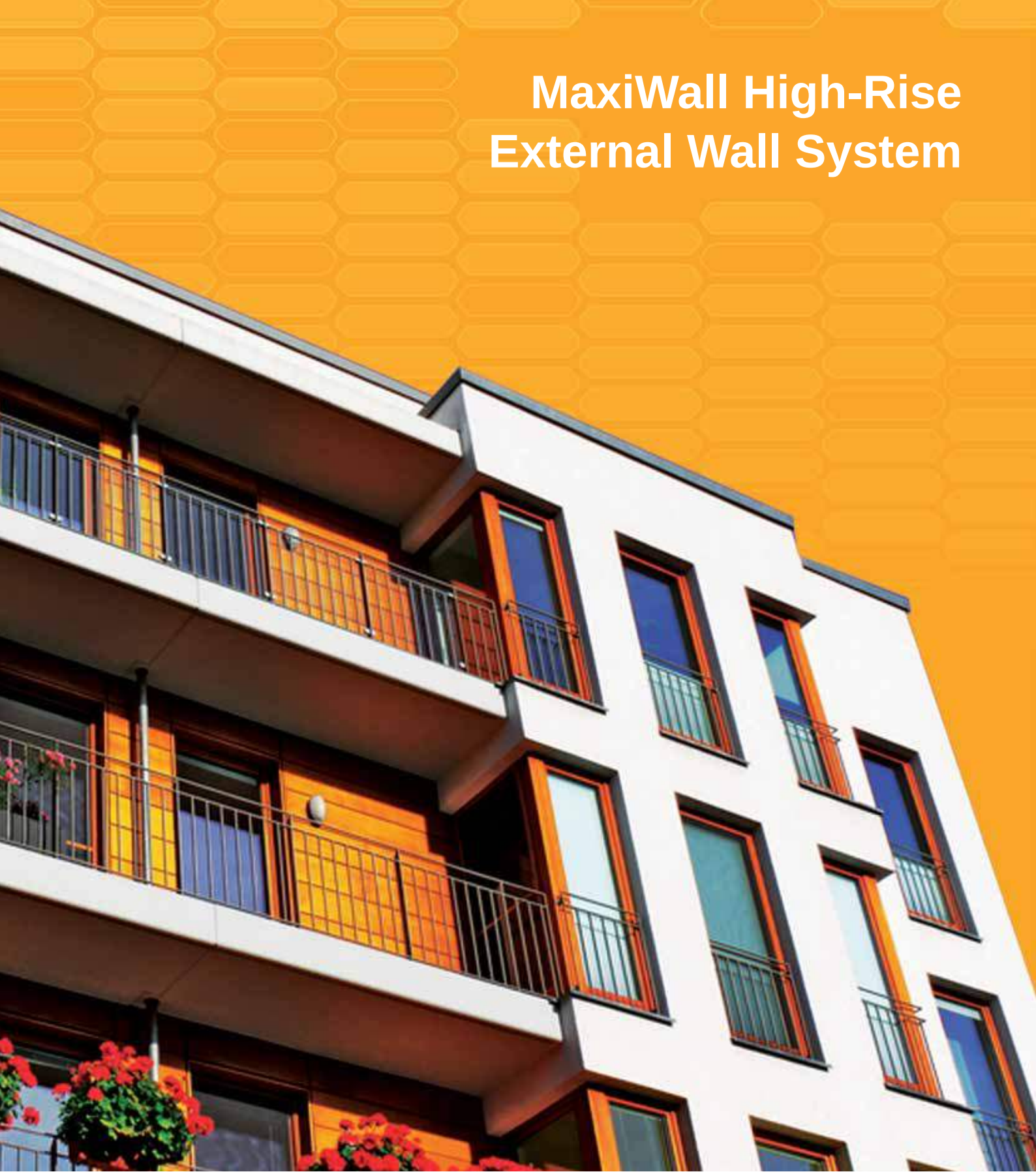
MaxiWall High-Rise External Wall System



Technical Guide

BigRiver

Building Australia for over 100 years

MAXIWALL

Our Story

With over 110 years in the timber industry, Big River is now one of Australia's largest timber manufacturing and marketing businesses, with a diverse business servicing all Australian States and many international projects.

Big River owns and manages sales and distribution outlets in Sydney, Brisbane, Townsville, Adelaide, Melbourne, Sunshine Coast and Perth, servicing the construction and building industry as well as the manufacturing sector with a diverse range of timber products and other associated construction materials such as Maxiwall – a strong yet lightweight walling panel made from Autoclaved Aerated Concrete (AAC).and reinforced with corrosion protected steel mesh.

Maxiwall is sourced from world class production facilities using German technology and automated processes to ensure each Maxiwall panel is of optimum quality and consistency.

Big River provides customers with the security of a full support network, and technical expertise at every stage of the product lifecycle. This is the guarantee of quality and service that Big River has based its 100 years of success on.

Strategic intent

Our focus is on developing products and systems that get the job done, embracing the idea of customer needs, satisfaction and price sensibility.

We are committed to delivering new and innovative building systems that provide a more comfortable and sustainable "home living" experience.

1.0 Contents & Use of Manual

This technical guide contains design, installation and technical information intended for use as a general guide by qualified design and building construction professionals including licensed builders in the construction of party walls for high-rise buildings.

This document does not substitute the necessary knowledge, experience and judgment of qualified design and building construction professionals. They should be consulted to ensure that the specific building systems, its components and installations are suitable for the projects and conform to building codes under Australian laws.

Big River is not responsible for ensuring the correctness or suitability of the systems or compliance with federal, state or local laws and regulations, including building, environmental and other codes.

