



Interlocking • Aluminium • Façade

TECHNICAL INFORMATION

WWW.PANELTEC.CO.NZ





CONTENTS

1.	ABOUT THIS GUIDE	4	8.	SHADOW VERTICAL	
			8.1	Installation Guide	12
			8.2	General Details	19
2.	INTRODUCTION		9.	SHADOW HORIZONTAL	
2.1	About Stryüm	4	9.1	Installation Guide	40
2.2	Key Features	5	9.2	General Details	47
3.	PANEL SPECIFICATIONS	6	10.	SEAM VERTICAL	
			10.1	Installation Guide	65
4.	COATING SPECIFICATIONS		10.2	General Details	76
4.1	Typical Coating Type	8	11.	STEP HORIZONTAL	
5.	COATING DATA		11.1	Installation Guide	94
5.1	Powdercoat/Woodgrain Data	9	11.2	General Details	103
5.2	Anodised Data	9	12.	FABRICATION DETAIL	
6.	PERFORMANCE		12.1	Fabrication Considerations	118
6.1	Fire	10	13.	WARRANTY	
6.2	Average Expansion	10	13.1	Important Warranty Information	118
7.	INSTALLATION DETAIL		14.	MISCELLANEOUS	
7.1	Installation Considerations	11	14.1	Manufacturing Quality	119
7.2	Accessories	11	14.2	Report Register	120

DOCUMENT TRACKING

VERSION #	DATE	CHANGES
1.1	November 2022	NZ issue (Oct 2022)

1. ABOUT THIS GUIDE

This manual has been developed to inform fabricators and contractors with an effective installation resource when working with Paneltec express installation cladding system, Stryüm.

The guide will provide easy to follow technical information. As uncontrollable conditions of the job scope alter, this guide is a comprehensive resource for users/installers. Paneltec recommends seeking the advice of a professional prior to installation.

The information and recommendations contained herein are believed to be correct at time of publishing August 2022. Paneltec reserves the right to revise the contents of this manual.

This document must be read in accordance with:

- the Paneltec Stryüm Interlocking Aluminium Panel Cladding System pass™
- the Paneltec Stryüm Interlocking Aluminium Panel Cladding System Design guide
- the Paneltec Stryüm Interlocking Aluminium Panel Cladding System Specification guide.

For scope of use, limitations, conditions and statement of building code compliance, refer to the Stryüm Interlocking Aluminium Panel Cladding System pass™.

2. INTRODUCTION

2.1 ABOUT STRYÜM

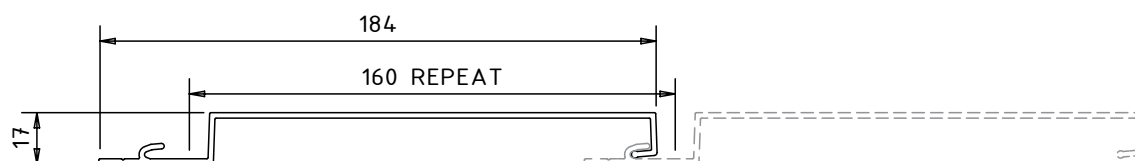
- Contemporary appearance, striking design
- Premium Product: Made in Australia, superior quality
- Solid Aluminium - non-combustible, certified to AS530.1 and AS15303.3
- Easy installation
- Concealed fixing method
- Ventilated rainscreen façade
- Limitless colours including textured woodgrain and authentic anodised finishes

2.2 KEY FEATURES

PRODUCT DNA	Solid Aluminium
FINISH	Unlimited Powdercoat finishes, innovative woodgrain finishes and authentic anodised finishes.
FIXING SYSTEM	Interlocking panels with concealed fixings for express installation.
APPLICATION	Suitable for all buildings. Refer to pass™ No 19207 for scope and limitations.
WARRANTY	15-year warranty, subject to standard terms and conditions.

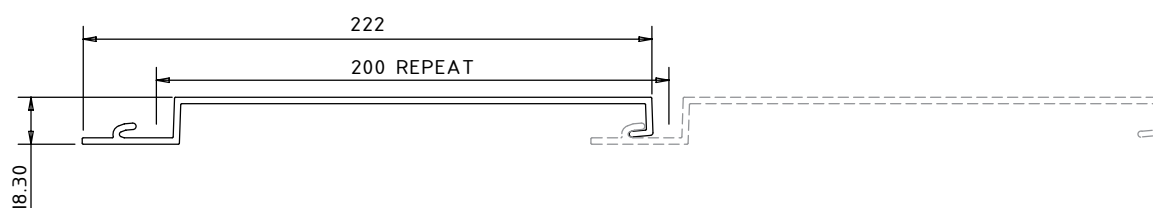
3. PANEL SPECIFICATION

SHADOW 160 – SH160



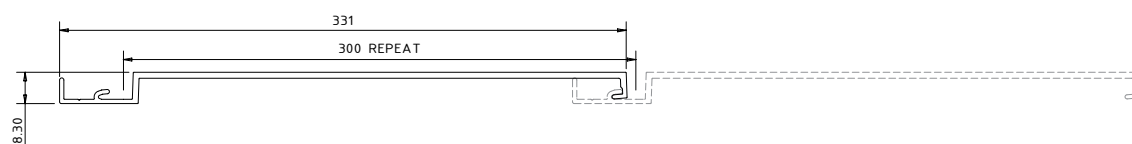
Thickness	1.8mm
Weight	6.9kg/m ²
Length	7m and 4.8m
Effective Cover	160mm per panel

SHADOW 200 – SH200



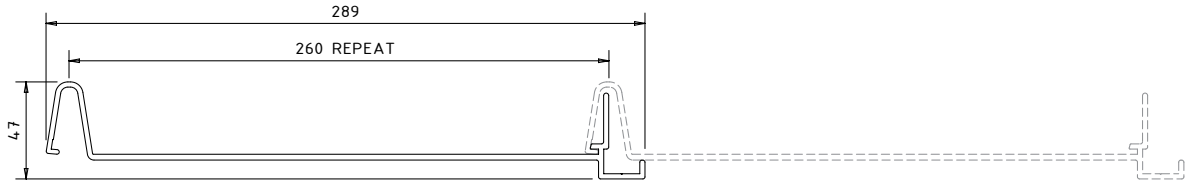
Thickness	2.5mm
Weight	8.82kg/m ²
Length	7m and 4.8m
Effective Cover	200mm per panel

SHADOW 300 – SH300



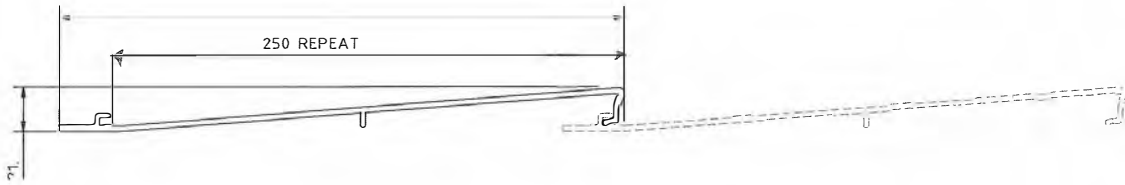
Thickness	3.5mm
Weight	11.29kg/m ²
Length	7m and 4.8m
Effective Cover	300mm per panel

SEAM 260 – SE260



Thickness	2.8mm
Weight	11.07kg/m ²
Length	7m and 4.8m
Effective Cover	260mm per panel

STEP 250 – ST250



Thickness	2.8mm
Weight	9.37kg/m ²
Length	6.5m
Effective Cover	250mm per panel

CUSTOM SIZES AND PROFILES ARE AVAILABLE, PLEASE SPEAK TO THE PANELTEC TEAM

4. COATING SPECIFICATIONS

4.1 TYPICAL COATING TYPE

POWDER COAT

Stryüm is available in the commercial Interpon and Dulux range of powder coat finishes. These commercial finishes have been tested to AAMA2604 and have been designed specifically for architectural applications. They are super durable thermosetting polyester powders ideal for use in mild, severe and tropical exterior conditions.

For increased warranties, AAMA2605 powder coat finishes are also available upon request. These finishes consist of ultra-durable fluoropolymer powder coat finishes.

A virtually unlimited range of custom colours is available in powder coat, please speak to the Paneltec team.

ANODISED

The Stryüm profiles are subjected to the anodising process and are supplied with an authentic anodised finish, there are 24 anodised finishes to choose from.

Unlike a powder coat finish, anodising is not a coating, it is an alteration of the physical properties of the aluminium. This means the material has much better durability than a powder coat finish: authentic anodised finishes are the most durable type of finish available.

The Stryüm panels use an authentic anodised finish, which involves passing the raw material through an electrochemical process. This process highlights the natural variation of the aluminium, showcasing the natural lustres of the metal. As a result, anodising creates a vibrant, dynamic finish that morphs from one colour to the next when viewed from varying angles, and at different times throughout the day.

This natural variation is one of the design benefits of using Anodised aluminium, and the final appearance will not have the same ultra-consistent appearance as other finishes such as powder coating.

As anodising is a natural process there is a large potential for slight colour variation within the material, and when compared to the approved sample. However, this variation has always been part of the allure of anodising and will create a truly unique façade.

WOODGRAIN

Stryüm uses an innovative woodgrain technology known as dual powder, the market leader in durability. It has a raised grain, increasing the realism of the profile.

Dual powder is a process where a base layer of powder coat is applied, however is only partially cured. This profile is then coated with a second layer of powder coat which forms the woodgrain pattern.

These two layers are then cured together to form a single layer, with a real grain texture. With this production method, the woodgrain layer is as durable as the base profile and is much more durable than other woodgrain alternatives on the market.

The Stryüm woodgrain utilises the Interpon D2525 powders, and as such is treated as the same material.

Custom woodgrain finishes are available at request, please contact the Paneltec team.

5. COATING DATA

5.1 POWER COAT/ WOODGRAIN DATA

INTERPON D2525 AAMA2604 RESULTS		
TEST	RESULT	TEST REQUIREMENT
7.1 Color Uniformity	Standard	Standard
7.2 Specular Gloss	20.3	As reported
7.3 Dry Film Hardness	Pass – F	F Hardness and No Film Rupture
7.4 Film Adhesion		
7.4.1.1 Dry	Pass	No Removal of Film from Substrate
7.4.1.2 Wet	Pass	No Removal of Film from Substrate
7.4.1.3 Boiling Water	Pass	No Removal of Film from Substrate
7.5 Impact Resistance	Pass	No Removal of Film from Substrate
7.6 Abrasion Resistance	Pass (ACV = 42)	ACV 20 Minimum
7.7 Chemical Resistance		
7.7.1 Muriatic Acid	Pass	No Blistering or Visible Change
7.7.2 Mortar	Pass	No Blistering or Visible Change
7.7.3 Nitric Acid	Pass ($\Delta E = 0.04$)	Hunter, Delta E = 5 max
7.7.4 Detergent	Pass	No Film Adhesion Loss or Visible Change
7.7.5 Window Cleaner Resistance	Pass	No Blistering or Noticeable Change in Appearance and No Film Loss
7.8 Corrosion Resistance		
7.8.1 Humidity	Pass (No Blisters)	Not Greater Than Few & No. 8 blisters
7.8.2 Salt Spray	Pass	
Scribe	9	7 Minimum Rating
Field	9	8 Minimum Rating

5.2 ANODISED DATA

All anodised finishes are supplied in accordance with AS1231 2000 Aluminium and Aluminium Alloys – Anodic Oxidisation Coatings.

6. PERFORMANCE

6.1 FIRE

In today's architecture the technical details are as important as the overall appearance of the project specification. Architects are seeking products that tick the box for sustainability, moisture control and fire performance.

The demand for specification and non-combustible facades have fast become the industry norm.

As a solid aluminium pre-finished panel, Stryüm has been tested to AS1530.1 and AS1530.3. Powder coat and woodgrain finishes are compliant to the 2019 NCC under clause C1.9e (v).

Stryüm is a safe preferred choice where non-combustible cladding must be specified for use, applications such as hospitals, schools and high-rise buildings.

POWDER COAT & WOODGRAIN FINISHES			
TEST STANDARD	RESULT		
AS1530.1	NON-COMBUSTIBLE		
AS1530.3	PASS	Ignitability Index	11
	PASS	Heat Evolved	0
	PASS	Spread of Flame	0
	PASS	Smoke Developed	3
Compliance NZBC C3.5 and C3.7	NON-COMBUSTIBLE		

6.2 AVERAGE EXPANSION

MATERIAL	EXPANSION COEFFICIENT (X10 -6/°C)	ELONGATION PER 1000MM T =50°C
Stryüm	23.4	1.17

When installing Stryüm please leave the following clearance at each end of a length to allow for unhindered expansion and contraction.

LENGTH	CLEARANCE
≤ 4000mm	5mm
> 4000mm	10mm

The proprietary Stryüm S Section is designed to sustain expansion of Stryüm in an 80°C temperature change, whilst allowing for a direct fix to the substrate.

If the Stryüm S Section is not used, allowance must be made for thermal expansion in the form of oversized holes, with special attention paid in the installation of the material to ensure the screws are not overtightened.

7. INSTALLATION DETAIL

7.1 INSTALLATION CONSIDERATIONS

The Stryüm cladding system is a rain screen, designed to be installed over a weathertight, flexible or rigid barrier. Paneltec recommended that all junctions, penetrations and opening are either taped and/or sealed with an approved product.

The Stryüm cladding system can be installed over a structural substrate that is straight and true and within the framing tolerances as described in NASH Design Standard 2019 Part 2, Section 2.5 or a timber frame with equivalent stiffness to NZS3604: 2011, Section 2 and Table 2.1.

As minor colour variation can occur between production lots, it is recommended the total material requirements for a project are placed in one order to ensure colour consistency.

Where aluminium materials meet dissimilar metals, a proper insulator or caulking tape should be applied to insulate between dissimilar materials to avoid corrosive and electrolytic action.

Please ensure Stryüm is used as part of a compliant wall system, with all components complying with NZBC C2-C7 (Protection from fire).

When Stryüm panels are delivered to site, approximately 50mm of panel will need to be trimmed from both ends due to the production process. When ordering site specific sizes, please ensure you have allowed for 100mm – 150mm of wastage on each panel. Please ensure that both ends have been trimmed prior to installation, as this is vital to ensuring the panels will clip together fully.

Stryüm panels will be installed with uncoated cut edges. Aluminium is extremely resistant to corrosion and within minutes of cutting the panel, a thin oxide layer will have formed over the cut edge, preventing any further corrosion.

If installed as per the installation requirements, these edges are adequately drained and ventilated to prevent sitting in pooled water. If the panels are installed incorrectly so that they are subject to pooled water, this may eventually break down the oxide layer and allow for corrosion.

When installing Stryüm, ensure that the panel has fully locked together before screwing it off. In the Stryüm shadow profiles, a 14mm packer can be inserted in the shadow line to ensure a complete connection. With the Seam and Step profiles, please tap the join using a soft faced hammer to ensure complete connection, taking care not to damage the finish.

Due to the interlocking nature of the Stryüm, it is critical that special attention is paid to installing the S Section substructure correctly. It must provide a flat surface for the cladding to be installed on, as any inconsistencies in the substructure may affect the visual appearance of the cladding.

7.2 ACCESSORIES

All standard components are available from Paneltec. Please visit www.paneltec.co.nz for further information.

8. SHADOW VERTICAL

8.1 INSTALLATION GUIDE

SHADOW VERTICAL – INSTALLATION GUIDE

Please ensure you review the complete Stryüm Shadow Vertical details to ensure you order all the required trims, the following step by step is a guide only.

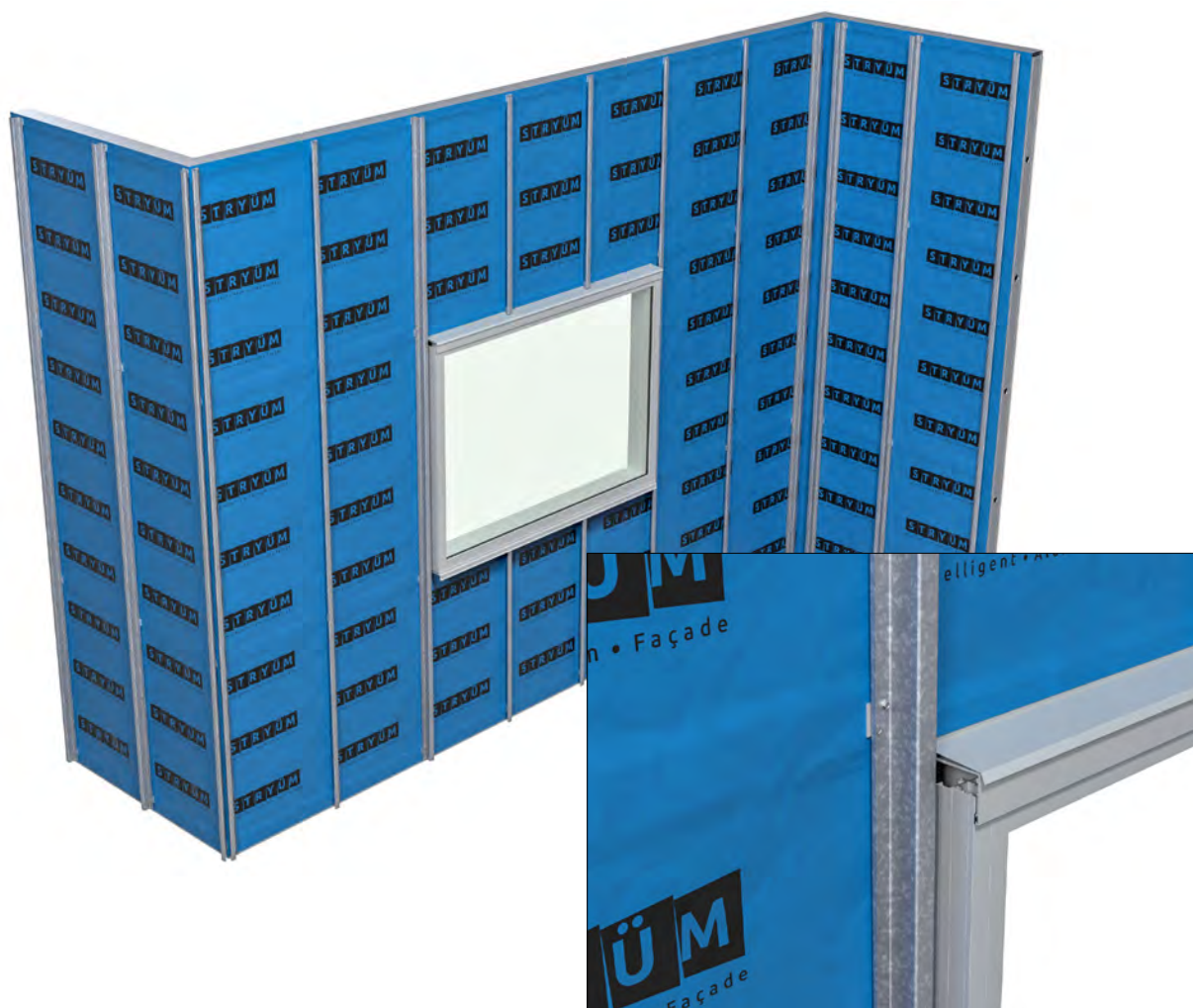
STEP 1 – WATERPROOF MEMBRANE



As Stryüm is a rainscreen façade, a weathertight, flexible membrane or rigid underlay must be installed over the supporting wall. It must meet the project specific requirements for weathertightness and be installed as per manufacturers guidelines. All junctions, penetrations and openings associated with the underlay must be sealed.

Items On This Page			
Code	Description	Length	Supplied by Paneltec
N/A	Solitex Extasana (flexible wrap), Solitex Extasana Adhero (ridge barrier) or an equivalent product that complies with Table 23 of E2/AS1.	N/A	

STEP 2 – SUBSTRATE



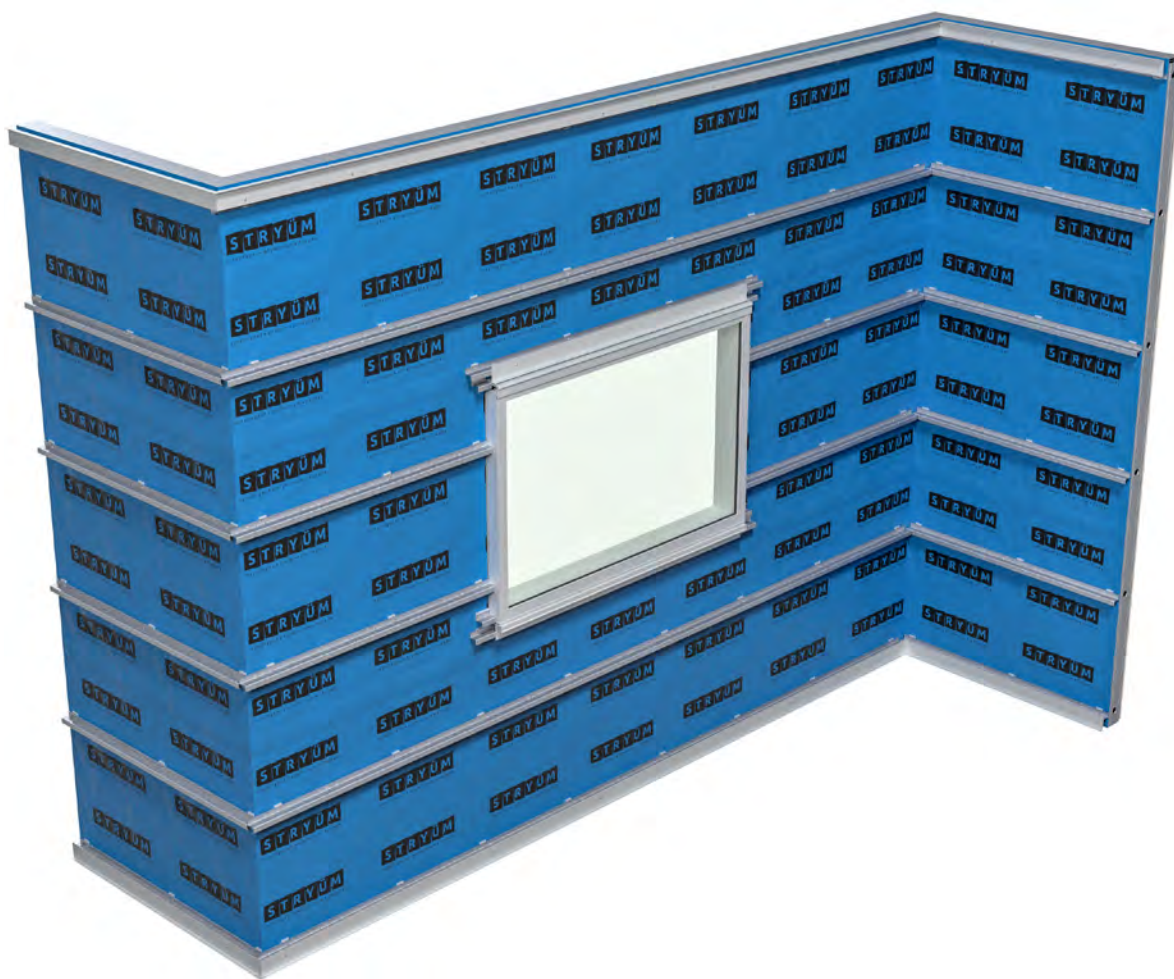
Packers for a plumb substrate and ventilation need to be installed as required prior to the installation of the Stryüm S Section.

Install Stryüm S Section substrate horizontally. The substrate needs to be level to ensure the cladding is flat once installed. Any imperfections in this substrate will be highlighted once the panels are installed.

Stryüm S Sections are installed at maximum 600mm centres. Project specific requirements may dictate shorter span lengths.

Items On This Page			
Code	Description	Length	Supplied by Paneltec
TRM0901	35mm Stryüm S Section	6.5m	✓

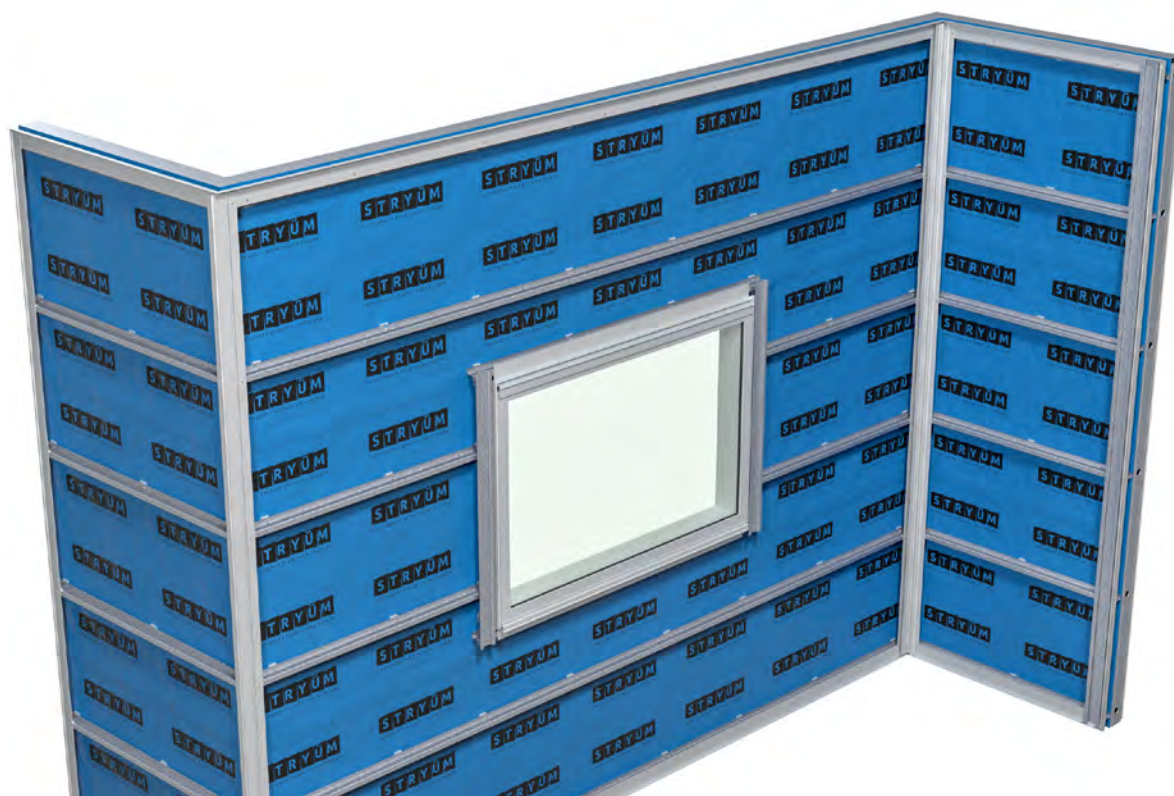
STEP 3 – HORIZONTAL TRIMS



Install the horizontal trims for the cladding, at the top and bottom of the cladding section, above and below any wall penetrations, and at any slab junctions. When installing down to an adjacent flat surface such as a garden bed or pathway, a minimum of 150mm from the ground is recommended to prevent rain splash back dirtying the façade.

Items On This Page			
Code	Description	Length	Supplied by Paneltec
TRM0503	20 x 70 x 1.6 L-Angle	7m	✓

STEP 4 – VERTICAL TRIMS

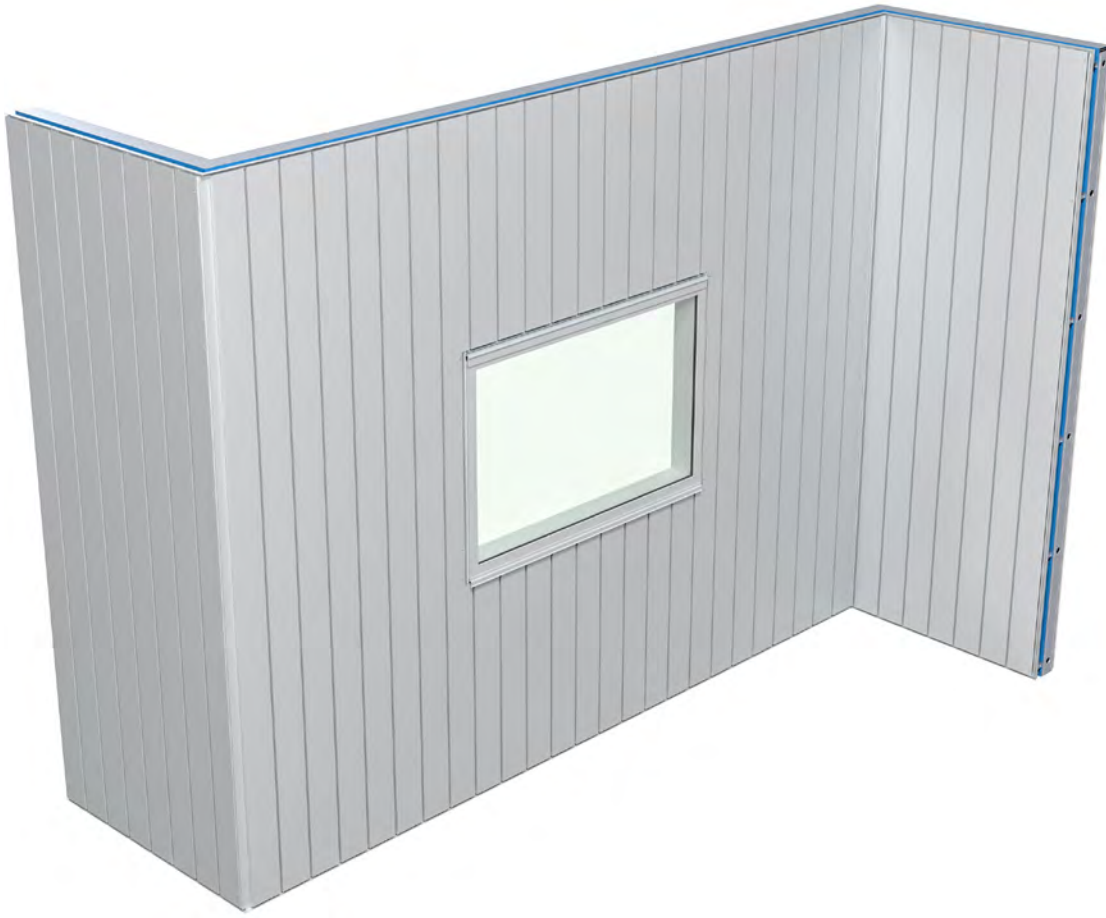


Install the vertical trims for the cladding, at the left and right of the cladding section, at either side of any wall penetrations, and at any corners.

Note: the cladding system is designed to be installed continuously around the building. Pick a cladding direction (Left-Right or Right-Left) and maintain this direction across the whole project. If the cladding is being completed in sections, it is important the trims for either side of a cladding zone are installed prior to the cladding being installed to ensure a clean finish.

Items On This Page			
Code	Description	Length	Supplied by Paneltec
TRM1101	Shadow Starter Strip	7m	✓
TRM1403b	Shadow External Shadowline Cover (Female)	7m	✓
TRM0201b	Stop End (Female)	7m	✓
TRM1301b	Shadow Internal Shadowline Cover (Female)	7m	✓
T1550/16	16mm Aluminium Top Hat	7m	✓

STEP 5 – INSTALL CLADDING



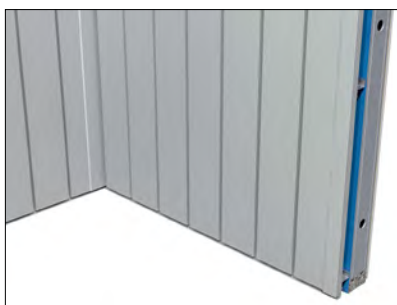
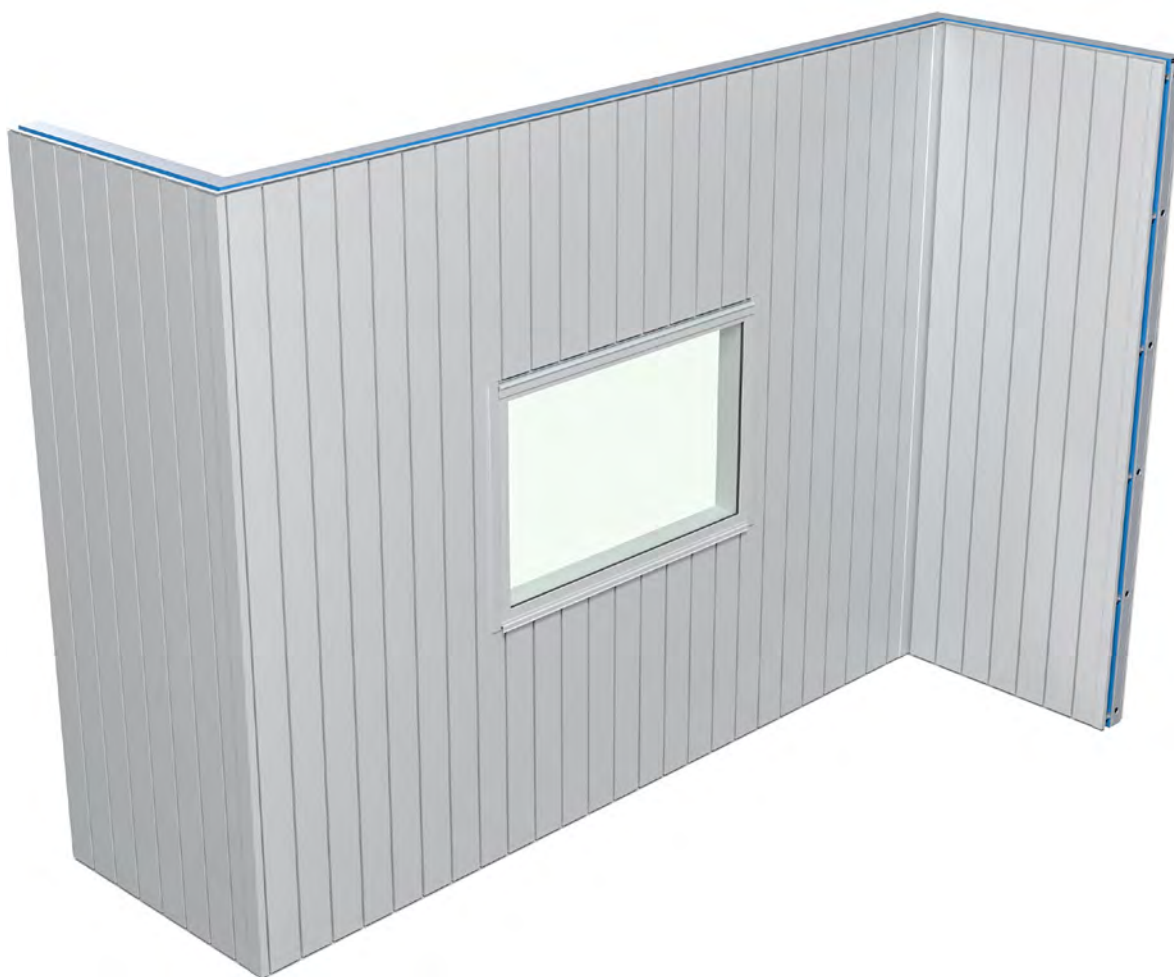
Install the cladding by cutting the panels to length, hooking the panel into the previous panel, and affixing to the S Section. In this diagram the cladding direction chosen is Left-Right.

Due to the rainscreen façade system Stryüm utilizes, a minimum airflow gap of 10mm must be maintained at the top and bottom of the cavity.

Note: there may not be room to install cladding panels around the windows, at internal and external corners and at the end of the cladding zone as per the regular method. These panels will need to be trimmed down the length of the panel and fixed through the face. Use packers as required to bring the face of the panel level with the rest of the façade. These fixing will be concealed with the appropriate cover cap.

Items On This Page			
Code	Description	Length	Supplied by Paneltec
SH160	Shadow 160	7m, 4.8m	✓
OR			
SH200	Shadow 200	7m, 4.8m	✓
OR			
SH300	Shadow 300	7m, 4.8m	✓

STEP 6 – CLIP ON COVER PIECES



Install the cover sections to the two-piece trims to conceal rivets and cut edges. Push firmly into place, a rubber mallet may be used paying careful attention to the finish.

Items On This Page			
Code	Description	Length	Supplied by Paneltec
TRM1403a	Shadow External Shadowline Cover (Male)	7m	✓
TRM0201a	Stop End (Male)	7m	✓
TRM1301b	Shadow Intern Shadowline Cover (Male)	7m	✓

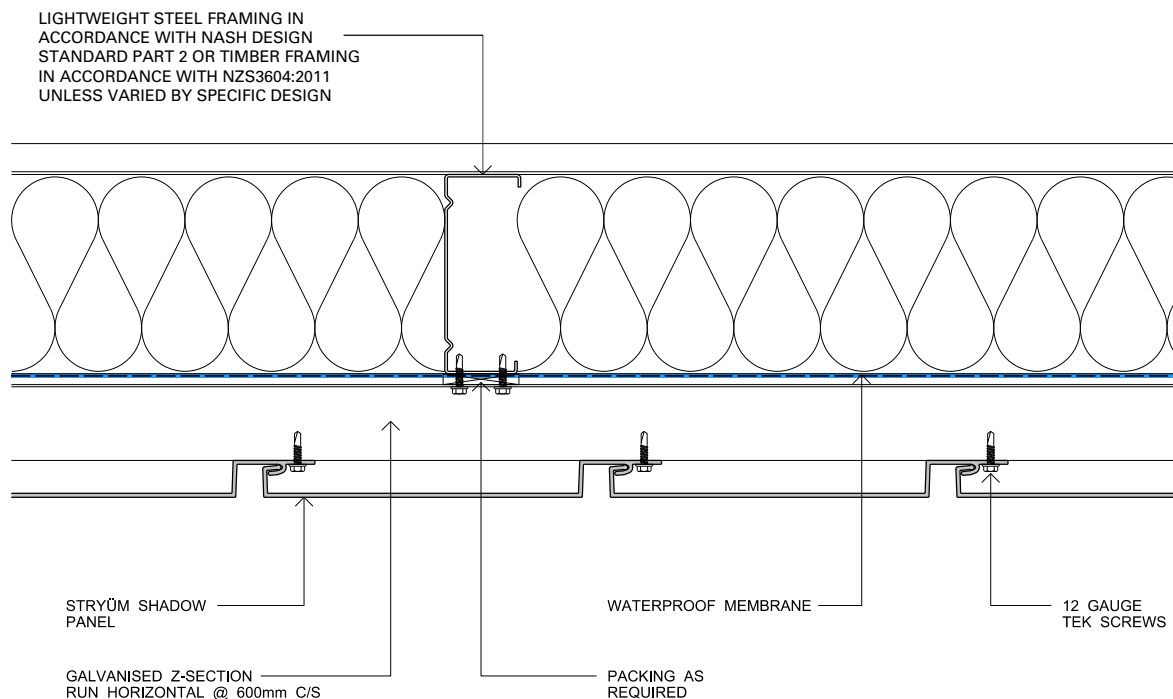
8. SHADOW VERTICAL

8.2 GENERAL DETAILS

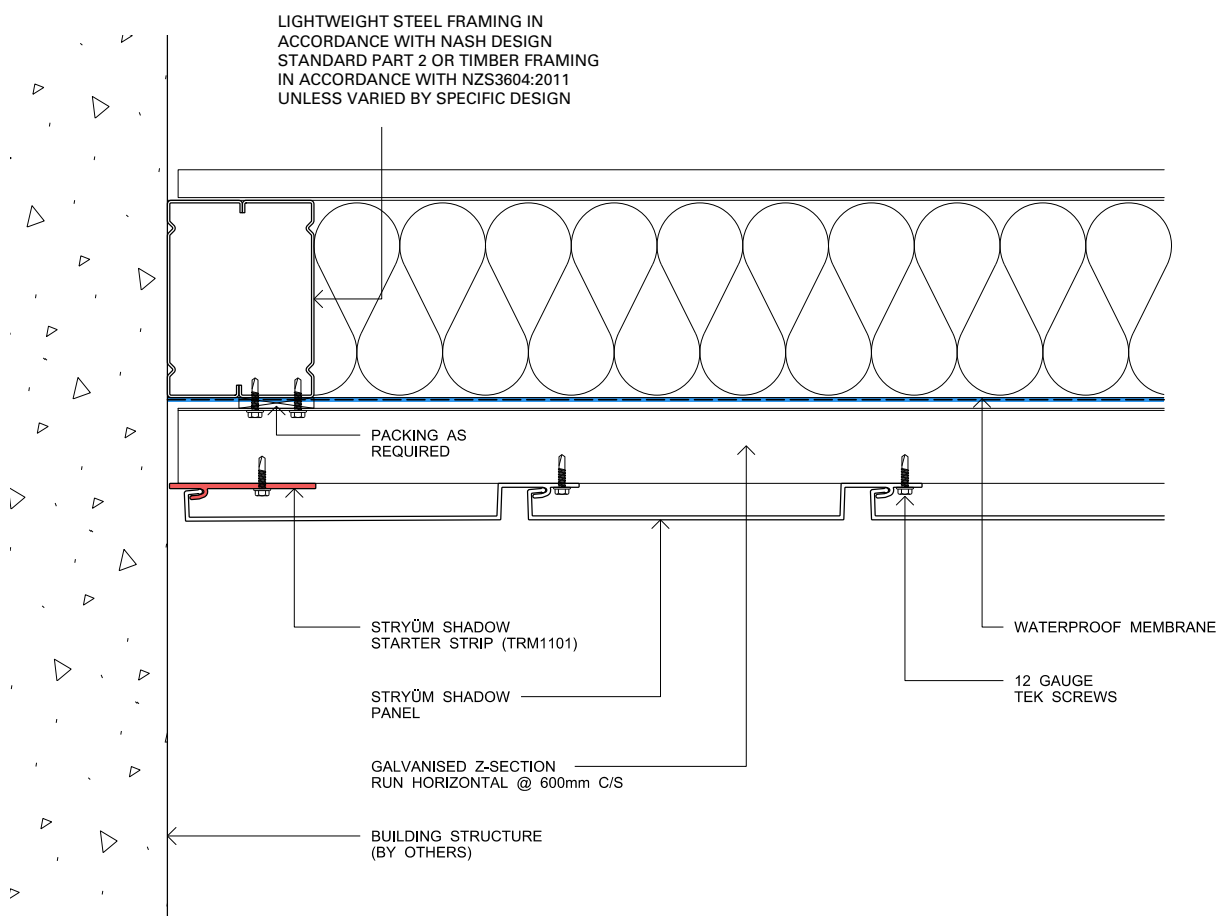
SHADOW VERTICAL – GENERAL DETAILS

These details are of a generic nature. In all cases use these details as a guide only and refer to the Paneltec design library or building consent for finalised details.

