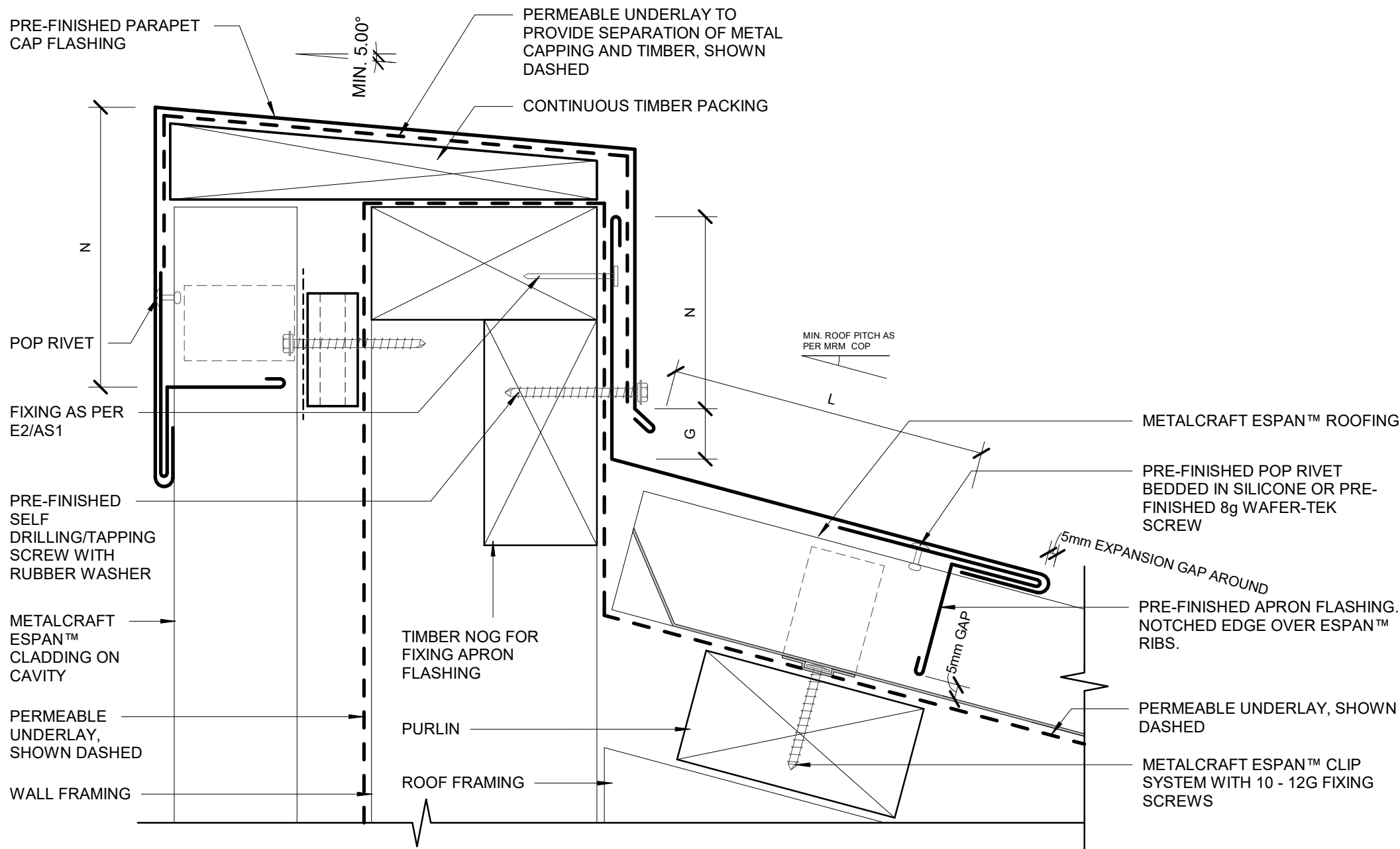




ACCEPTABLE SOLUTION AS PER E2/AS1		
<b>SITUATION 1</b>	<b>SITUATION 2</b>	<b>SITUATION 3</b>
1. LOW, MEDIUM, HIGH WIND ZONES, WHERE ROOF PITCH $\geq 10^\circ$	1. ALL ROOF PITCHES IN VERY HIGH WIND ZONE 2. LOW, MEDIUM, HIGH WIND ZONES WHERE ROOF PITCH $\leq 10^\circ$	1. FOR ALL ROOF PITCHES IN EXTRA HIGH WIND ZONES
Z MIN. 50mm	MIN. 70mm	MIN. 90mm

ALTERNATIVE SOLUTION AS PER MRM CODE OF PRACTICE	
<b>CATEGORY A</b>	<b>CATEGORY B</b>
1. NORMAL EXPOSURE 2. ROOF PITCH $>10^\circ$	1. EXPOSED (HIGHER RISK) & WIND LOAD EXCEEDS 1.5 kPa. 2. ROOF PITCH $<10^\circ$
Z MIN. 50mm (VERTICALLY DOWN FACE - SMOOTH) MIN. 75mm (VERTICALLY DOWN FACE - PROFILED)	MIN. 75mm (VERTICALLY DOWN FACE - SMOOTH) MIN. 100mm (VERTICALLY DOWN FACE - PROFILED)