2.0 MaxiWall Panel

The MaxiWall Autoclaved Aerated Concrete (AAC) wall panel is a durable, lightweight, steel reinforced innovative building panel that offers excellent benefits as an external wall system for high-rise residential buildings. Some of the benefits include:

- Environmentally friendly – no toxic gases or hazardous waste
- Quick installation – reduced time and labour costs
- Fire resistant – helps prevent spread of fire
- Energy efficient – high thermal mass and thermal isolation
- Excellent soundproofing – reduces noise transmission significantly
- Durability – not affected by harsh climatic conditions

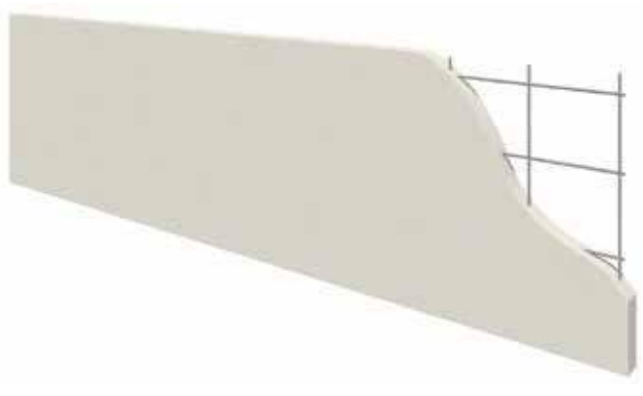
MaxiWall wall panels are manufactured using the latest state-of-the-art German production technology and plant. Made from cement, fine aggregates, lime and water, an expansion agent is added to the mixed slurry which causes it to rise like dough containing closed air pockets that results in its lightweight and energy efficient benefits. The material is molded and wire-cut into dimensioned panels and cooked with steam (autoclaving). AAC has been used in Europe for more than 70 years and continues to be widely accepted in Australia since its introduction over 20 years ago.

Building homes with MaxiWall wall panels will deliver a quieter, cooler and more comfortable “home living” experience. With four times greater thermal resistance than standard house bricks, the amount of energy required to heat or cool is greatly reduced thus resulting in cost savings to homeowners.

MaxiWall wall panels are lighter than other concrete and masonry products allowing for faster installation, easier handling and more flexible solutions to external wall system requirements.

MaxiWall wall panels are available in the following dimensions and steel reinforcement.

Thickness:	75mm
Width:	600mm
Length:	1350 to 3000mm
Reinforcement:	Single steel mesh,centrally located
Steel wire:	4 x 5mm longitudinal and transverse bars



3.0 Advantage & Benefit

Strong & Durable

MaxiWall steel reinforced panels have that solid feel of traditional bricks. With an approved external render finish MaxiWall is not affected by our harsh Australian climatic conditions and will not degrade under normal conditions.

Cost Effective

MaxiWall lightweight panels are easy to handle on-site with standard construction tools and quick to build with resulting in lower labour costs.

Fire Resistant

MaxiWall is manufactured from aerated concrete and is non-combustible and therefore suitable for fire-rated applications such as boundary and party walls in residential and commercial applications.

Safe

MaxiWall does not contain any toxic substances or odours, and will not harbour or encourage vermin.

Energy Efficient

MaxiWall has a closed aerated structure which gives it superior thermal insulation properties compared to concrete or brick veneer. MaxiWall is therefore a smarter choice for lower heating and cooling energy consumption.

Superior Acoustics

MaxiWall also has superior soundproofing and acoustic insulation properties.

Sustainable

MaxiWall is a cleaner, greener and more sustainable choice. On a volume comparison, MaxiWall has manufacturing, embodied energy and greenhouse gas emission impacts significantly less than those of concrete and bricks.

Proven & Backed By Big River

AAC was invented in Sweden over 70 years ago and is widely used in building throughout Europe as well as other regions in the world. Its popularity amongst architects, builders and homeowners in Australia has been growing significantly over the past 20 years.

MaxiWall is now available and supported in Australia through the established national sales and distribution network of the Big River Group

4.0 MaxiWall High-Rise External Wall System

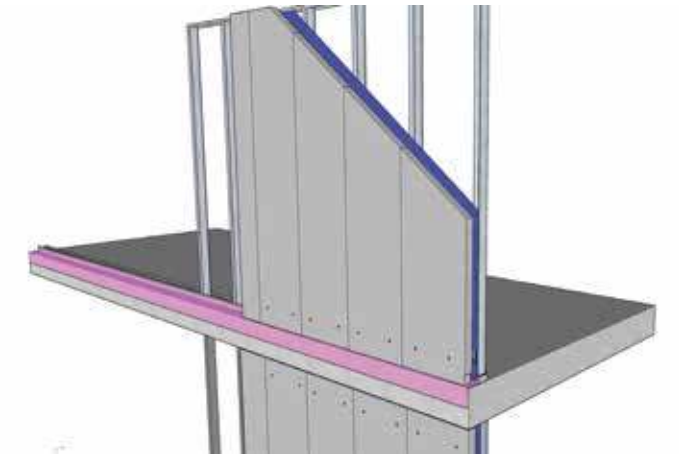
The MaxiWall high-rise external wall system is designed for the construction of non-load bearing walls on high-rise buildings using steel reinforcing frames.

The system comprises of 75mm thick MaxiWall AAC wall panels embedded with corrosion protected steel reinforcing mesh in longitudinal and transverse directions, installed vertically over horizontal battens fastened to a load bearing frame.