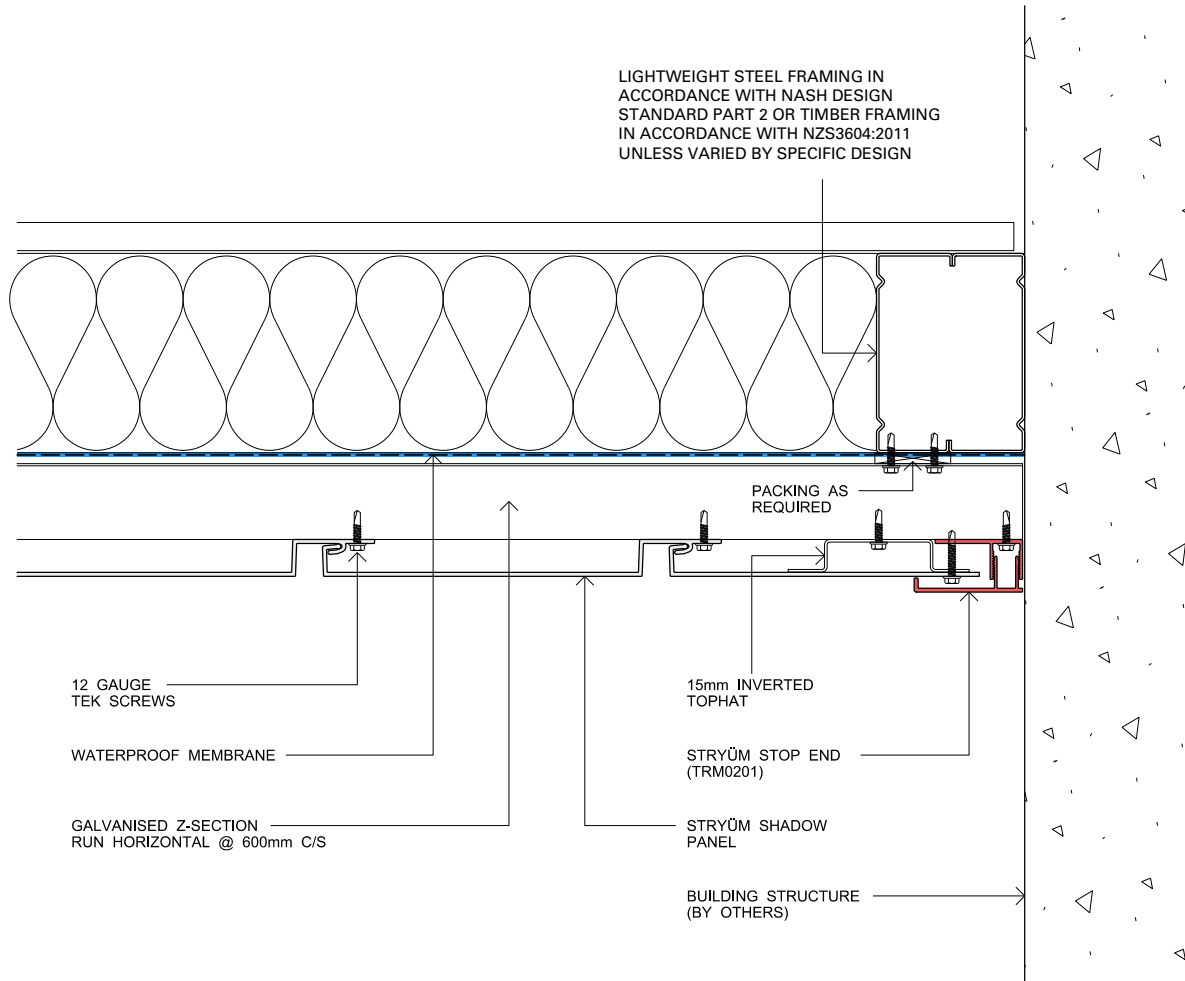
SHADOW V PANEL CONNECTION



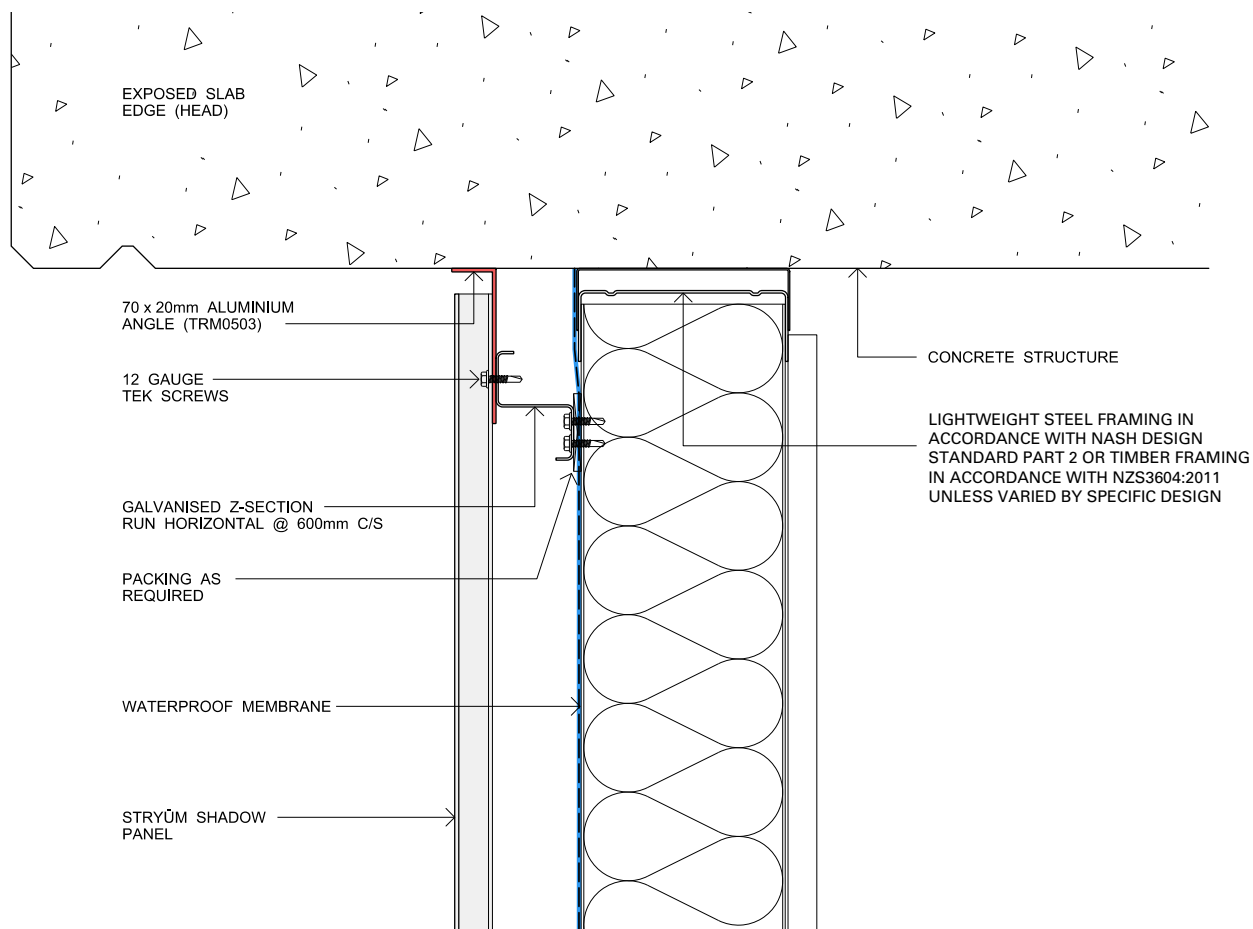
SHADOW V PANEL START



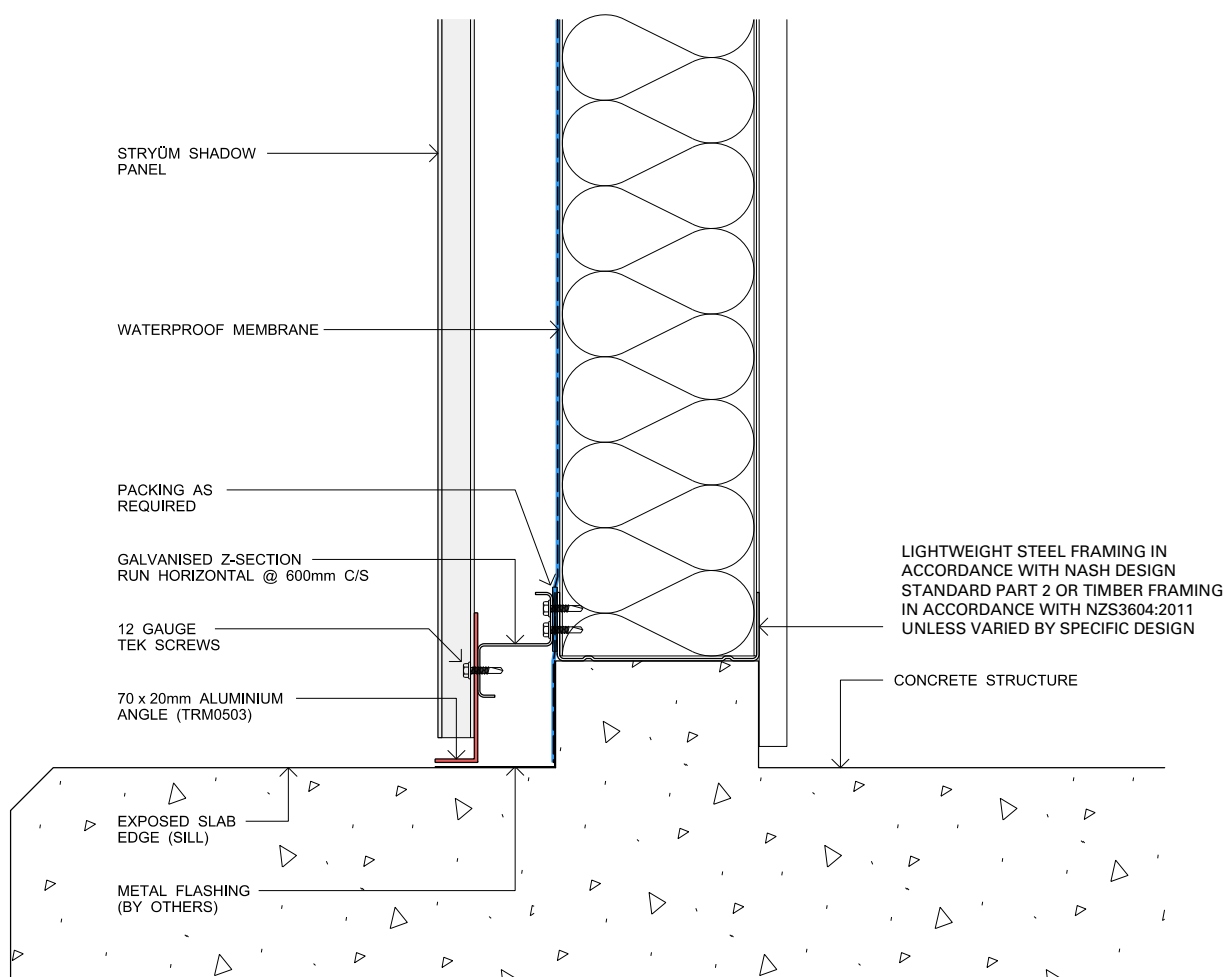
SHADOW V PANEL END



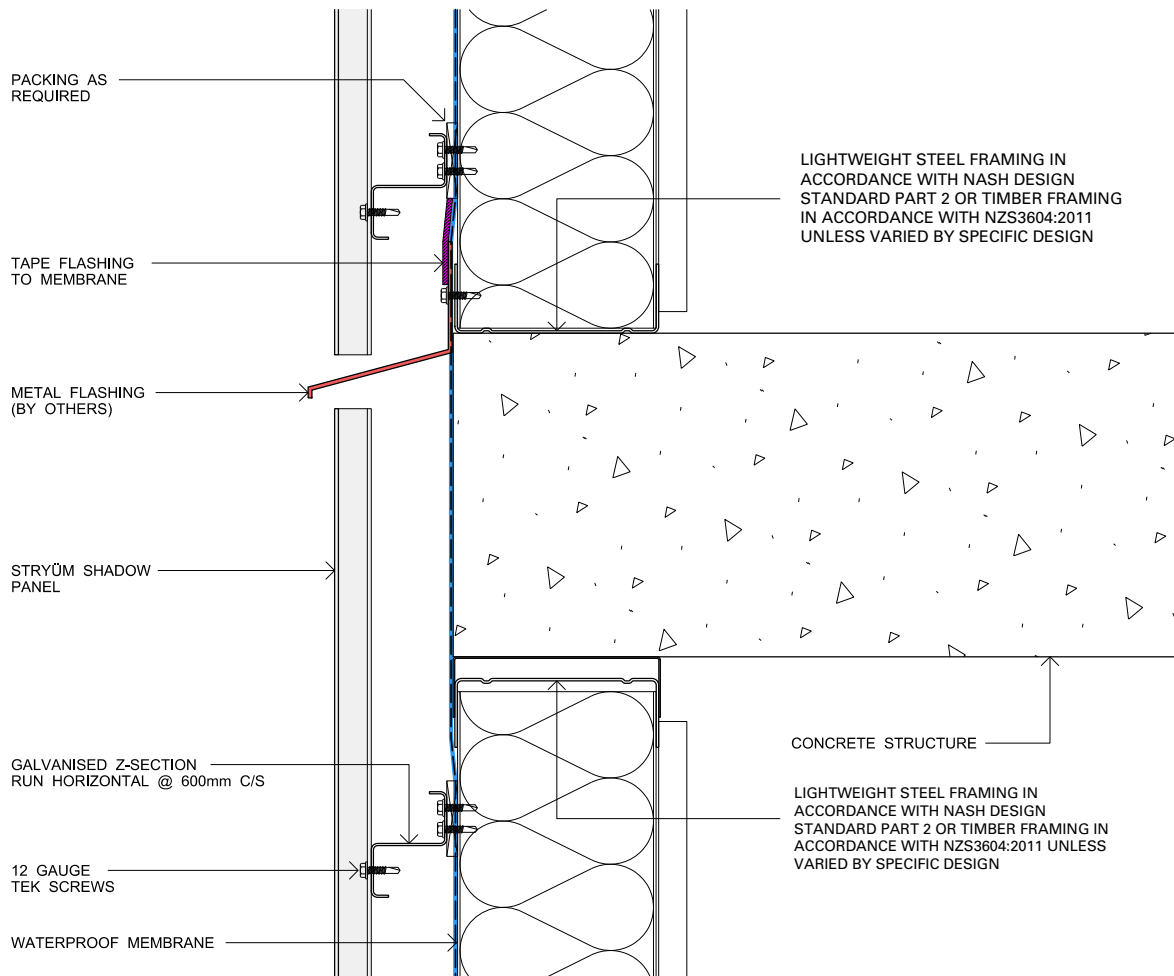
SHADOW V HEAD SLAB JUNCTION



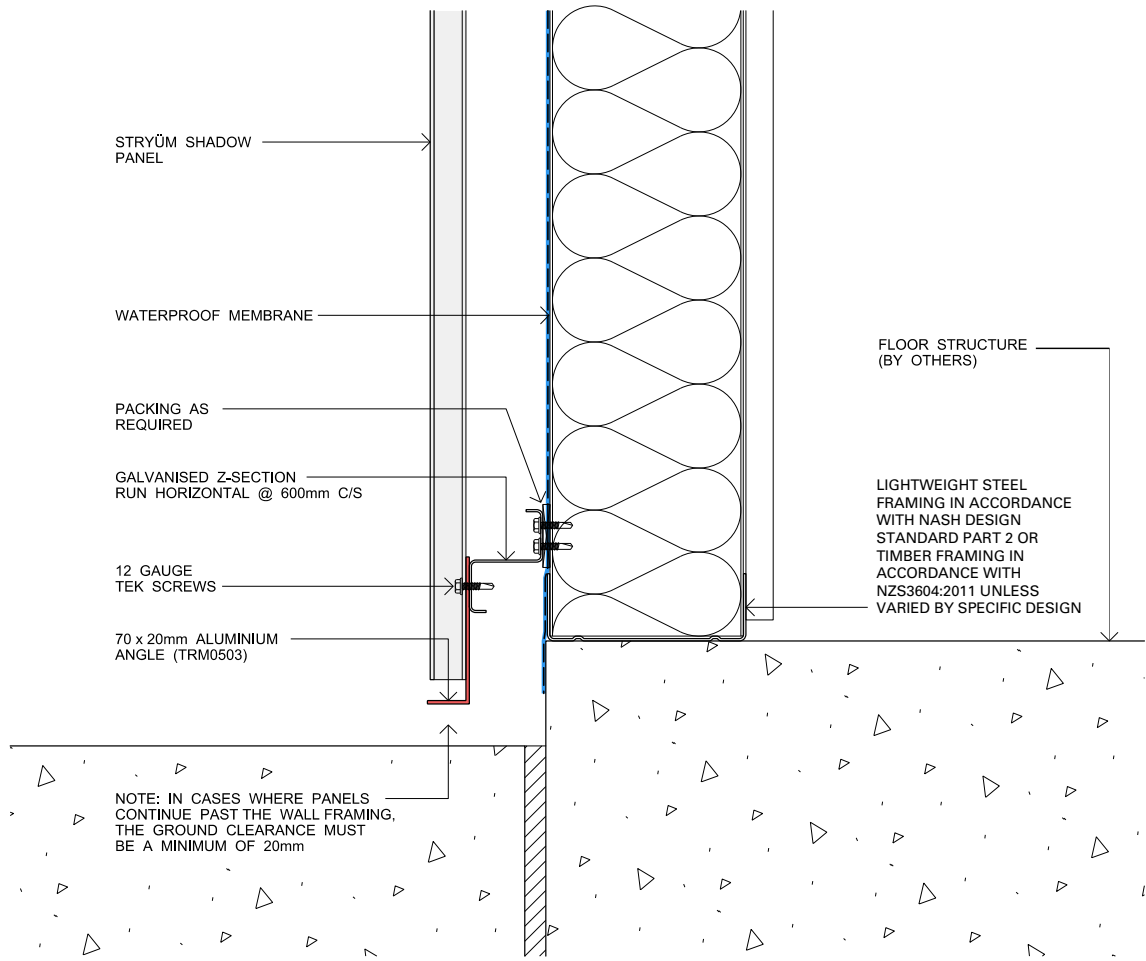
SHADOW V BASE SLAB JUNCTION



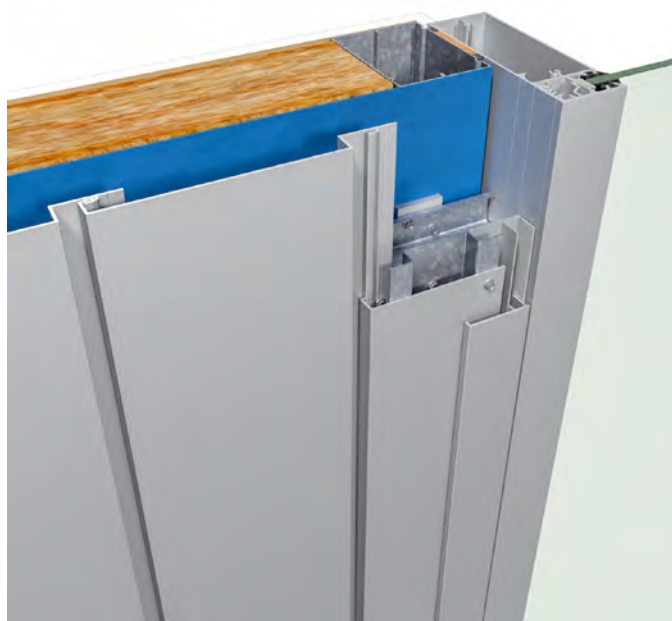
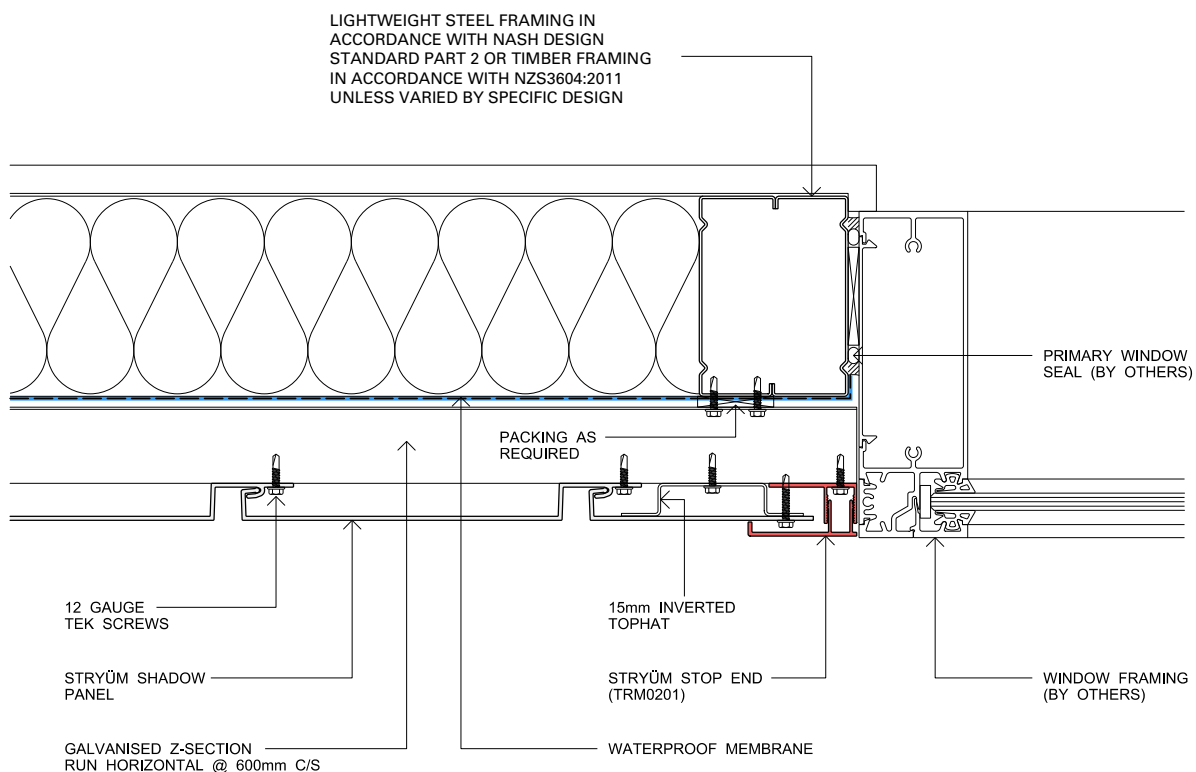
SHADOW V SLAB JUNCTION CONCEALED