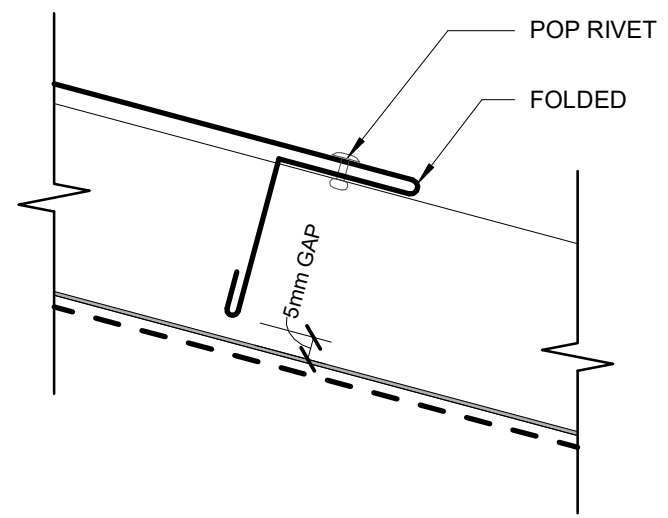
**ACCEPTABLE SOLUTION** AS PER E2/AS1

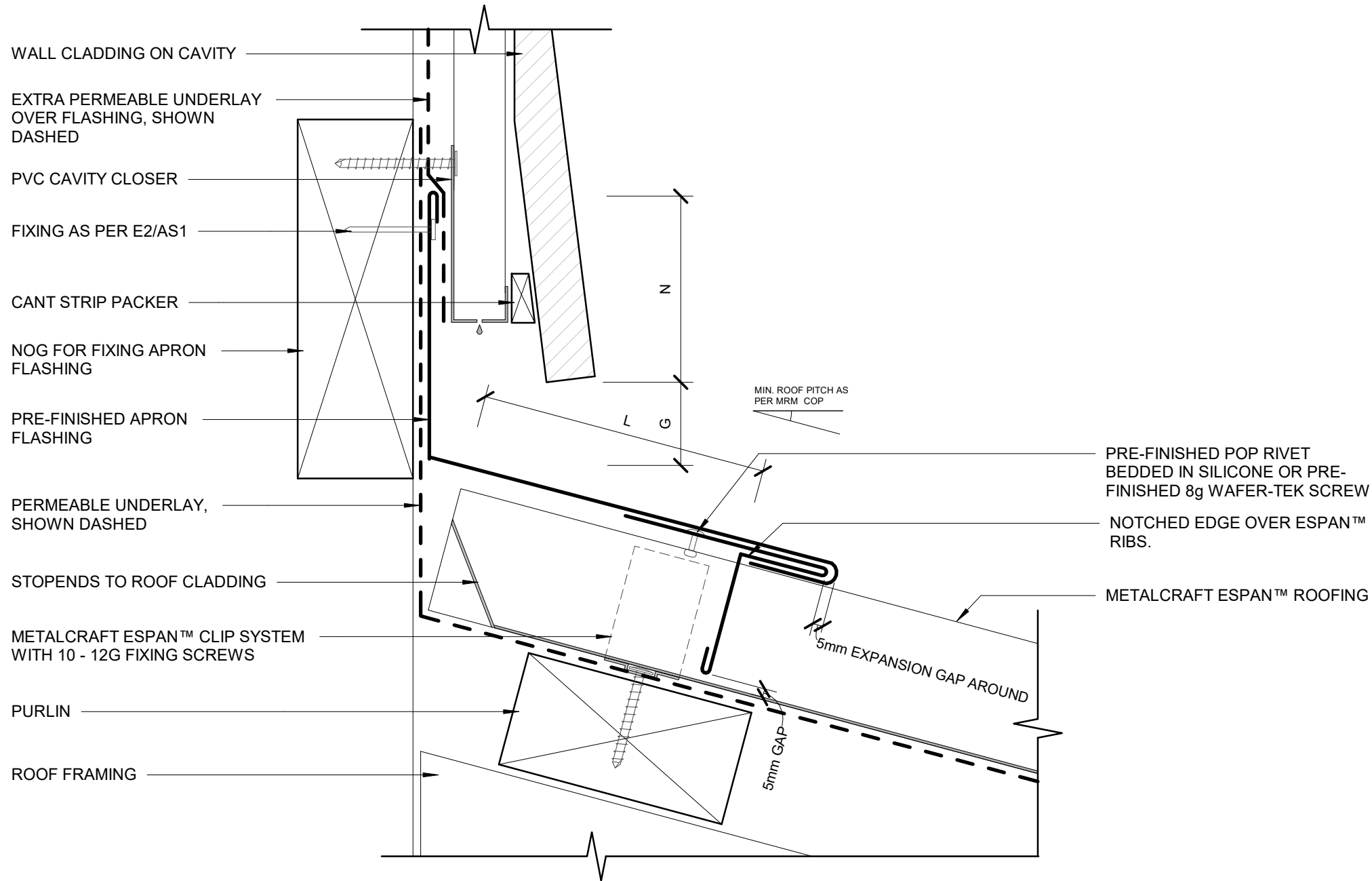
	<b>SITUATION 1</b>	<b>SITUATION 2</b>	<b>SITUATION 3</b>
	1. LOW, MEDIUM, HIGH WIND ZONES, WHERE ROOF PITCH $\geq 10^\circ$	1. ALL ROOF PITCHES IN VERY HIGH WIND ZONES 2. LOW, MEDIUM, AND HIGH WIND ZONES WHERE ROOF PITCH $\leq 10^\circ$	1. ALL ROOF PITCHES IN EXTRA HIGH WIND ZONE
G	MIN. 35mm	MIN. 35mm	MIN. 35mm
N	MIN. 75mm	MIN. 75mm	MIN. 35mm
L	MIN. 130mm	MIN. 200mm	MIN. 200mm

**ALTERNATIVE SOLUTION** AS PER MRM CODE OF PRACTICE

	<b>CATEGORY A</b>	<b>CATEGORY B</b>
	1. NORMAL EXPOSURE 2. ROOF PITCH $>10^\circ$	1. EXPOSED (HIGHER RISK) & WIND LOAD EXCEEDS 1.5 kPa. 2. ROOF PITCH $<10^\circ$
	25mm	25mm
G	MIN. 50mm + HEM OR 75mm (VERTICALLY UP FACE - SMOOTH)	MIN. 75mm + HEM OR 100mm (VERTICALLY UP FACE - SMOOTH)
N	MIN. 75mm + HEM OR 100mm (VERTICALLY UP FACE - PROFILED)	MIN. 100mm + HEM OR 125mm (VERTICALLY UP FACE - PROFILED)
L	MIN. 150mm	MIN. 200mm