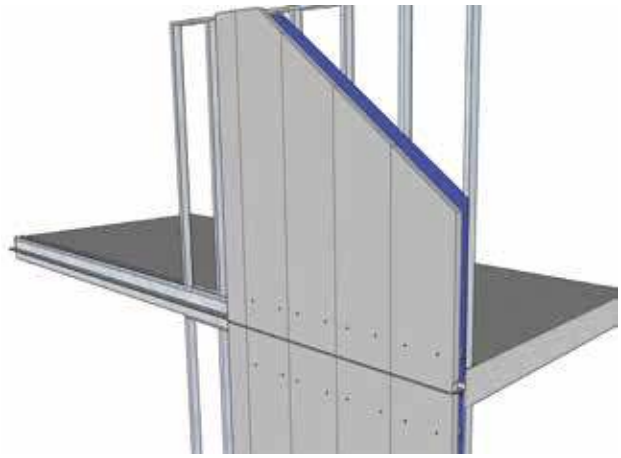
For fast, construction flexibility and the ability to make easy adjustments on site, the MaxiWall wall panels can be procured in standard lengths of 1350, 1800, 2400, 2550, 2700, 2850 and 3000mm and in width of 600mm.

The MaxiWall external high-rise wall system has an advantage over other wall systems when plaster, stucco or render finishes are used, as no additional preparation work is required. MaxiWall wall panels can also be used as External non-load bearing separating, shaft, partition and noise barrier walls.

Exposed Slab Edge



Hidden Slab Edge



5.0 Design Consideration

The MaxiWall high-rise external wall system is an effective and economical construction material. To capitalise on the product benefits and architectural features the following considerations are important:

- Ascertain the following site requirements:
  - ✓ Wind loads
  - ✓ Soil type and movement
  - ✓ Fire Resistance Level (FRL)
  - ✓ Energy Efficiency (R-Value)
  - ✓ Sound insulation performance (Rw+Ctr values)

- Determine wall frame spacing, quantity of battens, screw fixing and cantilever distance (refer to Table 2 - Fixing Description).

- Select the MaxiWall system and sarking material that meets the site requirements listed above.

- Select an approved exterior surface coating treatment. Raw surface texture of the panel can vary.

- Ensure the Project Engineer approves the completed detailed design documentation as complying with NCC requirements.

- All structural framing must comply with the NASH standards for steel framing.

The design considerations and installation details shown in this manual are for framed structural systems clad with MaxiWall wall panels. The system details show standard design configurations for MaxiWall wall panels that are used in a typical concrete slab building.

When designed and specified in accordance with the technical information contained in this manual, the MaxiWall external wall system for high-rise buildings shall be deemed to satisfy the requirements of the National Construction Code Series, Volume Two, Building Code of Australia (NCC) for Class 2 to Class 9 Buildings.

The standards and documents referred to in Appendix A of this manual are to be used to determine resistance to actions and to evaluate the material and system performance against the NCC nominated requirements. The NCC is a performance based document available in two volumes: Volume 1 - Class 2 to Class 9 Buildings and Volume 2 - Class 1 and 10 Buildings (Housing Provisions). It is a uniform set of technical provisions used for the design and construction of buildings and other structures in Australia.

The MaxiWall wall panel has been issued with CodeMark™ Certificate of Conformity. This certification provides a nationally and internationally accepted process for products assessment for compliance.

1. Movement Control Joints

Due to thermal changes and building movement over time, it is important to provide joints where elements may move independently. Failure to provide these joints will result in stress relief in the form of cracks. A control joint is typically a 10-15mm wide discontinuity, filled with an appropriate flexible sealant (fire-rated where applicable).

- Control joints must be provided every 6.0m of continuous wall run, at all external and internal corners, to one side of all window/door openings less than 2.4m and on both sides of window/door openings greater than 2.4m.

2. Sealing

Where gaps between penetrations and wall panels occur, joints must be sealed with an appropriate flexible sealant. It is the responsibility of the builder to verify the surface preparation requirements of the sealant, as well as the adhesion of any panel finish coats. Backing rods are typically used to control depth of sealant application and to ensure sufficient contact with surfaces.

3. Penetrations

Since MaxiWall panels are manufactured in 600mm width, maintaining window and penetration widths in multiples of 600mm can significantly reduce installation complexity. Service penetrations must be sealed with an appropriate flexible sealant to ensure water ingress is prevented. Allowance for thermal movement must be provided.

4. Pressure Equalisation Slots

Pressure equalisation slots provide a pathway for the building to breathe, allowing moisture inside the wall cavity to be evacuated. It is recommended that these be located every 3.0m and at every horizontal control joint. Where vermin, insect control and bushfire ember attack is a concern, a proprietary weep hole covering system may be used.

6.0 System Component

Thin-Bed Mortar	A thin-bed bonding mortar with high adhesion strength specifically manufactured for the placement of MaxiWall wall panels where leveling and bonding application is required for external wall construction. The mortar helps in the integrity of an airtight construction for sound insulation and fire protection at the base of the panels.
AAC Adhesive	The adhesive for MaxiWall wall panels is a factory prepared blend of carefully selected raw materials such as cement, graded aggregates and strengthening and performance additives. It is a dry mixed product used as a structural thin bed adhesive for adhering the panels in the construction of external walls.
Patch Compound	A pre-mixed, water based jointing and patching compound used for repairing minor chips, cracks and damages particularly to the corners and edges. It can also be used as a filler compound.
Joint Sealant	Designed for sealing joints and wall penetrations that are subjected to high humidity and movements. The joint sealant provides superior integrity for fire and acoustic sealing. Even when excessively stretched sealants help maintain the joint's integrity.
Anti-Corrosoin Paint	Used for coating and protection of the exposed steel reinforcement mesh from corrosion after cutting.
Render Coating	Acrylic modified cement based renders designed to provide weather resistant, attractive decorative and durable finishes for application over MaxiWall wall panels.
Top Hat	MaxiWall Panels are fixed to the steel top hat, which is fixed to the steel frame. It provides a cavity at the back of the panel to ensure that any moisture entering the wall space has a clear pathway to exit.
Shelf Angle	A shelf angle is used to locate the panel when installed in the hidden slab edge configuration. The MaxiWall shelf angle is available in two sizes: 125 x 110 x 5mm and 125 x 80 x 5mm. It is the responsibility of the site engineer to specify the dimensions of the shelf angle, and the fasteners used to secure it to the slab.
Building Wrap	Breathable wall wrap must be used in all MaxiWall high-rise external wall system applications. The wall wrap is positioned between the top hats and steel stud support framing, and for optimum performance joints should be lapped and taped. Check with the building wrap manufacturer for applicability with the project.