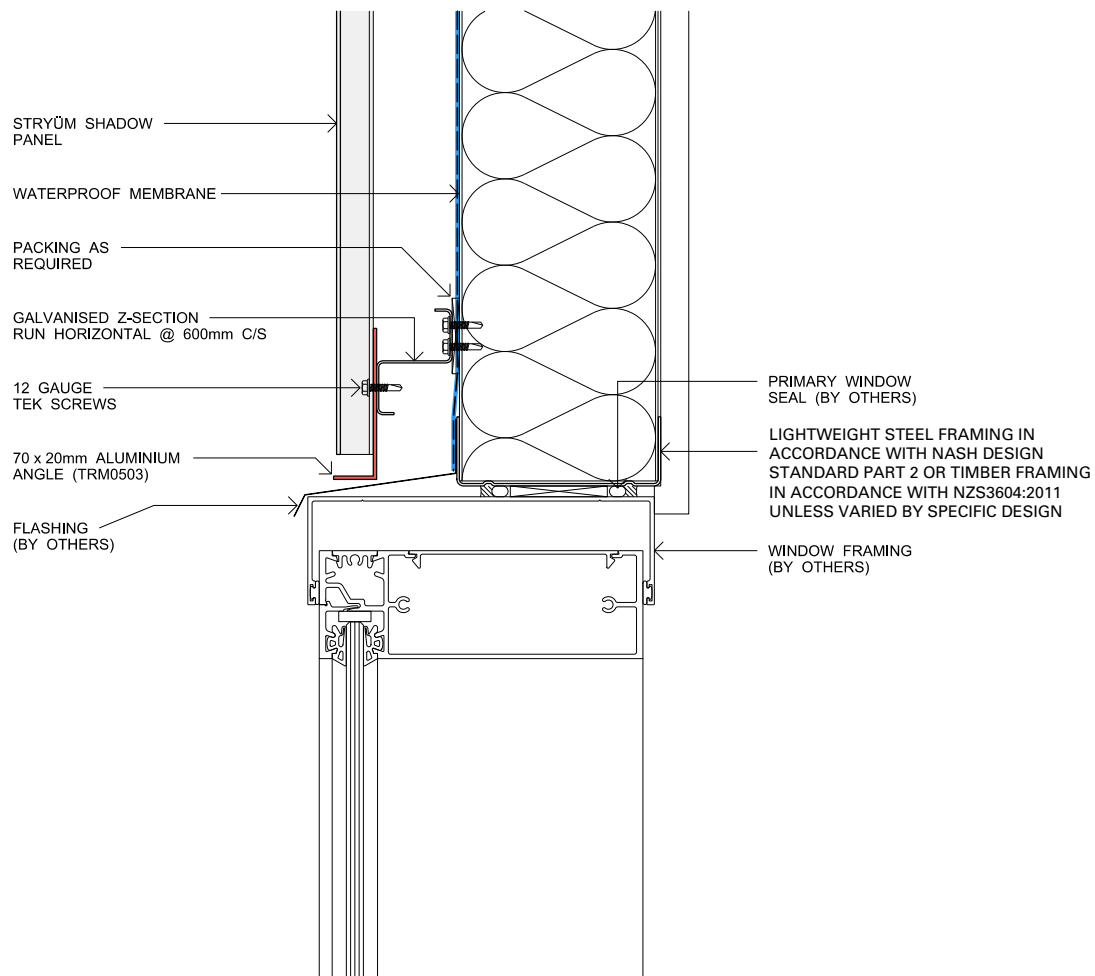
SHADOW V PANEL END FLOOR



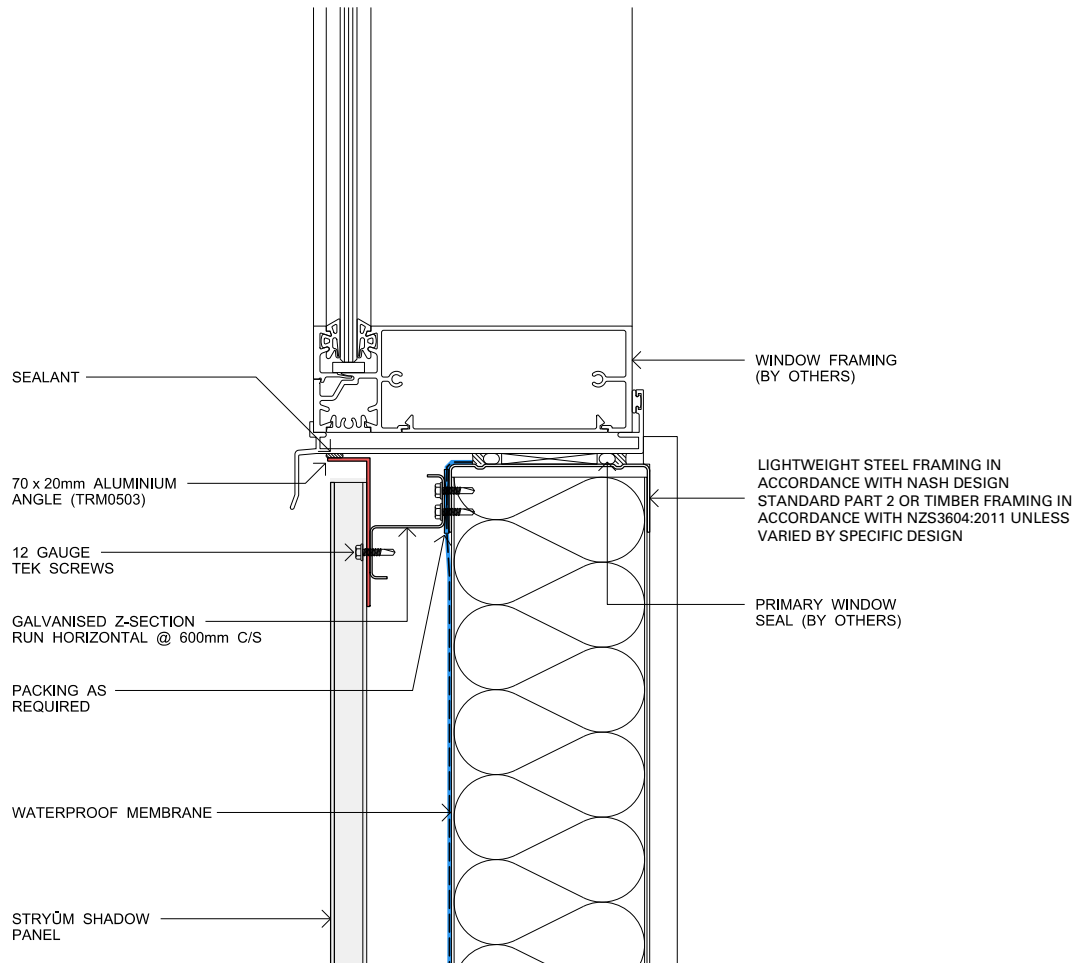
SHADOW V WINDOW JAMB



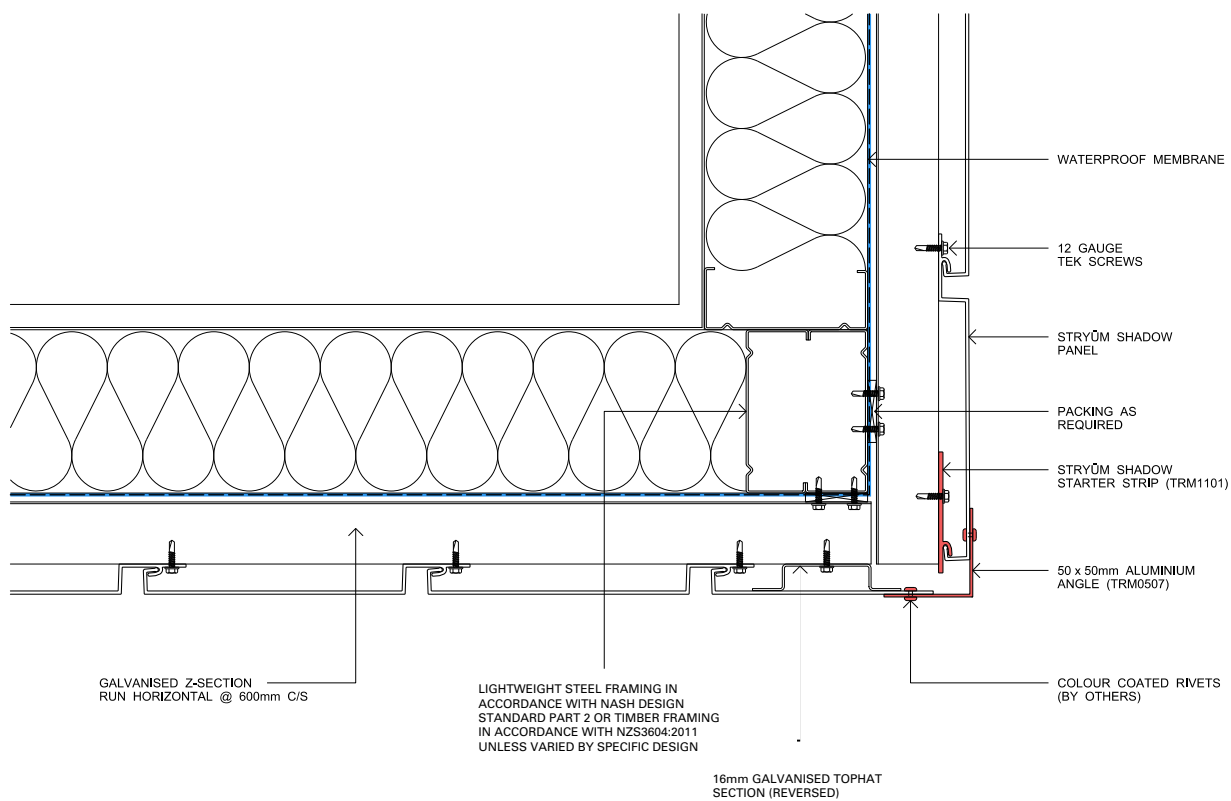
SHADOW V WINDOW HEAD



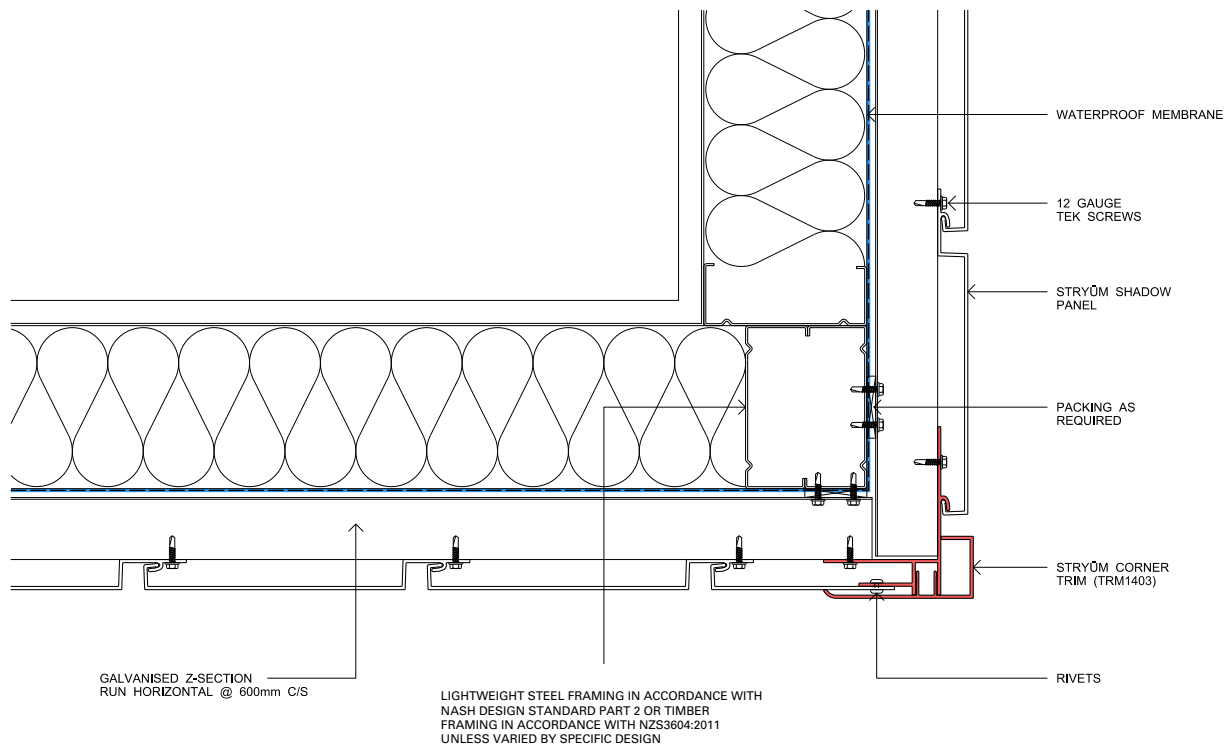
SHADOW V WINDOW SILL



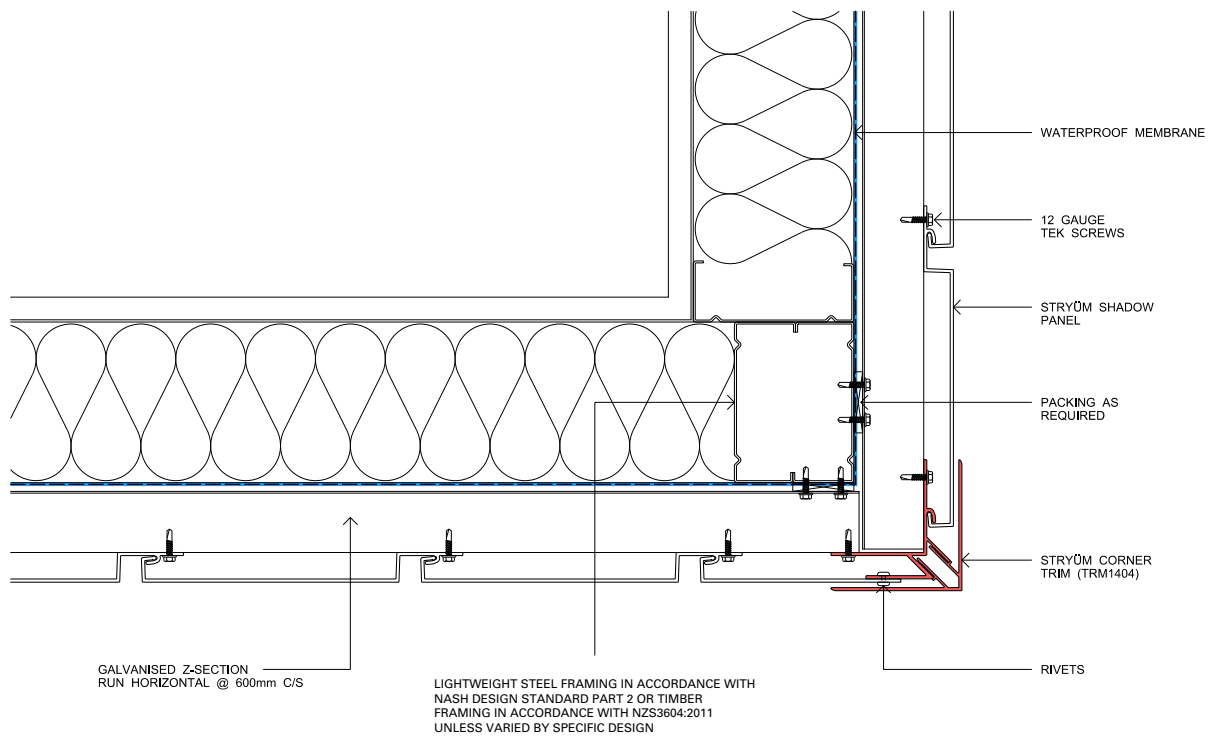
SHADOW V EXTERNAL CORNER 1



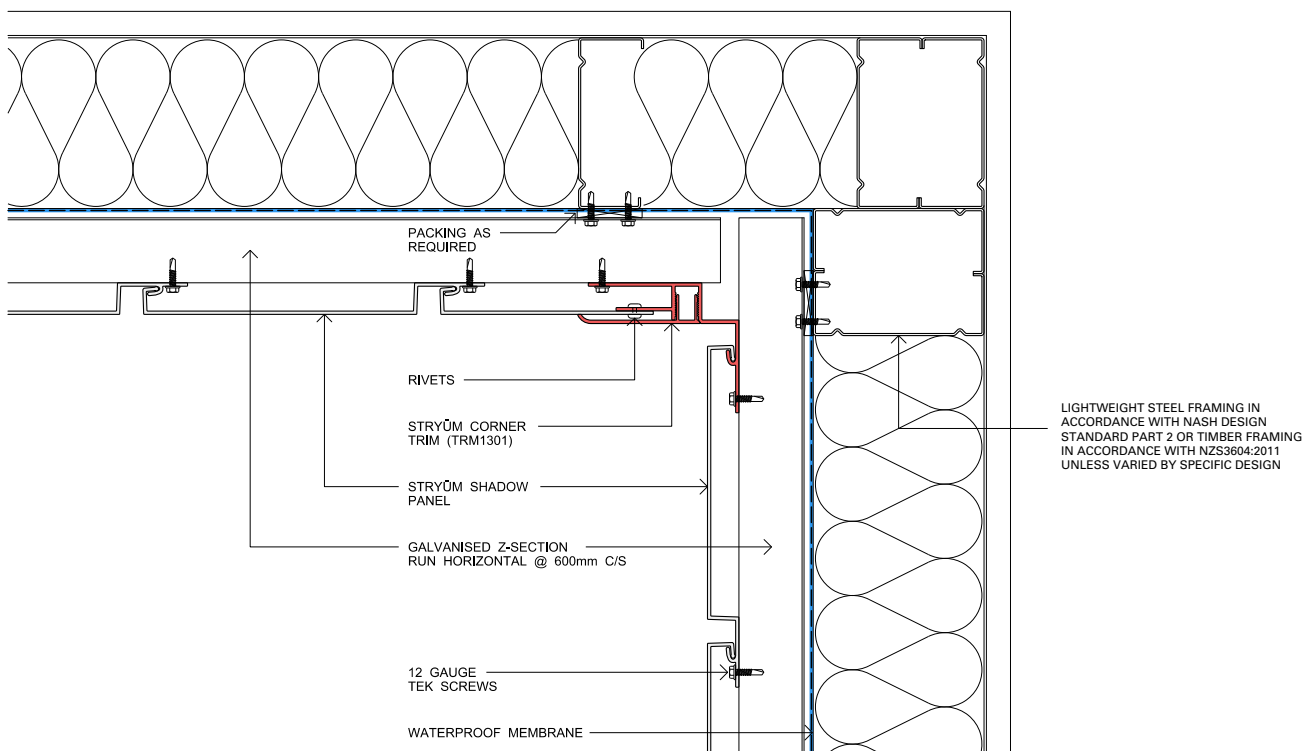
SHADOW V EXTERNAL CORNER 2



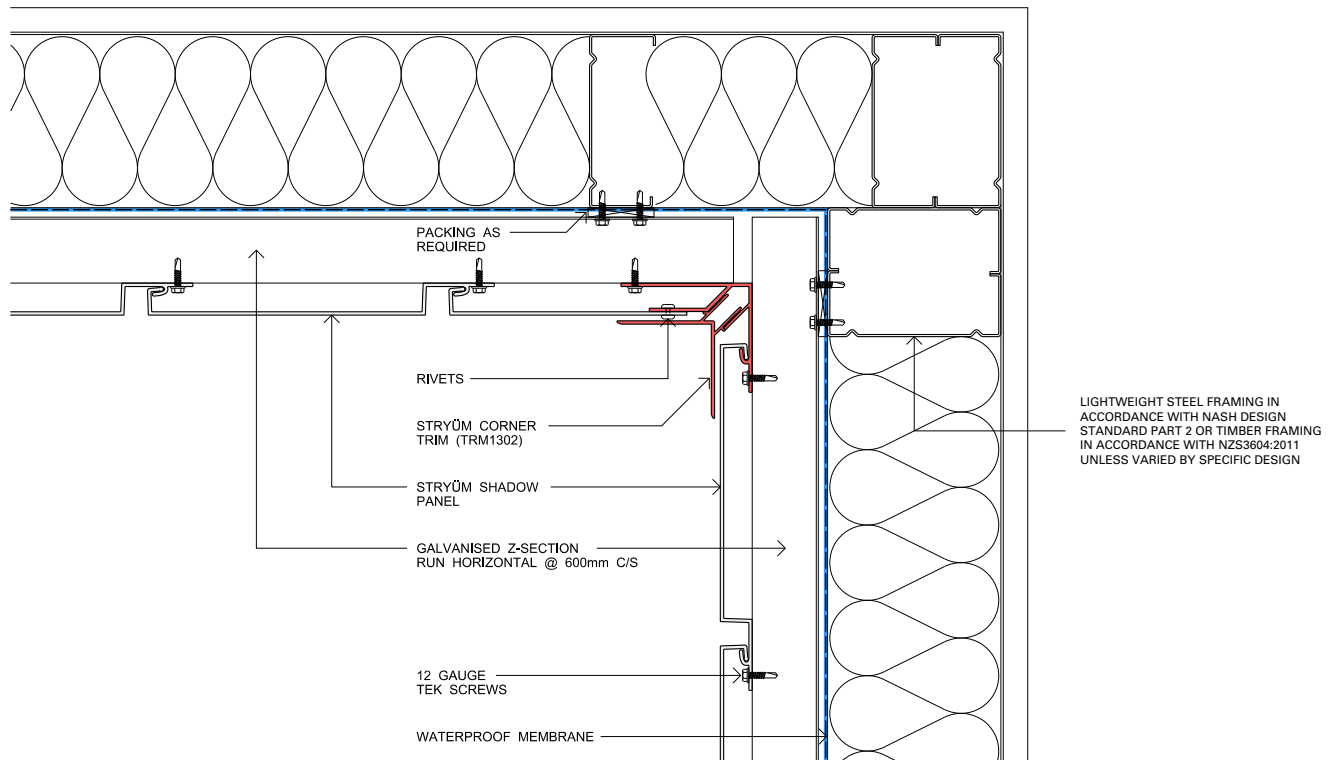
SHADOW V EXTERNAL CORNER 3



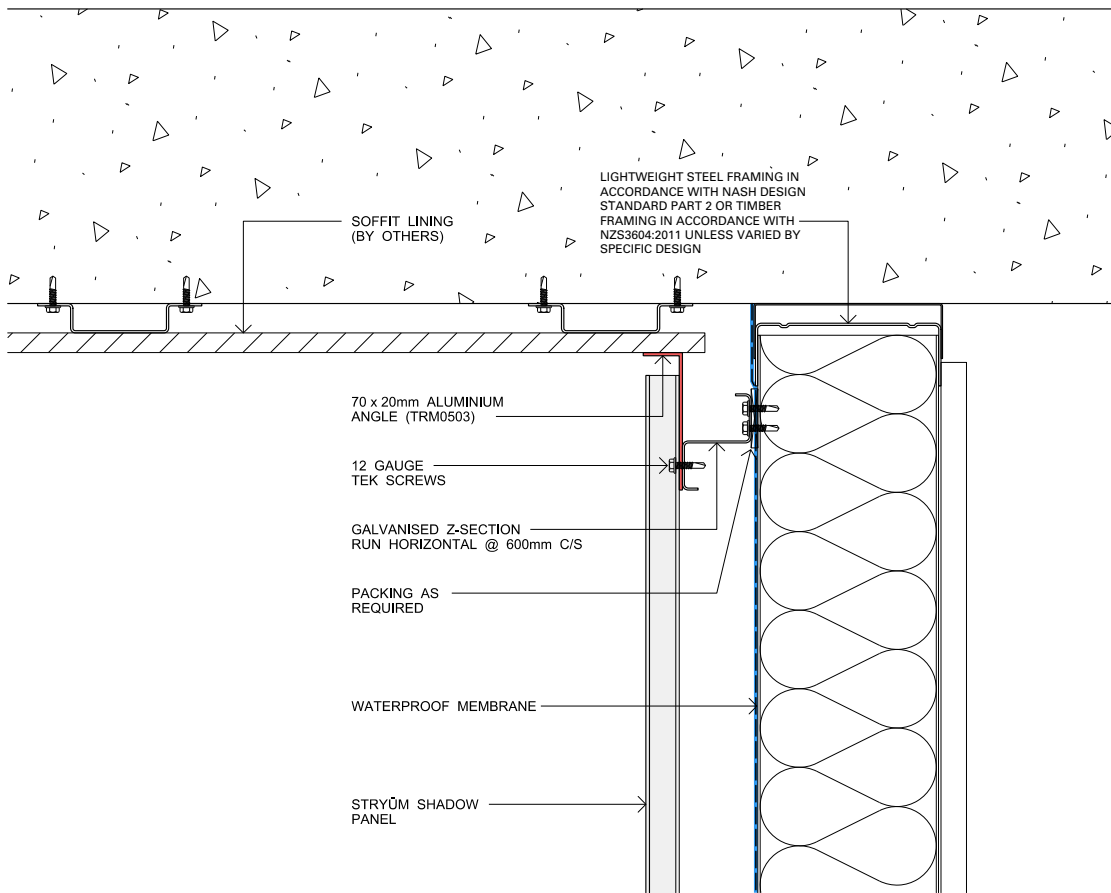
SHADOW V INTERNAL CORNER 1



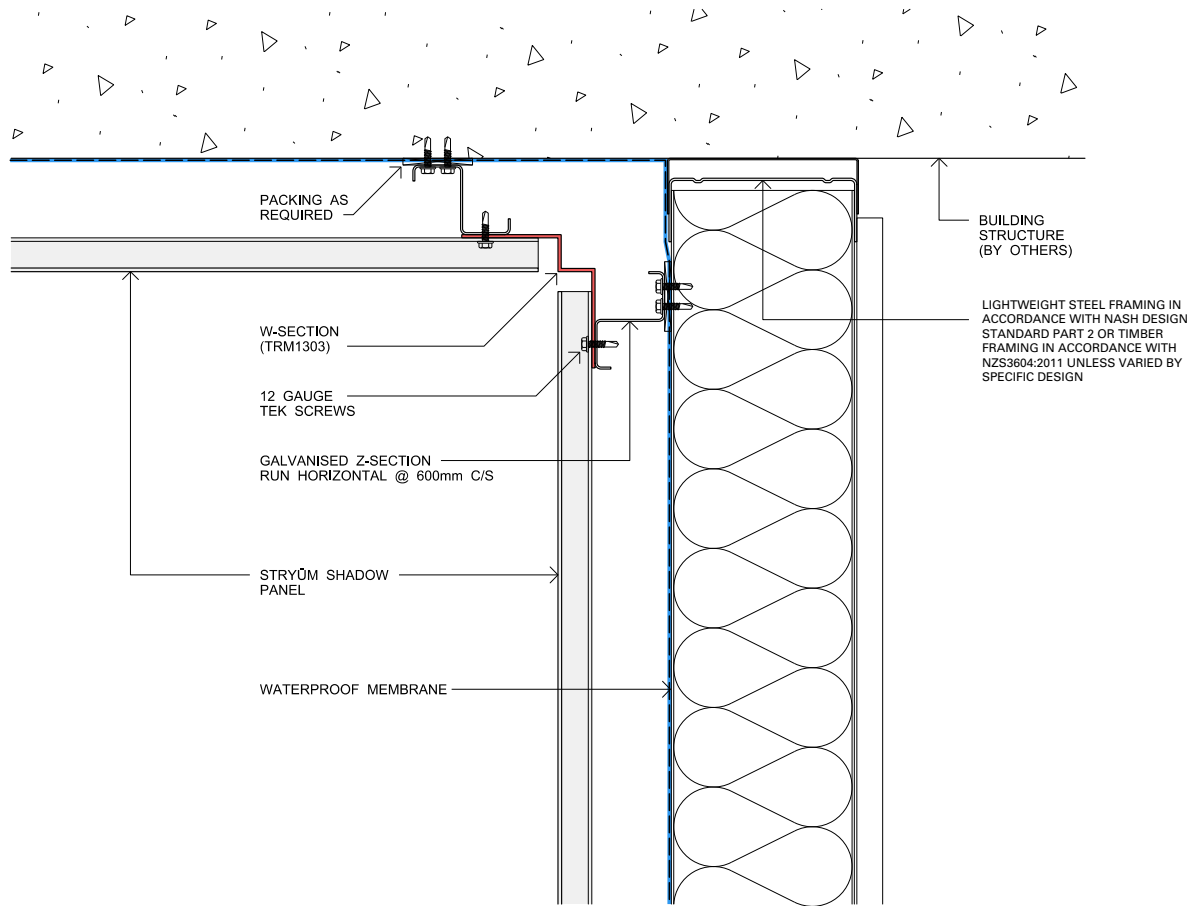
SHADOW V INTERNAL CORNER 2



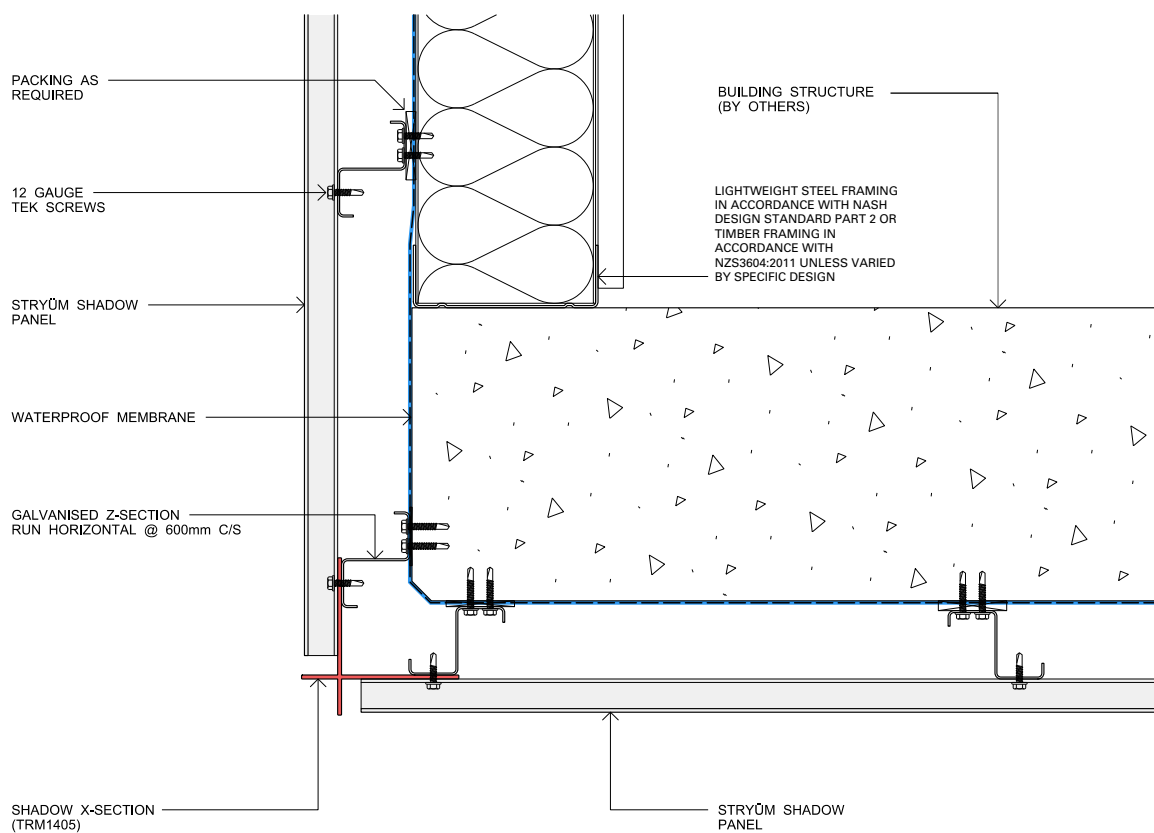
SHADOW V SOFFIT



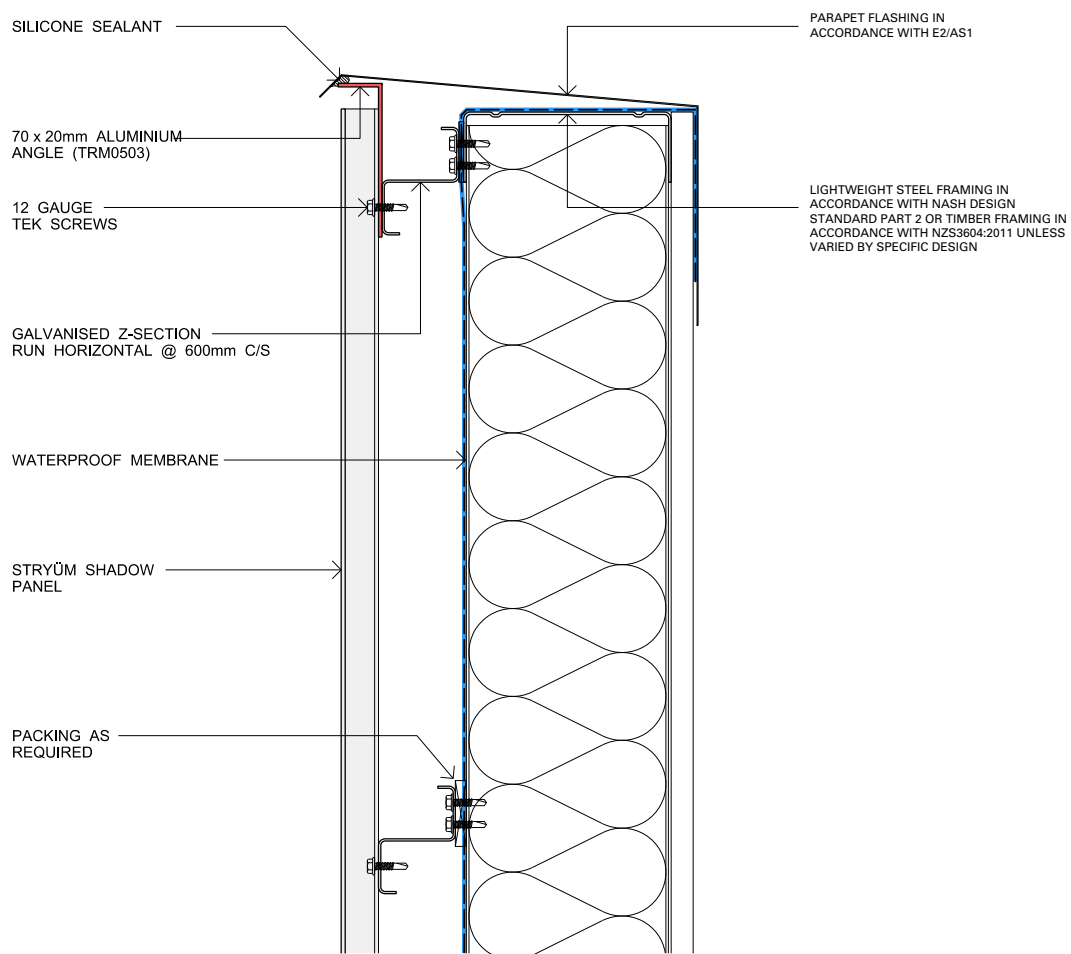
SHADOW V SOFFIT JUNCTION 1



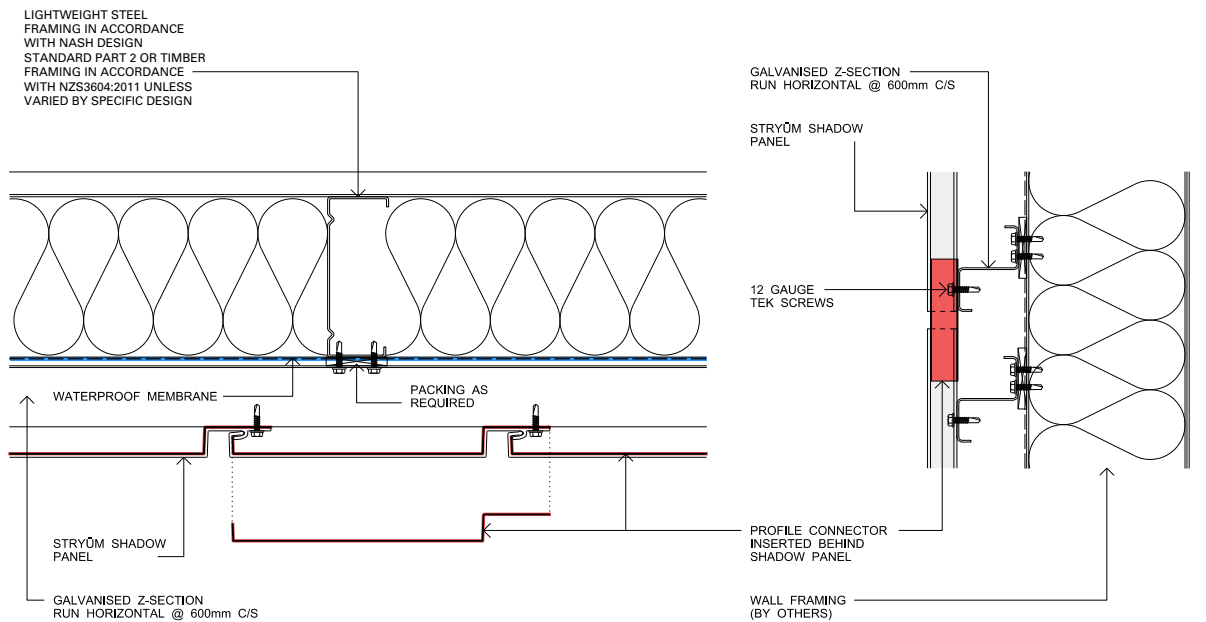
SHADOW V SOFFIT JUNCTION 2



SHADOW V PARAPET



SHADOW V PANEL CONNECTOR



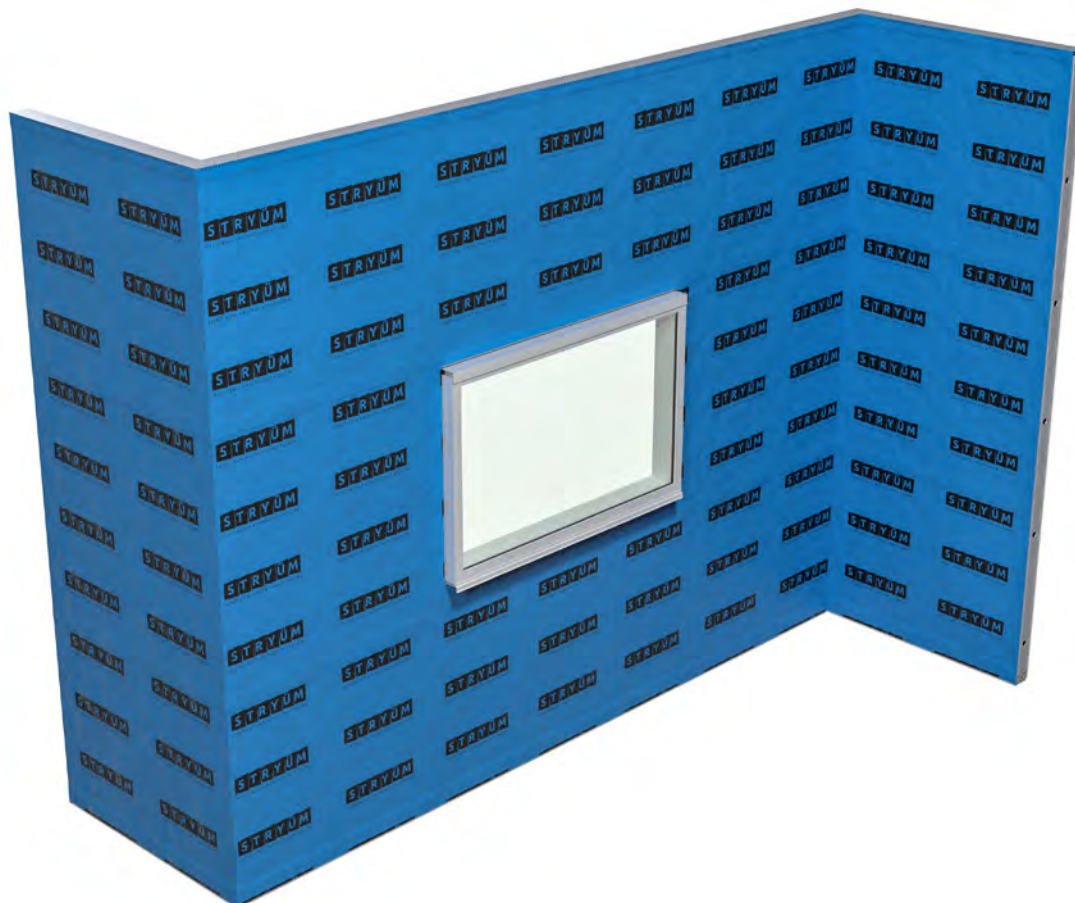
9. SHADOW HORIZONTAL

9.1 INSTALLATION GUIDE

SHADOW HORIZONTAL – INSTALLATION GUIDE

Please ensure you review the complete Stryüm Shadow Horizontal details to ensure you order all the required trims, the following step by step is a guide only.

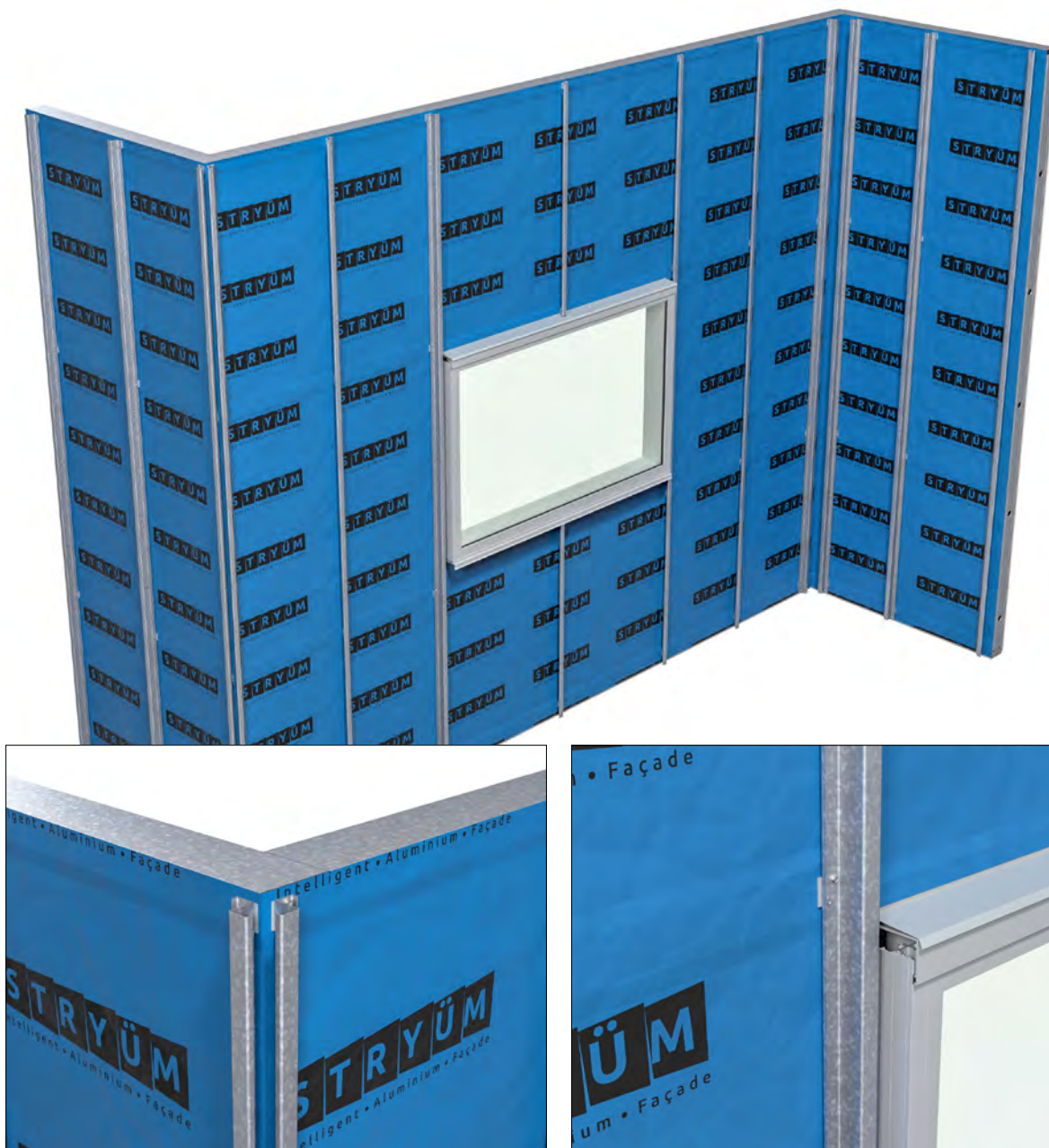
STEP 1 – WATERPROOF MEMBRANE



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Items On This Page			
Code	Description	Length	Supplied by Paneltec
N/A	Solitex Extasana (flexible wrap), Solitex Extasana Adhero (ridge barrier) or an equivalent product that complies with Table 23 of E2/AS1.	N/A	

STEP 2 – SUBSTRATE



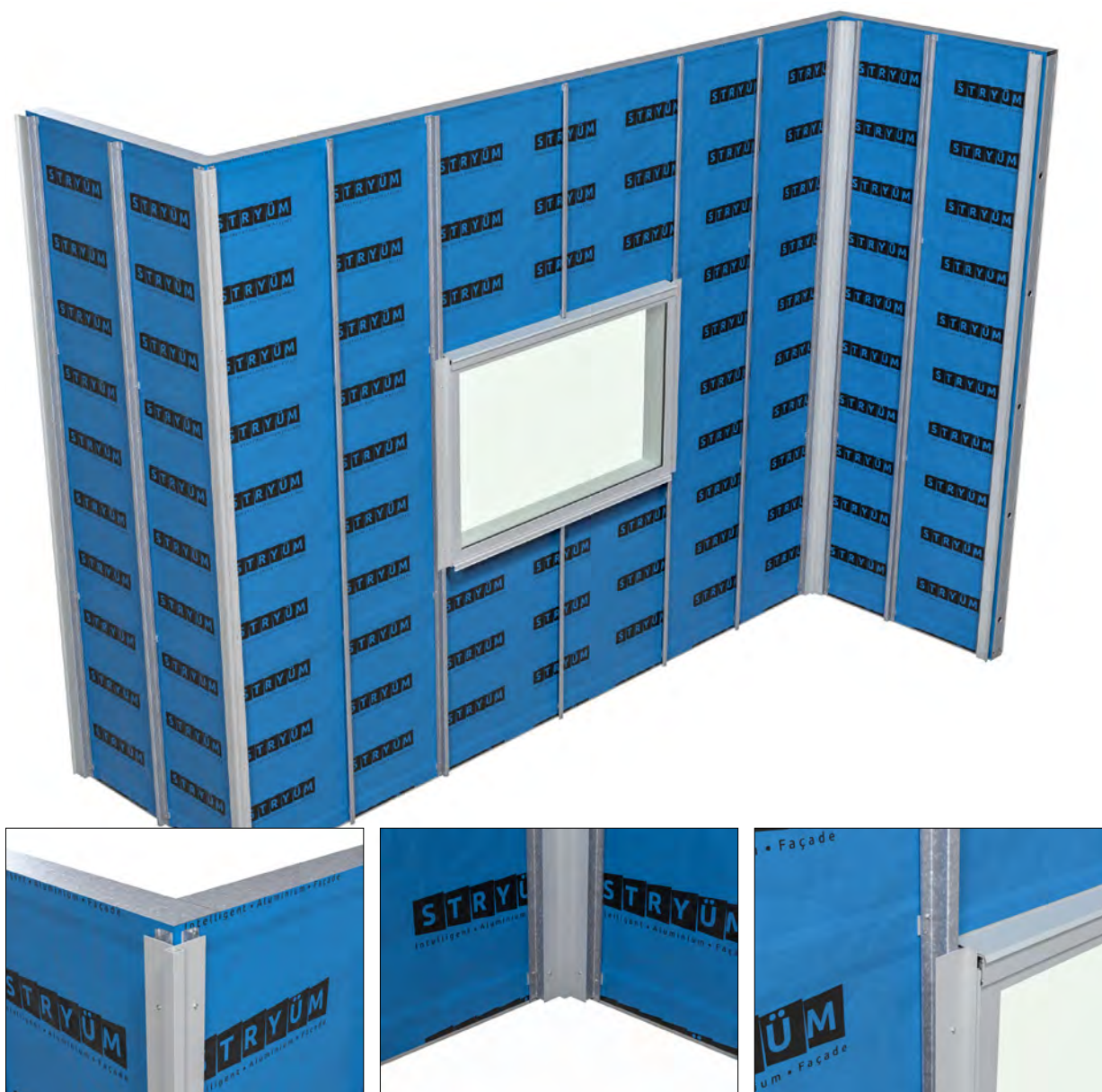
Packers for a plumb substrate and ventilation need to be installed as required prior to the installation of the Stryüm S Section.

Install Stryüm S Section substrate vertically. The substrate needs to be level to ensure the cladding is flat once installed. Any imperfections in this substrate will be highlighted once the panels are installed.

Stryüm S Sections are installed at maximum 600mm centres. Project specific requirements may dictate shorter span lengths.

Items On This Page			
Code	Description	Length	Supplied by Paneltec
TRM0901	35mm Stryüm S Section	6.5m	✓

STEP 3 – VERTICAL TRIMS

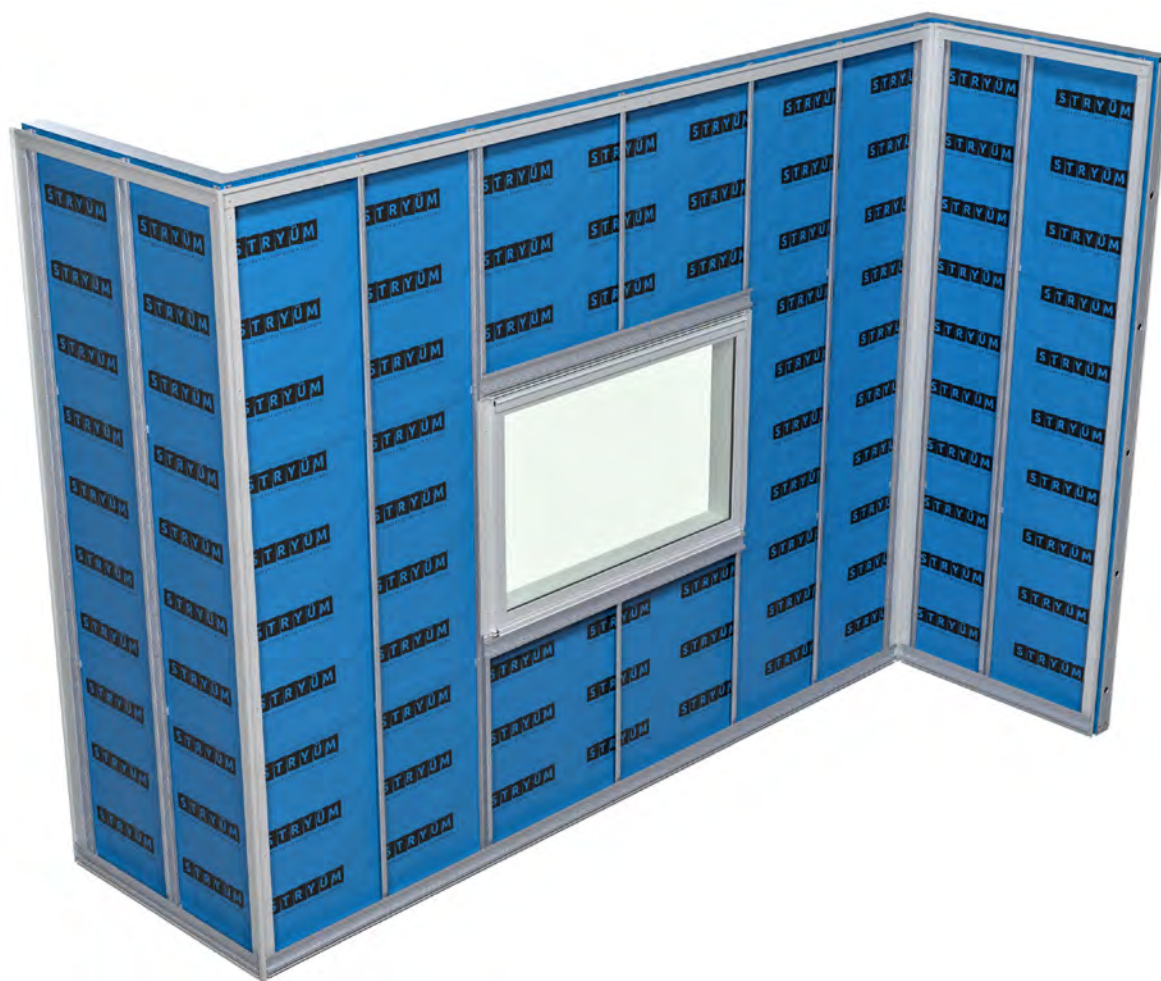


Install the vertical trims for the cladding, at the left and right of the cladding section, at either side of any wall penetrations, and at any corners. When installing down to an adjacent flat surface such as a garden bed or pathway, a minimum of 150mm from the ground is recommended to prevent rain splash back dirtying the façade.

If the cladding is being completed in sections, it is important the trims for either side of a cladding zone are installed prior to the cladding being installed to ensure a clean finish.

Items On This Page			
Code	Description	Length	Supplied by Paneltec
TRM0503	20 x 70 x 1.6 L-Angle	7m	✓
TRM1401	Shadow Box Section	7m	✓
TRM1303	Shadow W Section	7m	✓

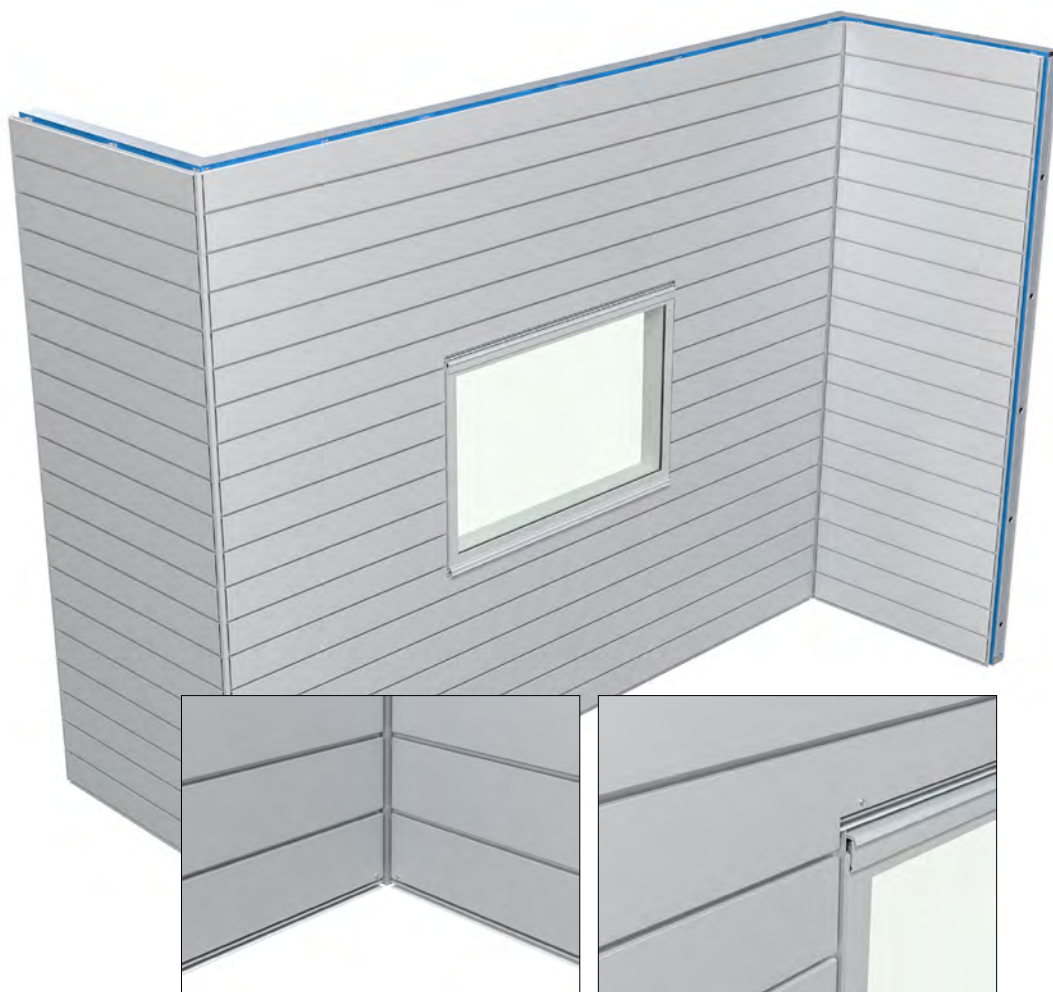
STEP 4 – HORIZONTAL TRIMS



Install the horizontal trims for the cladding, at the top and bottom of the cladding section, above and below any wall penetrations, and at any slab junctions.

Items On This Page			
Code	Description	Length	Supplied by Paneltec
TRM1101	Shadow Starter Strip	7m	✓
TRM0201b	Stop End (Female)	7m	✓
T1550/15	15mm Steel Top Hat	7m	✓

STEP 5 – INSTALL CLADDING

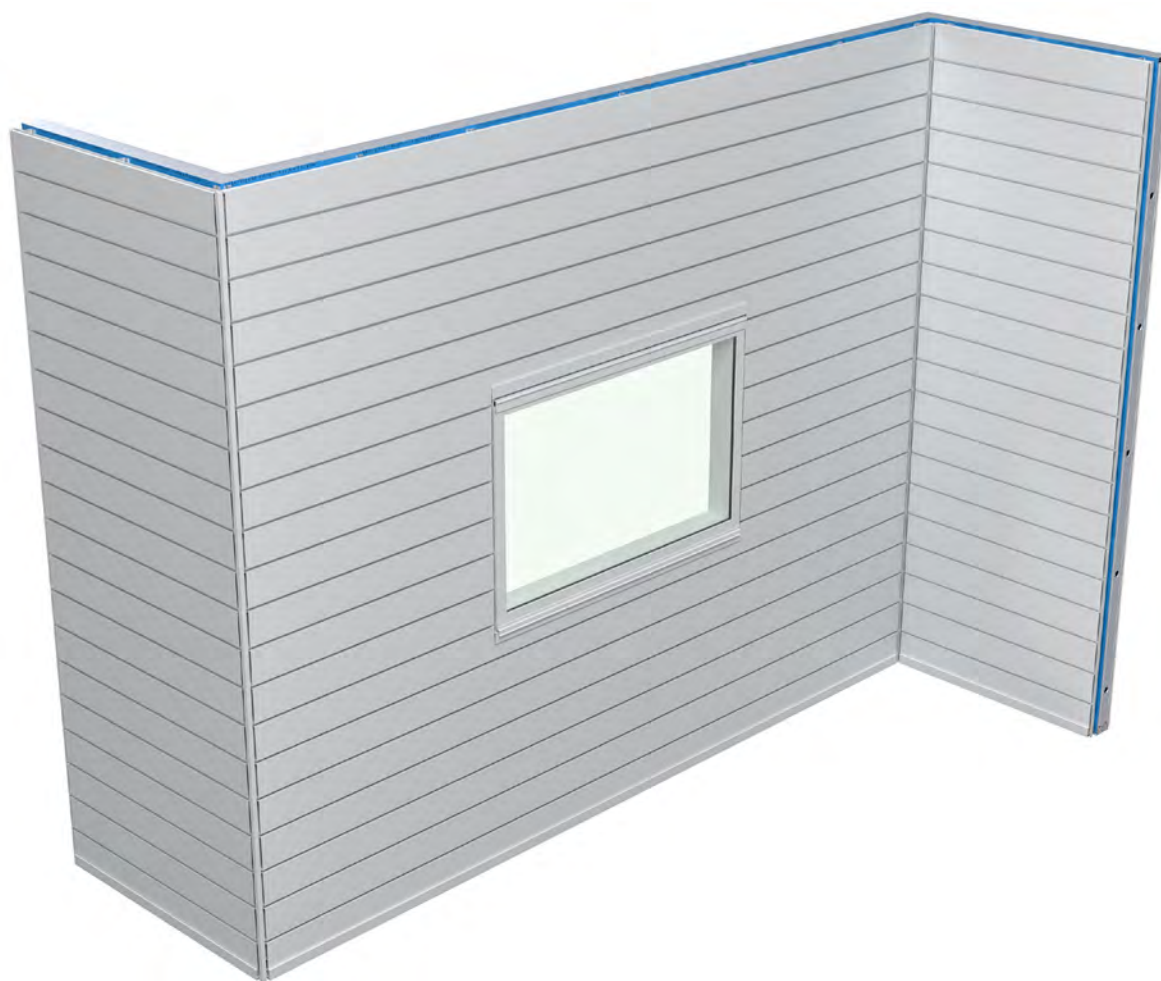


Install the cladding by cutting the panels to length, hooking the panel into the previous panel, and affixing to the S Section. Due to the rainscreen façade system Stryüm utilizes, a minimum airflow gap of 10mm must be maintained at the top and bottom of the cavity.

Note: there may not be room to install cladding panels around the windows, and at the top and bottom of the cladding zone as per the regular method. These panels will need to be trimmed down the length of the panel and fixed through the face. Use packers as required to bring the face of the panel level with the rest of the façade. These fixings will be concealed with the appropriate cover cap.

Items On This Page			
Code	Description	Length	Supplied by Paneltec
SH160	Shadow 160	7m, 4.8m	✓
OR			
SH200	Shadow 200	7m, 4.8m	✓
OR			
SH300	Shadow 300	7m, 4.8m	✓

STEP 6 – CLIP ON COVER PIECES



Install the cover sections to the two-piece trims to conceal rivets and cut edges. Push firmly into place, a rubber mallet may be used paying careful attention to the finish.

Items On This Page			
Code	Description	Length	Supplied by Paneltec
TRM0201a	Stop End (Male)	7m	✓

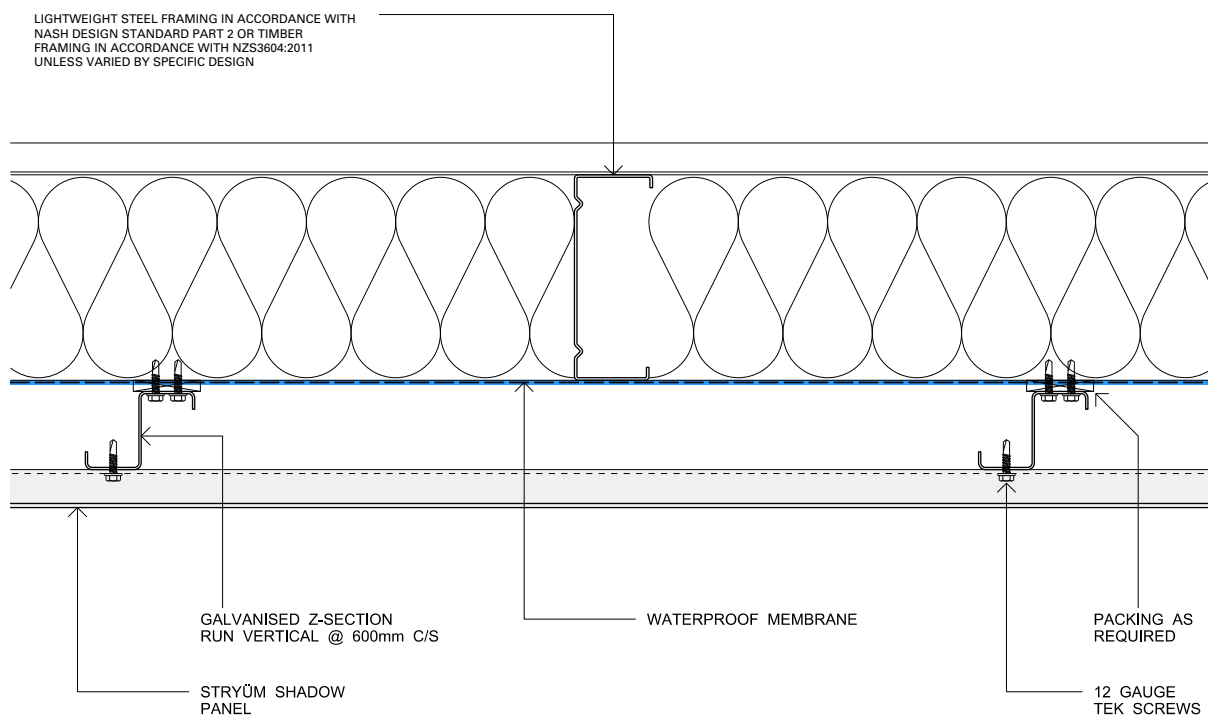
9. SHADOW HORIZONTAL

9.2 GENERAL DETAILS

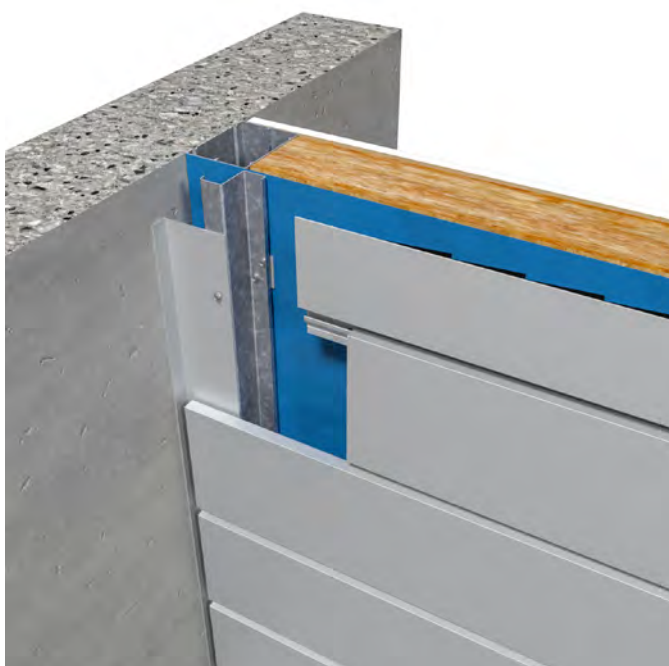
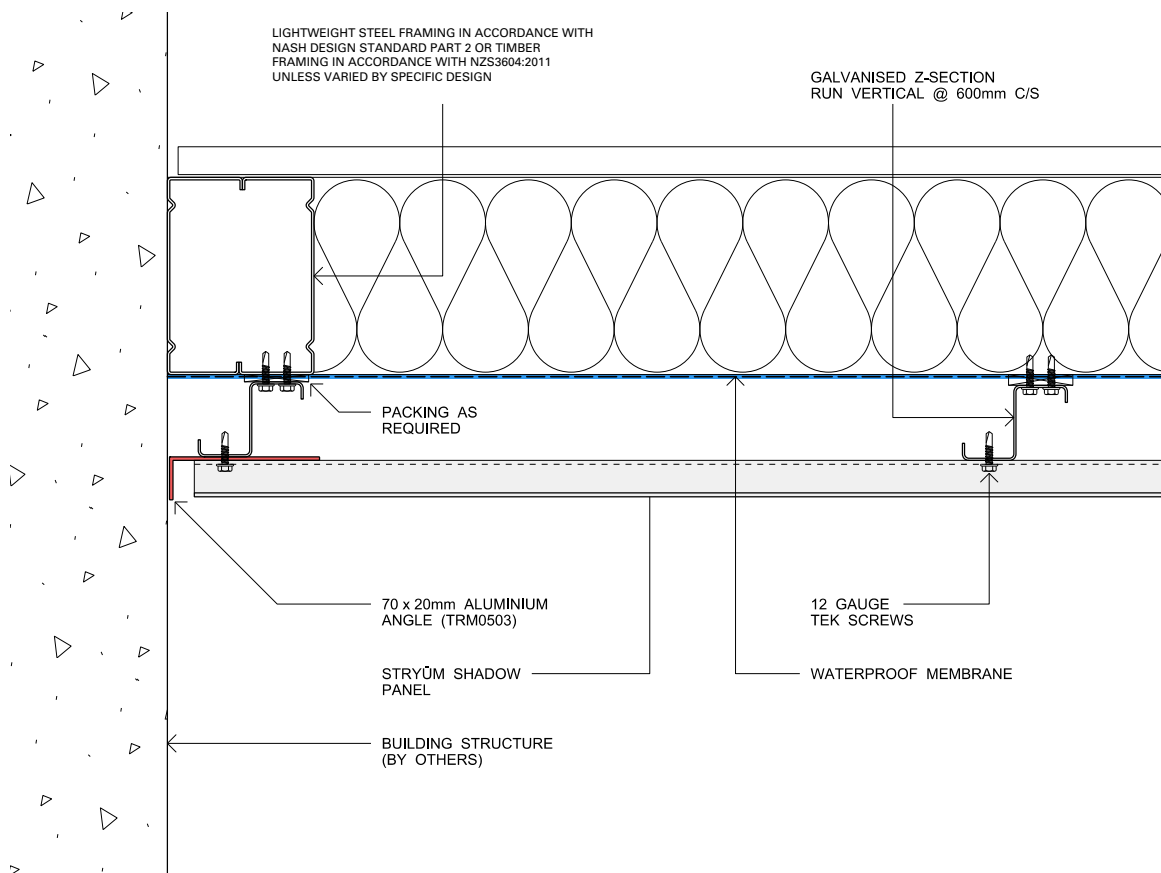
SHADOW HORIZONTAL – GENERAL DETAILS

These details are of a generic nature. In all cases use these details as a guide only and refer to the Paneltec design library or building consent for finalised details.