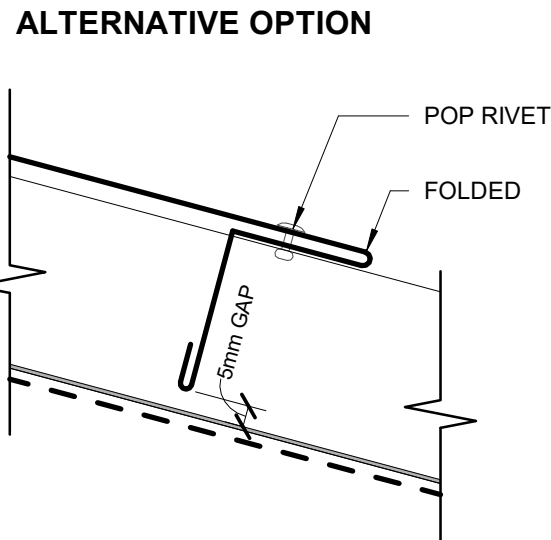
**ALTERNATIVE OPTION**

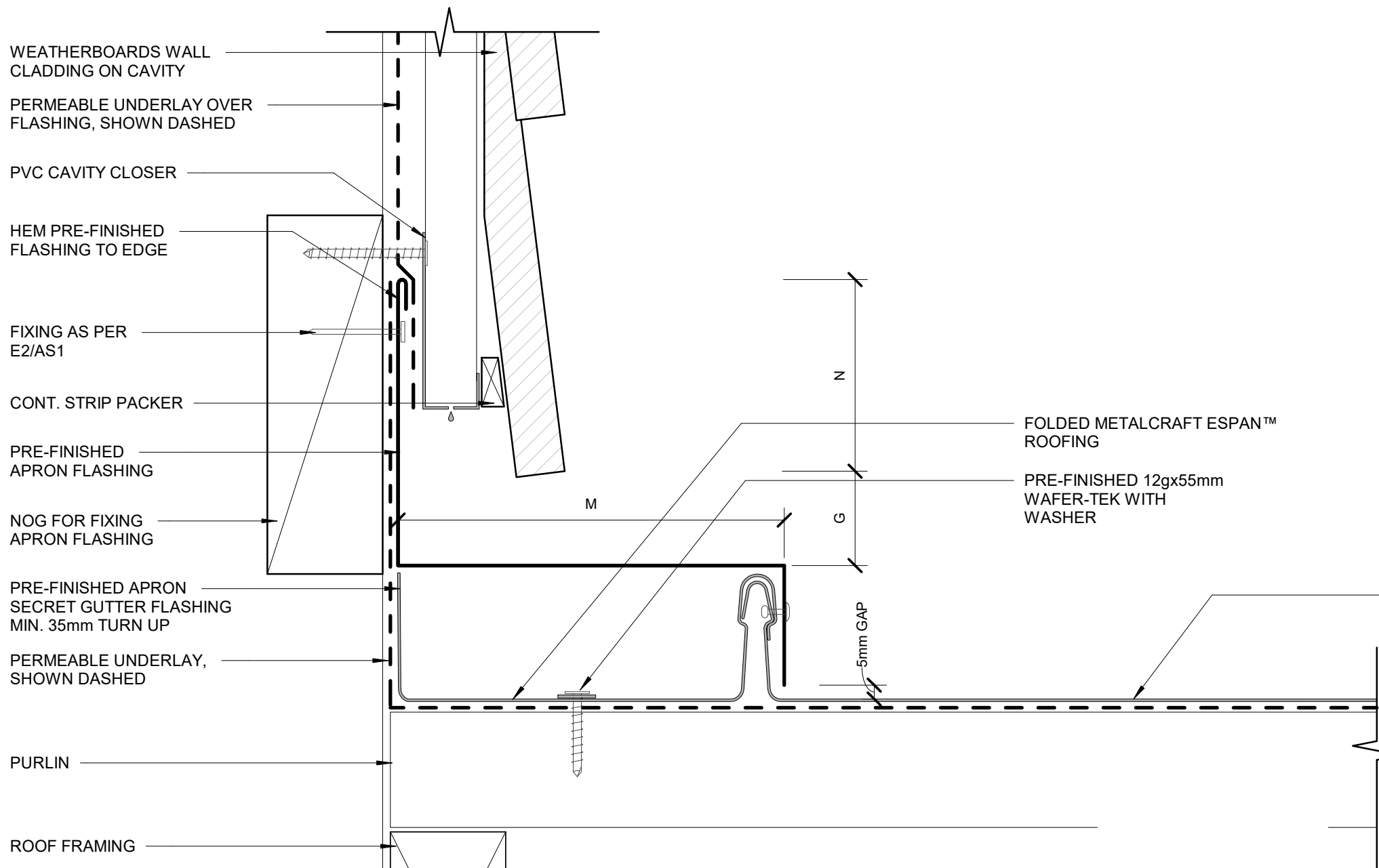




ACCEPTABLE SOLUTION AS PER E2/AS1			
	SITUATION 1	SITUATION 2	SITUATION 3
	1. LOW, MEDIUM, HIGH WIND ZONES, WHERE ROOF PITCH $\geq 10^\circ$	1. ALL ROOF PITCHES IN VERY HIGH WIND ZONES 2. LOW, MEDIUM, AND HIGH WIND ZONES WHERE ROOF PITCH $\leq 10^\circ$	1. ALL ROOF PITCHES IN EXTRA HIGH WIND ZONE
G	MIN. 35mm	MIN. 35mm	MIN. 35mm
N	MIN. 75mm	MIN. 75mm	
L	MIN. 130mm	MIN. 200mm	MIN. 200mm

ALTERNATIVE SOLUTION AS PER MRM CODE OF PRACTICE	
	CATEGORY A
	1. NORMAL EXPOSURE 2. ROOF PITCH $>10^\circ$
	25mm
G	MIN. 50mm + HEM OR 75mm (VERTICALLY UP FACE - SMOOTH)
N	MIN. 75mm + HEM OR 100mm (VERTICALLY UP FACE - PROFILED)
L	MIN. 150mm