Note: System components must be supplied by approved supply partners. Refer to www.bigrivergroup.com.au

7.0 Fixing Specification

The fixing system is established according to the wind category at the site and method of construction, either with the panels fixed at the base and head, or with the panels suspended from the frame. The MaxiWall wall panel is fixed to the structural support framing with 24mm or 35mm cold formed top hat section battens complying with AS3566.1-2002.

Table 1. - Fasteners and Fixing

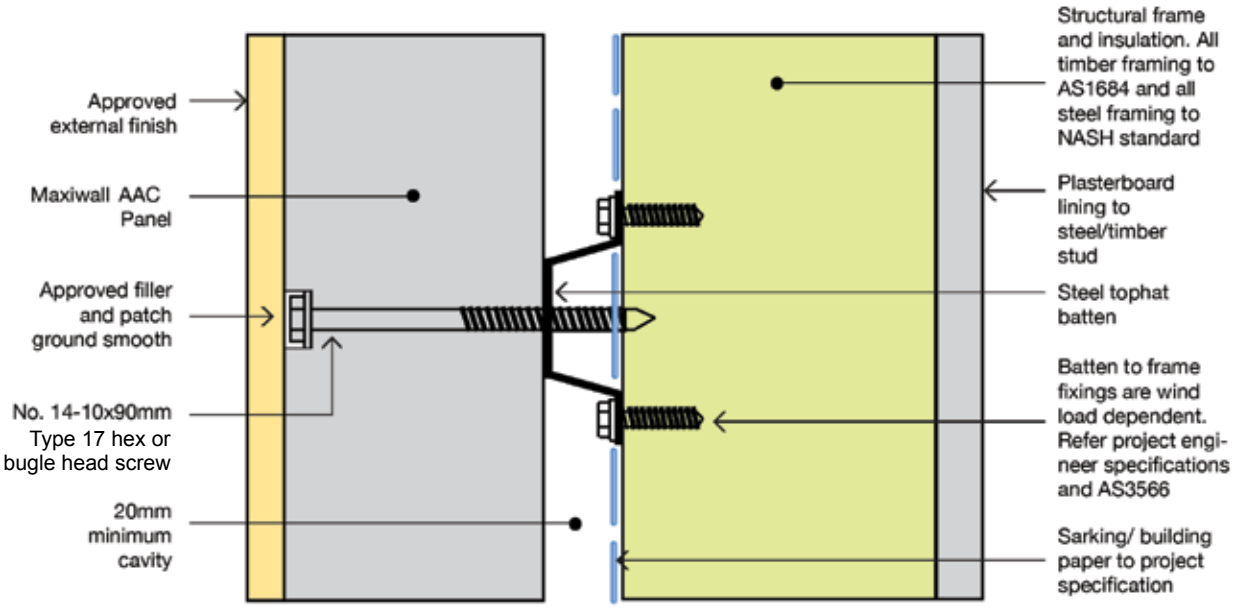
Connection	Fixing
Top hat to timber frame	12 - 11 x 35mm Hex Head Type 17 Screw
Top hat to steel stud frame	10 - 16 x 16mm Hex Head Teks Screw
Top hat to MaxiWall panel*	14 - 10 x 65mm Hex Head Type 17 Screws**
MaxiWall panel to top hat	14 - 10 x 90mm Hex Head Type 17 Screw 14 - 10 x 100mm Bugle Head Screw
Recommended battens (24mm)	0.42 BMT or greater
Recommended battens (35mm)	0.55 BMT or greater

Table 2. - Fixing Description

Wind Pressure (kPa)	Maximum batten spacing (mm)	Panel fixing required per panel per batten (pcs)	Maximum cantilever distance at panel end (mm)
- 1.0	1200	2	400
- 2.0	1100	3	400
- 3.0	700	3	350
- 4.0	500	3	250
- 5.0	400	3	200
- 6.0	350	3	200

7.1 Fixing Detail

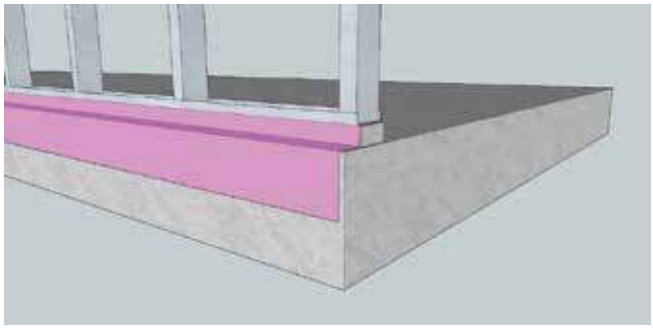
The fixing system is established according to the wind category at the site and method of construction, either with the panels fixed at the base and head, or with the panels suspended from the frame. The MaxiWall wall panel is fixed to the structural support framing with 24mm or 35mm cold formed top hat section battens complying with AS3566.1-2002.