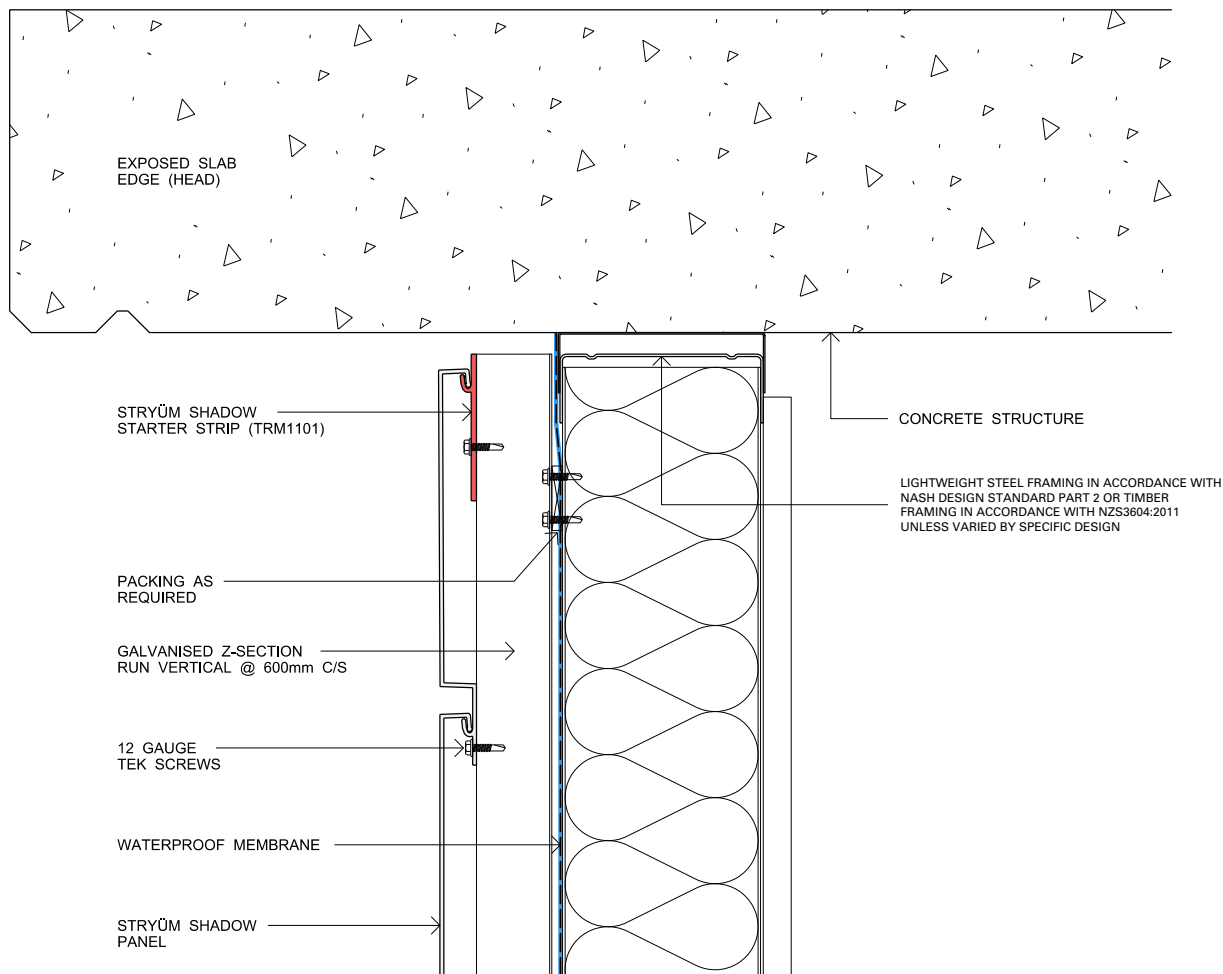
SHADOW H PANEL CONNECTION



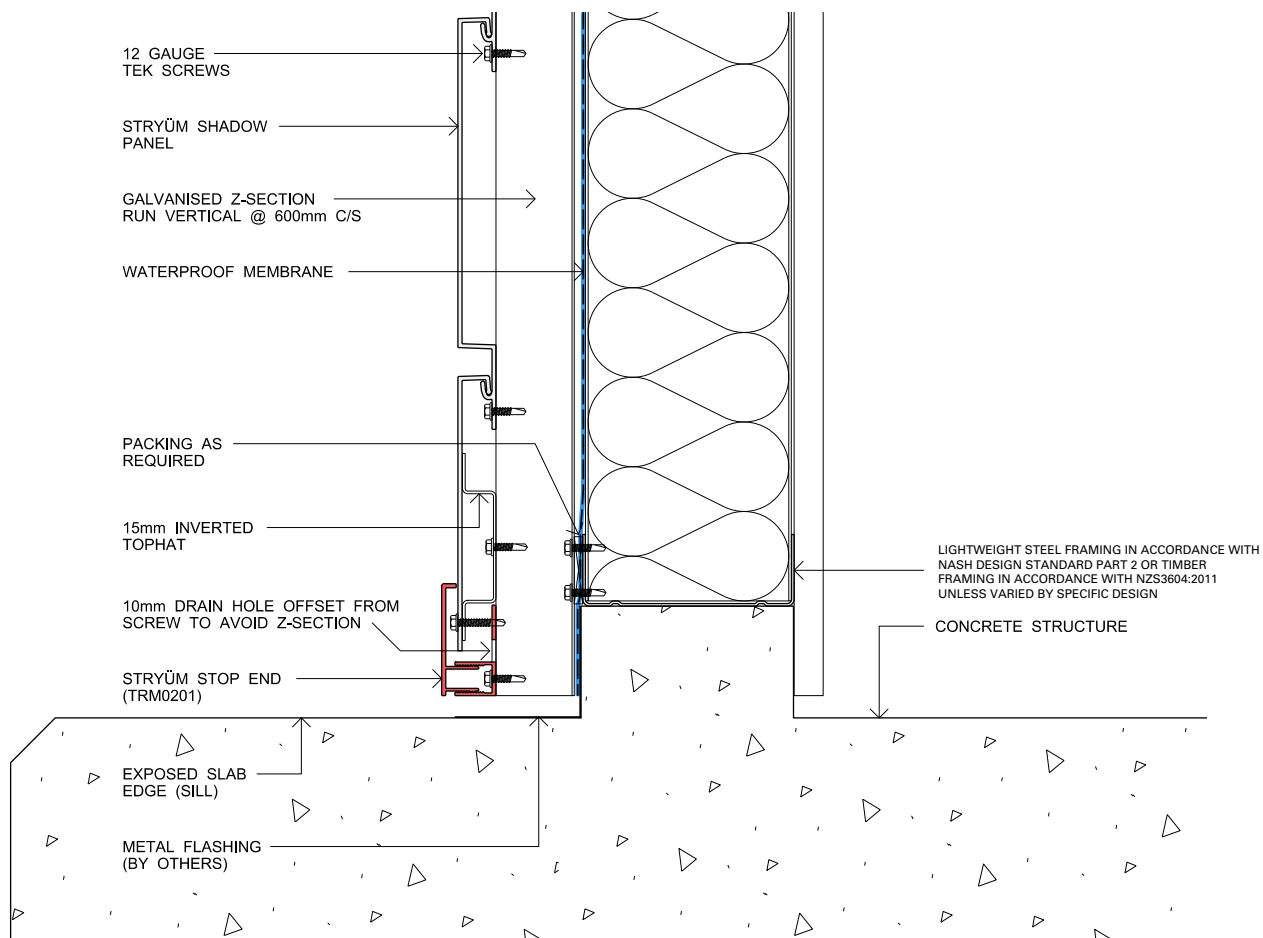
SHADOW H PANEL START END



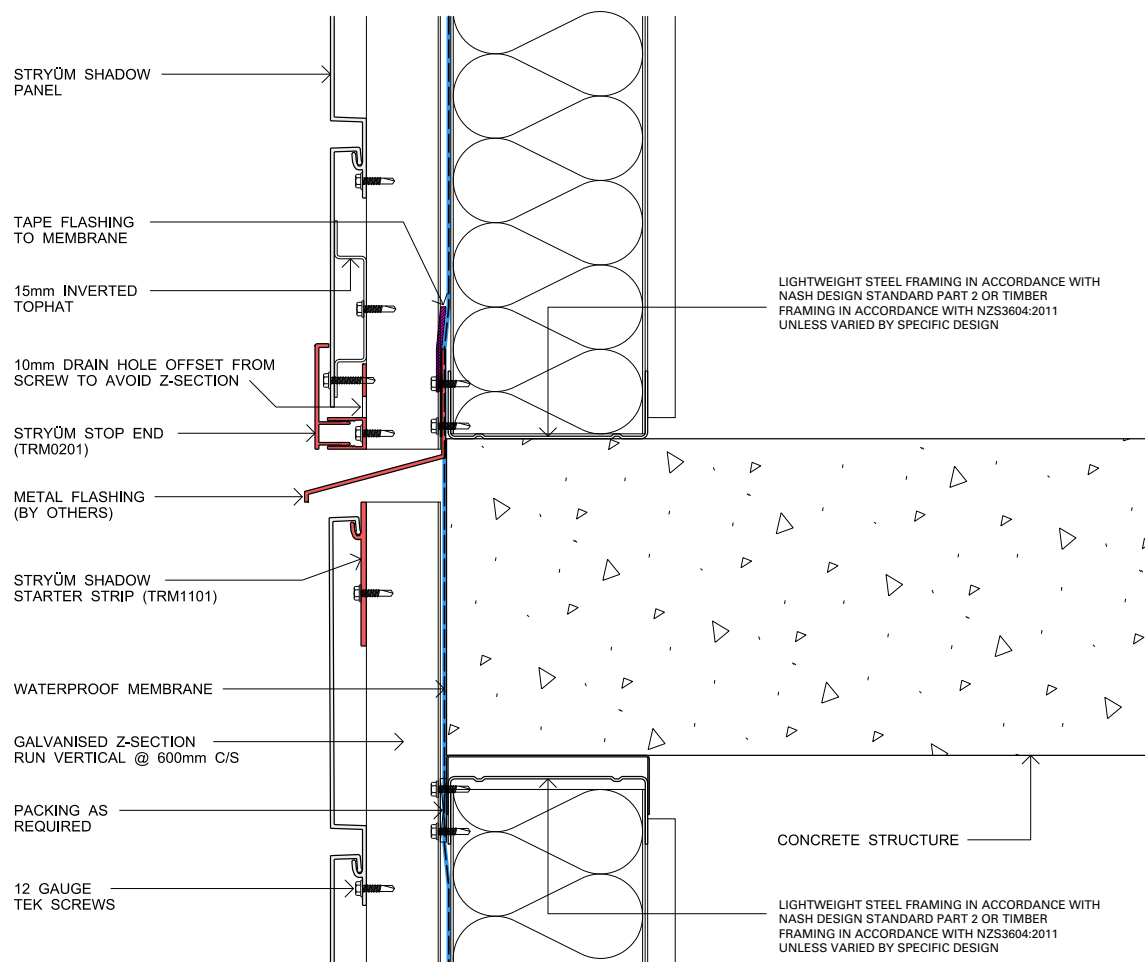
SHADOW H HEAD SLAB JUNCTION



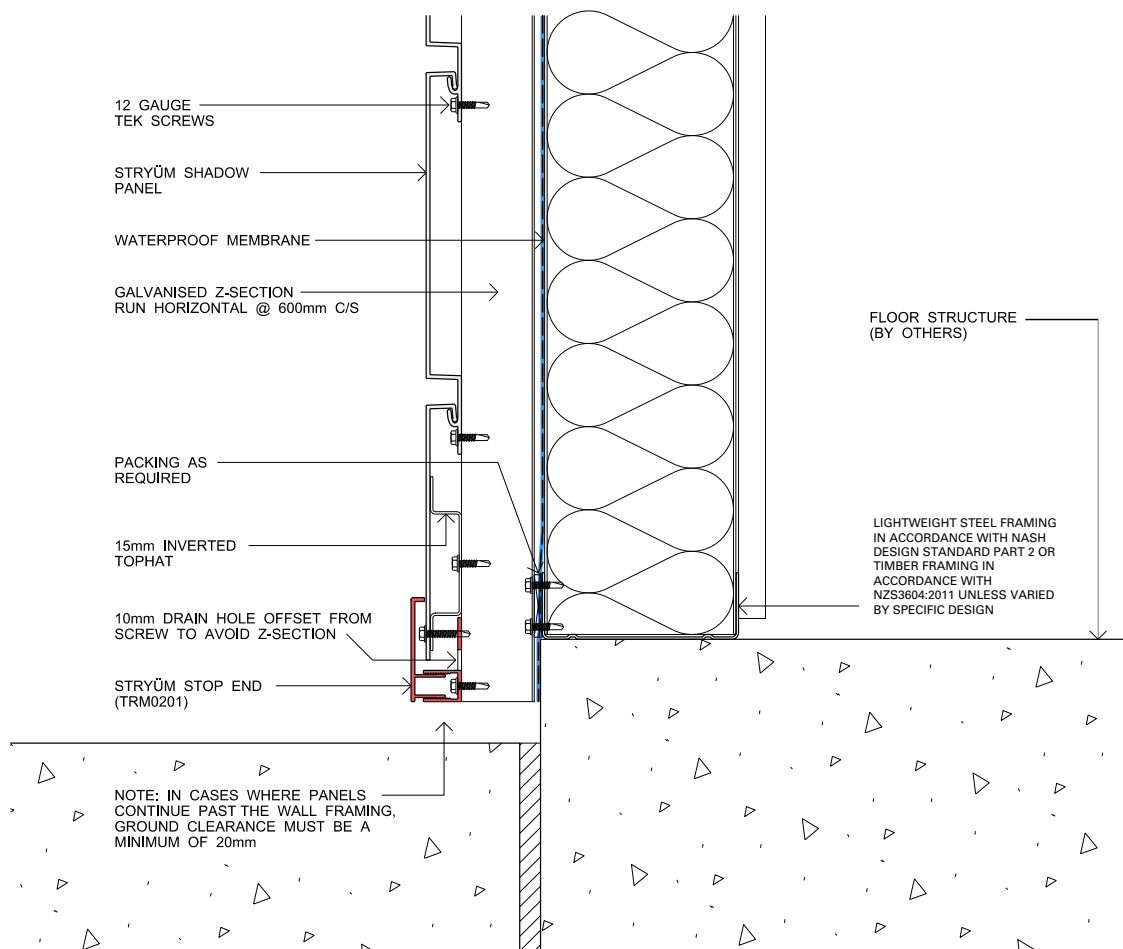
SHADOW H BASE SLAB JUNCTION



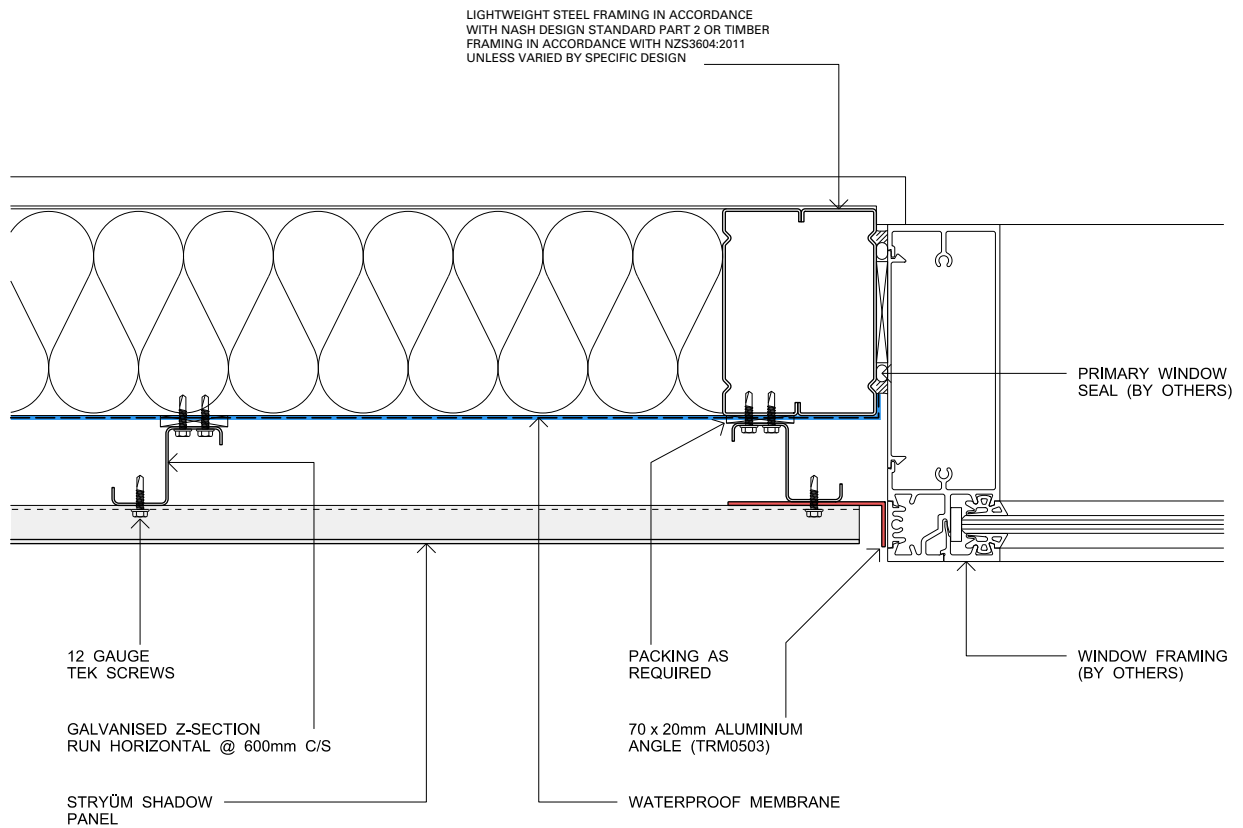
SHADOW H SLAB JUNCTION CONCEALED



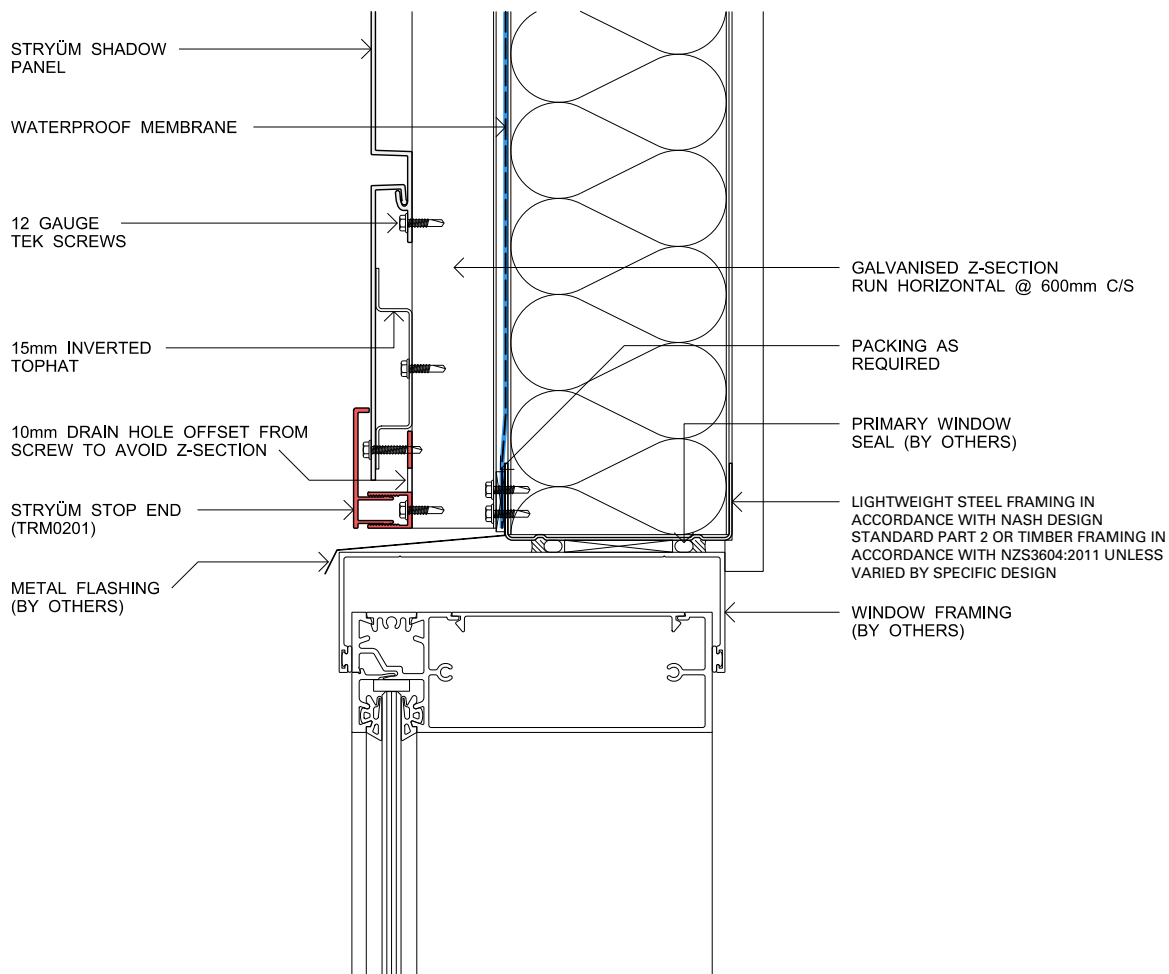
SHADOW H PANEL END FLOOR



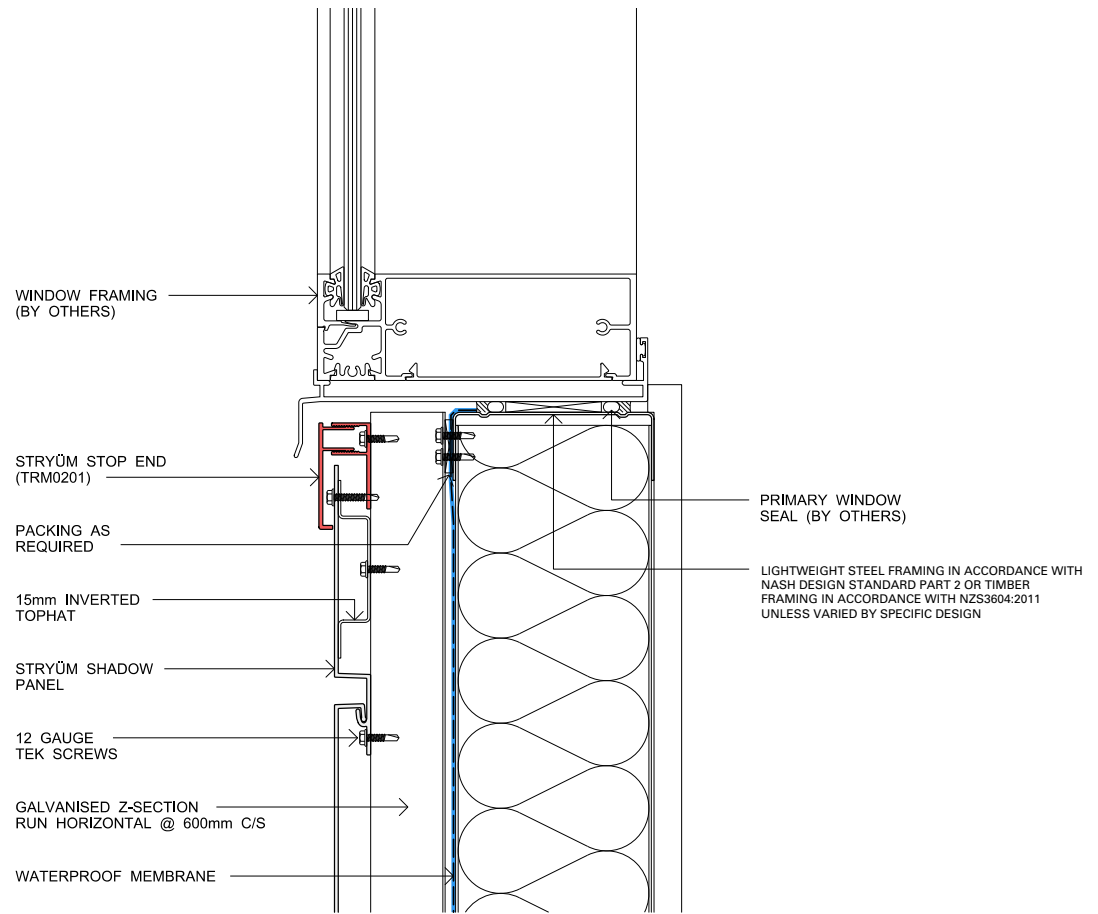
SHADOW H WINDOW JAMB



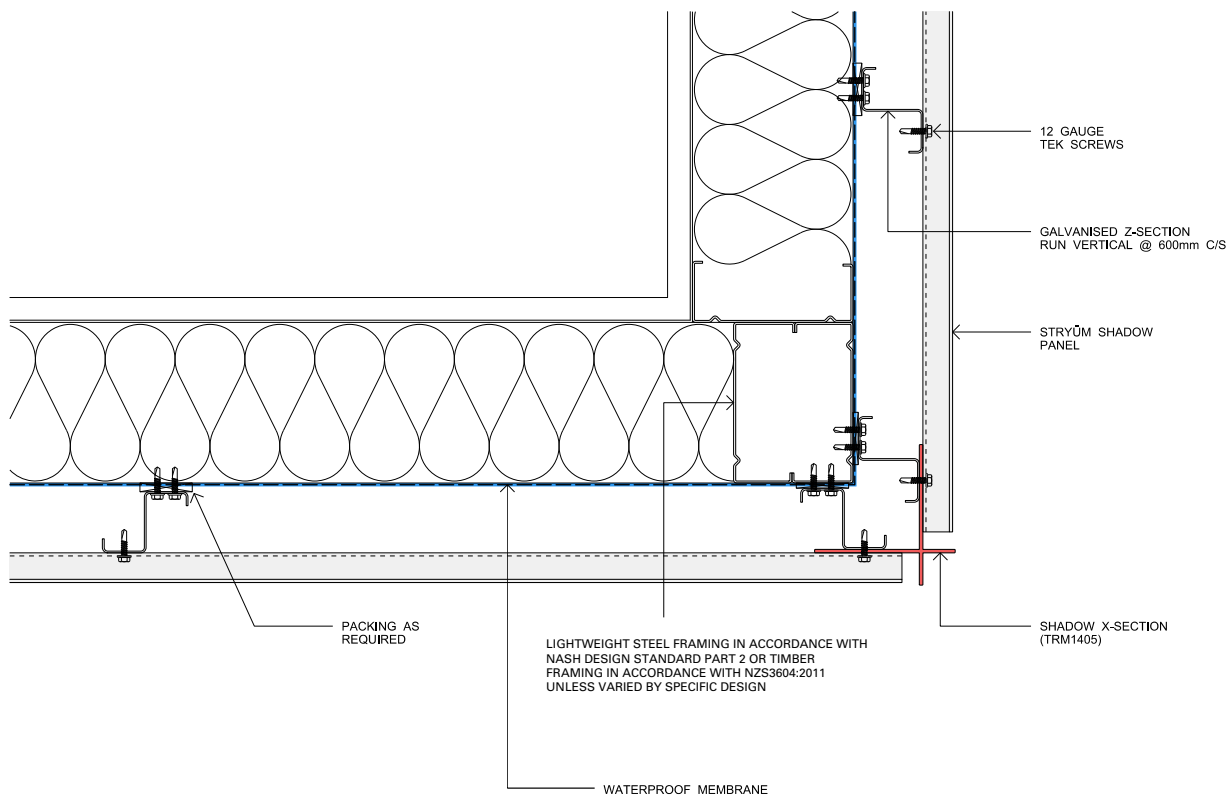
SHADOW H WINDOW HEAD



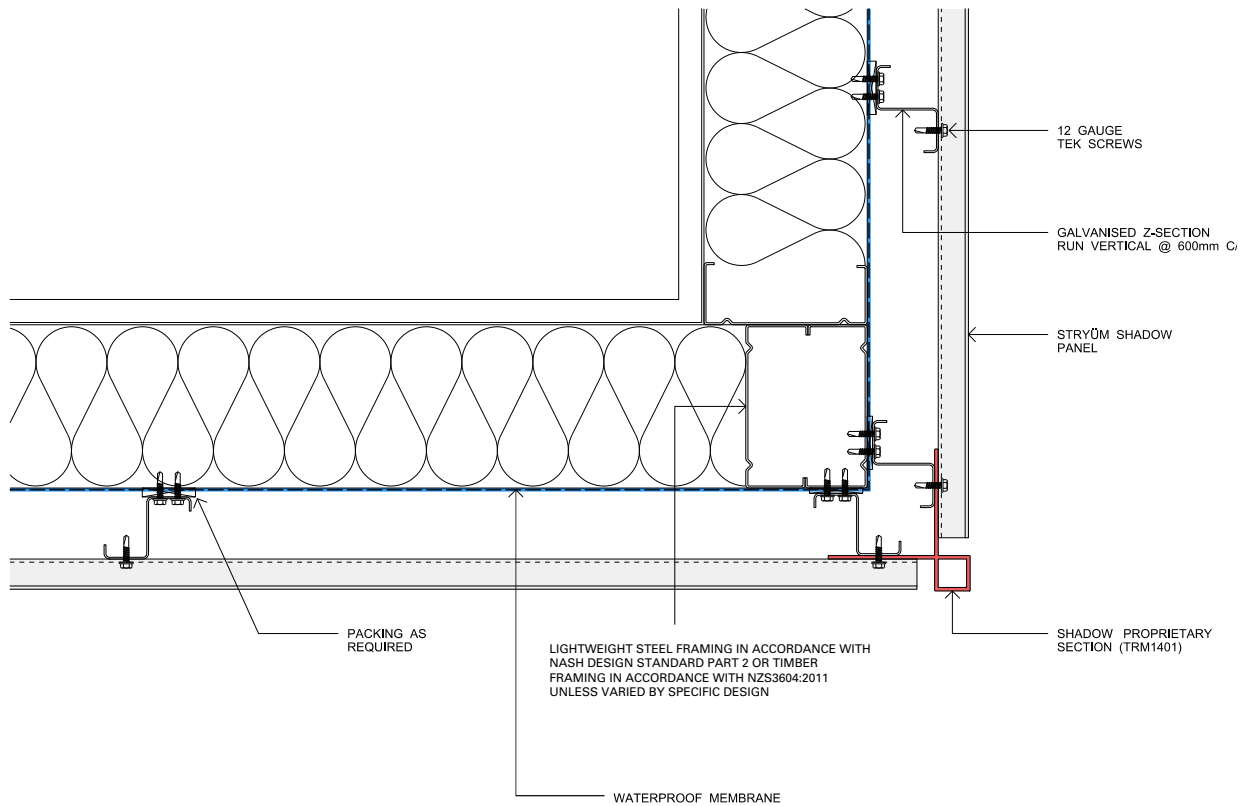
SHADOW H WINDOW SILL



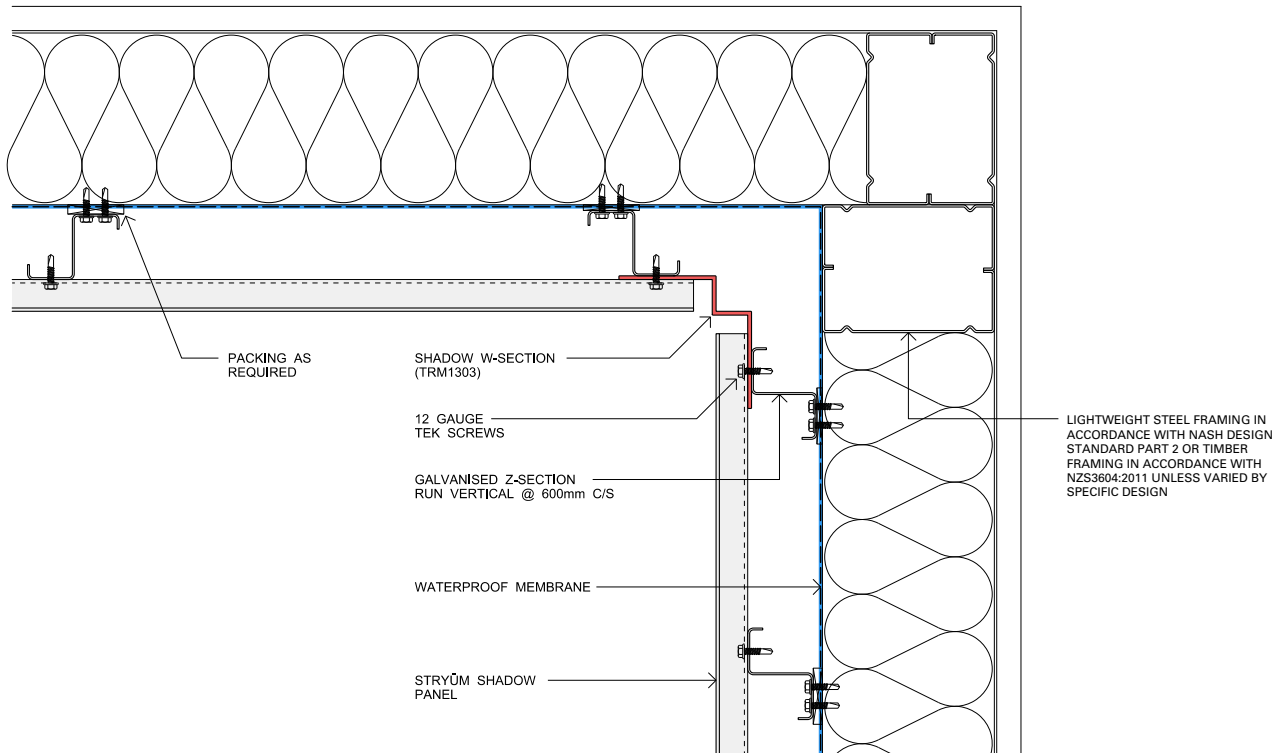
SHADOW H EXTERNAL CORNER 1



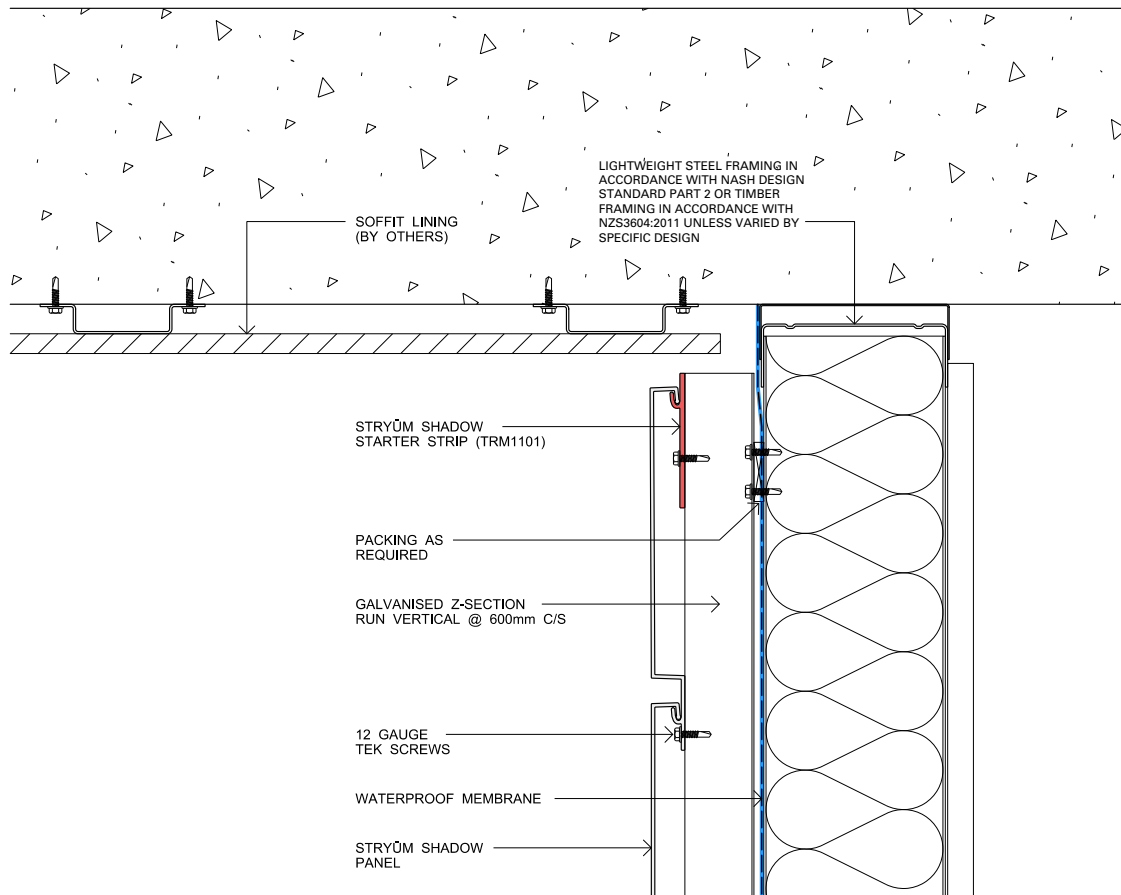
SHADOW H EXTERNAL CORNER 2



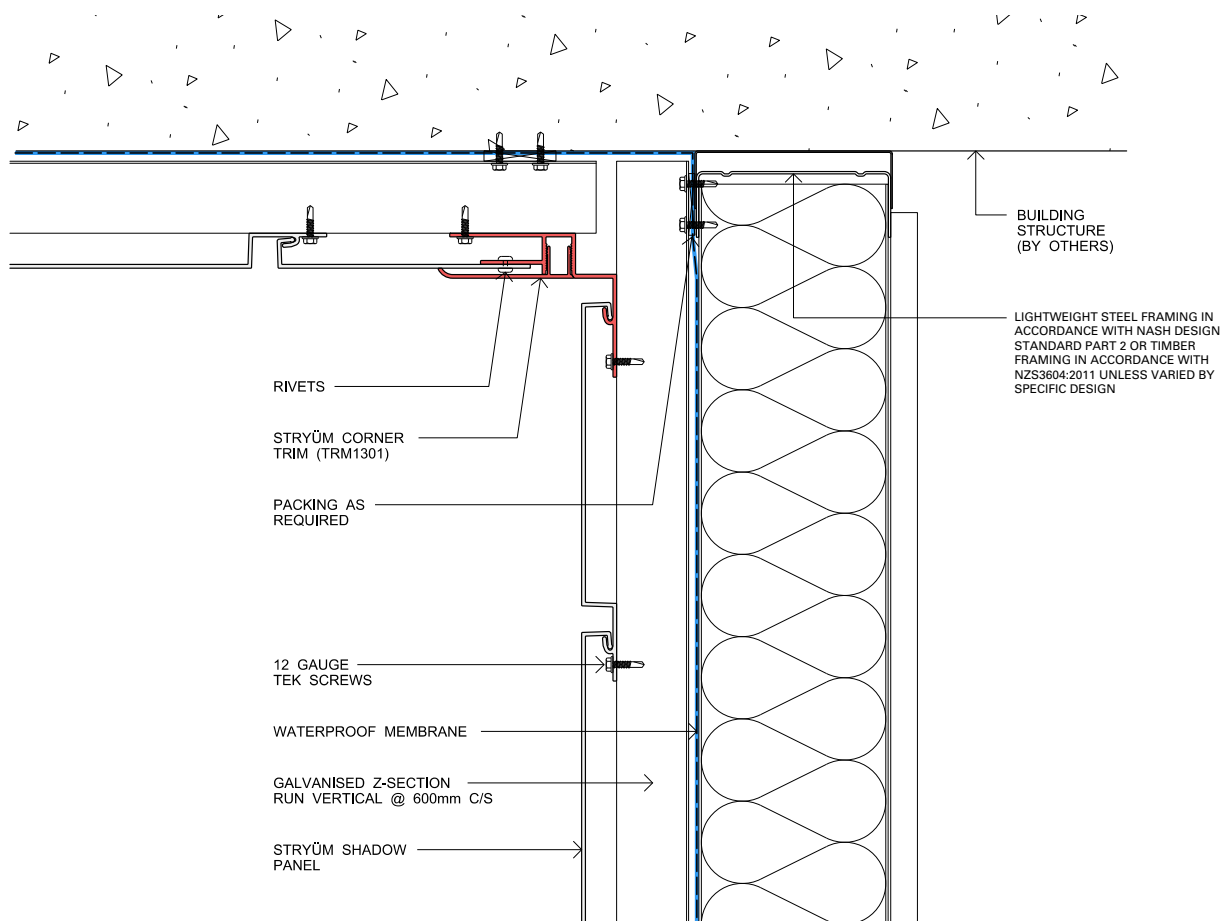
SHADOW H INTERNAL CORNER



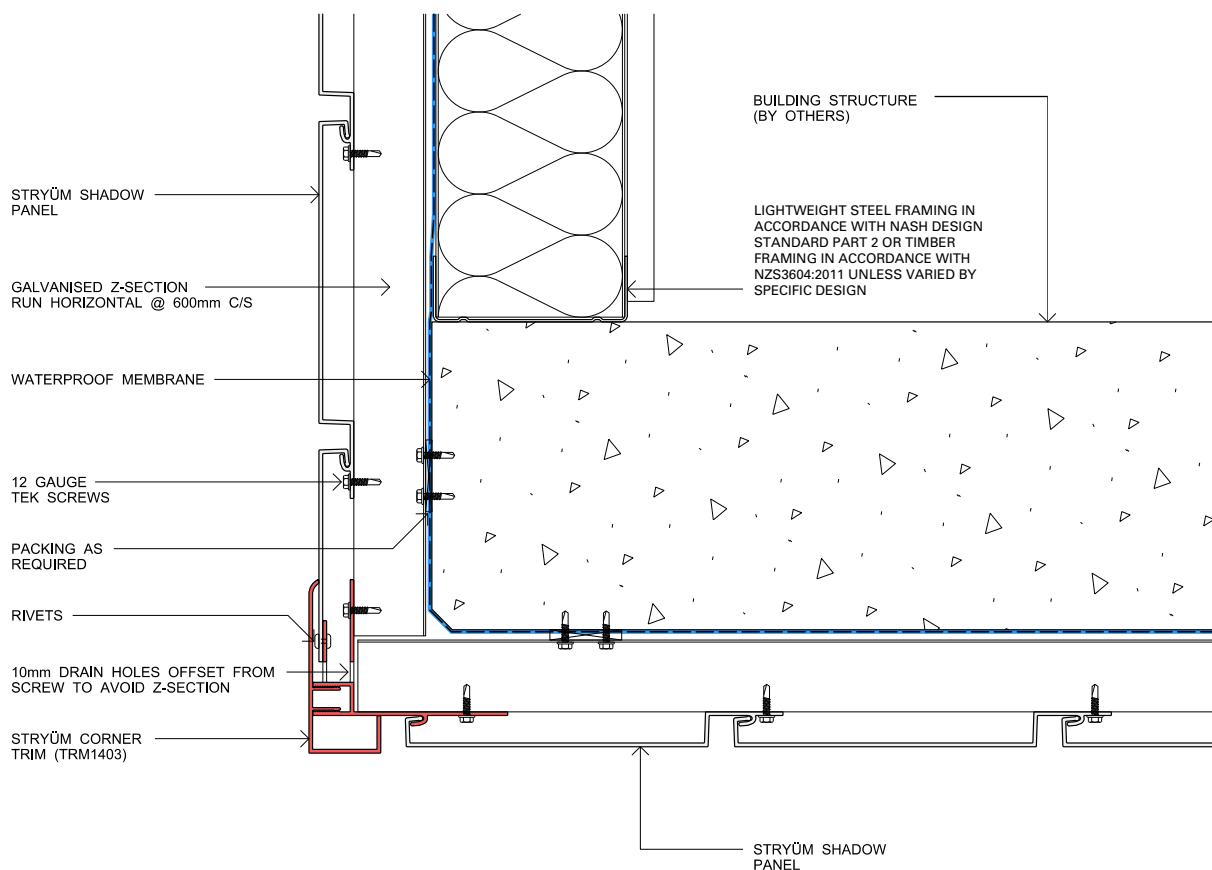
SHADOW H SOFFIT



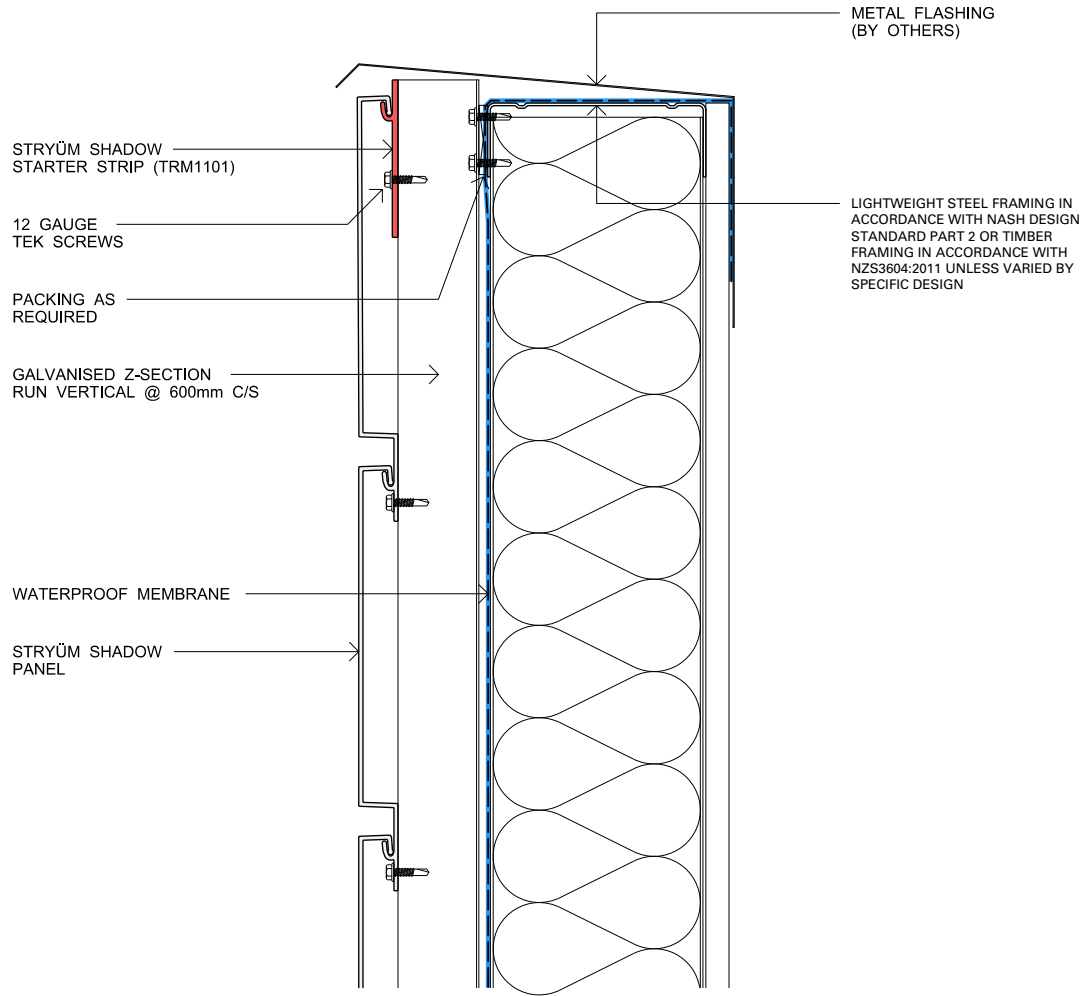
SHADOW H SOFFIT JUNCTION 1



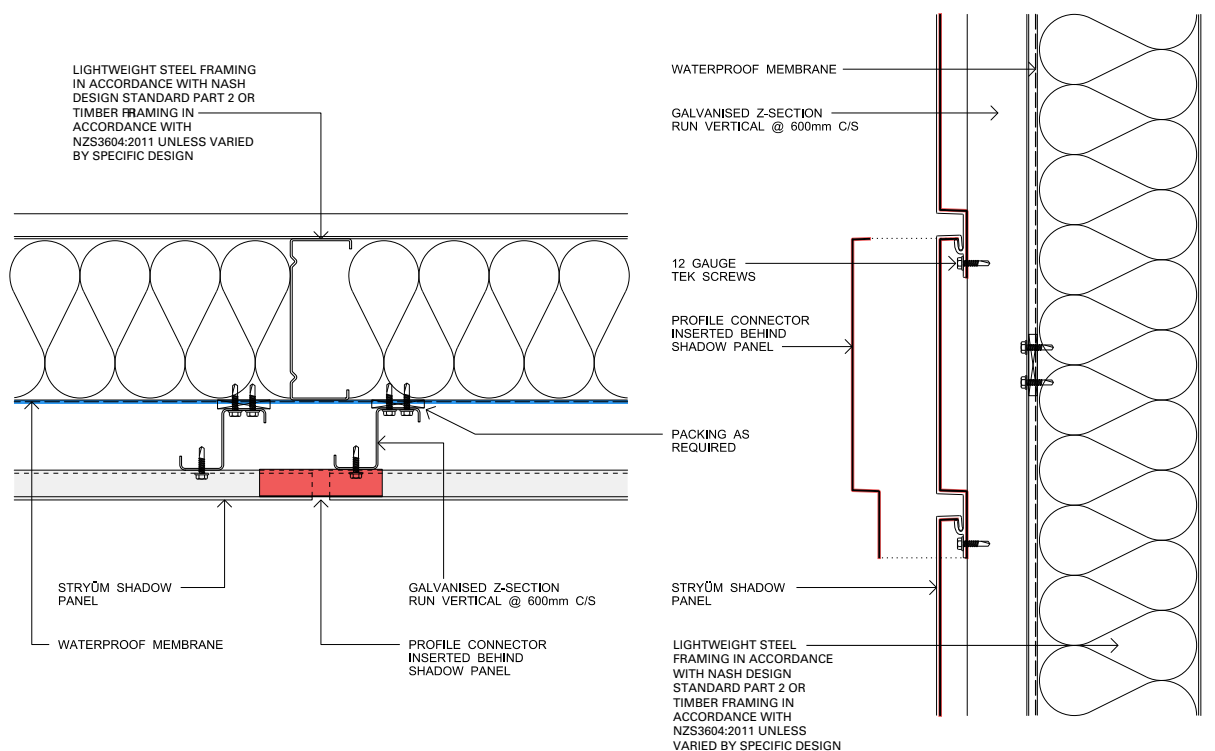
SHADOW H SOFFIT JUNCTION 2



SHADOW H PARAPET



SHADOW H PANEL CONNECTOR



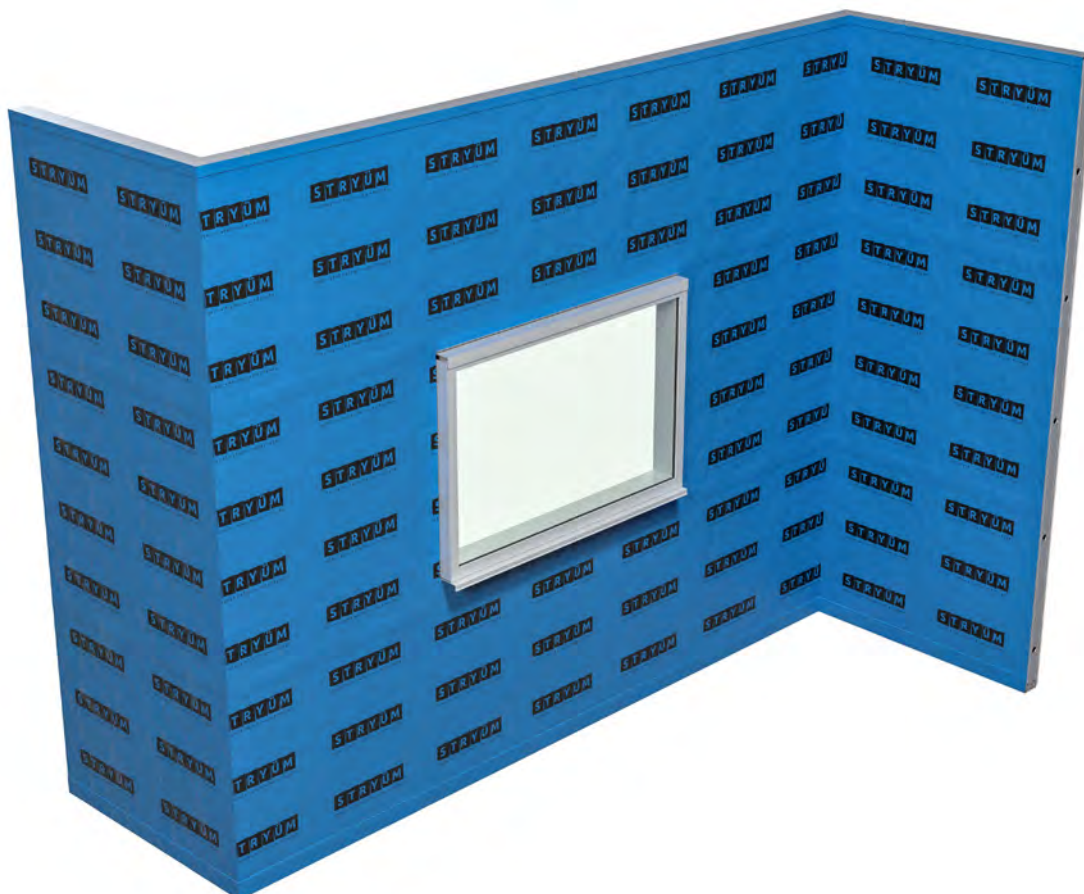
10. SEAM VERTICAL

10.1 INSTALLATION GUIDE

SEAM VERTICAL – INSTALLATION GUIDE

Please ensure you review the complete Stryüm Seam details to ensure you order all the required trims, the following step by step is a guide only.

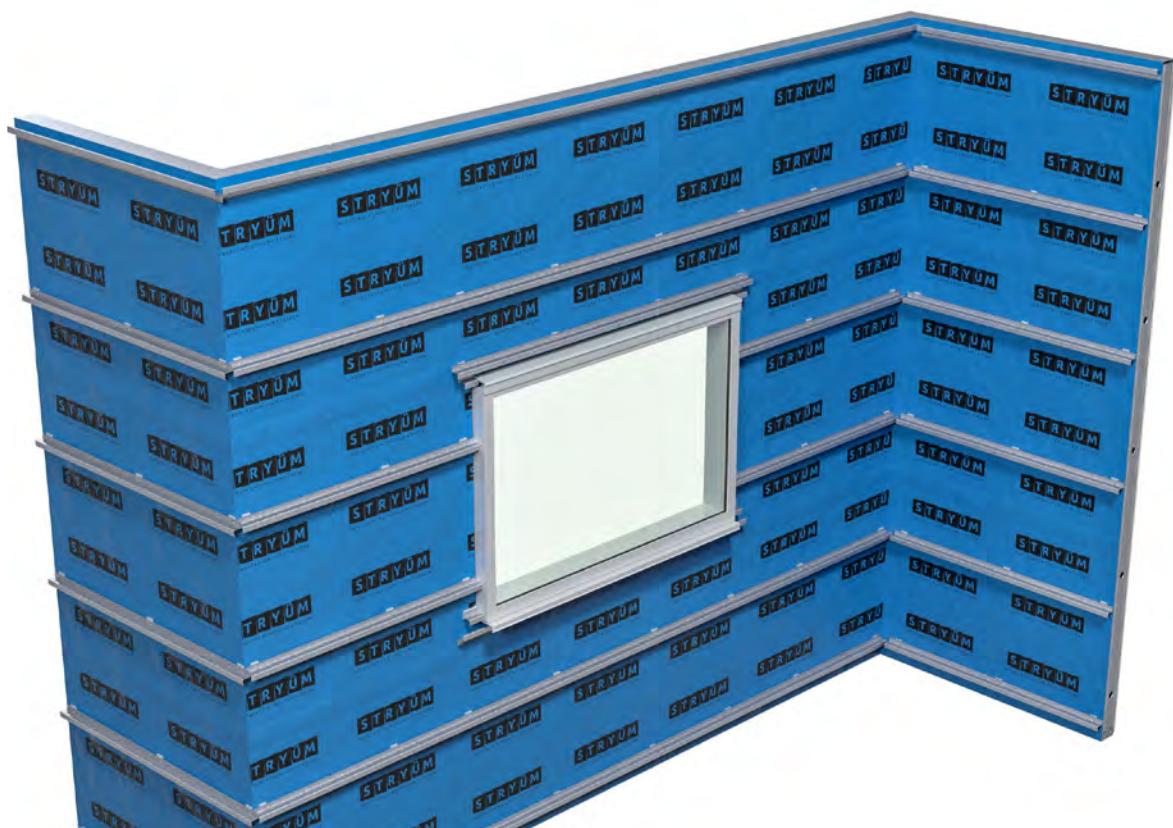
STEP 1 – WEATHERTIGHT MEMBRANE



As Stryüm is a rainscreen façade, a weathertight, flexible membrane or rigid underlay must be installed over the supporting wall. It must meet the project specific requirements for weathertightness and be installed as per manufacturers guidelines. All junctions, penetrations and openings associated with the underlay must be sealed.

Items On This Page			
Code	Description	Length	Supplied by Paneltec
N/A	Solitex Extasana (flexible wrap), Solitex Extasana Adhero (ridge barrier) or an equivalent product that complies with Table 23 of E2/AS1.	N/A	

STEP 2 – SUBSTRATE



Packers for a plumb substrate and ventilation need to be installed as required prior to the installation of the Stryüm S Section.

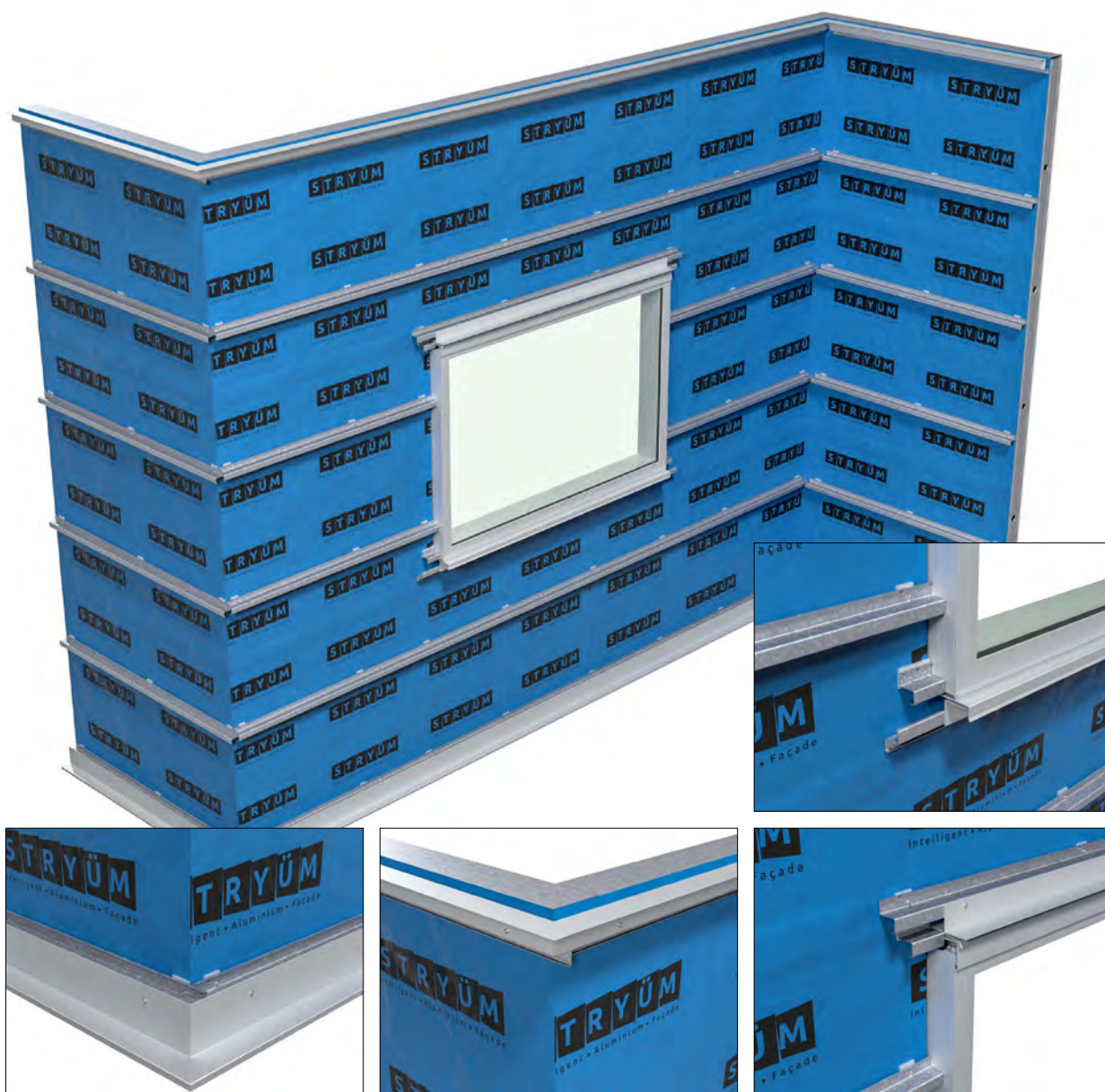
Install Stryüm S Section substrate horizontally. The substrate needs to be level to ensure the cladding is flat once installed. Any imperfections in this substrate will be highlighted once the panels are installed.

Stryüm S Sections are installed at maximum 600mm centres. Project specific requirements may dictate shorter span lengths.

Items On This Page

Code	Description	Length	Supplied by Paneltec
TRM0901	35mm Stryüm S Section	6.5m	✓

STEP 3 – HORIZONTAL TRIMS

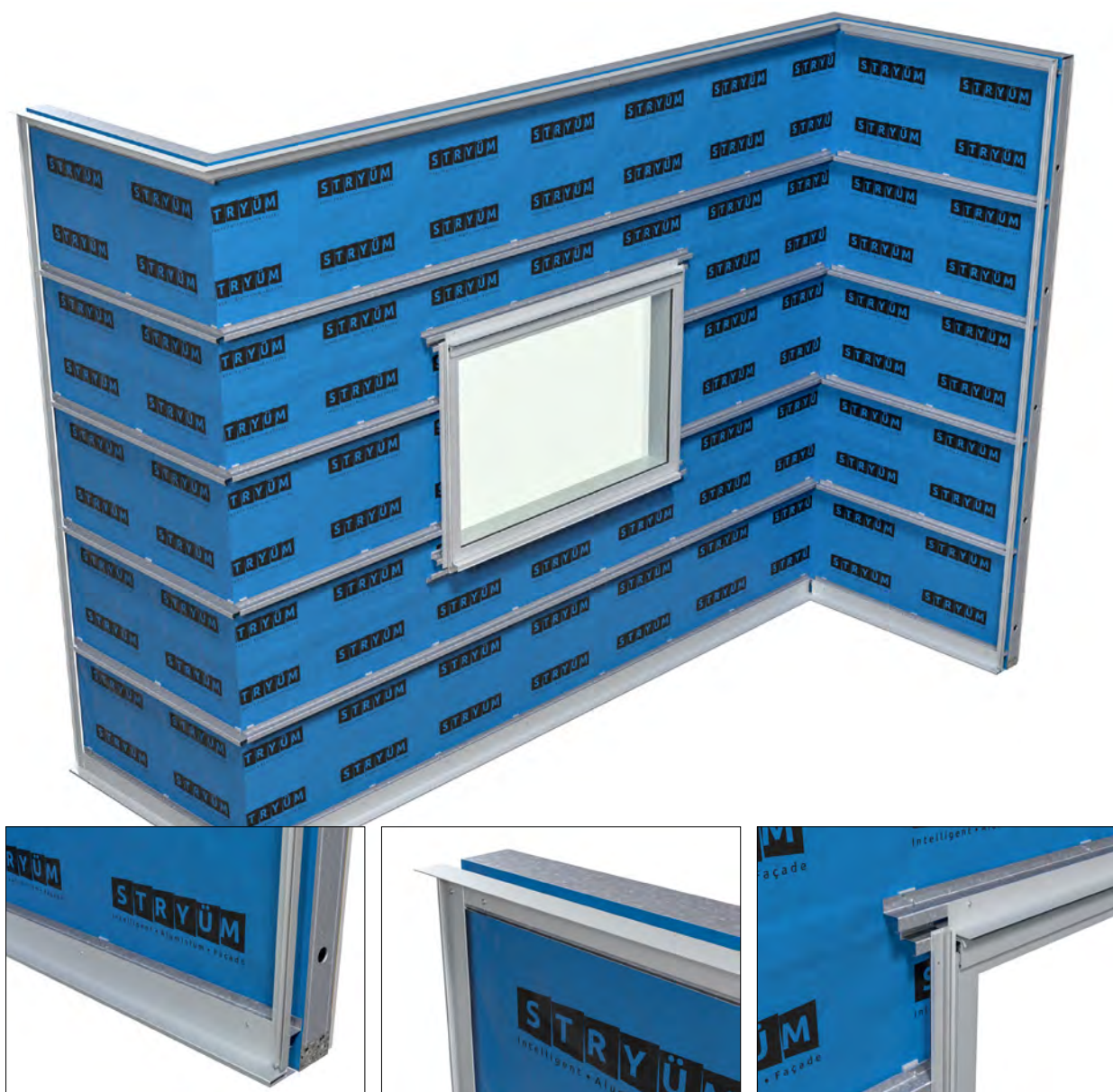


Install the horizontal trims for the cladding, at the top and bottom of the cladding section, above and below any wall penetrations, and at any slab junctions.

When installing down to an adjacent flat surface such as a garden bed or pathway, a minimum of 150mm from the ground is recommended to prevent rain splash back dirtying the façade.

Items On This Page			
Code	Description	Length	Supplied by Paneltec
TRM4201	Seam Foot Mould	7m	✓
TRM0506	50 x 50 x 1.6 L-Angle	7m	✓

STEP 4 – VERTICAL TRIMS

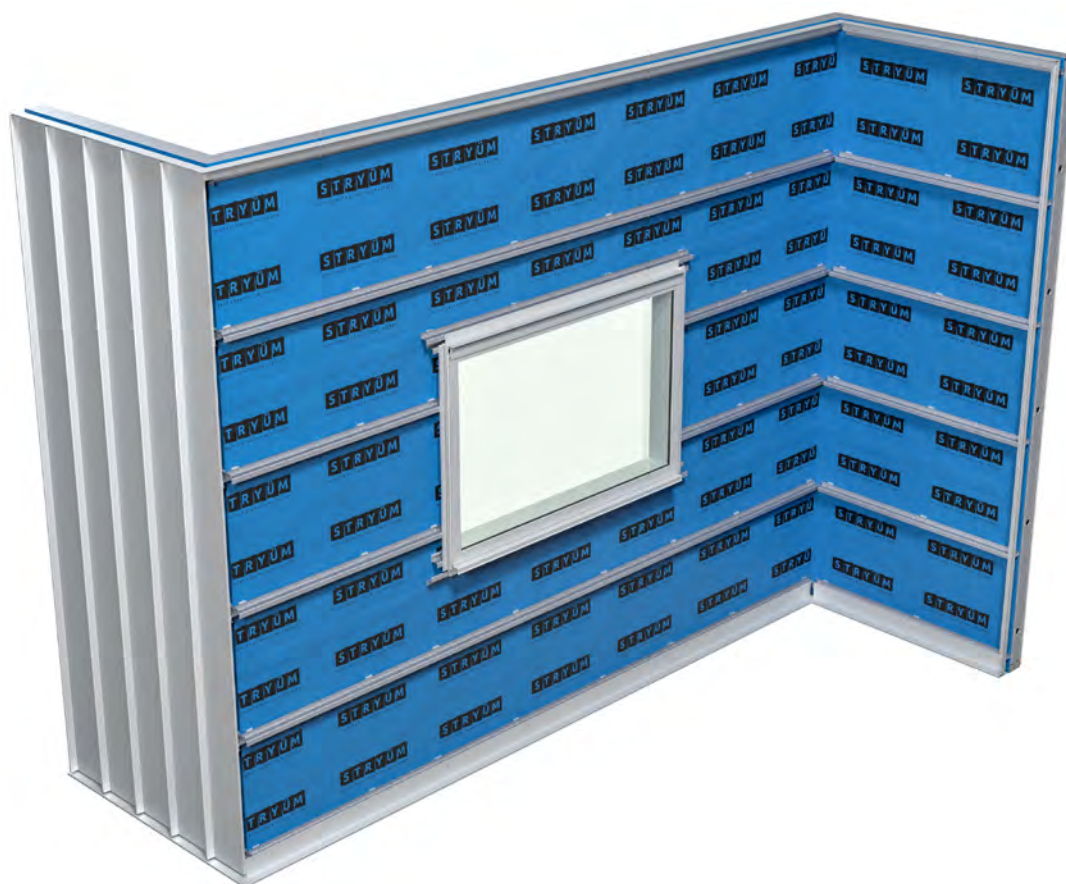


Install the vertical trims for the cladding, at the left and right of the cladding section, at either side of any wall penetrations, and at any corners.

Note: the cladding system is designed to be installed continuously around the building. Pick a cladding direction (Left-Right or Right-Left) and maintain this direction across the whole project. If the cladding is being completed in sections, it is important the trims for either side of a cladding zone are installed prior to the cladding being installed to ensure a clean finish.