	CATEGORY B
	1. EXPOSED (HIGHER RISK) & WIND LOAD EXCEEDS 1.5 kPa. 2. ROOF PITCH $<10^\circ$
	25mm
	MIN. 75mm + HEM OR 100mm (VERTICALLY UP FACE - SMOOTH)
	MIN. 100mm + HEM OR 125mm (VERTICALLY UP FACE - PROFILED)
	MIN. 200mm

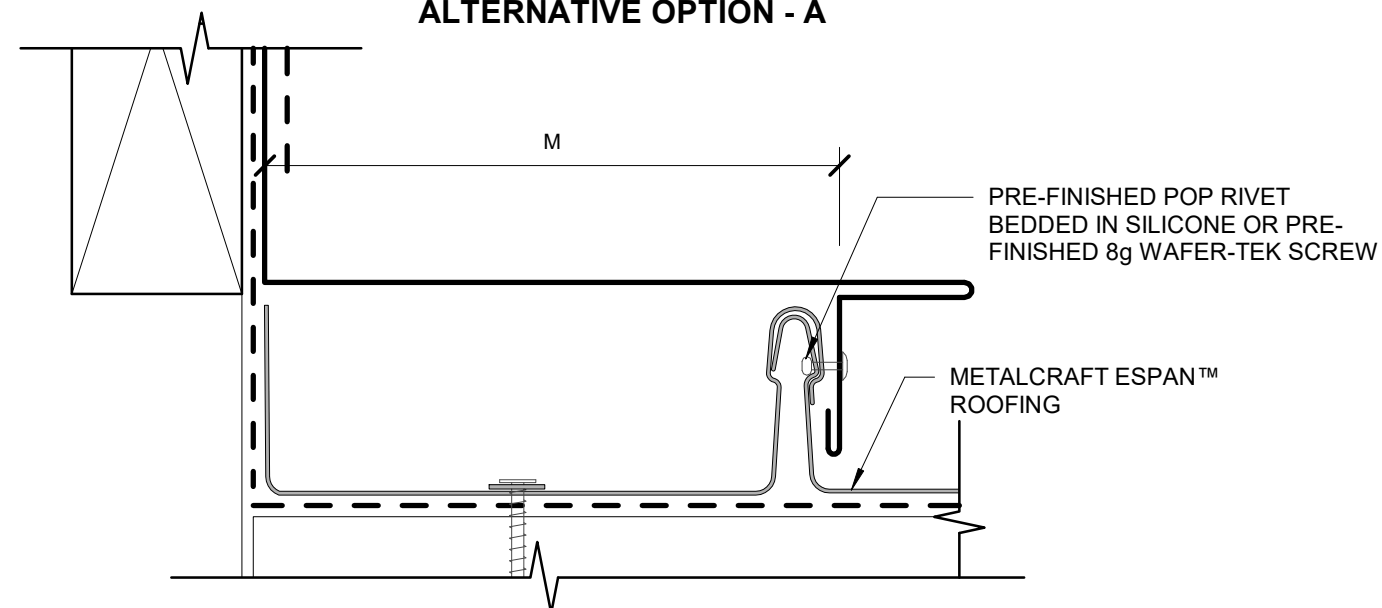




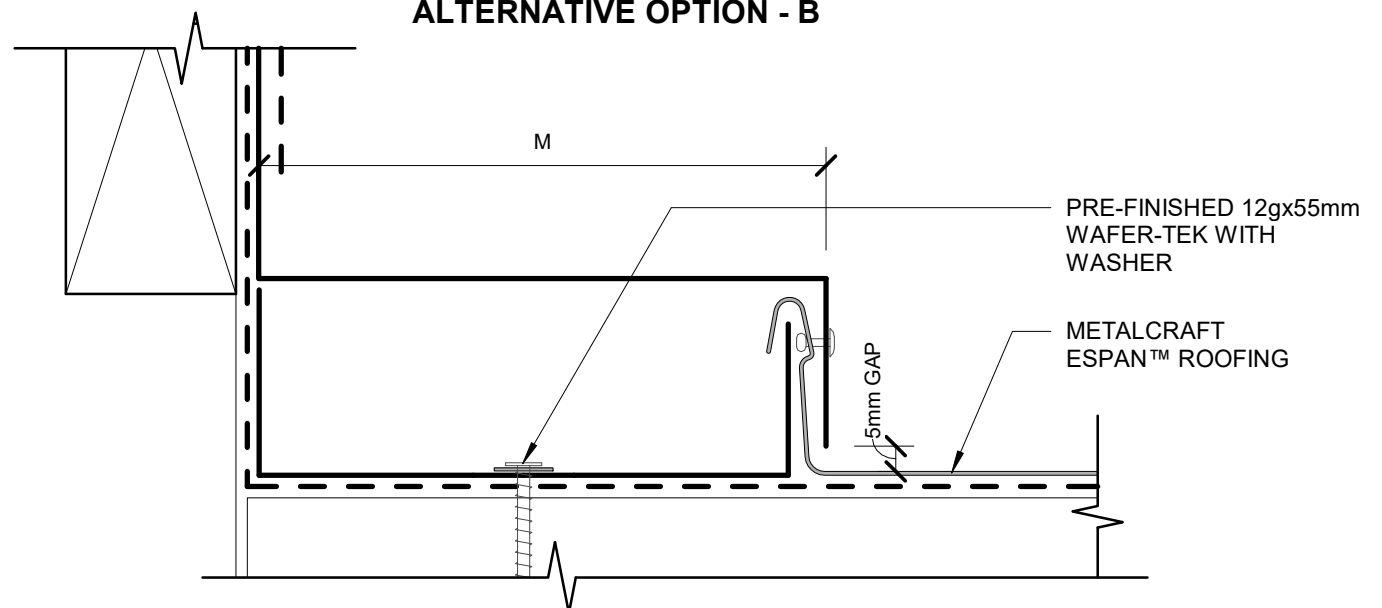
ACCEPTABLE SOLUTION AS PER E2/AS1			
	SITUATION 1	SITUATION 2	SITUATION 3
	1. LOW, MEDIUM, HIGH WIND ZONES, WHERE ROOF PITCH $\geq 10^\circ$	1. ALL ROOF PITCHES IN VERY HIGH WIND ZONE 2. LOW, MEDIUM, AND HIGH WIND ZONES WHERE ROOF PITCH $\leq 10^\circ$	1. ALL ROOF PITCHES IN EXTRA HIGH WIND ZONE
G	MIN. 35mm	MIN. 35mm	MIN. 35mm
N	MIN. 75mm	MIN. 75mm	MIN. 75mm
M	AT LEAST TWO CRESTS	AT LEAST TWO CRESTS	AT LEAST TWO CRESTS