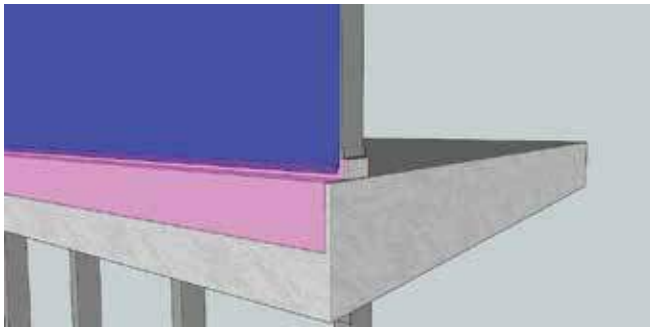
8.0 Exposed Slab Edge

1a. Exposed Slab Edge

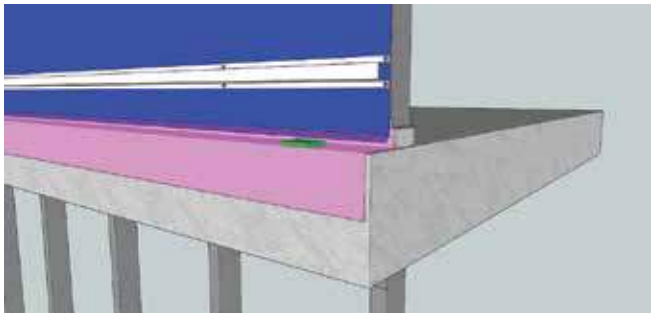
Step 1
Frame and damp-proof course (DPC) should already be installed onto slab prior to commencing panel installation. DPC height must comply with local building codes



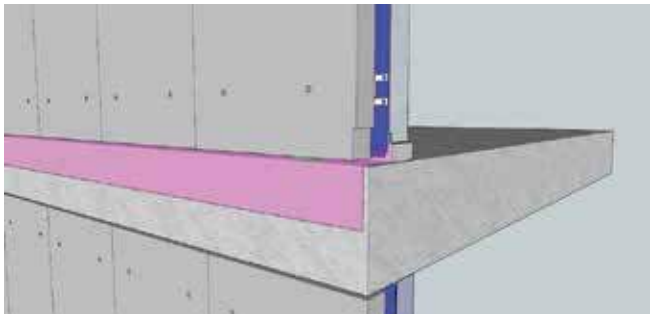
Step 2
Breathable wall wrap must run the full height of the panel. It should be taped to the DPC at the frame base channel, and concrete slab at the head of the panel.



Step 3
Install battens to frame using two fixings per stud. Packing blocks are placed on slab at both ends of the panel to provide space for the horizontal expansion joint.

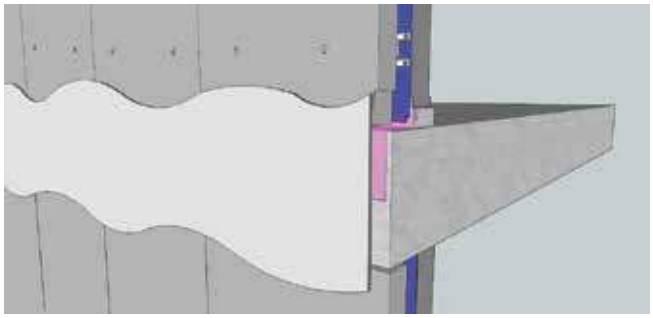


Step 4
MaxiWall Panel is located onto the packing blocks. The panel face should be installed flush with the edge of the slab.



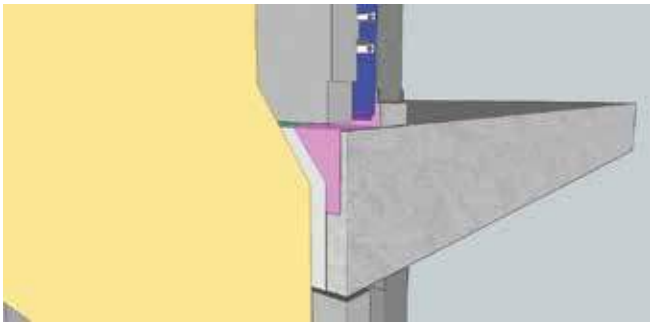
Step 5

Slab edge is coated with approved filler to ensure it is flush with the MaxiWall panel face.



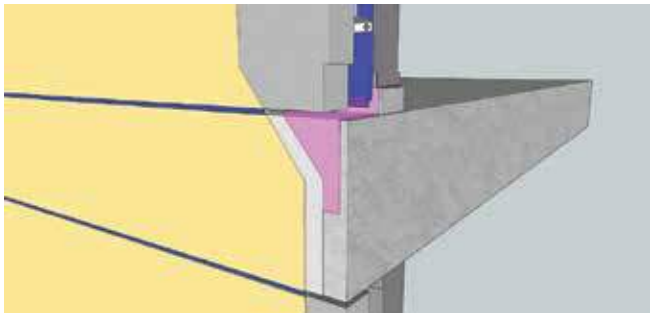
Step 6

Render coats are applied over the panel and slab edge. At this stage it is acceptable to cover the horizontal expansion joints.



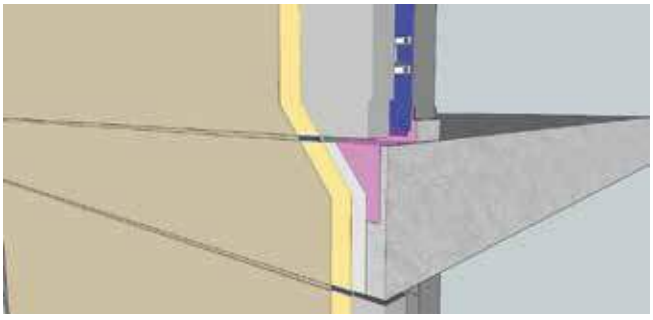
Step 7

Re-cut horizontal expansion joints (10-15mm) above and below slab edge. Insert backing rod and seal with approved sealant (fire rated where required).