Items On This Page			
Code	Description	Length	Supplied by Paneltec
TRM4101	Seam Starter Strip	7m	✓
TRM0201b	Stop End (Female)	7m	✓

STEP 5 – INSTALL CLADDING (TO EXTERNAL CORNER)

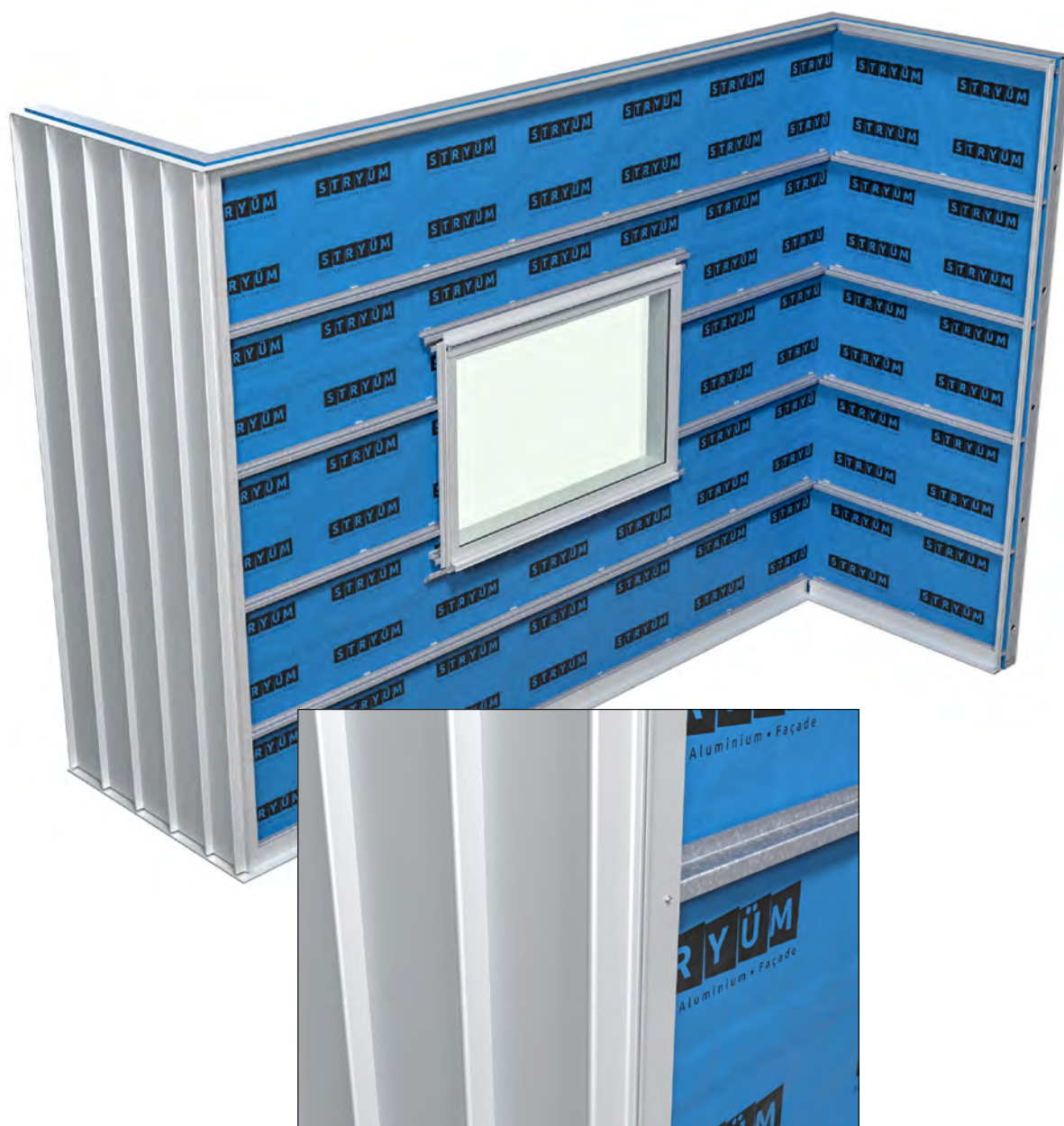


Install the cladding by cutting the panels to length, hooking the panel into the previous panel, and affixing to the S Section. In this diagram the cladding direction chosen is Left-Right. Due to the rainscreen façade system Stryum utilizes, a minimum airflow gap of 10mm must be maintained at the top and bottom of the cavity.

When installing Seam around an external corner, install the cladding up to the corner, and trim the final panel down the length till it is flush with the substrate of the adjoining wall. Insert packers behind the cladding and fix through the face of the panels.

Items On This Page			
Code	Description	Length	Supplied by Paneltec
SE260	Seam	7m	✓

STEP 6 – INSTALL EXTERNAL CORNER



Install the external corner, whilst making sure to cover the screws used to face fix the cladding on the adjoining wall.

Items On This Page			
Code	Description	Length	Supplied by Paneltec
TRM4401	Seam External Corner	7m	✓

STEP 7 – INSTALL CLADDING (TO INTERNAL CORNER)



Install the cladding by cutting the panels to length, hooking into the previous panel, and affixing to the S Section.

Note: there may not be room to install cladding panels around the windows, at internal and external corners and at the end of the cladding zone as per the regular method. These panels will need to be trimmed down the length of the panel and fixed through the face. Use packers as required to bring the face of the panel level with the rest of the façade. These fixings will be concealed with the appropriate cover cap.

Once the end of the wall is reached, trim the panel to length, insert packers and fix through the face of the cladding. Note, the face fix screws should be installed behind the substrate of the previous façade, as these will be concealed by the start of the new wall of cladding.

Items On This Page			
Code	Description	Length	Supplied by Paneltec
SE260	Seam	7m	✓

STEP 8 – INSTALL INTERNAL CORNER



Install TRM0201b Female into the internal corner.

Items On This Page			
Code	Description	Length	Supplied by Paneltec
TRM0201b	Stop End (Female)	7m	✓

STEP 9 – INSTALL CLADDING (FROM EXTERNAL CORNER)

Install packers adjacent to TRM0201b and trim the raised hook/starter section from the length of the Seam panel. Install this trimmed first panel up against TRM0201b and fix through the face of the cladding into the packers.

Install as standard along the length of the wall until the end of the wall is reached. To complete the wall, trim the panel to length, insert packers, and fix through the face of the material.

Items On This Page			
Code	Description	Length	Supplied by Paneltec
SE260	Seam	7m	✓

STEP 10 – CLIP ON COVER PIECE



Install the cover sections to the two-piece trims to conceal rivets and cut edges. Push firmly into place, a rubber mallet may be used paying careful attention to the finish.

Items On This Page			
Code	Description	Length	Supplied by Paneltec
TRM0201a	Stop End (Male)	7m	✓

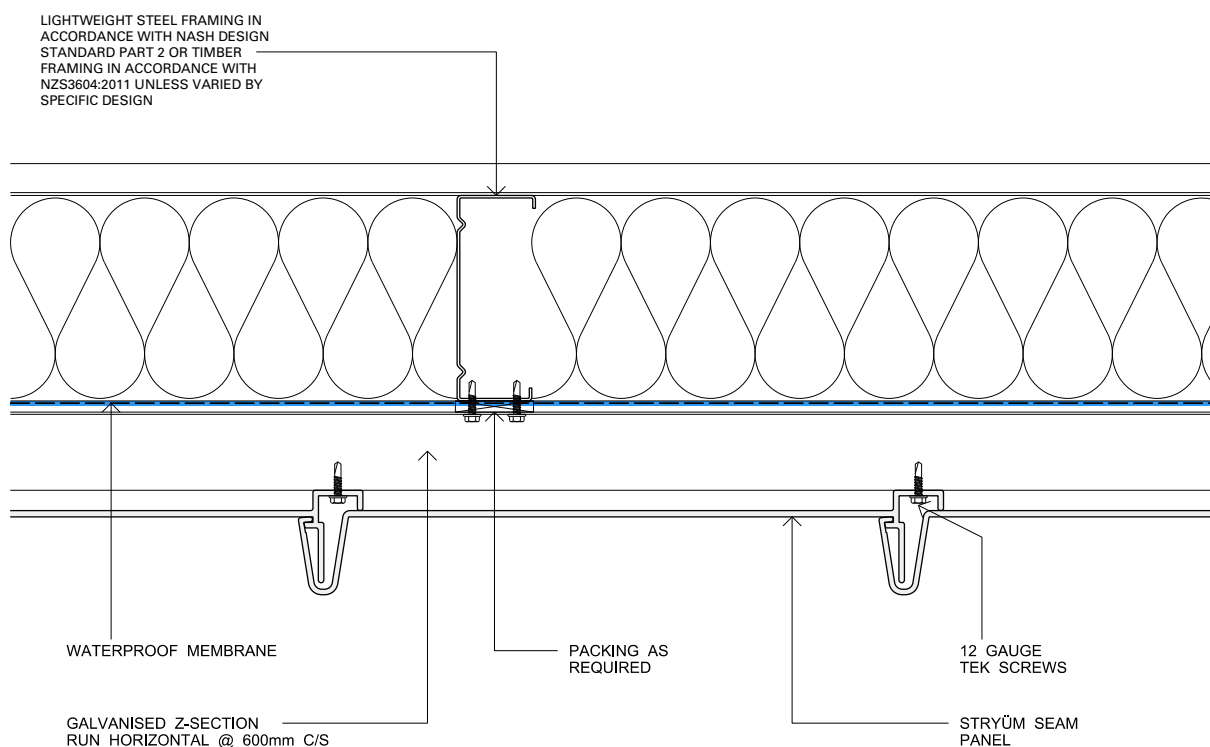
10. SEAM VERTICAL

10.2 GENERAL DETAILS

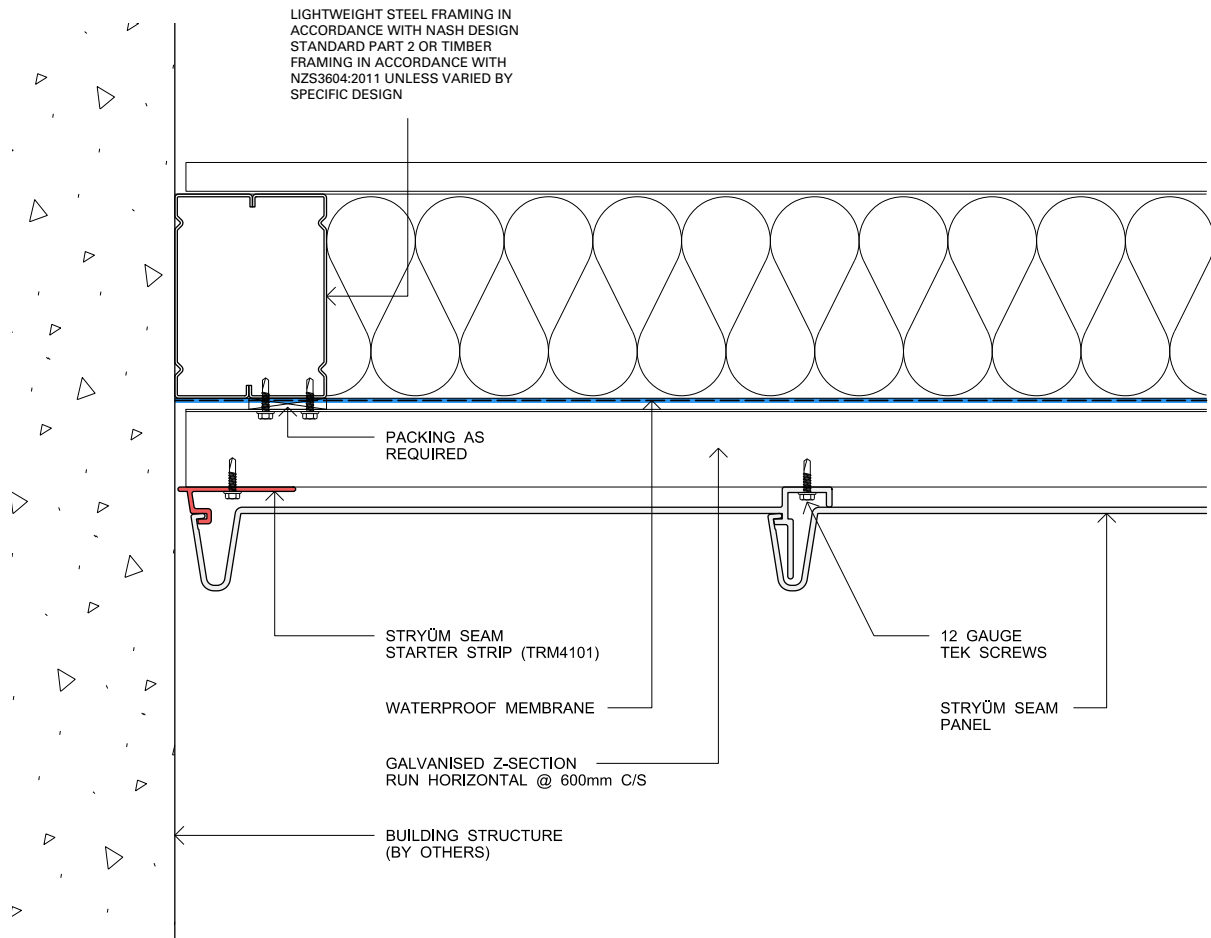
SEAM VERTICAL – GENERAL DETAILS

These details are of a generic nature. In all cases use these details as a guide only and refer to the Paneltec design library or building consent for finalised details.