ALTERNATIVE SOLUTION AS PER MRM CODE OF PRACTICE	
CATEGORY A	CATEGORY B
1. NORMAL EXPOSURE 2. ROOF PITCH $> 10^\circ$	1. EXPOSED (HIGHER RISK) & WIND LOAD EXCEEDS 1.5 kPa. 2. ROOF PITCH $< 10^\circ$
G 25mm	25mm
N MIN. 50mm + HEM OR 75mm (VERTICALLY UP FACE - SMOOTH) MIN. 75mm + HEM OR 100mm (VERTICALLY UP FACE - PROFILED)	MIN. 75mm + HEM OR 100mm (VERTICALLY UP FACE - SMOOTH) MIN. 100mm + HEM OR 125mm (VERTICALLY UP FACE - PROFILED)
M ONE RIB	

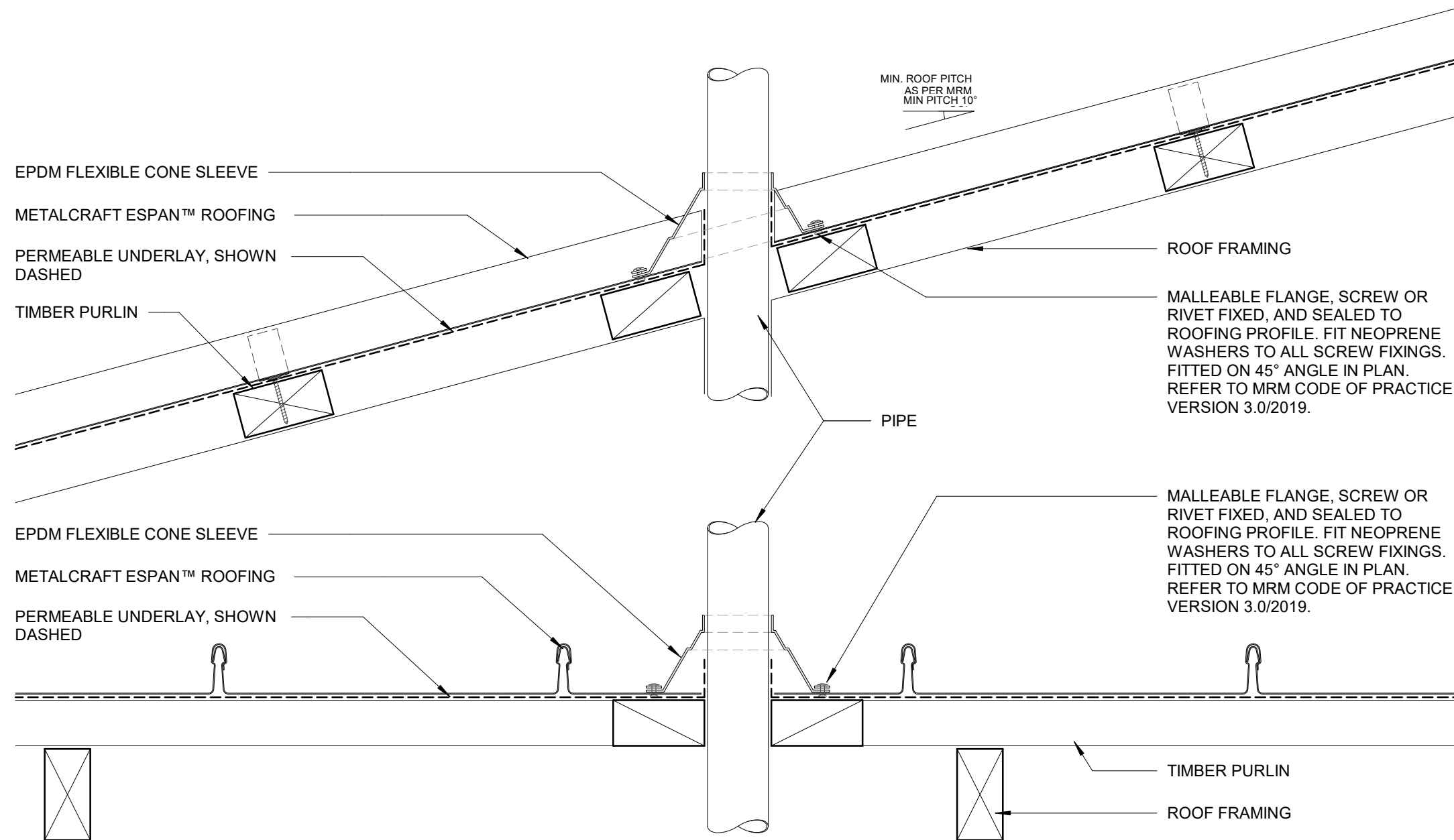
ALTERNATIVE OPTION - A



ALTERNATIVE OPTION - B



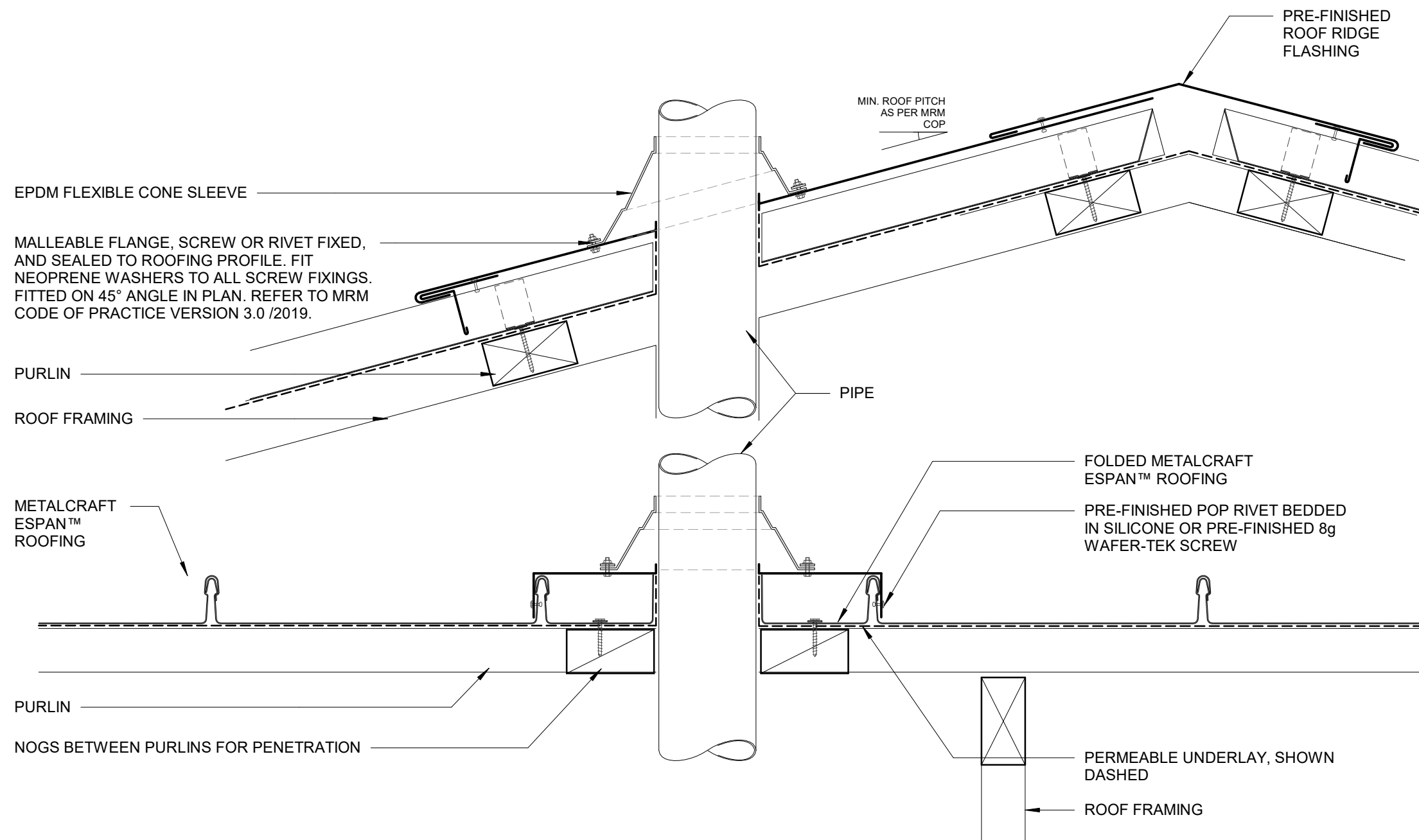
\* MIN. 10° FOR PIPE PENETRATION WITH A BOOT.  
 BOOT FLASHING MUST BE FIXED DIAGONALLY.  
 BOOT FLASHING IS ONLY APPLICABLE WHEN LESS THAN 50% OF THE PAN IS BLOCKED.  
 WHEN ROOF PITCH IS LESS THAN 10° USE BACK TRAY AS PER A13  
 REFER TO MRM CODE OF PRACTICE