Step 8

Paint over the texture coat and sealant with an approved waterproof finish to maintain a seamless appearance.



8.1 Hidden Slab Edge

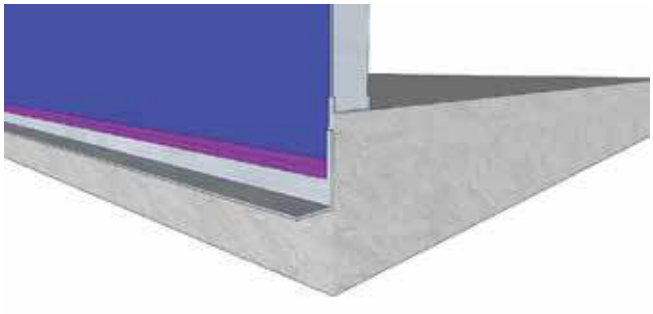
1b. Hidden Slab Edge

Step 1

Frame should already be installed onto slab prior to panel installation. Install steel angle onto slab, dimensions and fasteners must be approved by project engineer.

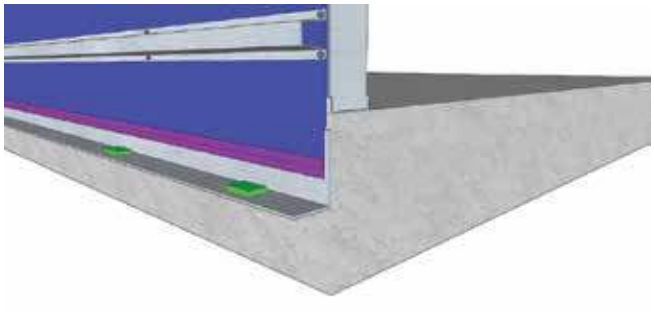
Step 2

Breathable wall wrap must run the full height of the panel. It should be taped to the steel angle at the panel base, and concrete slab at the head of the panel.



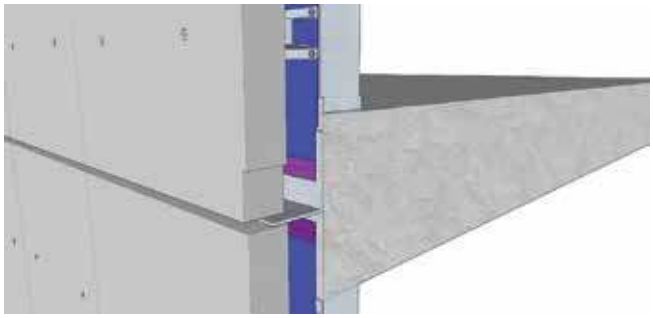
Step 3

Install battens to frame using two fixings per stud. Packing blocks are placed on steel angle at both ends of the panel to provide space for the horizontal expansion joint.



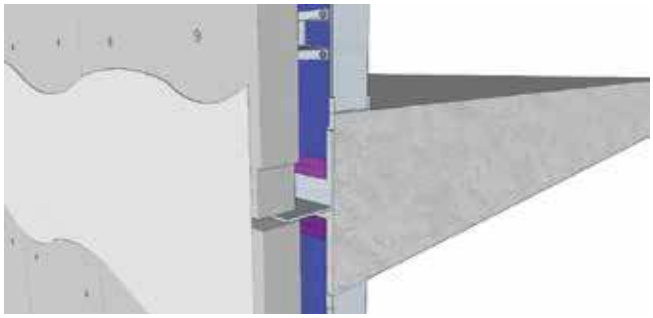
Step 4

MaxiWall Panel is located onto the packing blocks. The panel face should sit out from the steel angle by 10-20mm.



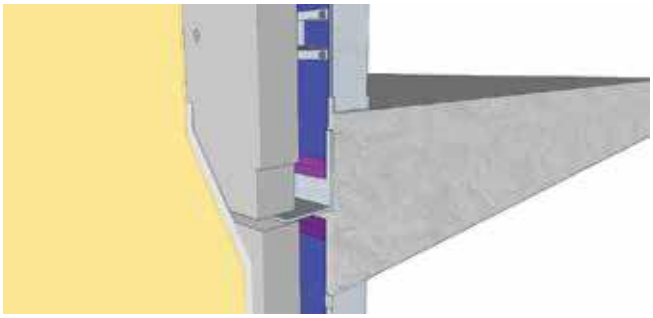
Step 5 (Optional)

The MaxiWall panel joint is coated with approved filler to level the joint.



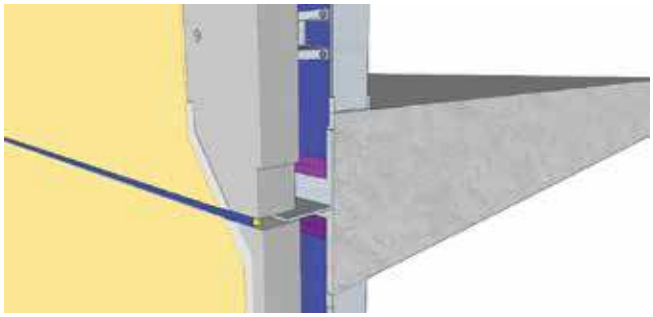
Step 6

Render texture coats are applied over joint. At this stage it is acceptable to cover the horizontal expansion joint.



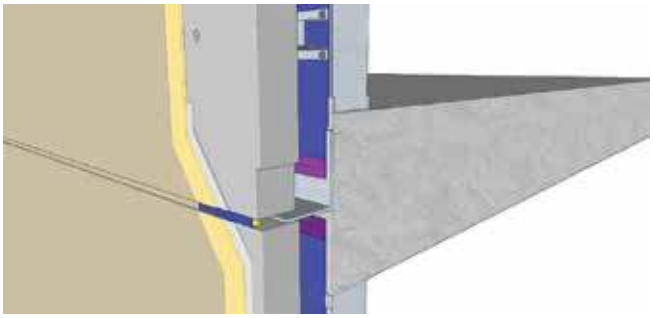
Step 7

Re-cut horizontal expansion joint (10-15mm). Insert backing rod and seal with approved sealant (fire rated where required).