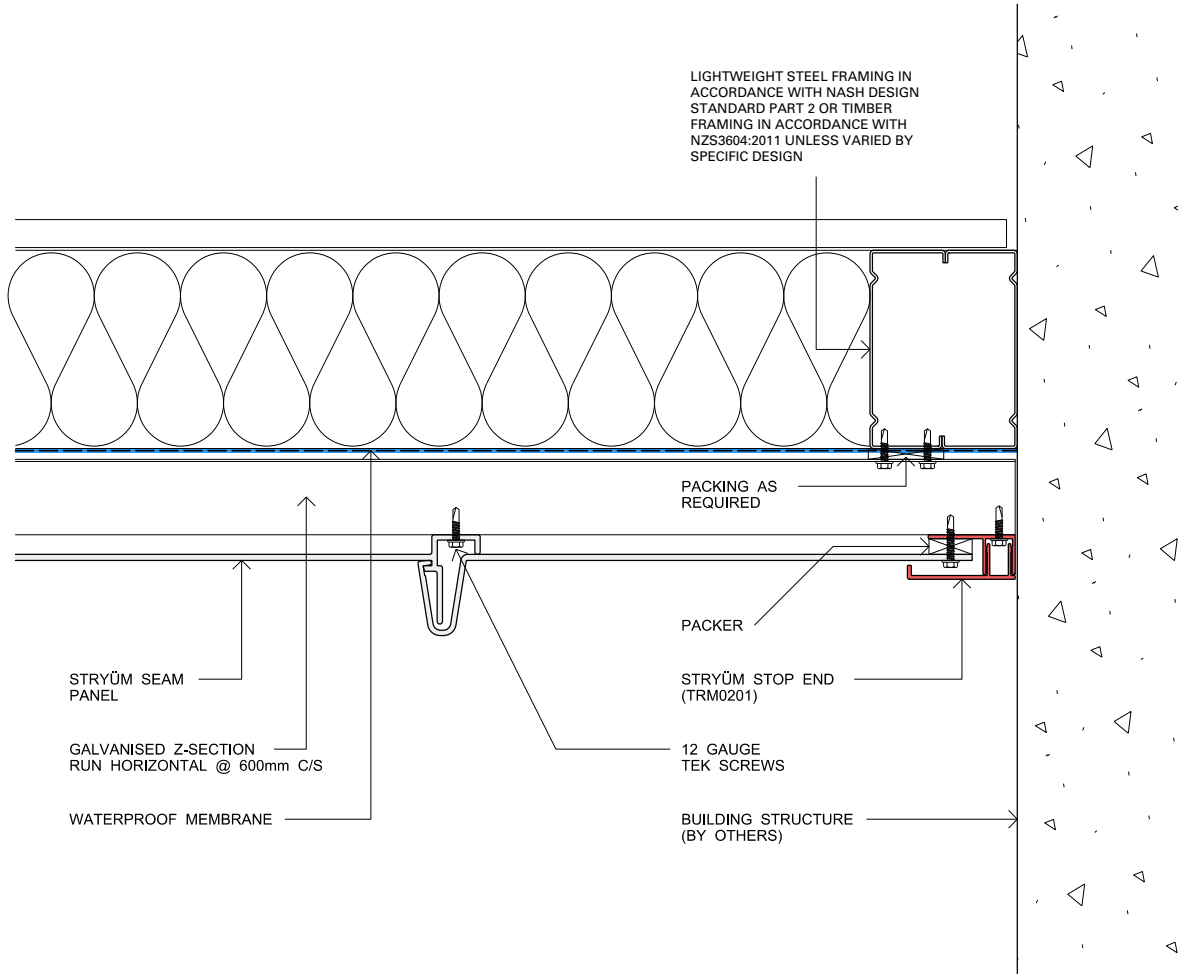
SEAM V PANEL CONNECTION



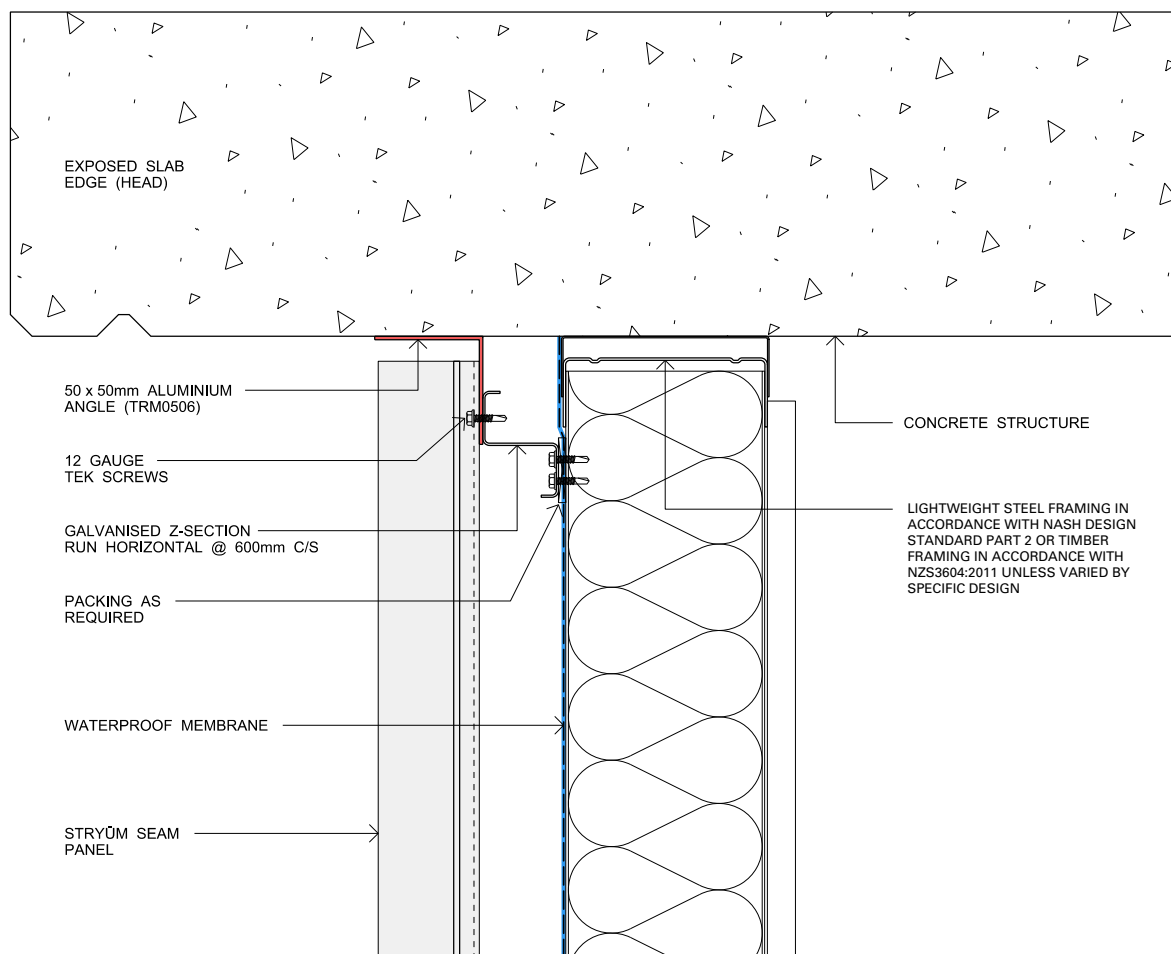
SEAM V PANEL START



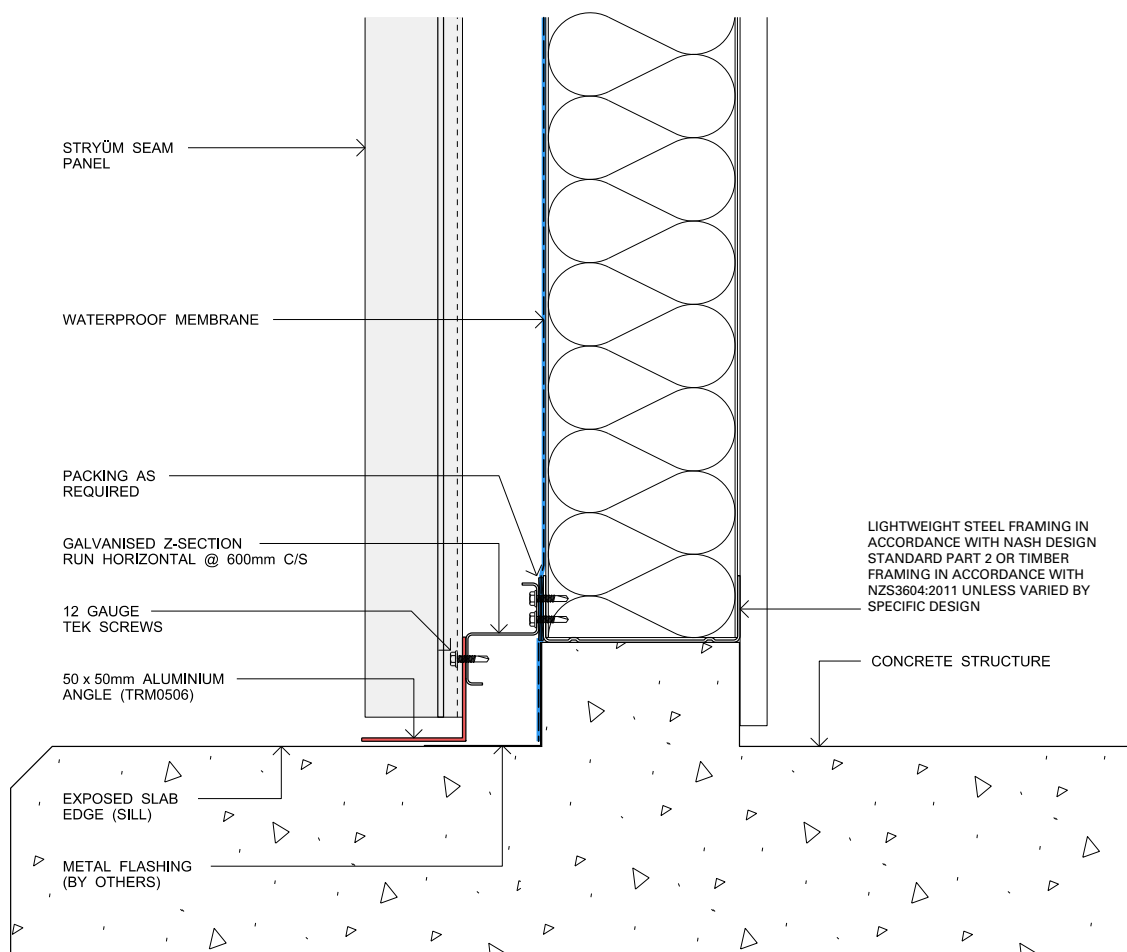
SEAM V PANEL END



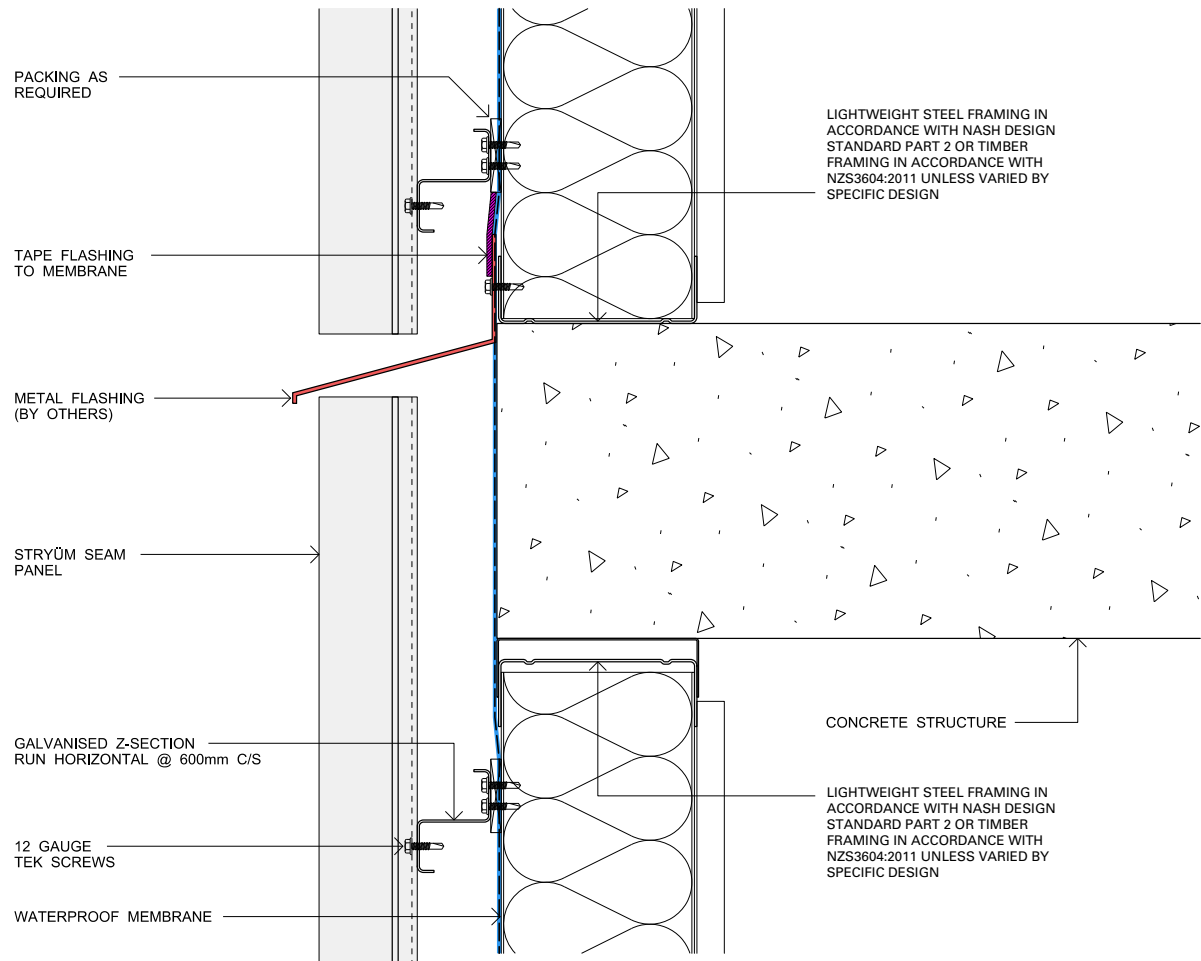
SEAM V HEAD SLAB JUNCTION



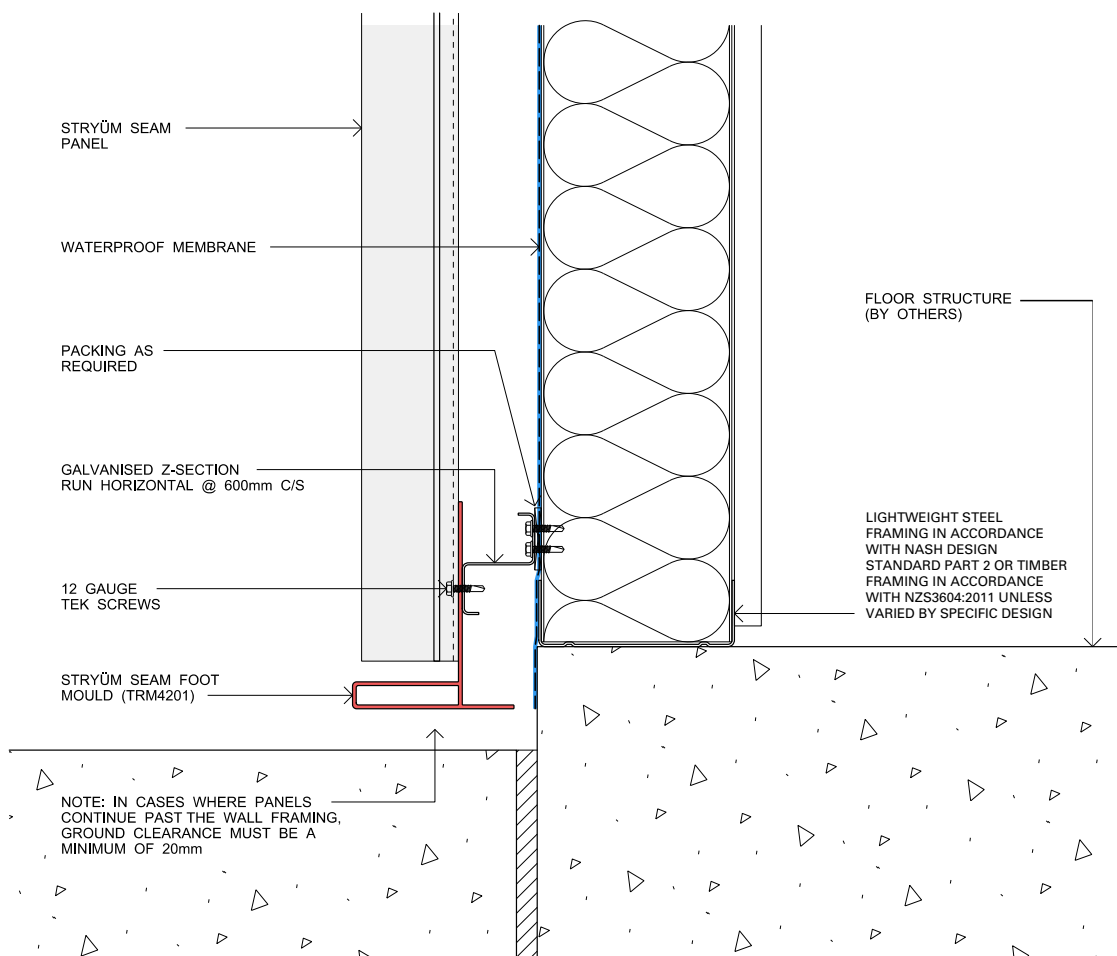
SEAM V BASE SLAB JUNCTION



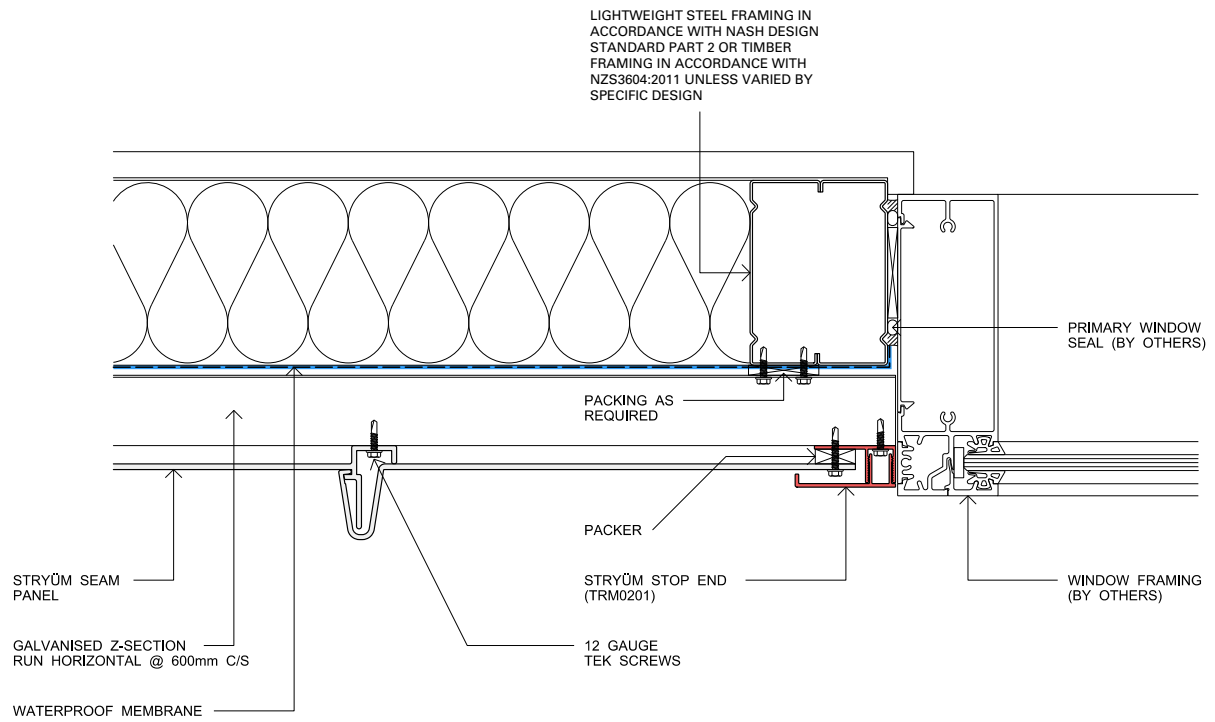
SEAM V SLAB JUNCTION CONCEALED



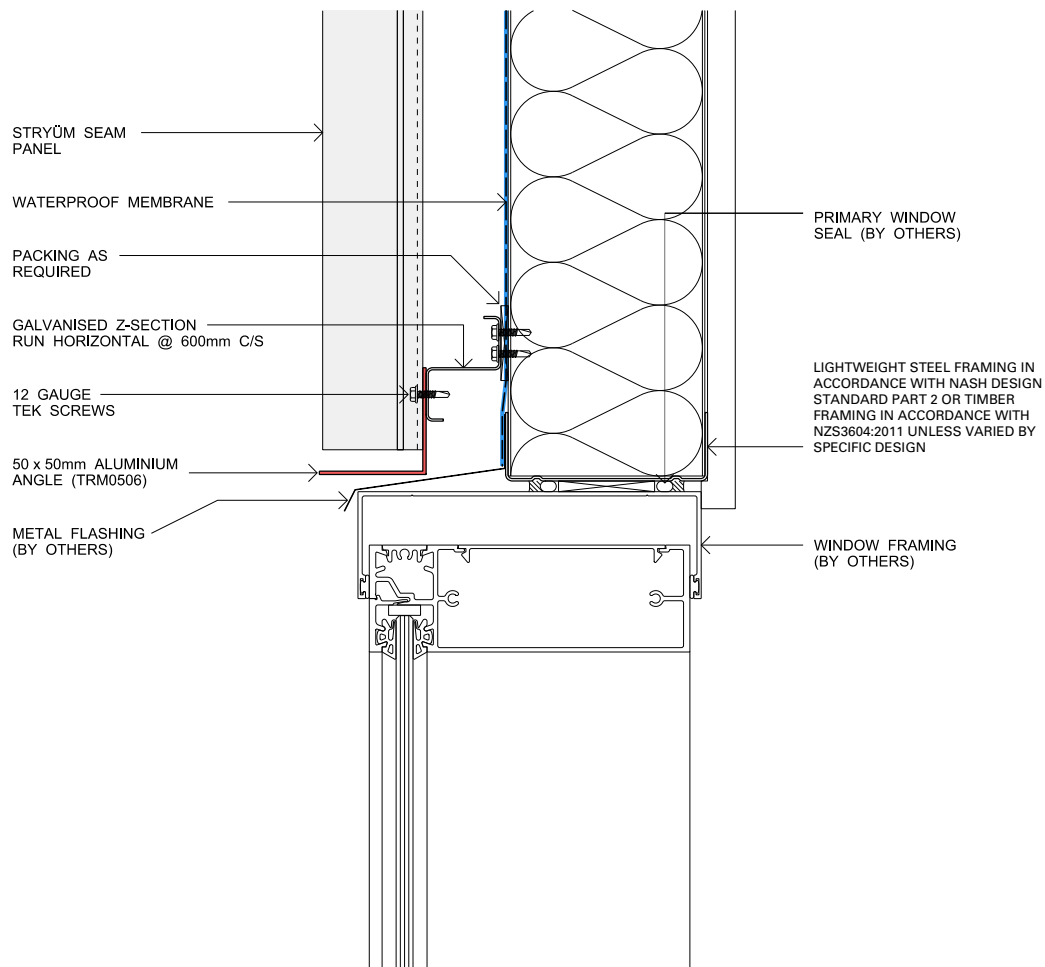
SEAM V PANEL END FLOOR



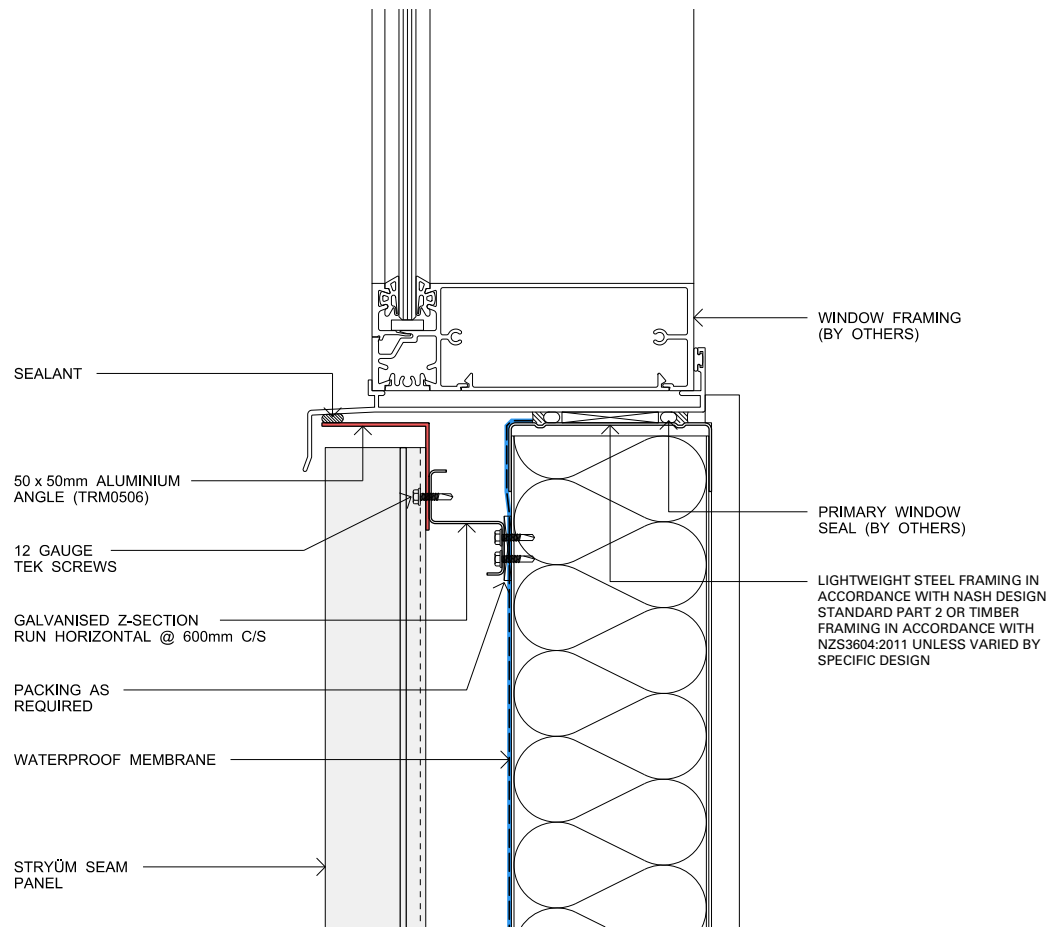
SEAM V WINDOW JAM



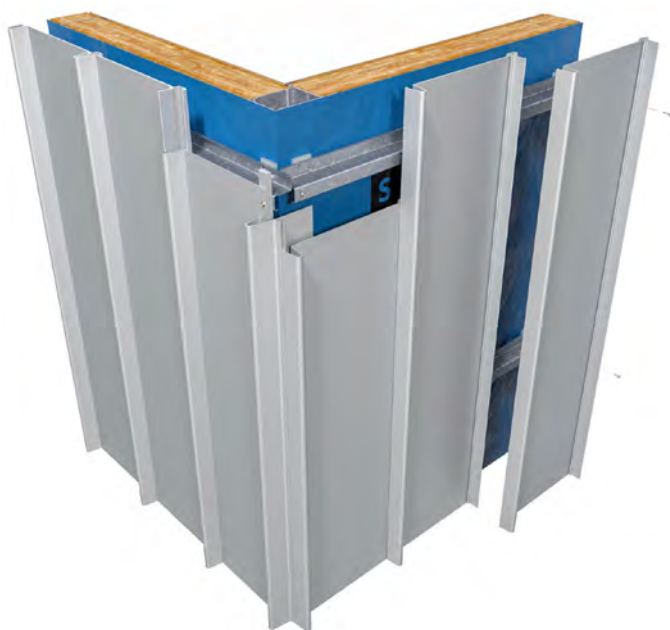
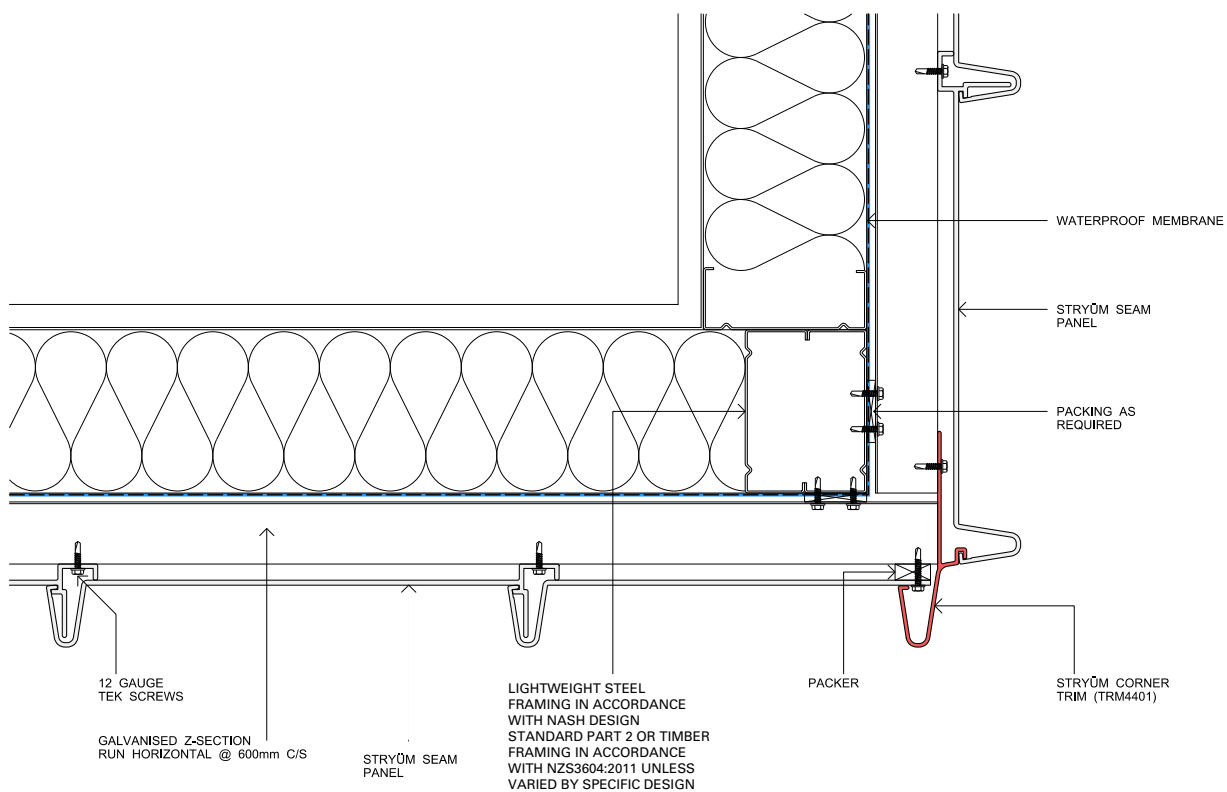
SEAM V WINDOW HEAD