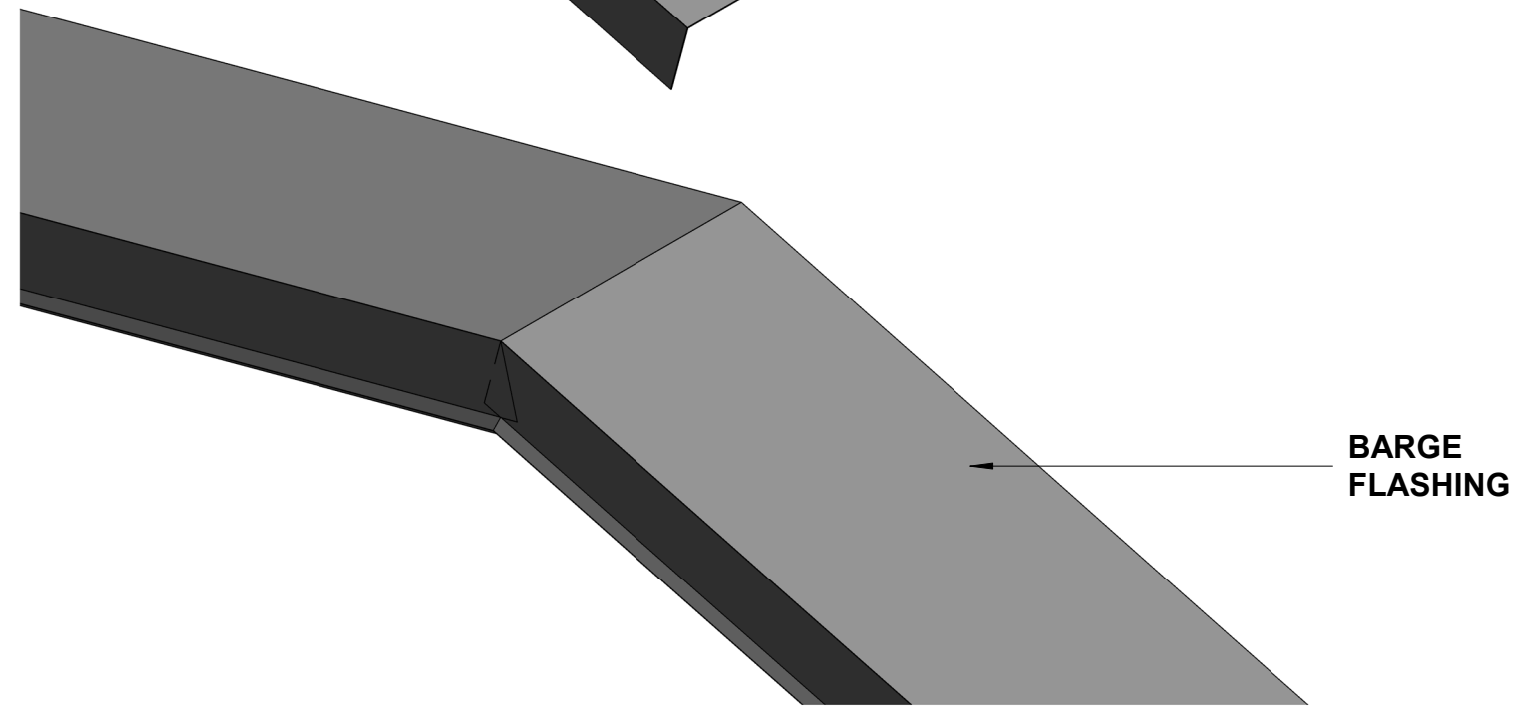
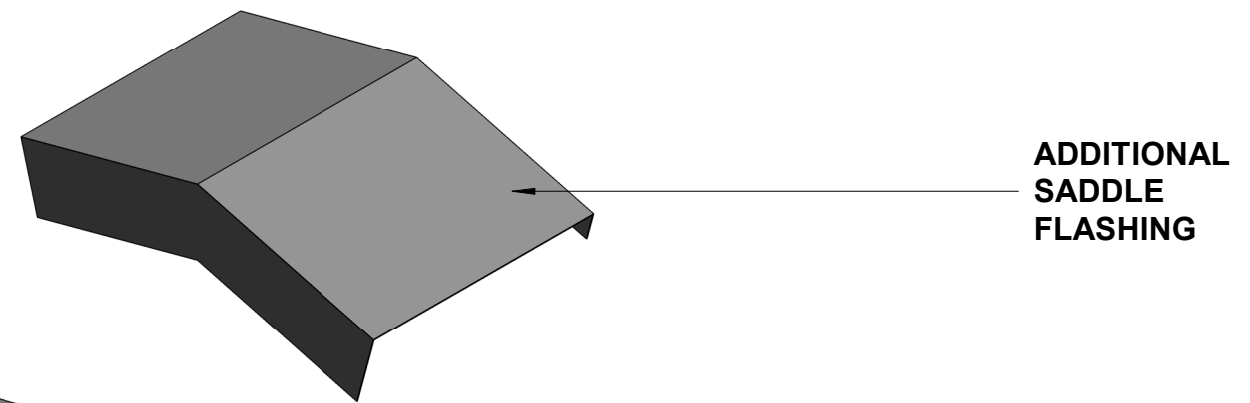
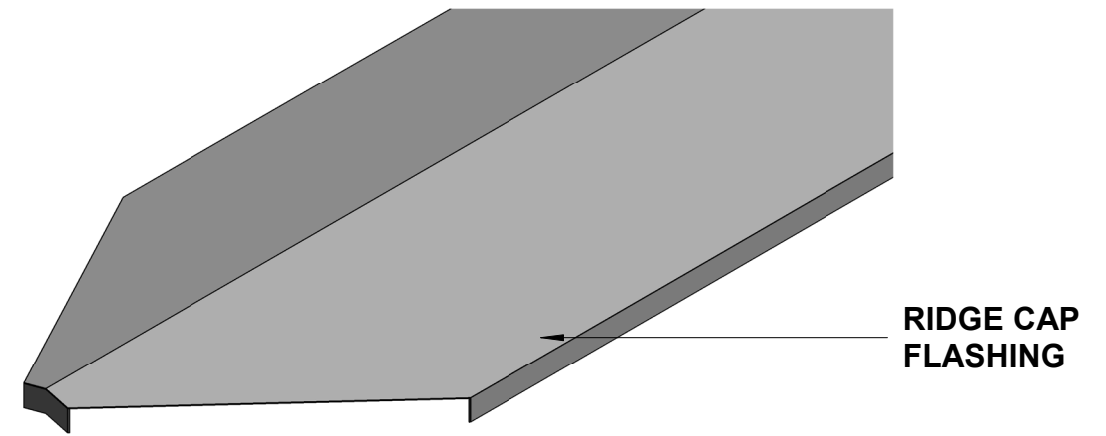
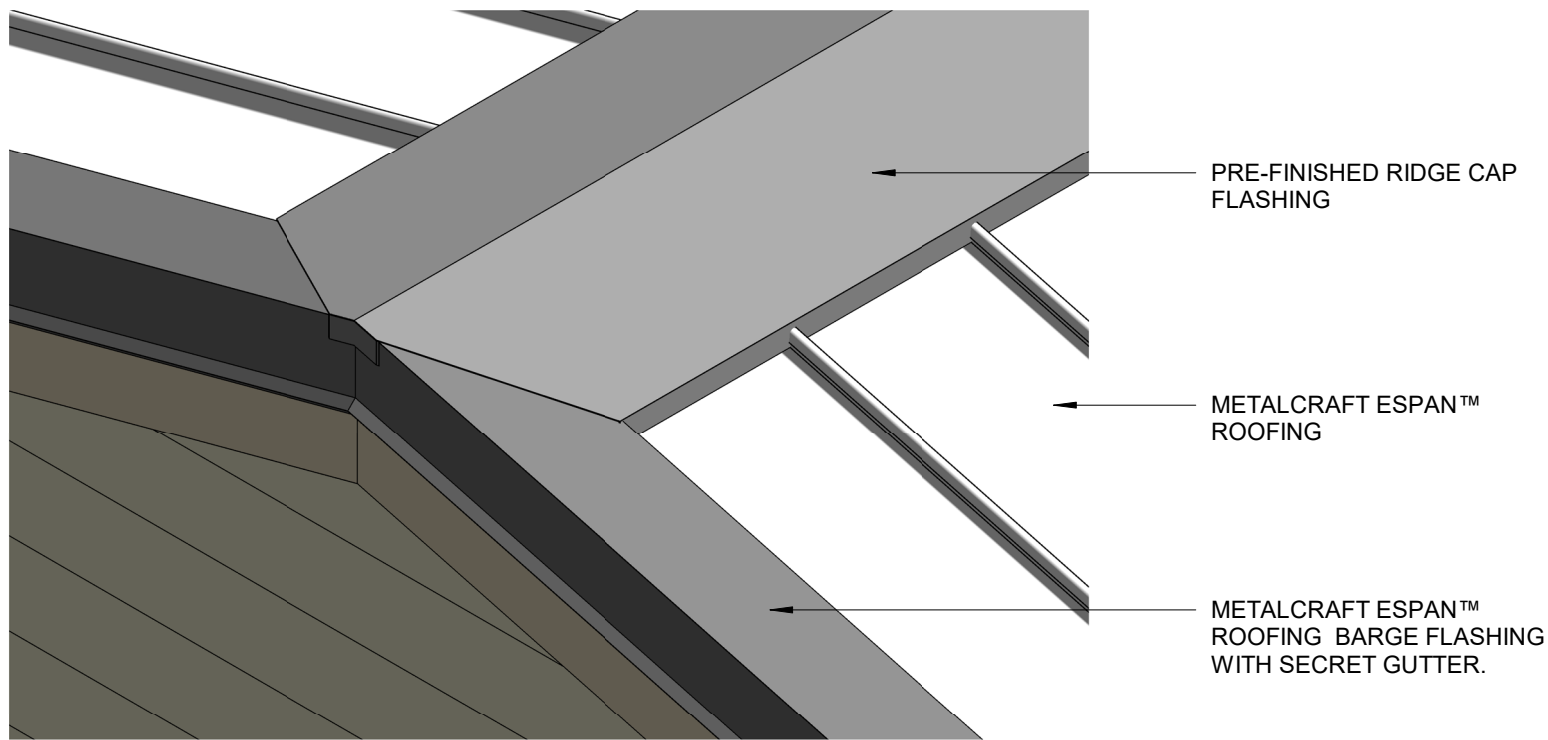


\* MIN. 3° FOR PIPE PENETRATION.