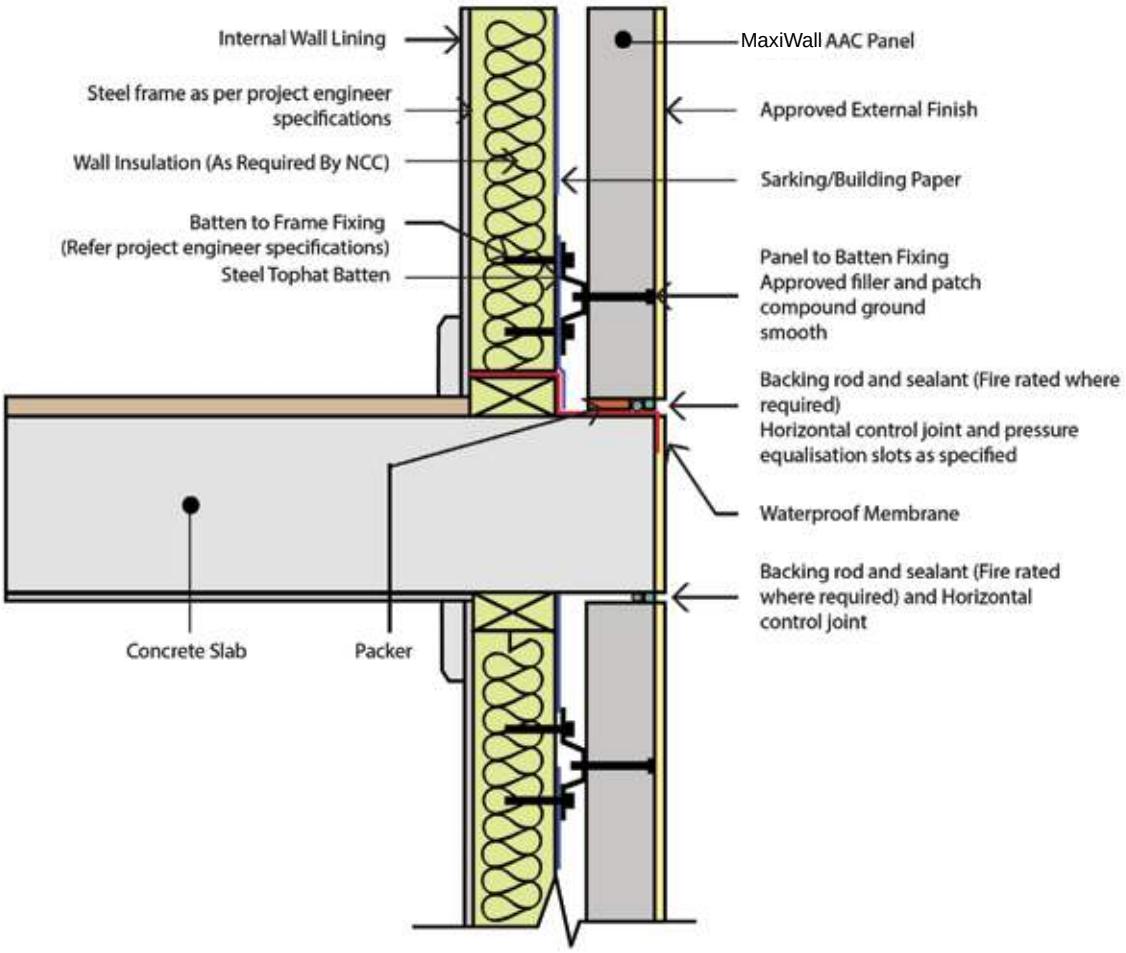
Step 8

Paint over the texture coat and sealant with an approved waterproof finish to maintain a seamless appearance.