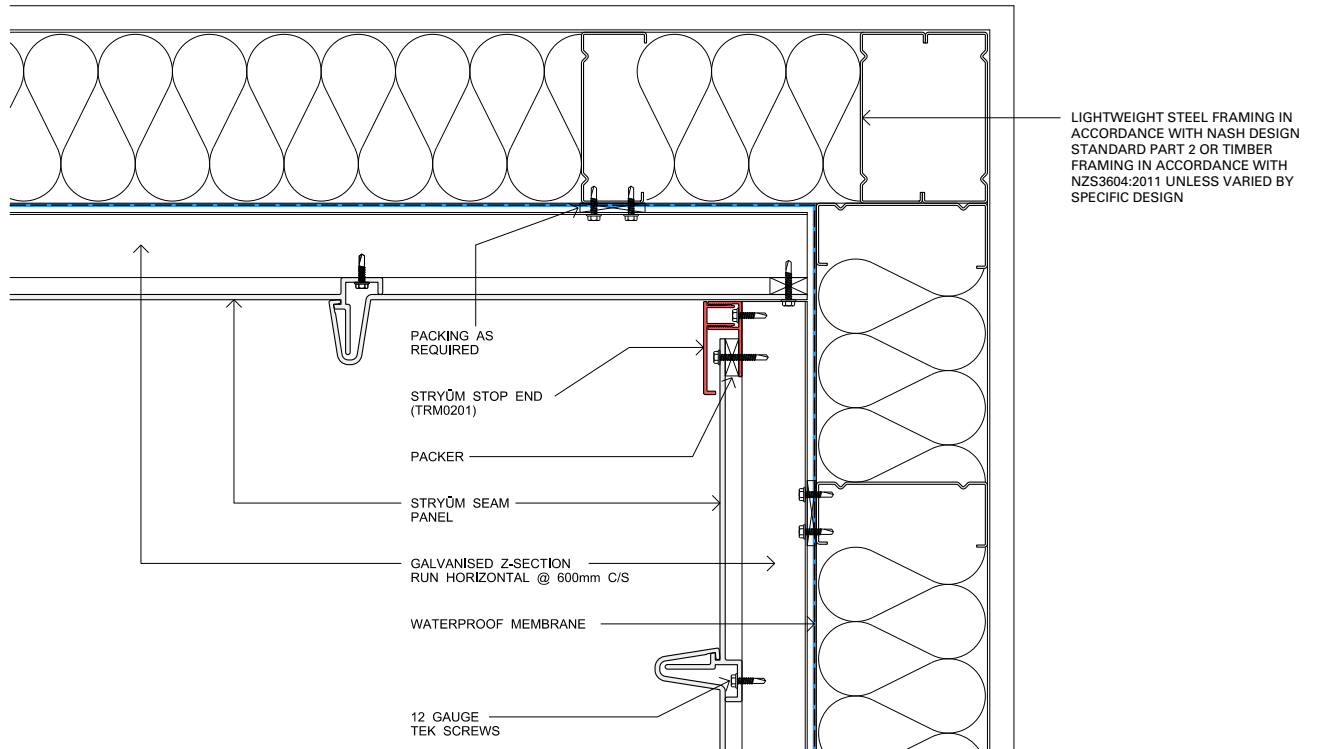
SEAM V WINDOW SILL



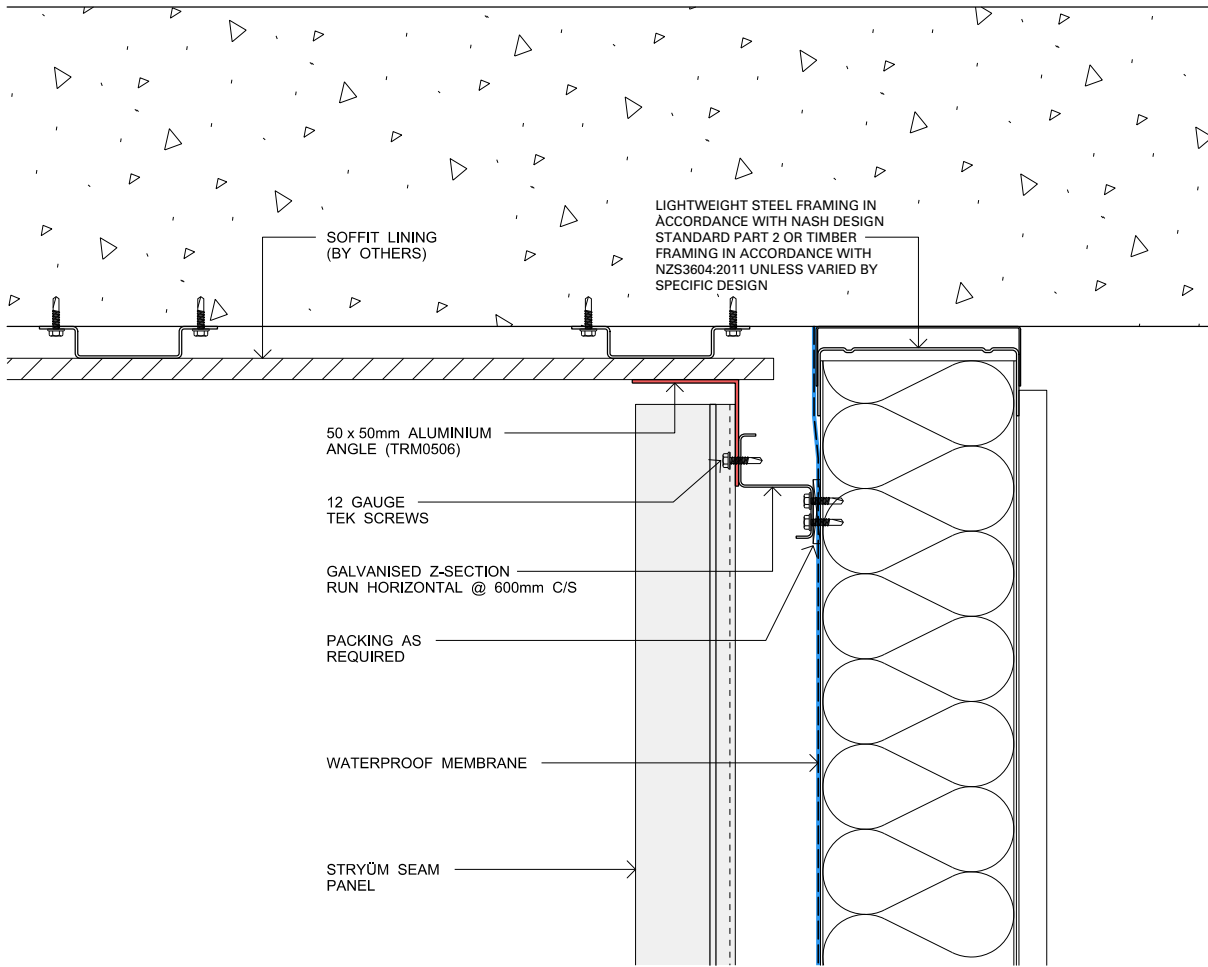
SEAM V EXTERNAL CORNER



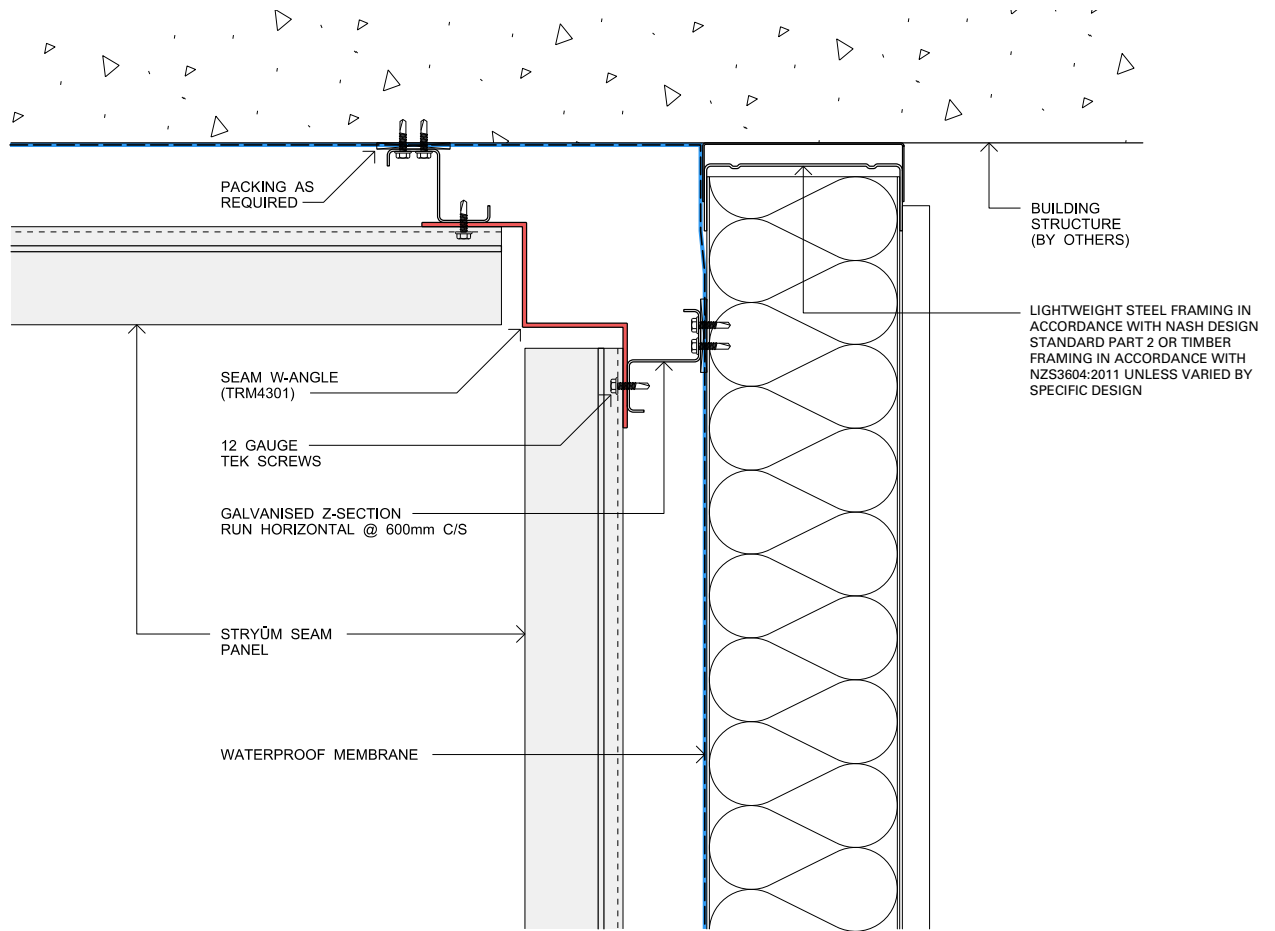
SEAM V INTERNAL CORNER



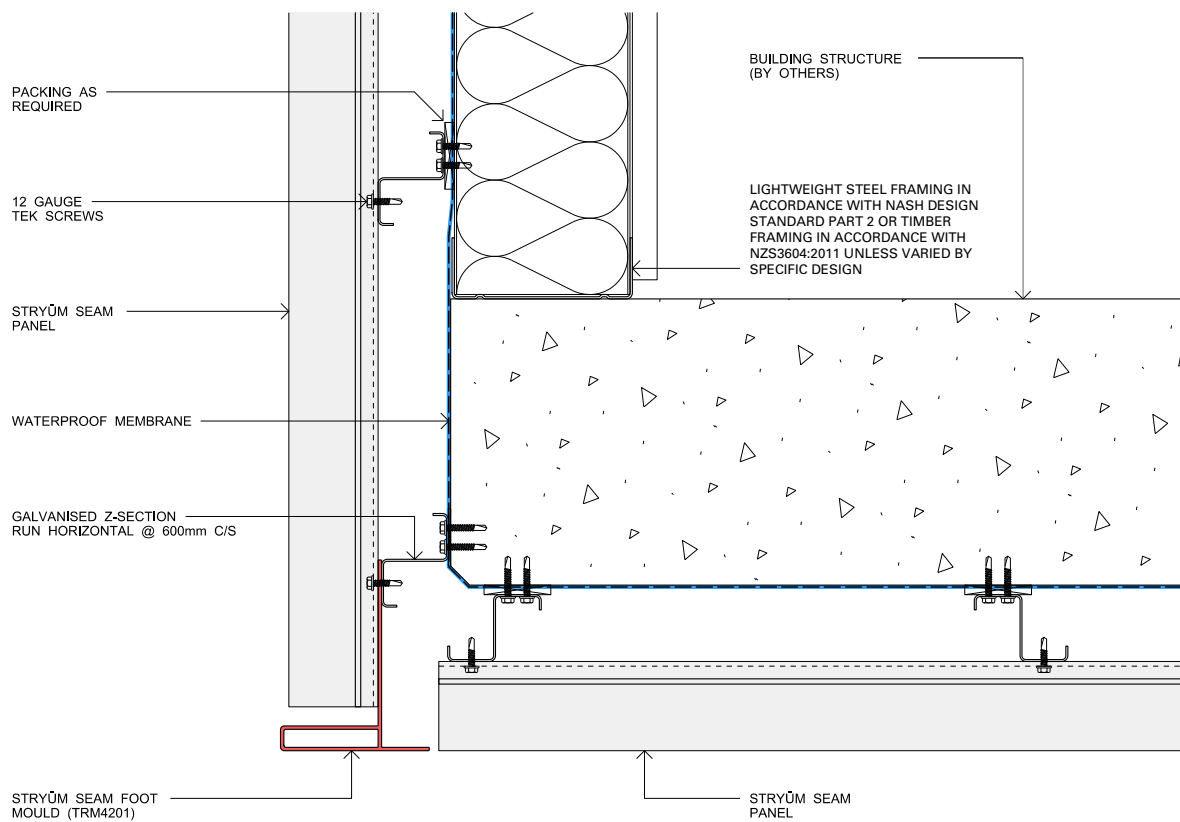
SEAM V SOFFIT



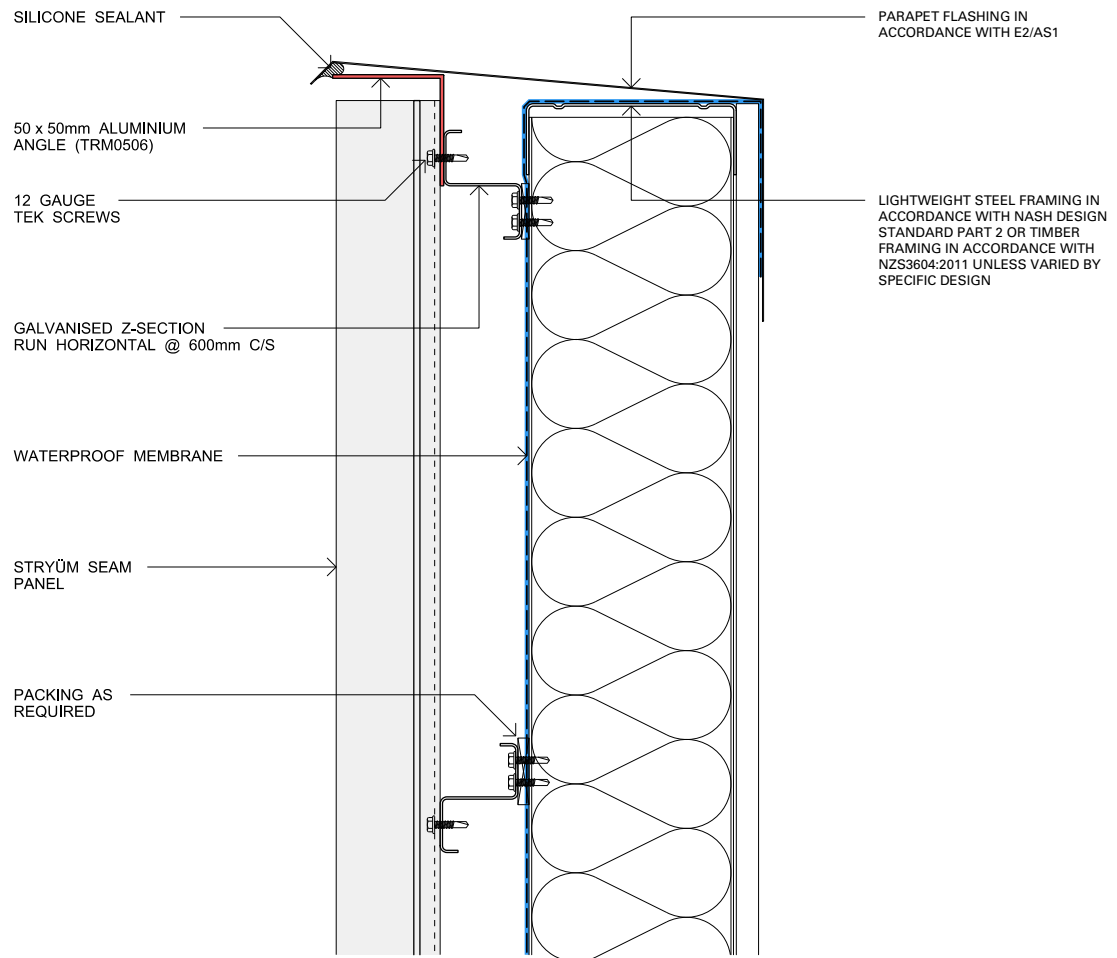
SEAM V SOFFIT JUNCTION 1



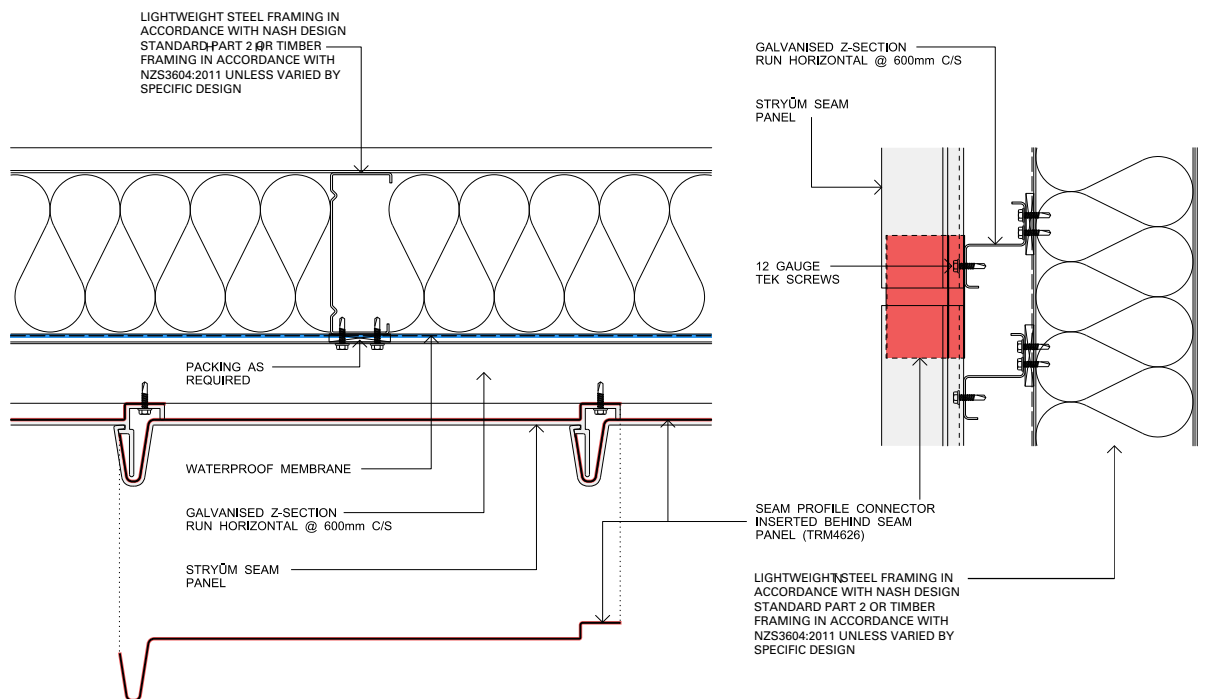
SEAM V SOFFIT JUNCTION 2



SEAM V PARAPET



SEAM V PANEL CONNECTOR



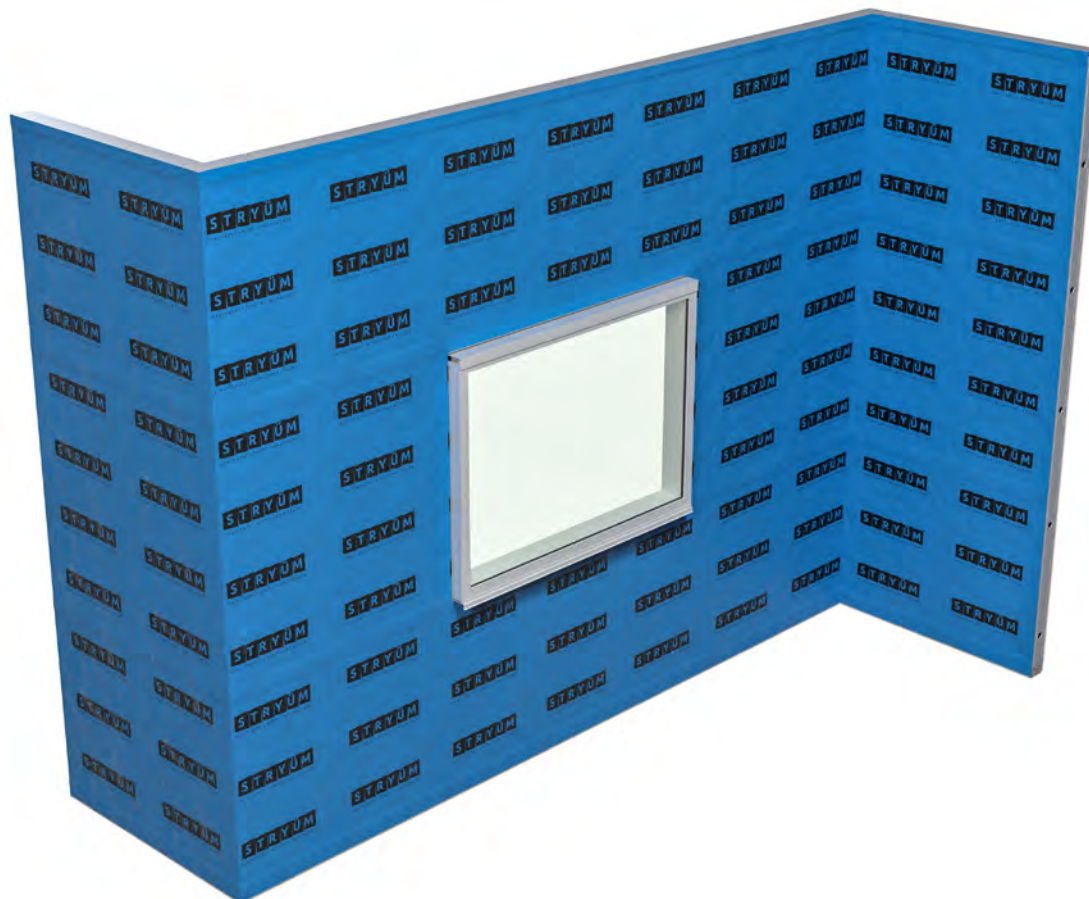
11. STEP HORIZONTAL

11.1 INSTALLATION GUIDE

STEP HORIZONTAL – INSTALLATION GUIDE

Please ensure you review the complete Stryüm Step details to ensure you order all the required trims, the following step by step is a guide only.

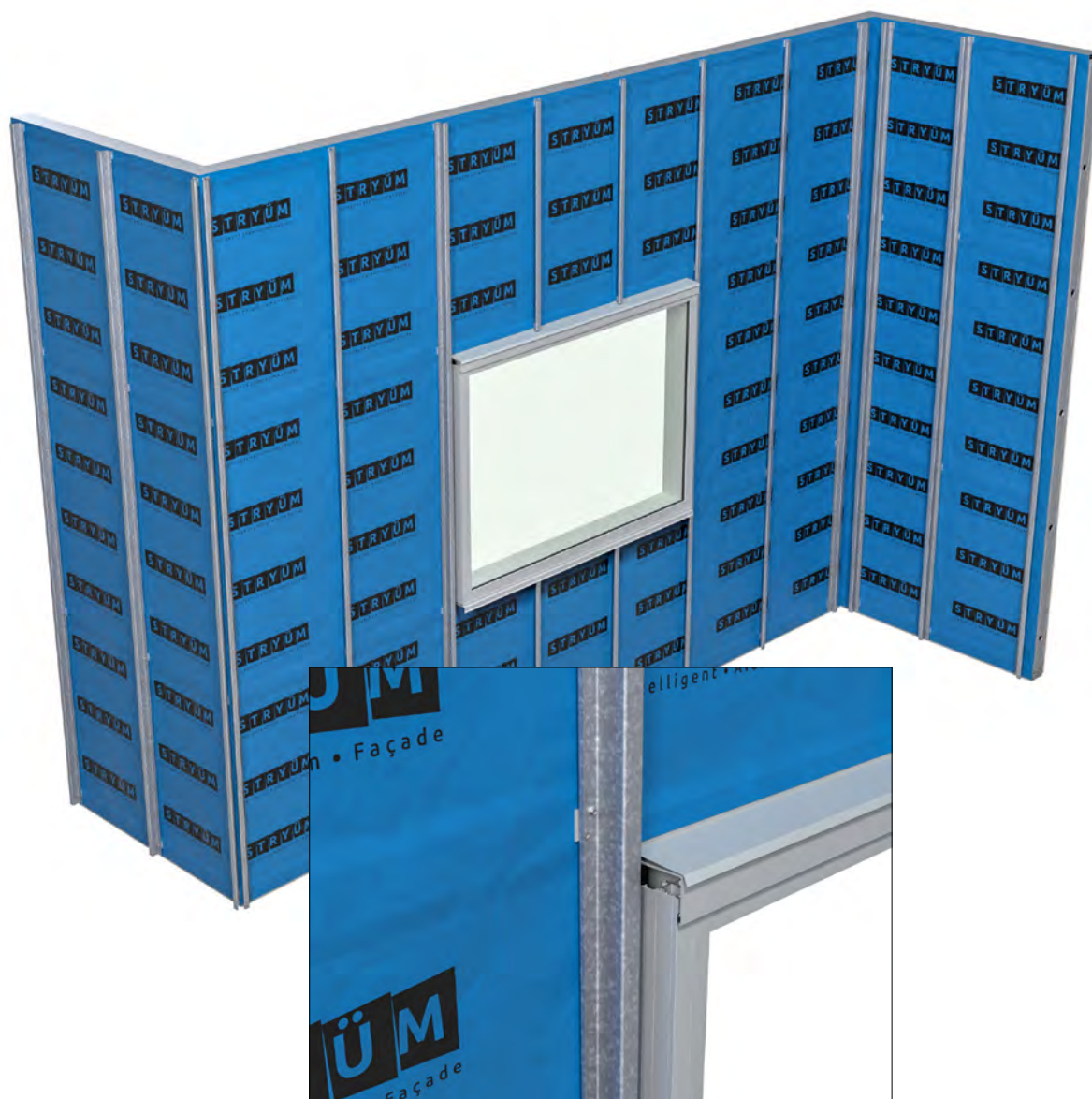
STEP 1 – WEATHERTIGHT MEMBRANE



As Stryüm is a rainscreen façade, a weathertight, flexible membrane or rigid underlay must be installed over the supporting wall. It must meet the project specific requirements for weathertightness and be installed as per manufacturers guidelines. All junctions, penetrations and openings associated with the underlay must be sealed.

Items On This Page			
Code	Description	Length	Supplied by Paneltec
N/A	Solitex Extasana (flexible wrap), Solitex Extasana Adhero (ridge barrier) or an equivalent product that complies with Table 23 of E2/AS1.	N/A	

STEP 2 – SUBSTRATE



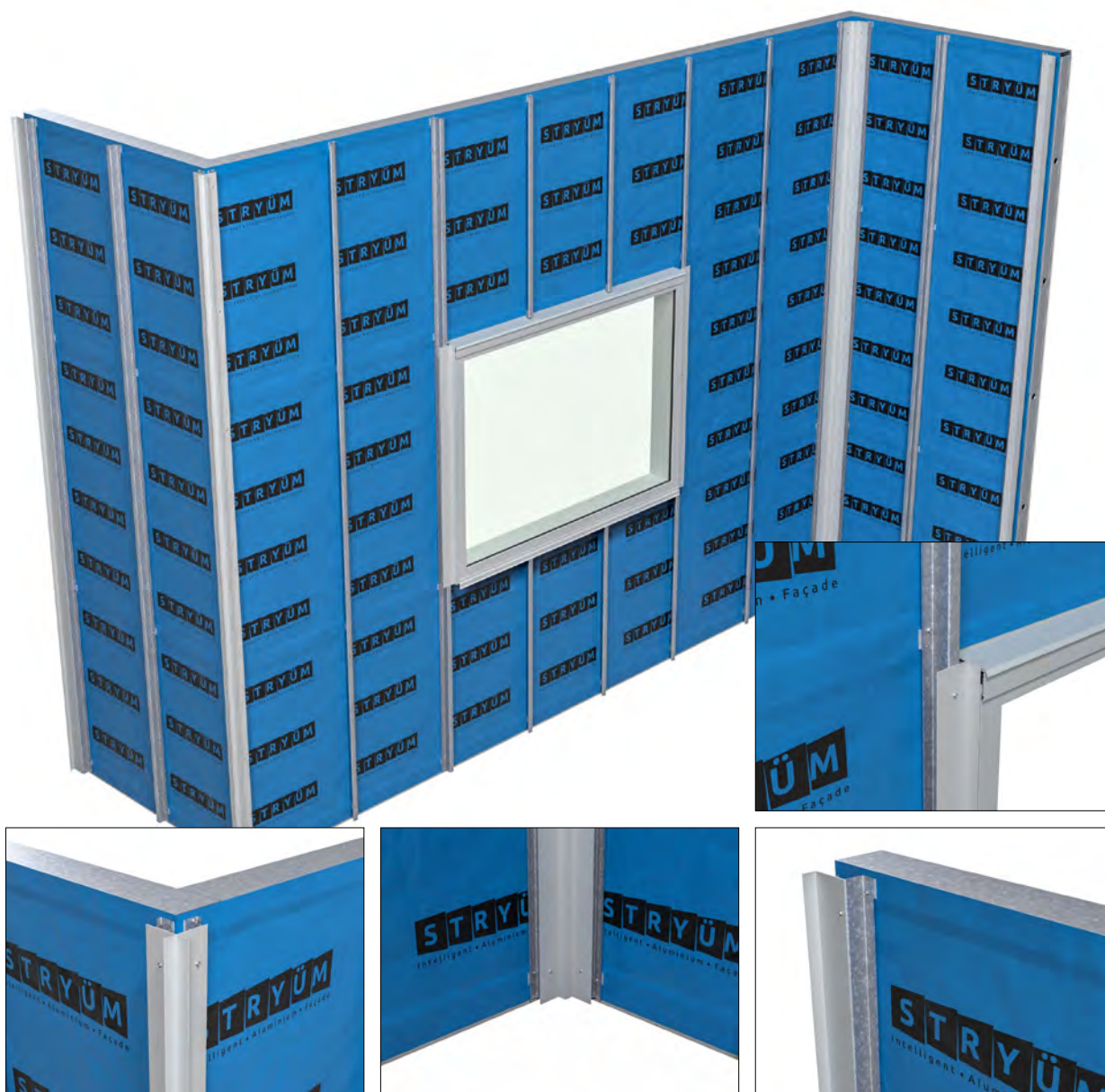
Packers for a plumb substrate and ventilation need to be installed as required prior to the installation of the Stryum S Section.

Install Stryum S Section substrate vertically. The substrate needs to be level to ensure the cladding is flat once installed. Any imperfections in this substrate will be highlighted once the panels are installed.

Stryum S Sections are installed at maximum 600mm centres. Project specific requirements may dictate shorter span lengths.

Items On This Page			
Code	Description	Length	Supplied by Paneltec
TRM0901	35mm Stryum S Section	6.5m	✓

STEP 3 – VERTICAL TRIMS

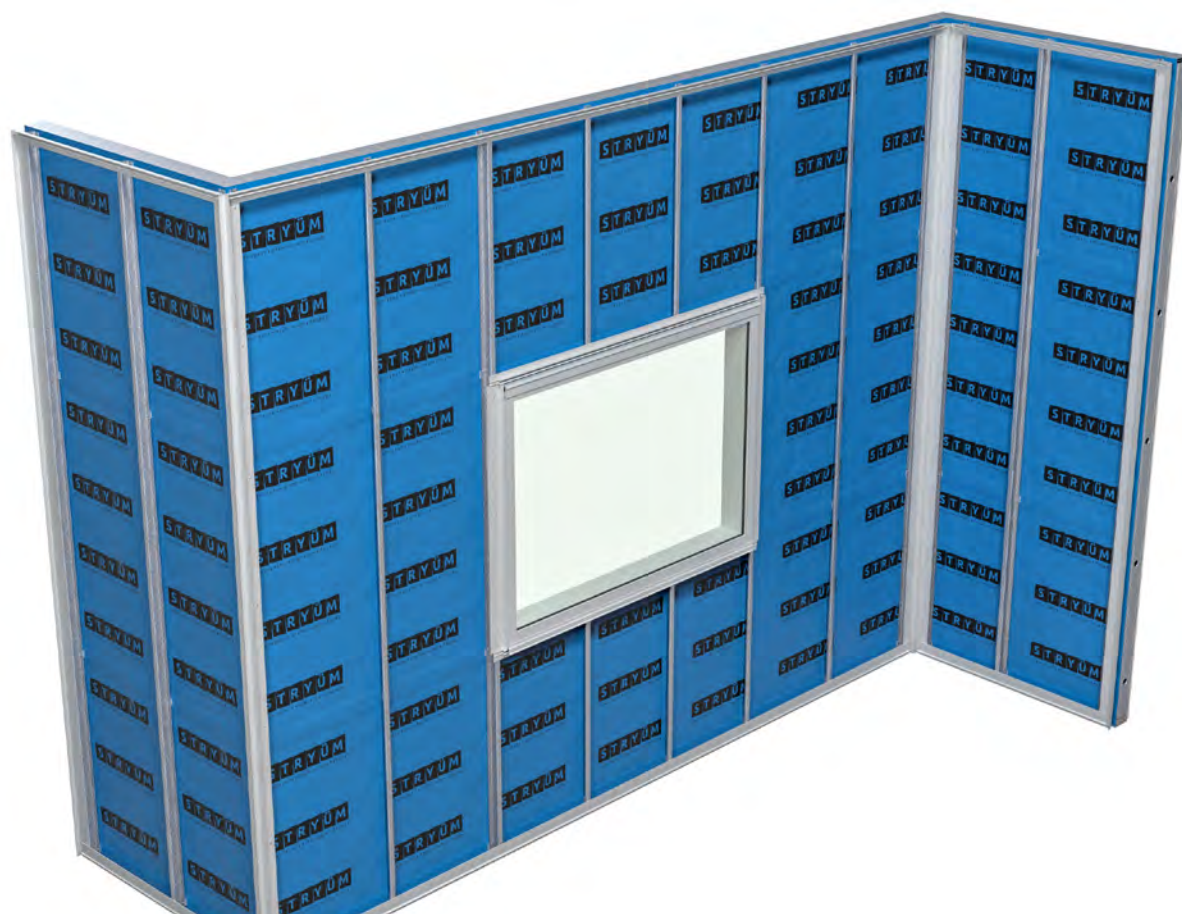


Install the vertical trims for the cladding, at the left and right of the cladding section, at either side of any wall penetrations, and at any corners. When installing down to an adjacent flat surface such as a garden bed or pathway, a minimum of 150mm from the ground is recommended to prevent rain splash back dirtying the façade.

If the cladding is being completed in sections, it is important the trims for either side of a cladding zone are installed prior to the cladding being installed to ensure a clean finish.

Items On This Page			
Code	Description	Length	Supplied by Paneltec
TRM0508	25 x 70 x 1.6 L-Angle	7m	✓
TRM5401	Step X Section	7m	✓
TRM5401	Step W Section	7m	✓

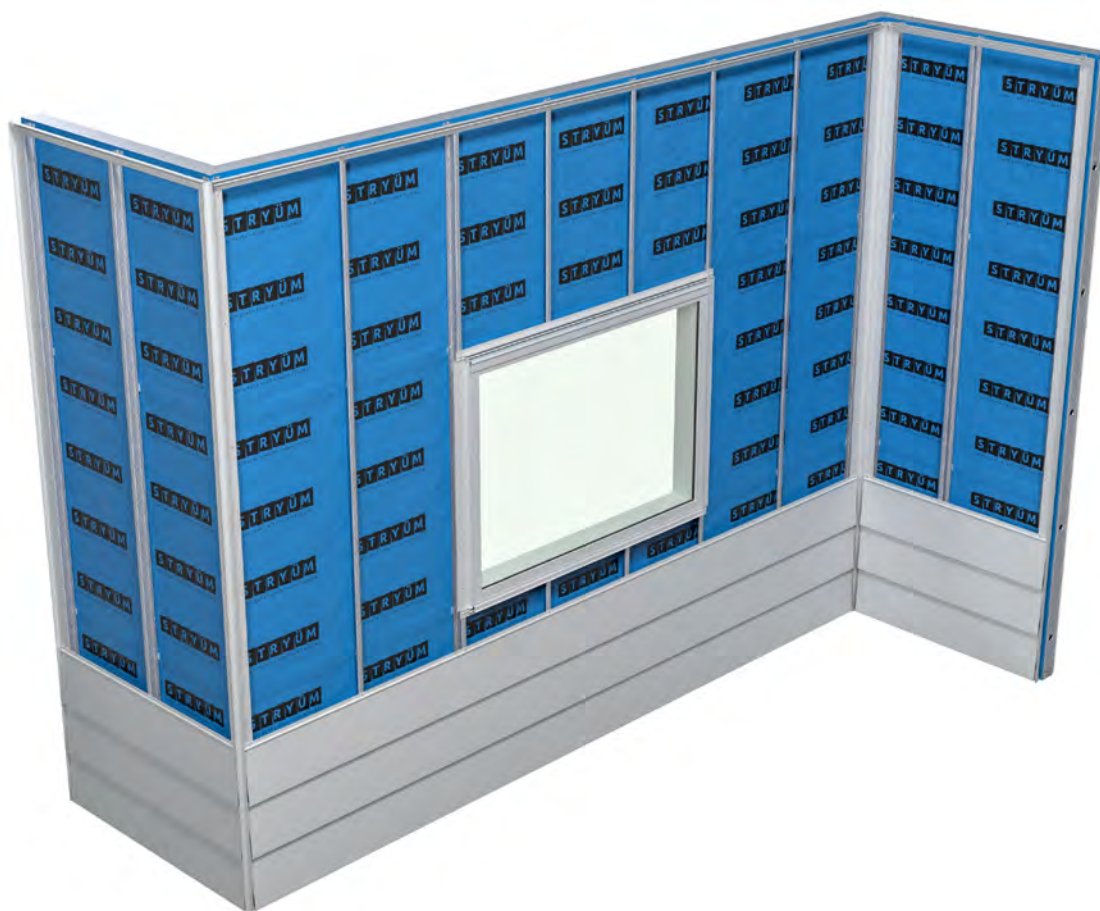
STEP 4 – HORIZONTAL TRIMS



Install the horizontal trims for the cladding, at the top and bottom of the cladding section, above and below any wall penetrations, and at any slab junctions.

Items On This Page			
Code	Description	Length	Supplied by Paneltec
TRM5101	Step Starter Strip	7m	✓
TRM0201b	Stop End (Female)	7m	✓

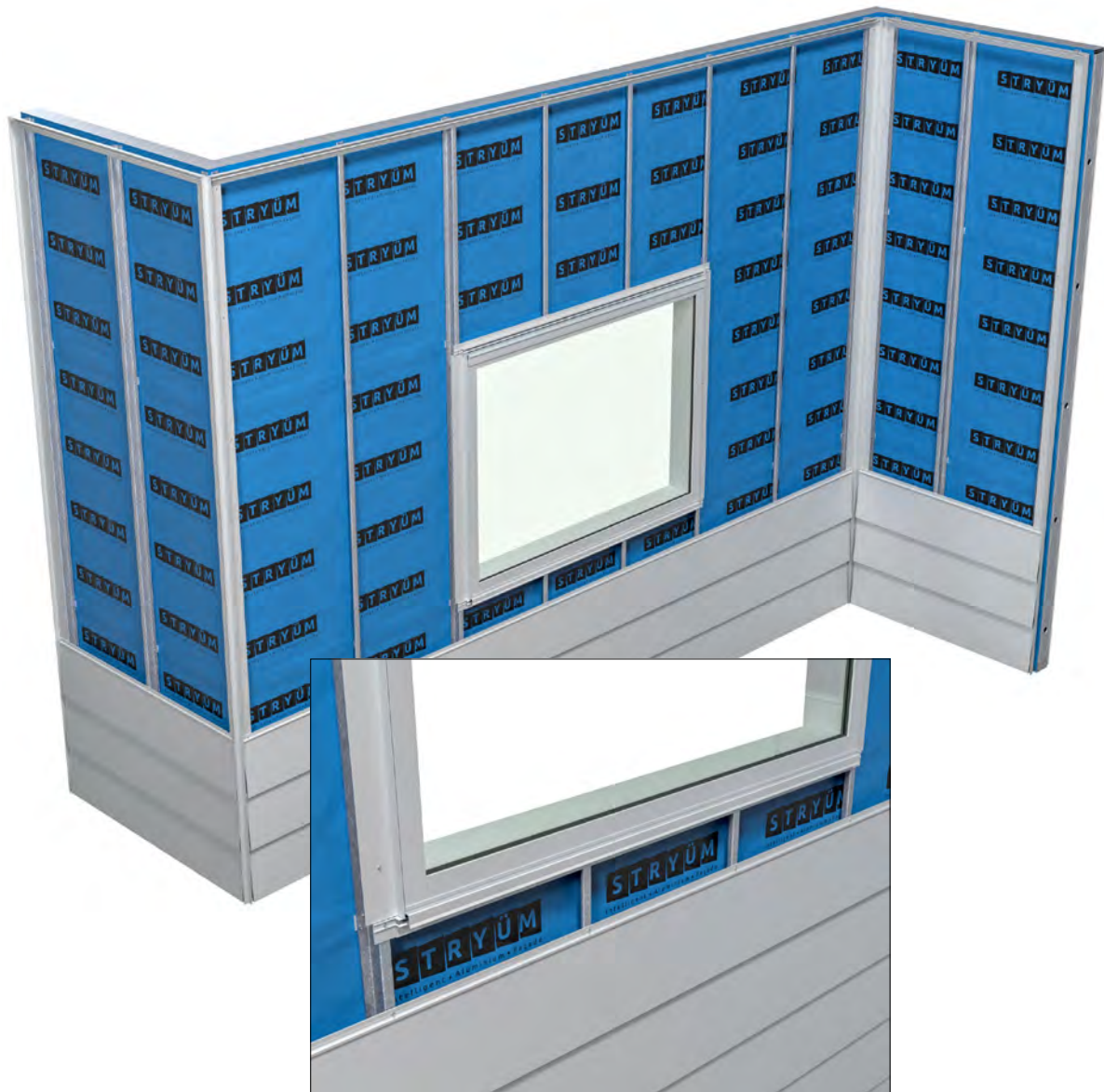
STEP 5 – INSTALL CLADDING



Install the cladding by cutting the panels to length, hooking the panel into the previous panel, and affixing to the S Section. Due to the rainscreen façade system Stryüm utilizes, a minimum airflow gap of 10mm must be maintained at the top and bottom of the cavity.

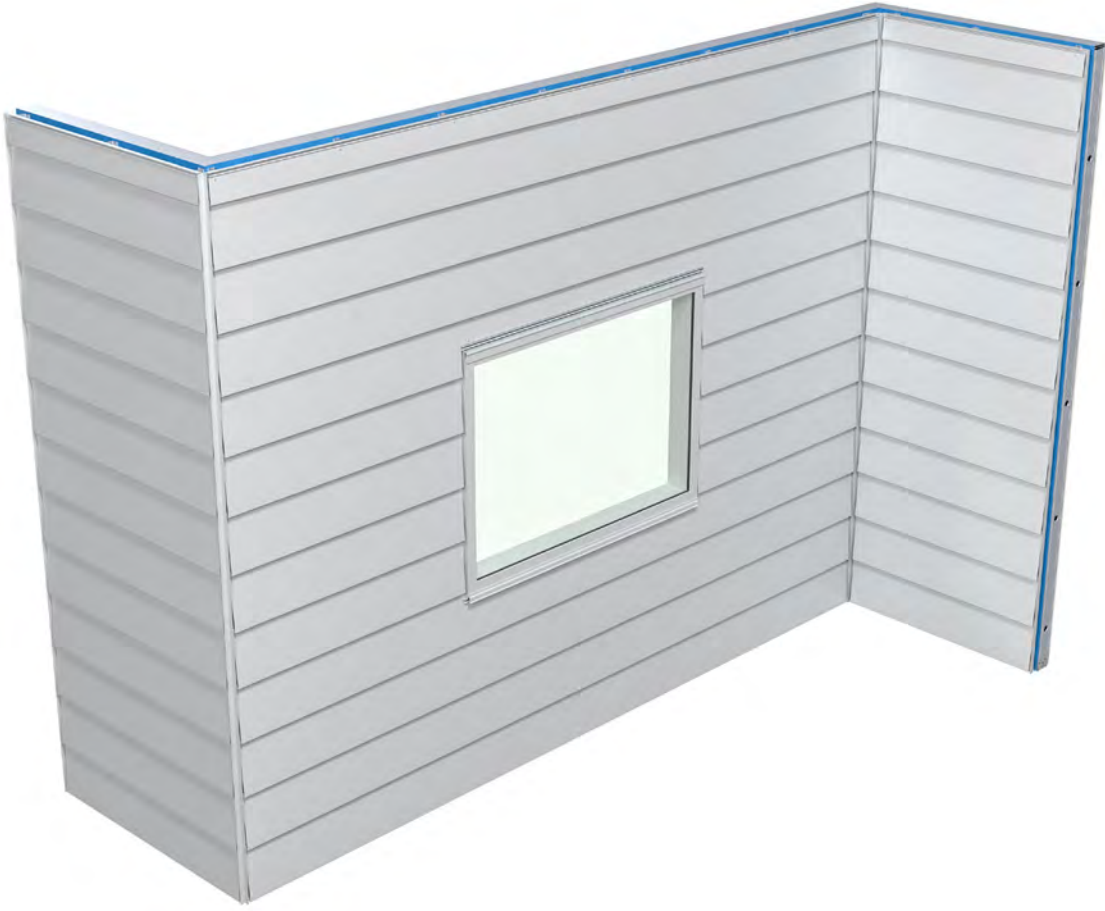
Items On This Page			
Code	Description	Length	Supplied by Paneltec
ST250	Step	7m	✓

STEP 6 – PACKER FOR WALL PENETRATION



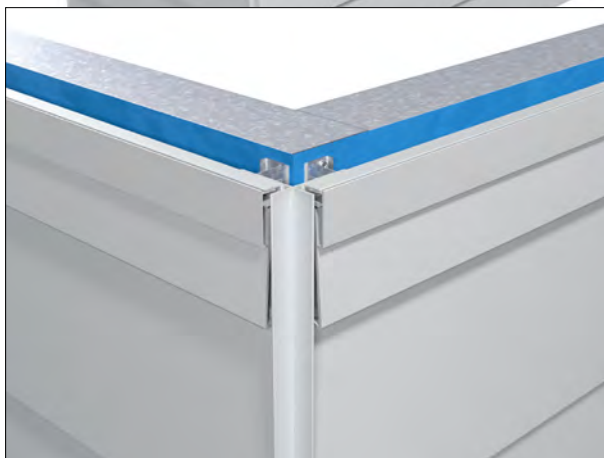
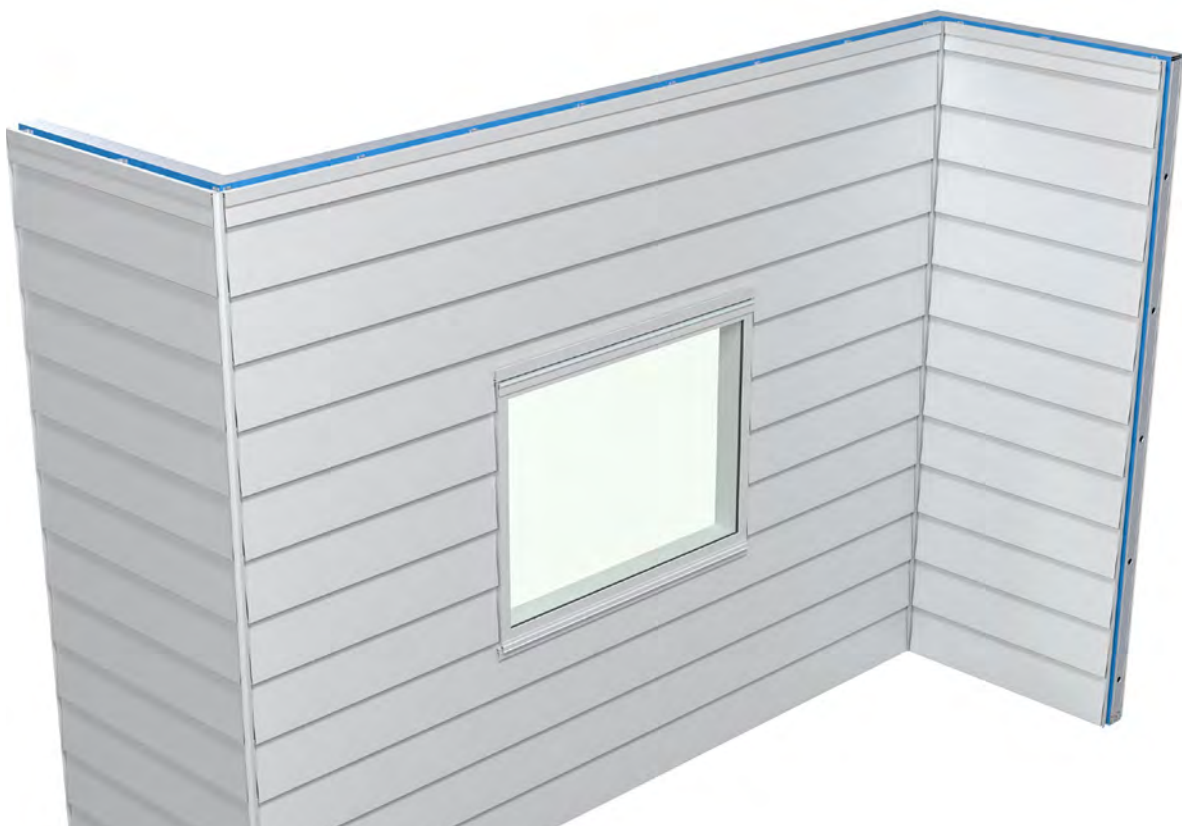
Due to the sloping nature of Step, the depth packer required to support the panel around wall penetrations will depend on where the penetrations sit down the panel. Measure carefully where the panel needs to be cut, and calculate the packer required before.

This step will need to be repeated for any wall penetration, including the window head, and the top of any wall sections including slab junction, parapet and soffit details.

STEP 7 – INSTALL CLADDING

Items On This Page			
Code	Description	Length	Supplied by Paneltec
ST250	Step	7m	✓

STEP 8 - CLIP ON COVER PIECE



Install the cover sections to the two-piece trims to conceal rivets and cut edges. Push firmly into place, a rubber mallet may be used paying careful attention to the finish.

Items On This Page			
Code	Description	Length	Supplied by Paneltec
TRM0201a	Stop End (Male)	7m	✓

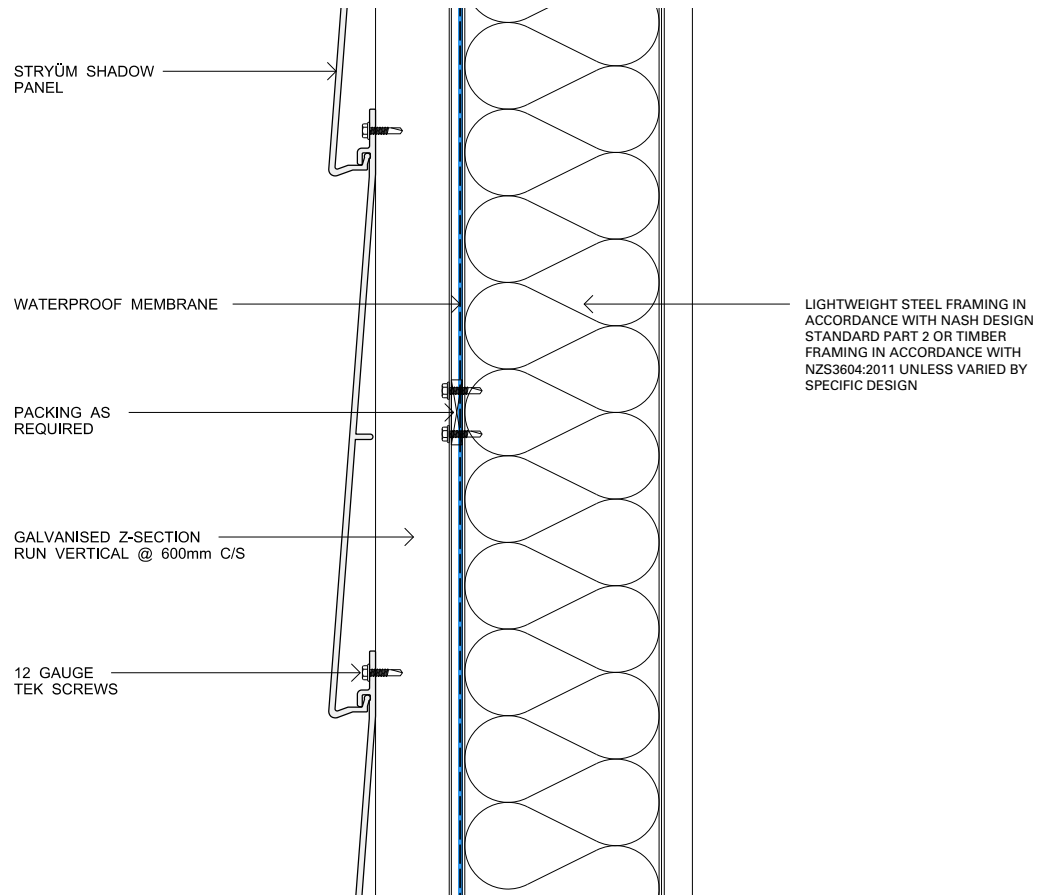
11. STEP HORIZONTAL

11.2 GENERAL DETAILS

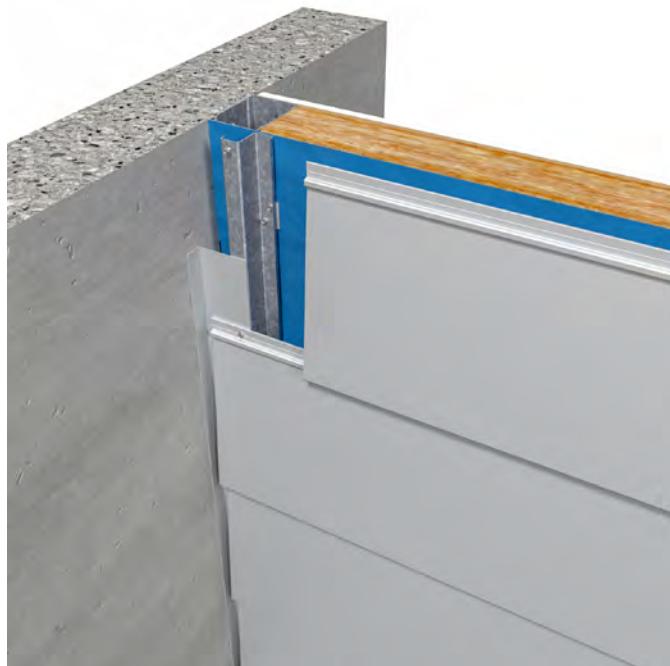
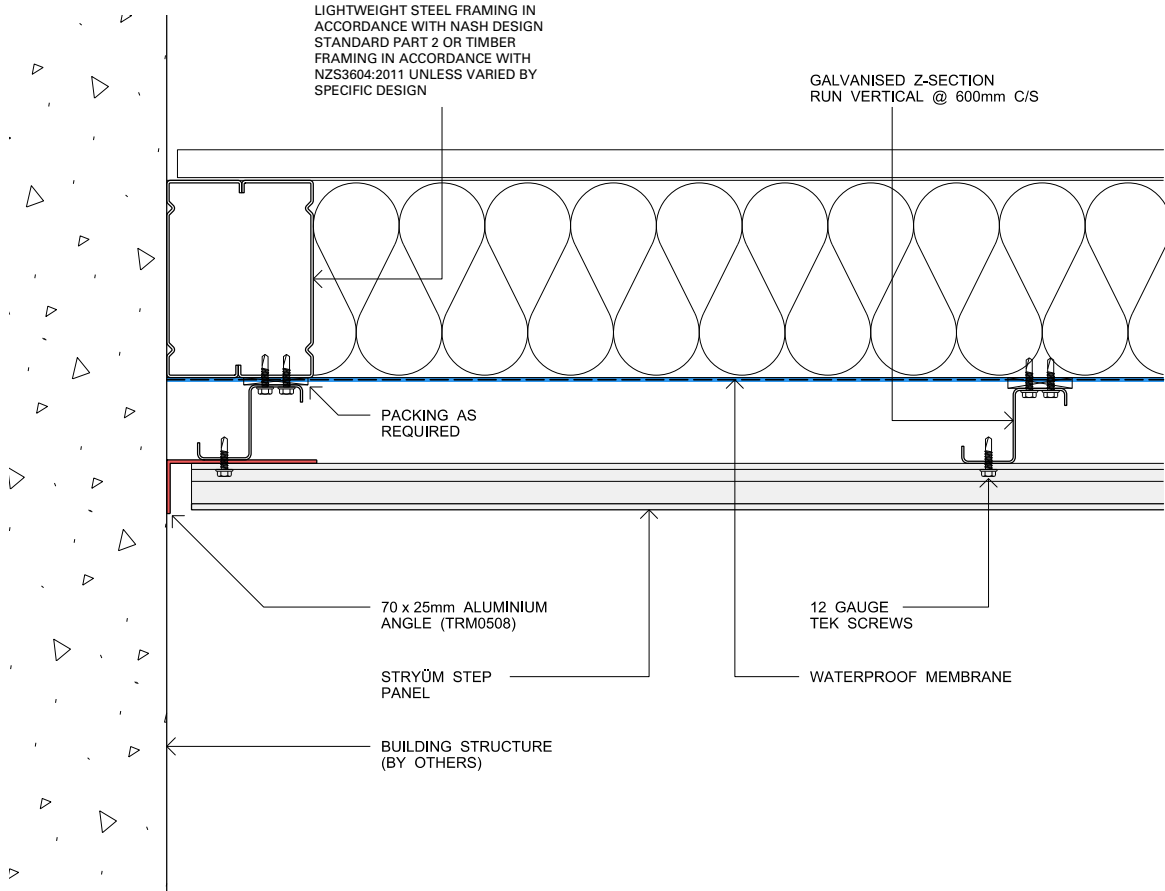
STEP HORIZONTAL – GENERAL DETAILS

These details are of a generic nature. In all cases use these details as a guide only and refer to the Paneltec design library or building consent for finalised details.