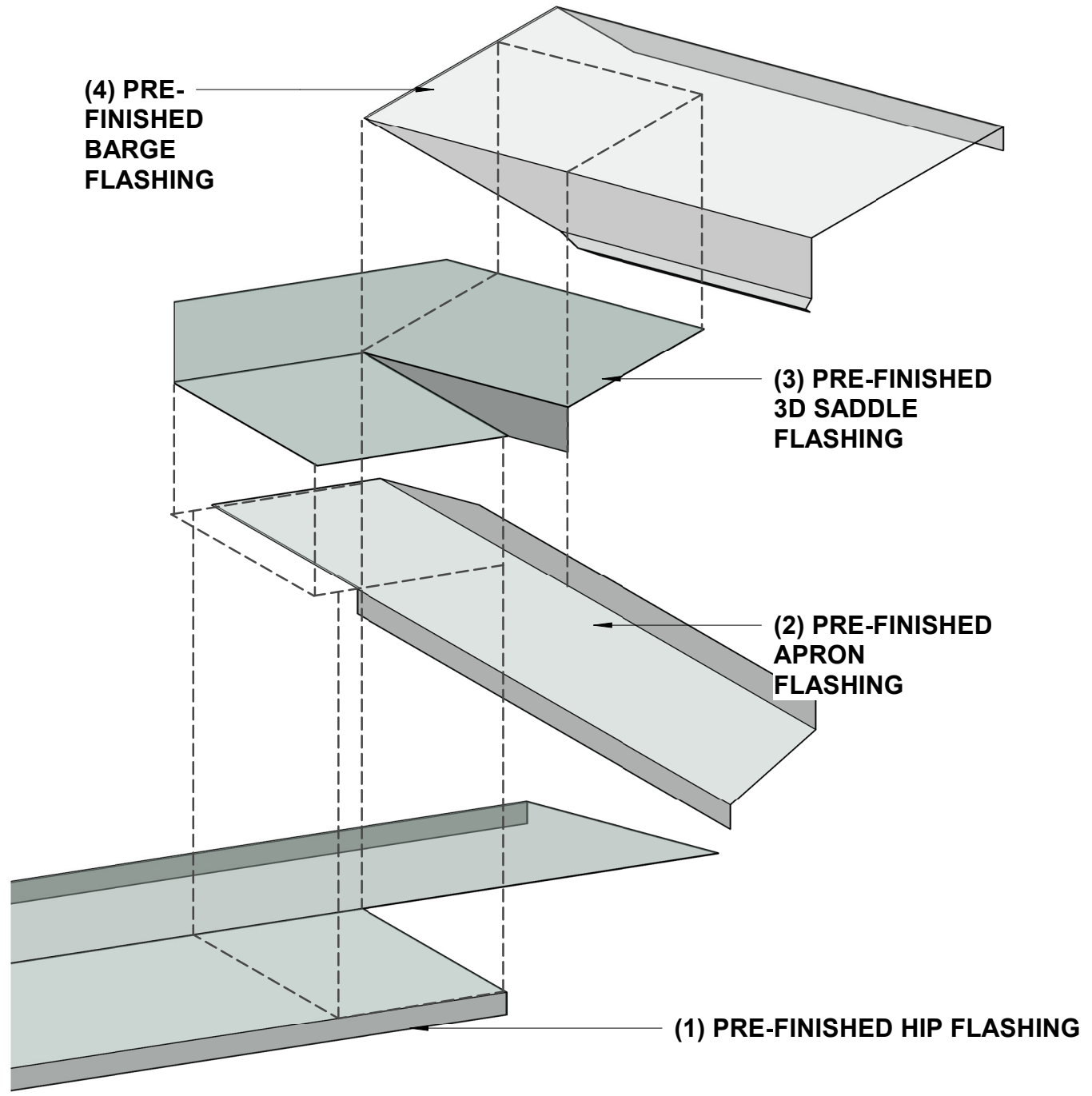
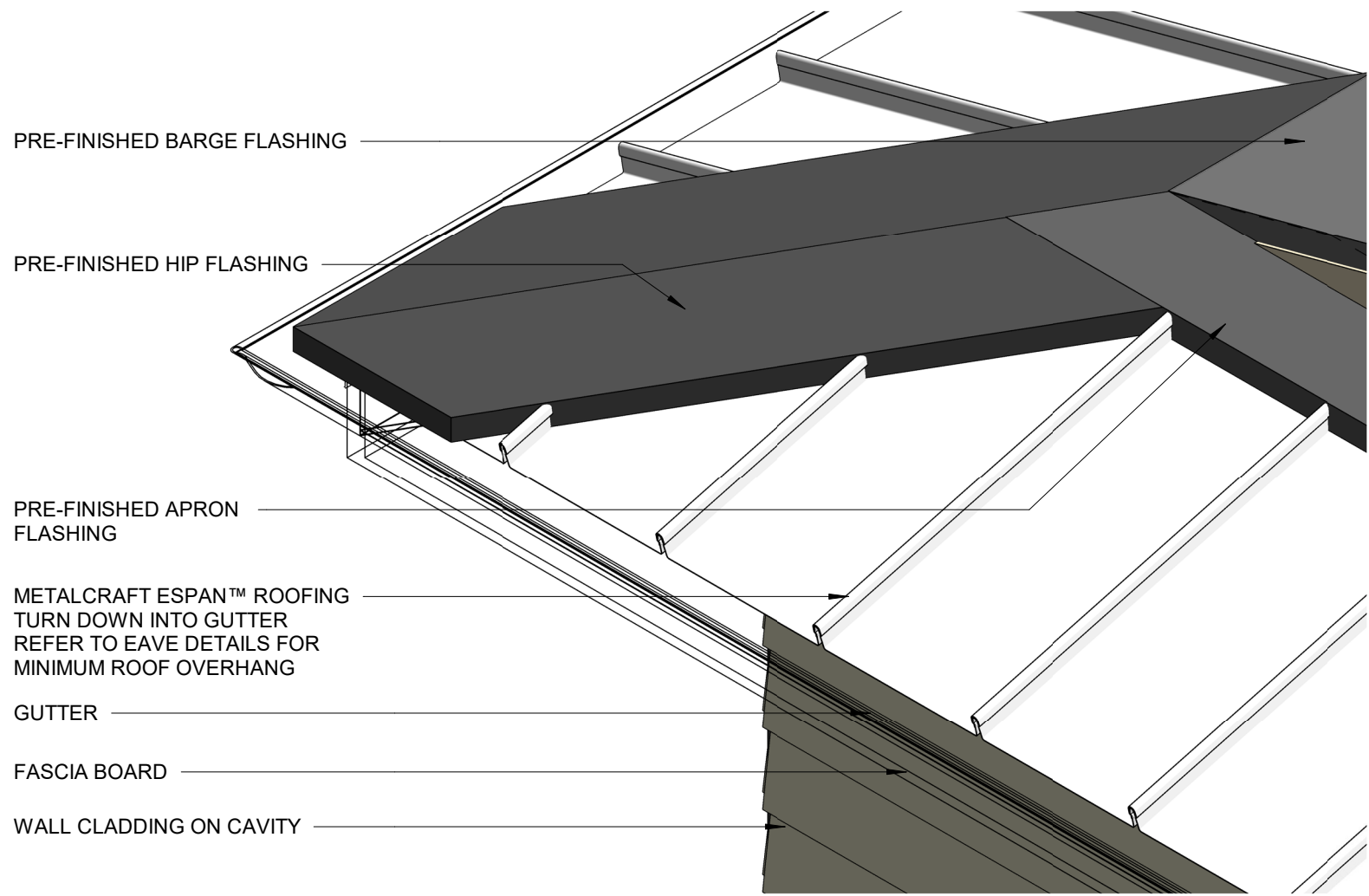
BACK TRAY AND BOOT FLASHING IS APPLICABLE WHEN MORE THAN 50% OF PAN IN BLOCKED, OR WHEN THE ROOF PITCH IS LESS THAN 10°

REFER TO MRM CODE OF PRACTICE





\* PLEASE REFER TO MRM CODE OF PRACTICE VERSION 3.0 /2019



\* PLEASE REFER TO MRM CODE OF PRACTICE VERSION 3.0/2022



WALL CLADDING ON CAVITY

PRE-FINISHED APRON FLASHING WITH SECRET GUTTER.