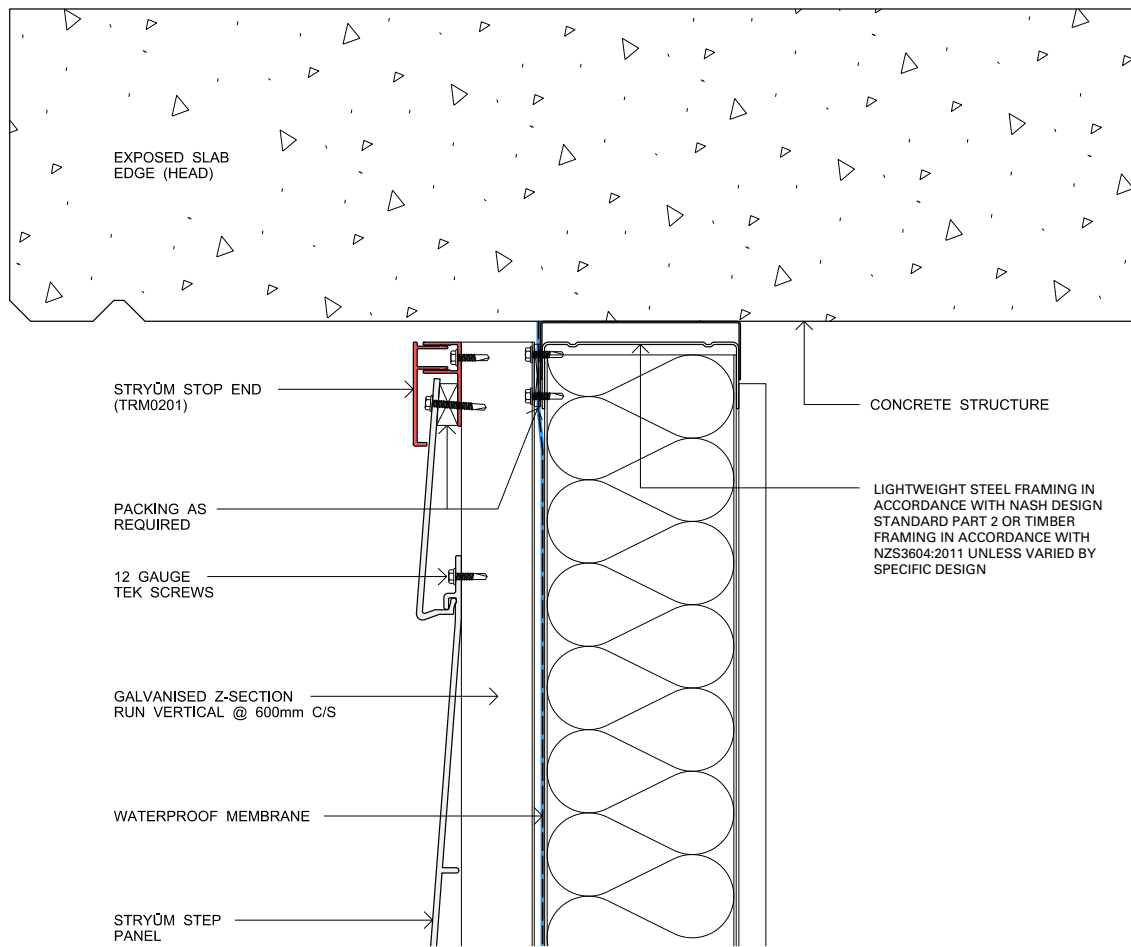
STEP H PANEL CONNECTION



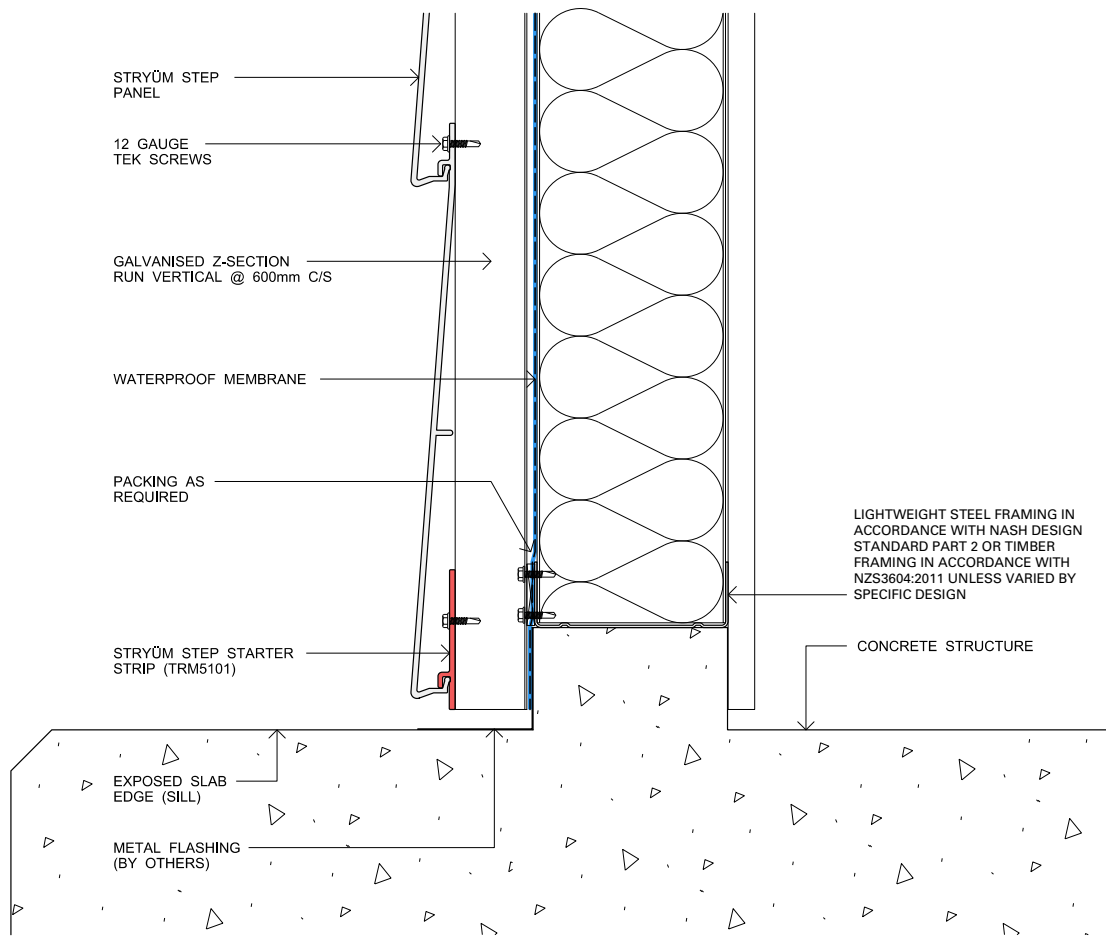
STEP H PANEL START END



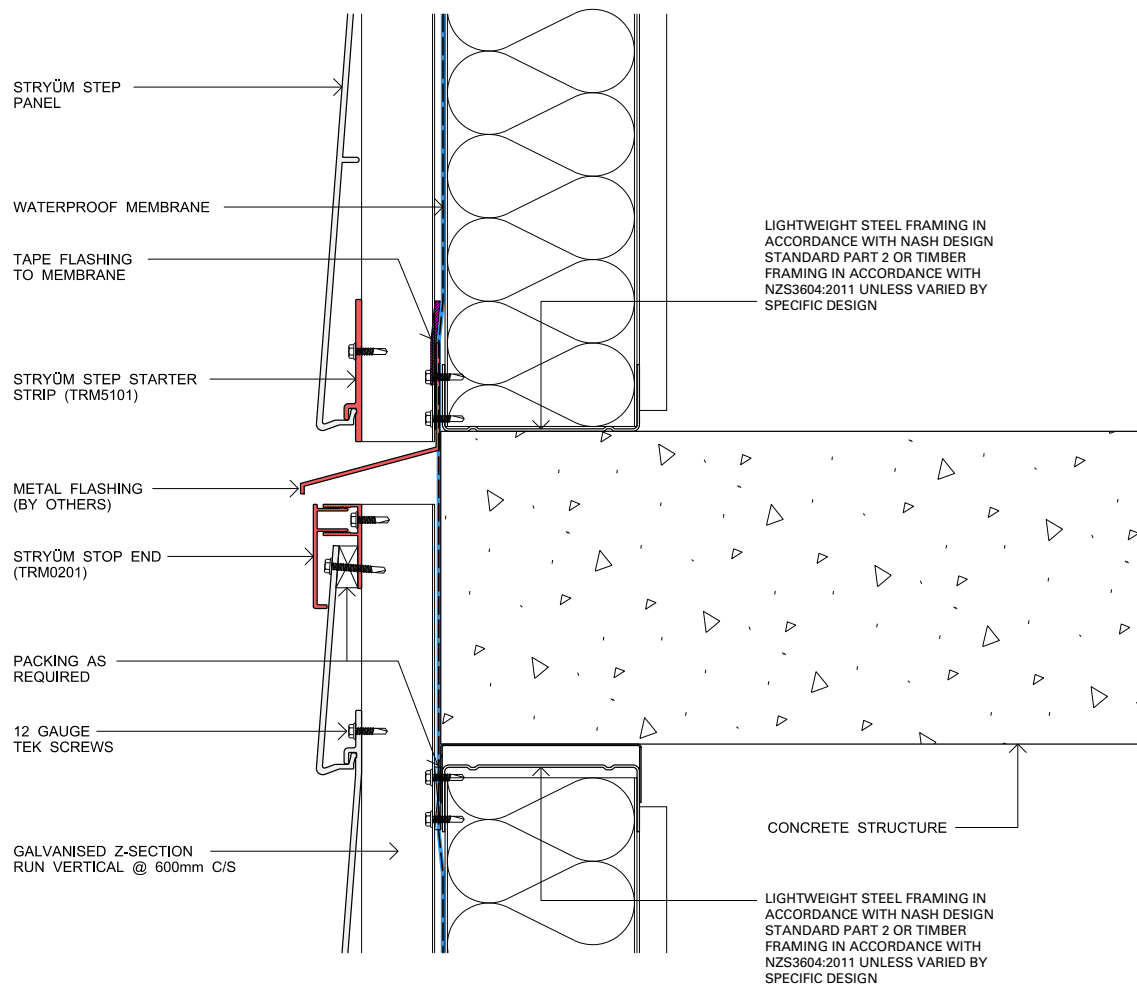
STEP H SLAB JUNCTION



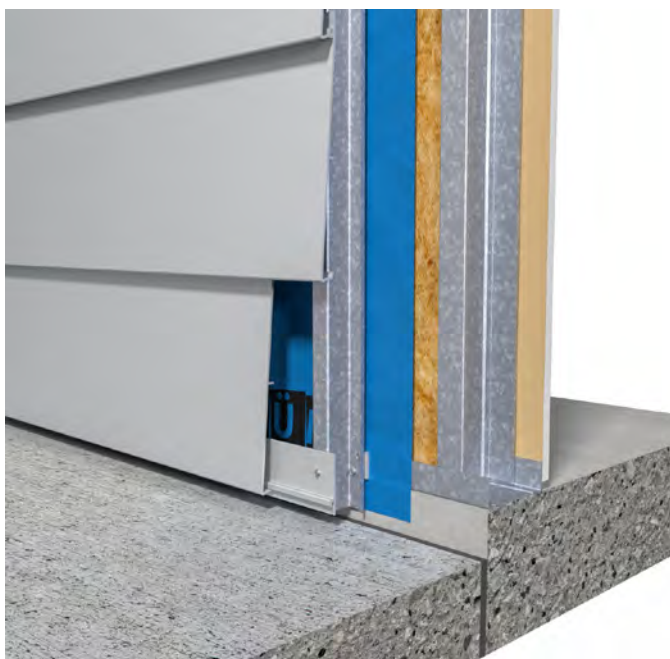
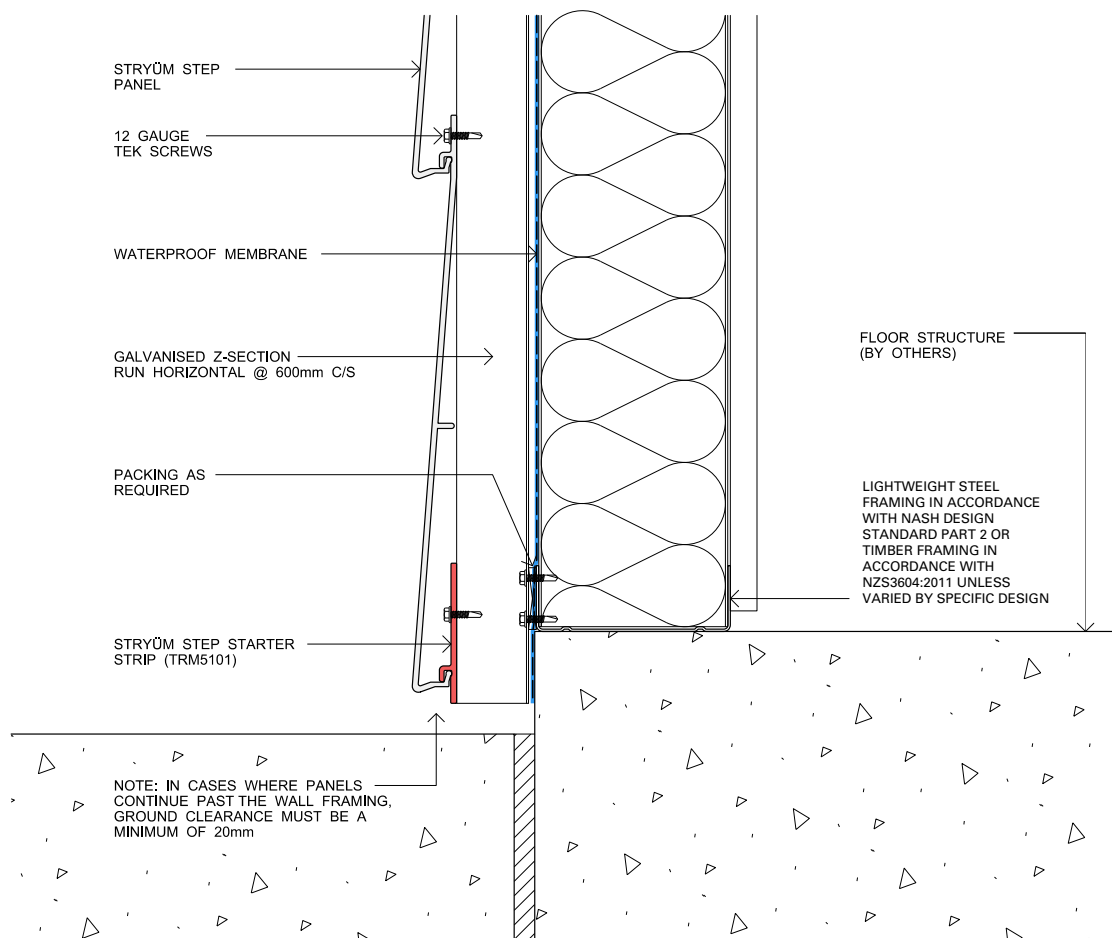
STEP H BASE SLAB JUNCTION



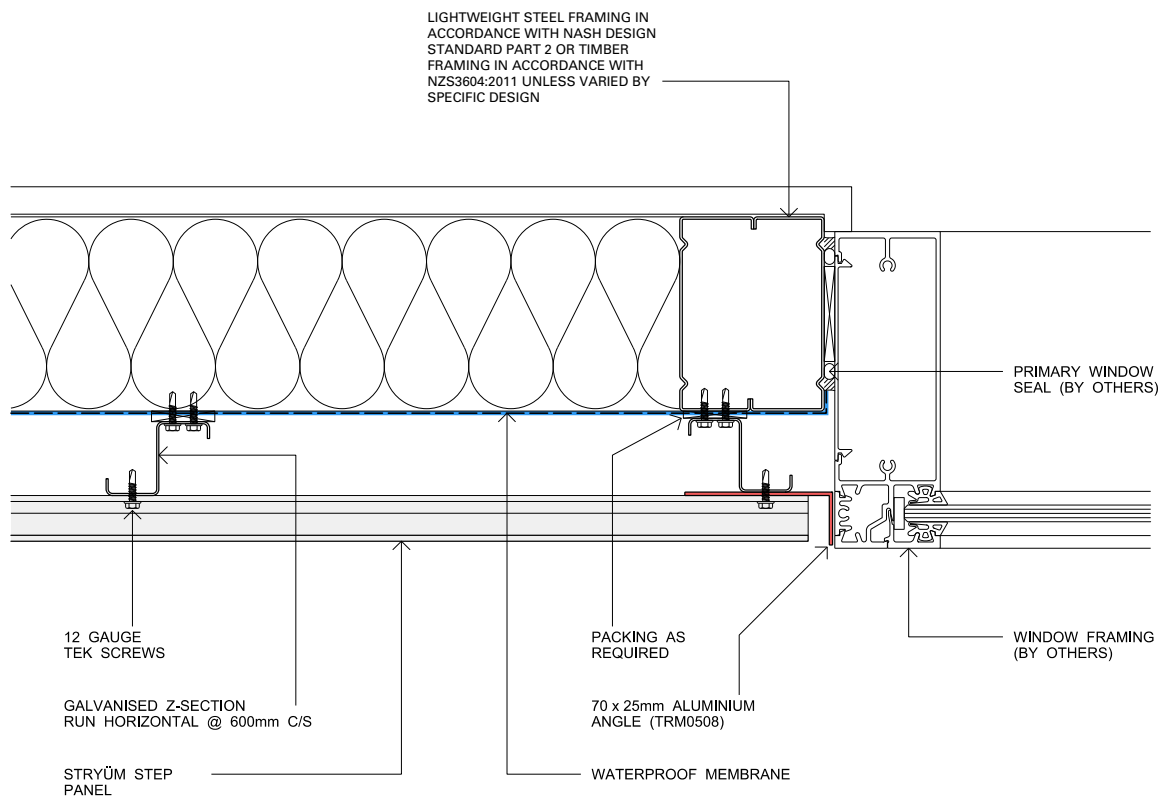
STEP H SLAB JUNCTION CONCEALED



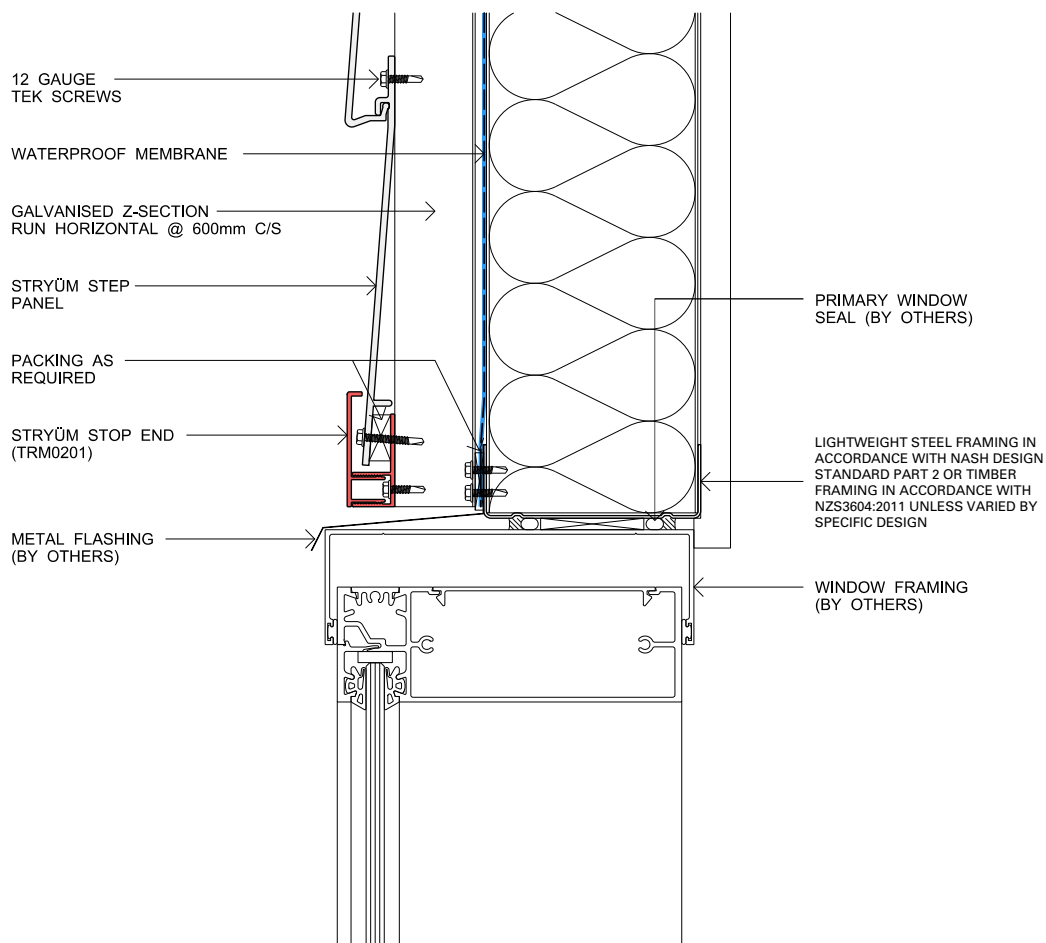
STEP H PANEL END FLOOR



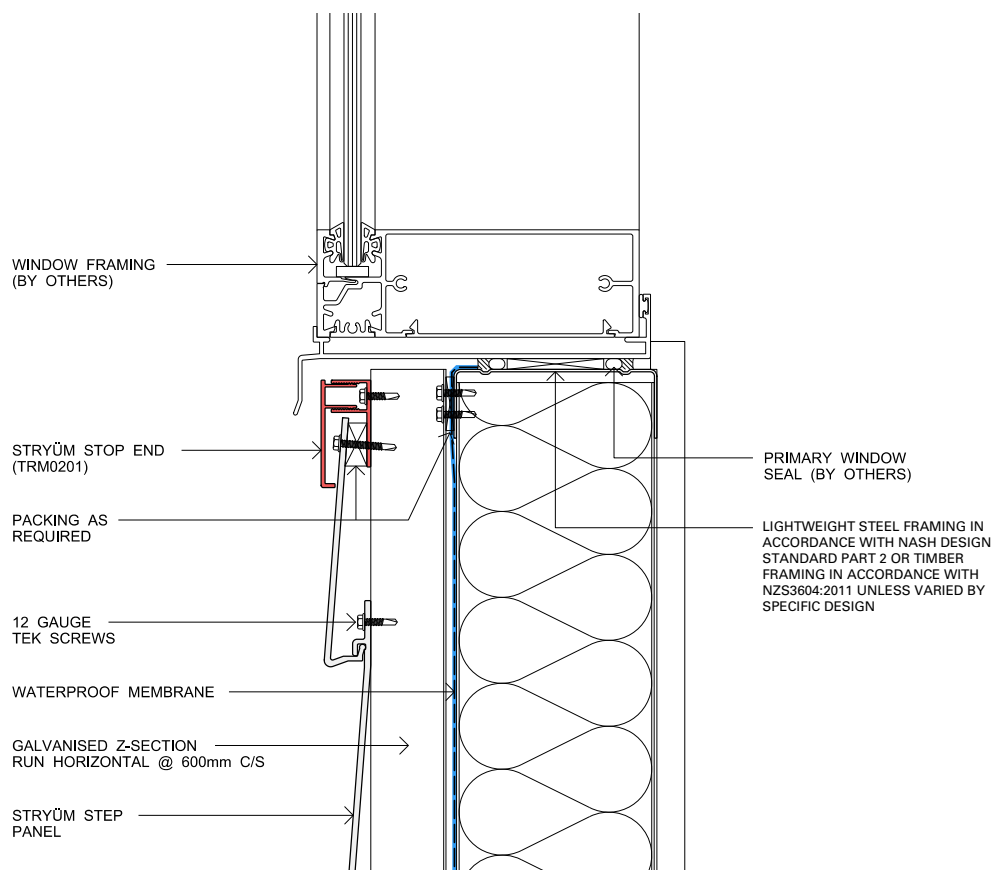
STEP H WINDOW JAM



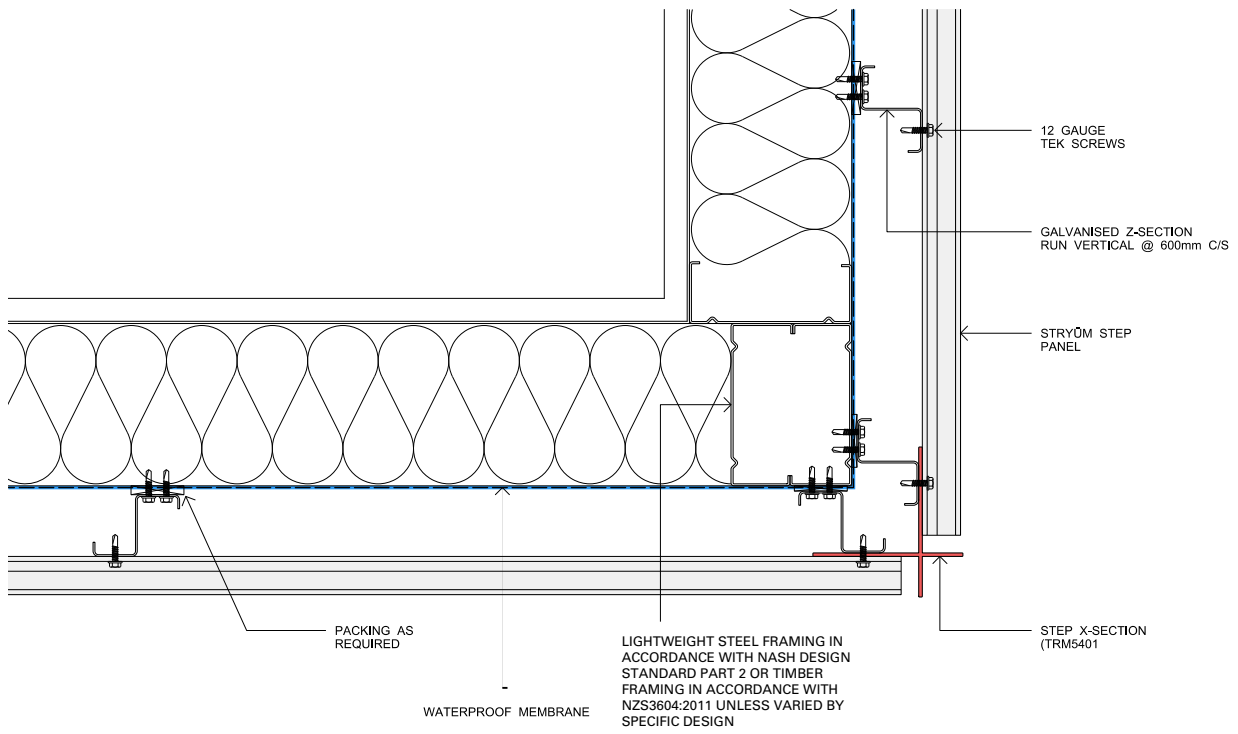
STEP H WINDOW HEAD



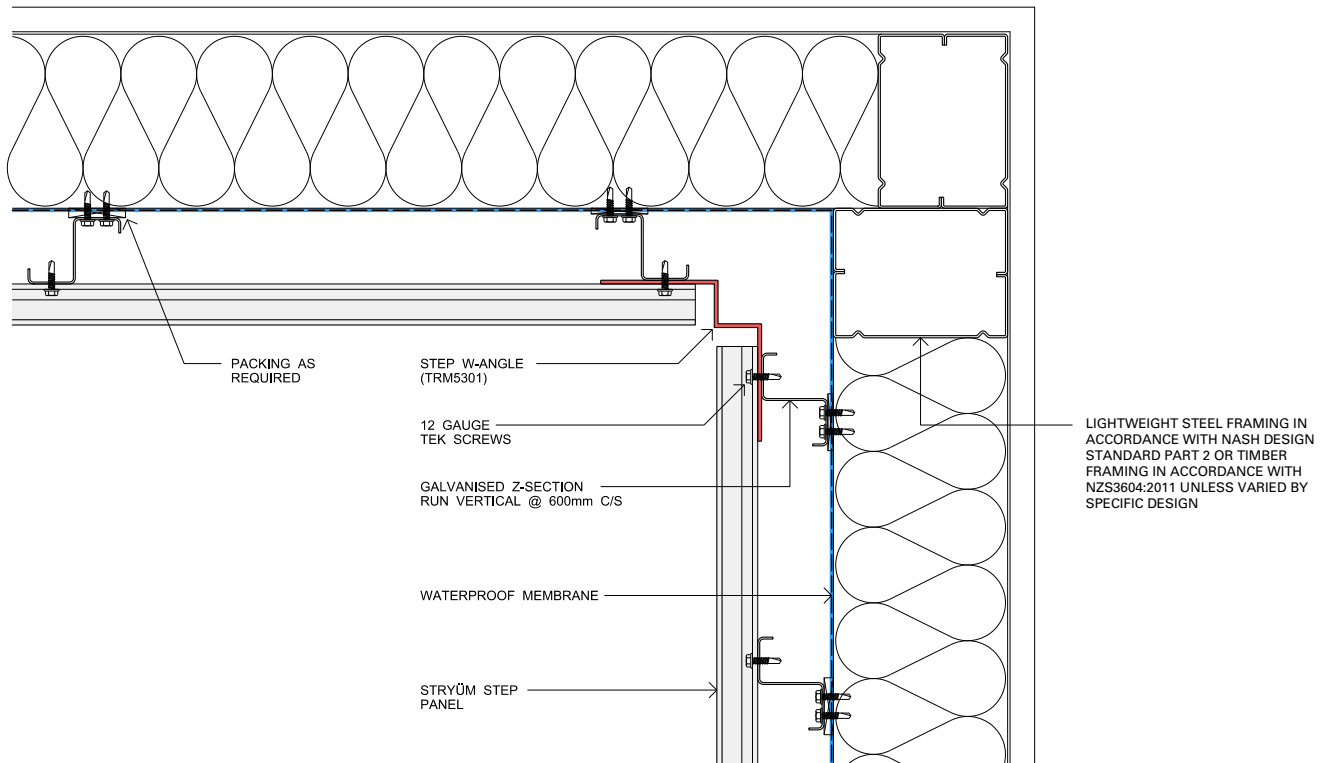
STEP H WINDOW SILL



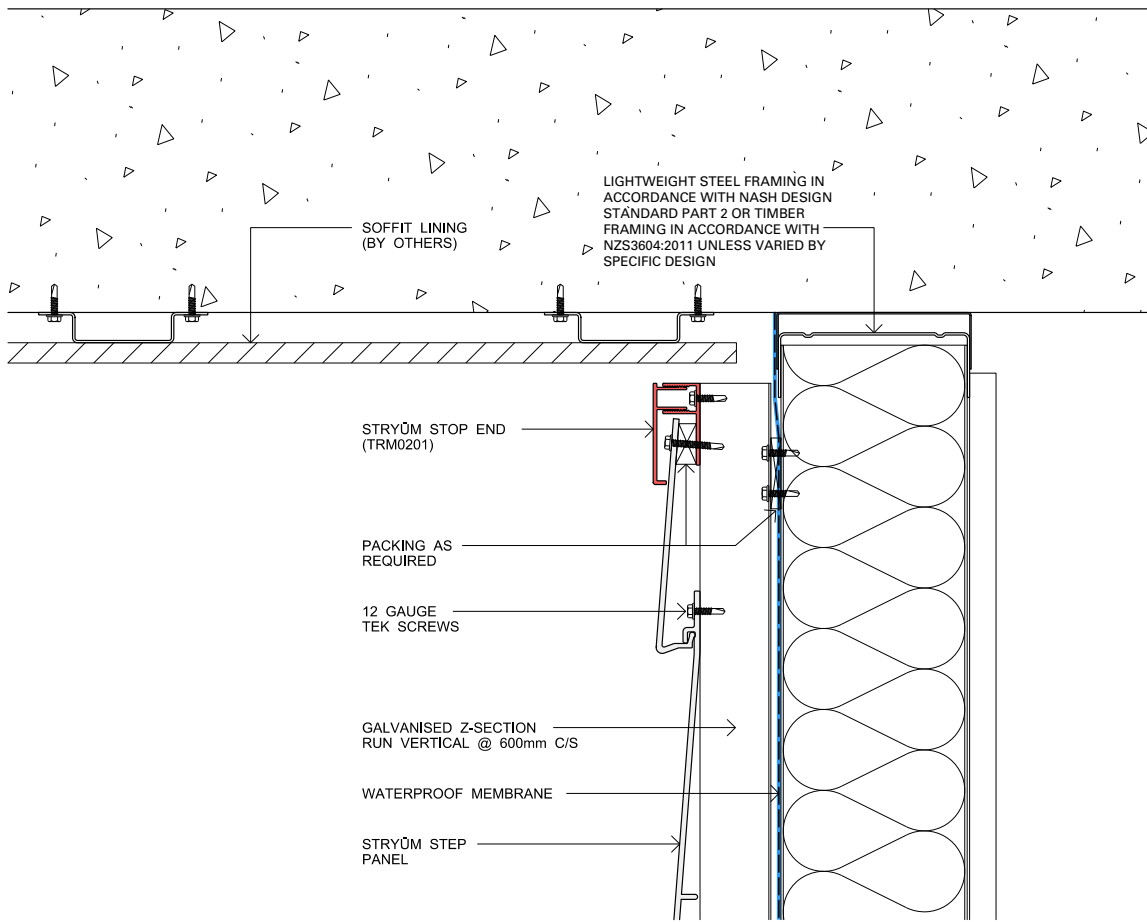
STEP H EXTERNAL CORNER



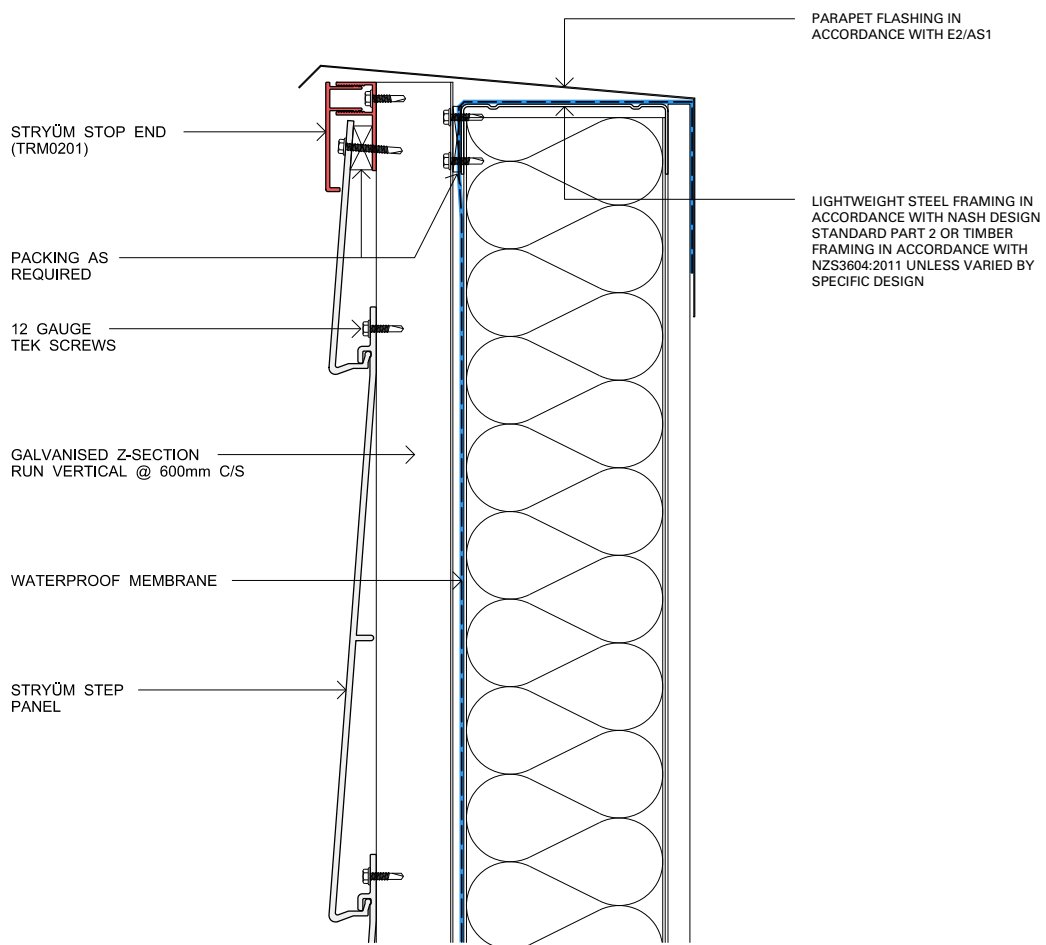
STEP H INTERNAL CORNER



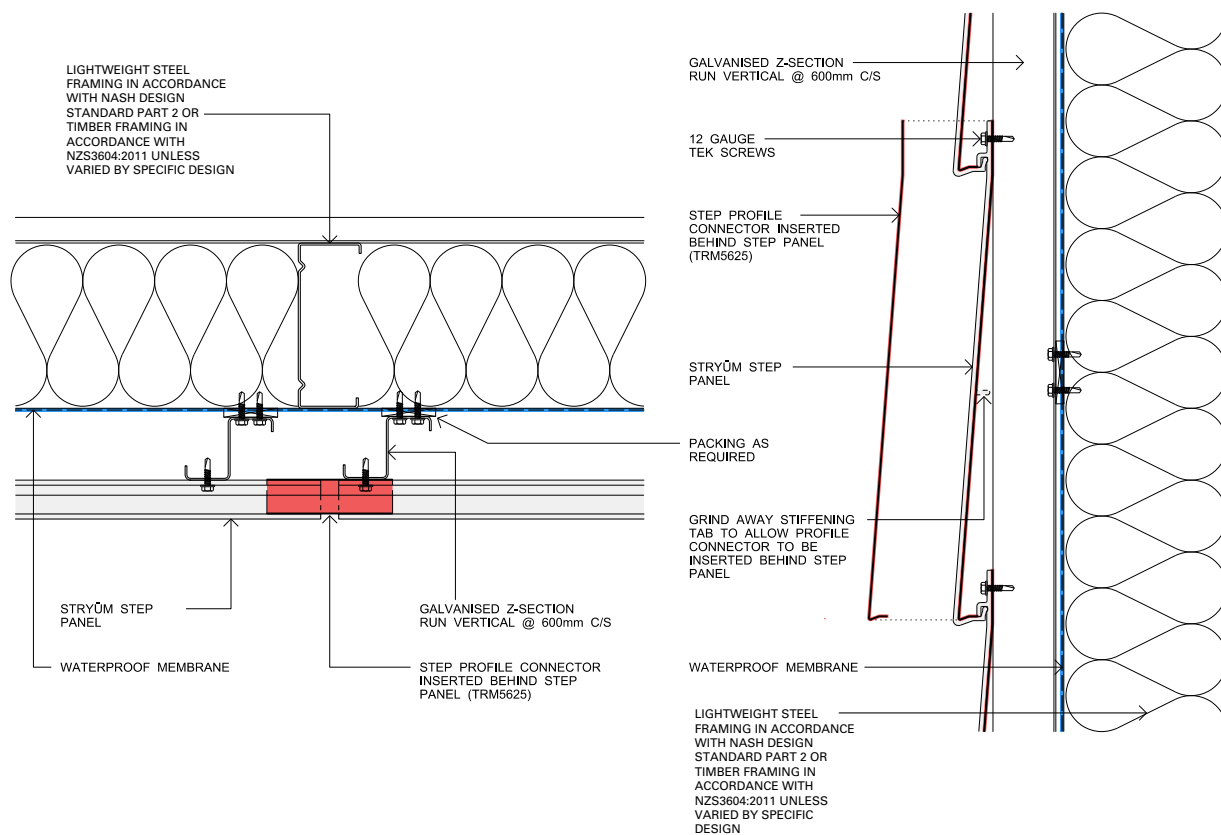
STEP H SOFFIT



STEP H PARAPET

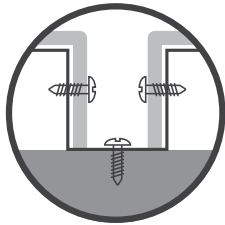


STEP H PANEL CONNECTOR



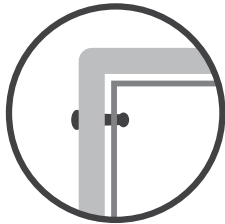
12. FABRICATION DETAIL

12.1 FABRICATION CONSIDERATIONS



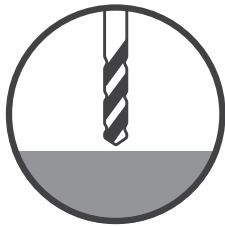
SCREWING

Stryüm can be screwed with conventional stainless steel or class 3 self-drilling screws for metal. Wind loading calculations in this manual are based on a 12-gauge Tek Screw.



RIVETING

Riveting is possible with the usual equipment and solid rivets or blind rivets.



DRILLING

Stryüm can be drilled with centre point twist drills normally used for aluminium or steel. Use High-Speed Steel (HSS) drill bits.

13. WARRANTY

Stryüm is an incredibly durable material when used in the right application. Please contact your Paneltec representative for full terms and conditions.

13.1 IMPORTANT WARRANTY INFORMATION

Maintaining your Stryum finish is an important component to upholding your warranty. Cleaning frequencies are based on your project location and provided in the warranty; therefore, you should document each time your Stryum panels are cleaned.

Recommended cleaning agents:

- Mineral Spirits
- Organic Cleaners
- PH-Neutral Solvents

14. MISCELLANEOUS

14.1 MANUFACTURING QUALITY

A dedication to the total fulfilment of our client's and customer's expectations is reflected by a complete quality control system, beginning at the point of specification and continuing through to delivery of the guaranteed products. All activities are carried out in a manner which:

- Uses the framework of ISO9001 Quality Standard to verify the quality of our systems
- Ensures that our products and services are of the highest standards
- Creates continuous improvements to our product through the application of the best quality practices.

ACCEPTABLE VARIATION

Width	± 2.4mm
Length	± 6.0mm
Thickness	± .4mm (maximum)
Surface Defects	The surface shall not have any irregularities such as dents, scratches and other imperfections in accordance with our quality assurance.

MATERIAL DATA

Aluminium Alloy	6060, 6063
Grade	T5

HANDLING AND STORAGE

- Considerable care should be taken in the handling of Stryüm
- A minimum of two people should be used when moving large sheets to avoid scratching
- To prevent surface damage when stacking Stryüm, there should be no swarf between the panels, and a cover sheet of paper or foam sheet should be used.
- Stryüm should be stored in a cool and dry area where temperature is relatively stable
- Pallets of Stryüm should be stored horizontally with adequate support to prevent sagging.

SUSTAINABILITY

Stryüm has been designed with an expected performance life of over 20 years. All Paneltec products have been developed with the health of environment and community in mind. As part of our commitment to using recyclable or reusable materials wherever possible, all Stryüm panels are 100% recyclable.

14.2 REPORT REGISTER

NZ BUILDING CODE	DESCRIPTION	TEST/ASSESSMENT	REPORT/REFERENCE NUMBER
C - NZBC C2-C6 Protection from fire	Combustibility (Powder Coat)	AS 1530.1	FNC11437A
	Combustibility (Anodised)	AS1530.1	FNC11417A
	Early Fire Hazard Properties	AS 1530.3	FNE12443
B1 - Structural	Large Body Impact	AS1170.2	2016-020-S4-S6
	Cyclonic testing	AS4040.3	2016-020-S7
E2 - External Moisture	Weatherproofing	AS4284	2018-100-S2
Additional/Supporting	Coating Standard	AAMA2604	36048

DISCLAIMER

While the information provided relating to Paneltec Architectural products is true to the tests and measures available to us, the information provided in this article is general in nature only and does not constitute project-specific building, construction or fire-safety advice. Before acting on any information on this document, you should consider the appropriateness of the information having regard to your project parameters and requirements. Paneltec products are deemed suitable or compliant after approval from building and construction professionals associated with specific projects and developments. If you'd like some further insight about this topic, contact Paneltec on 0508 726 358 or email info@paneltec.co.nz. We're here to see how we can help.



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