PRE-FINISHED APRON DIVERTER

METALCRAFT ESPAN™ ROOFING  
TURN DOWN INTO GUTTER  
REFER TO EAVE DETAILS FOR  
MINIMUM ROOF OVERHANG

GUTTER

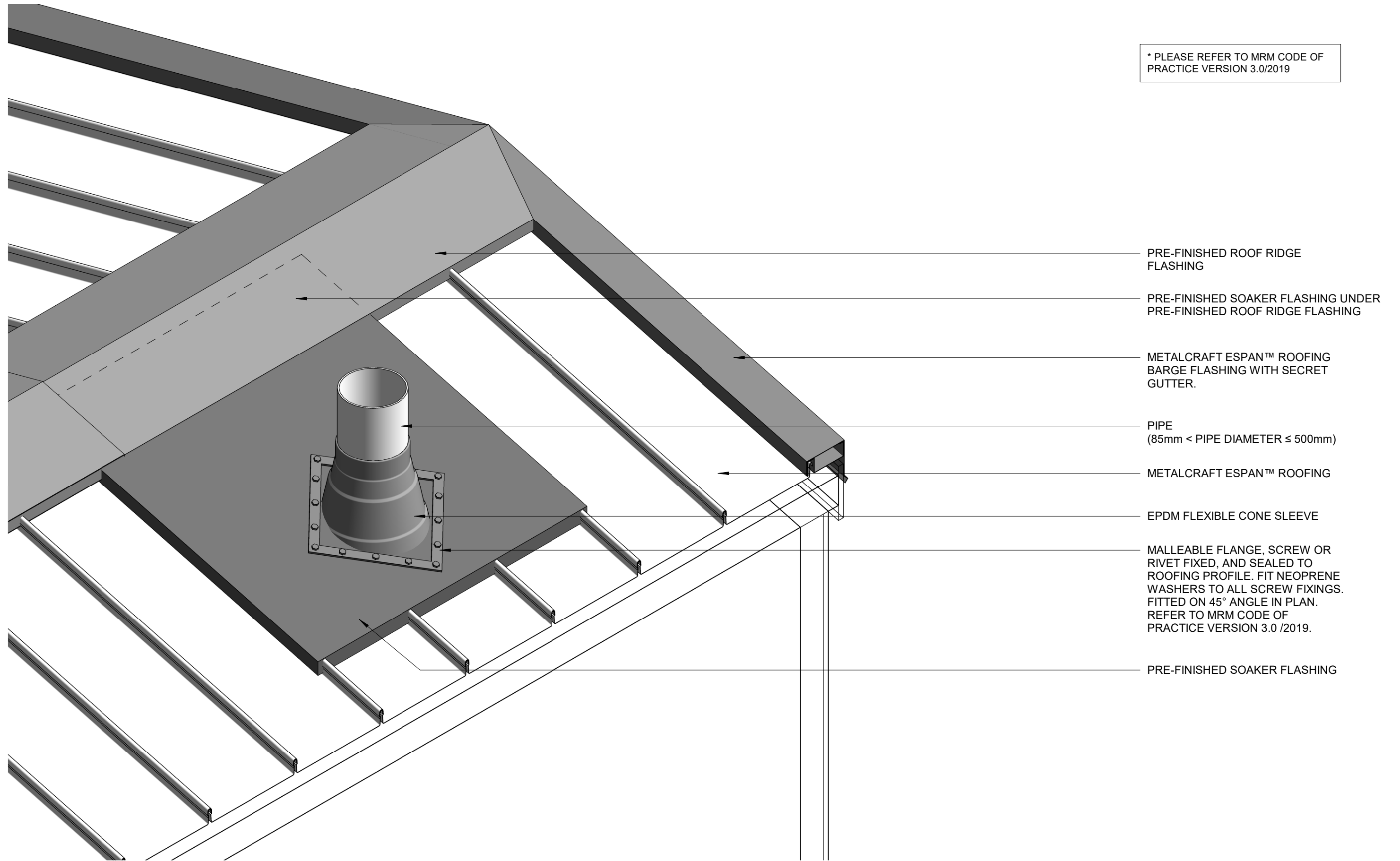
FASCIA BOARD

WALL CLADDING ON CAVITY

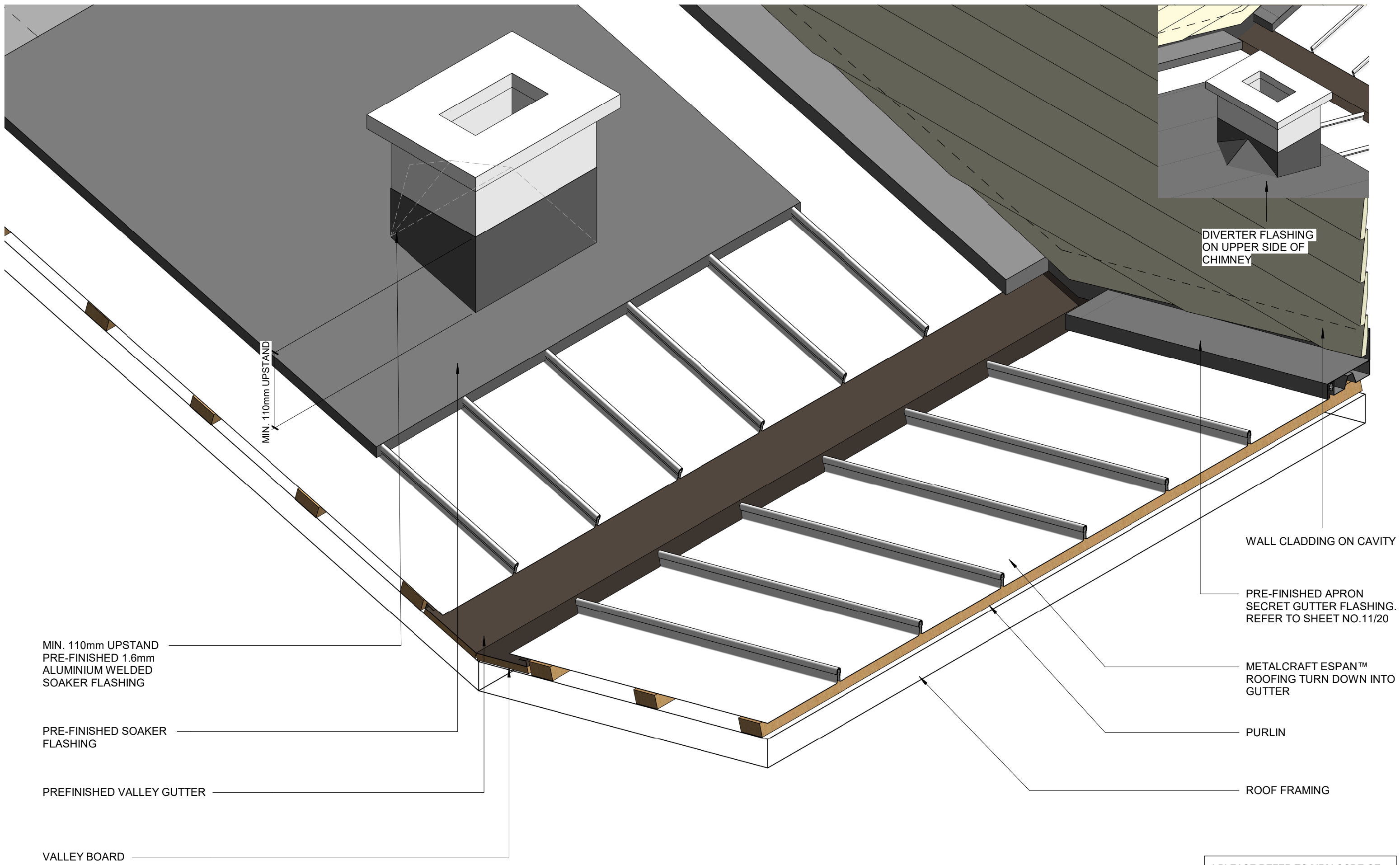
\* PLEASE REFER TO MRM CODE OF PRACTICE VERSION 3.0/2022

DISCLAIMER:  
All details are to be used for indicative purposes only and the designer should consult both the MRM code of practice version 3.0 / 2022, E2 and all other relevant building codes  
Details of the supporting mechanisms are indicative only. Compliance of the supporting mechanisms is the responsibility of the designer. Construction detail can vary for wall cladding. The underlay is detailed as a single line for simplicity and is indicative only. Building paper type and method of installation should comply with underlay manufacturers recommendations and NZBC regulations.

\* PLEASE REFER TO MRM CODE OF PRACTICE VERSION 3.0/2019



- PRE-FINISHED ROOF RIDGE FLASHING
- PRE-FINISHED SOAKER FLASHING UNDER PRE-FINISHED ROOF RIDGE FLASHING
- METALCRAFT ESPAN™ ROOFING BARGE FLASHING WITH SECRET GUTTER.
- PIPE (85mm < PIPE DIAMETER ≤ 500mm)
- METALCRAFT ESPAN™ ROOFING
- EPDM FLEXIBLE CONE SLEEVE
- MALLEABLE FLANGE, SCREW OR RIVET FIXED, AND SEALED TO ROOFING PROFILE. FIT NEOPRENE WASHERS TO ALL SCREW FIXINGS. FITTED ON 45° ANGLE IN PLAN. REFER TO MRM CODE OF PRACTICE VERSION 3.0 /2019.
- PRE-FINISHED SOAKER FLASHING



\* PLEASE REFER TO MRM CODE OF PRACTICE VERSION 3.0/2019