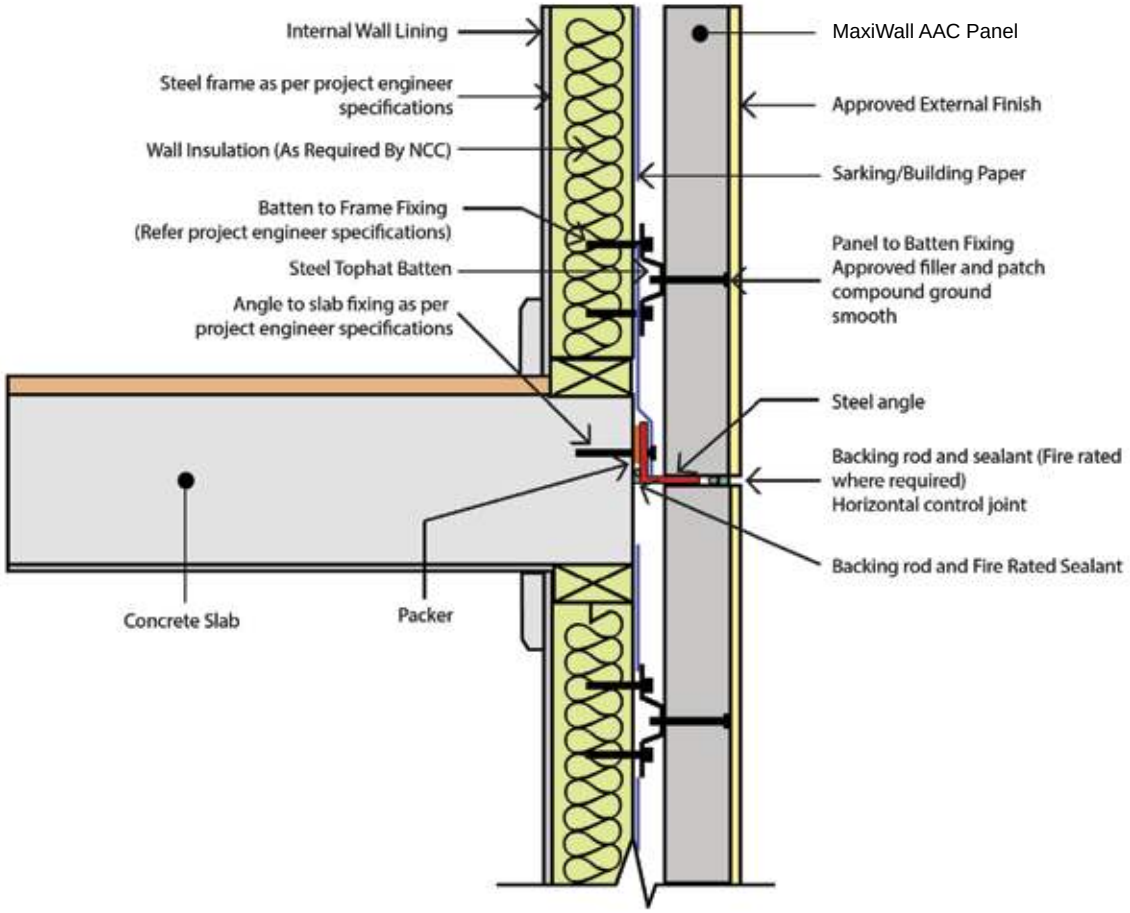


9.0 Construction Detail

1a - Exposed slab edge

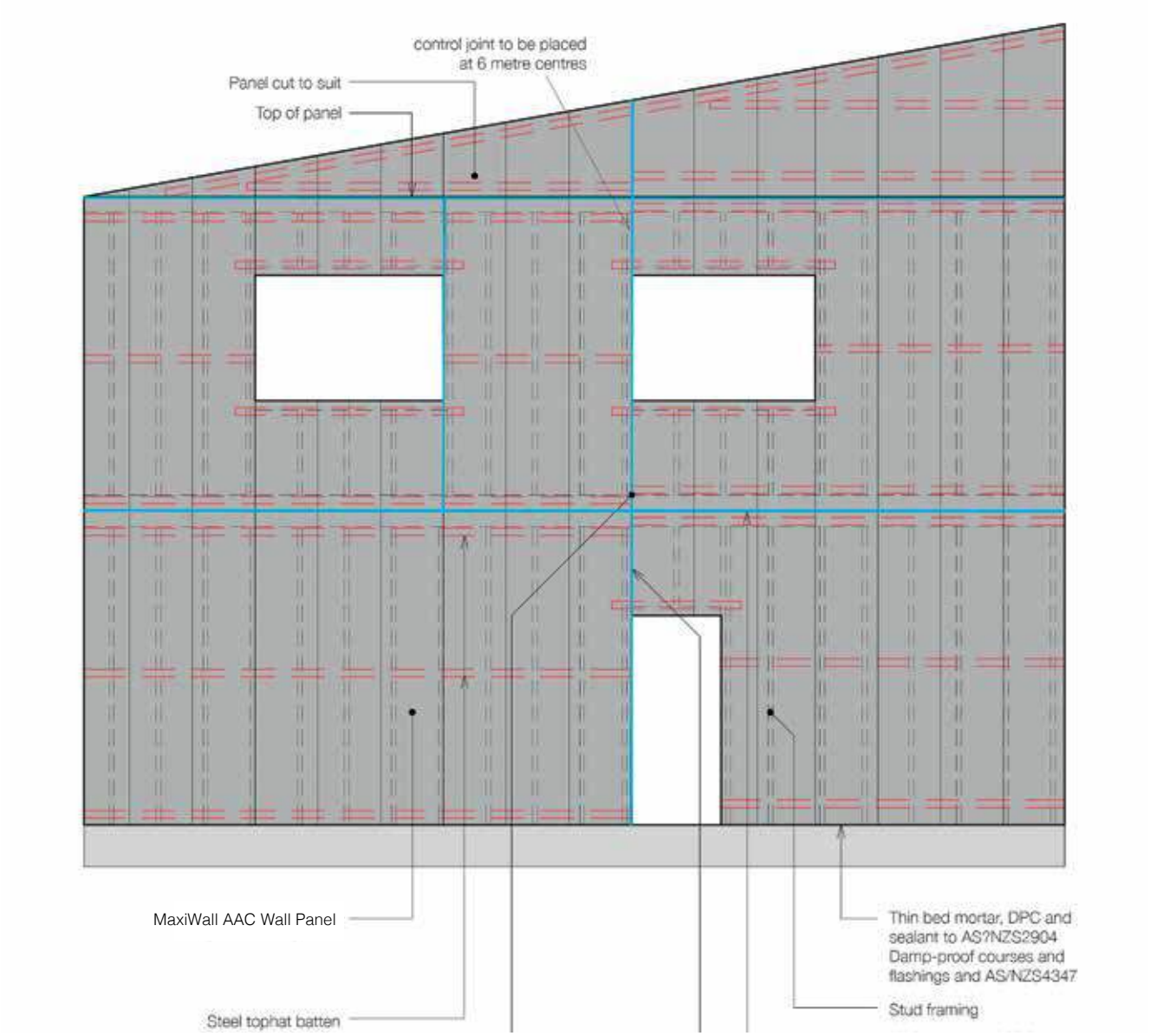


1b - Hidden slab edge

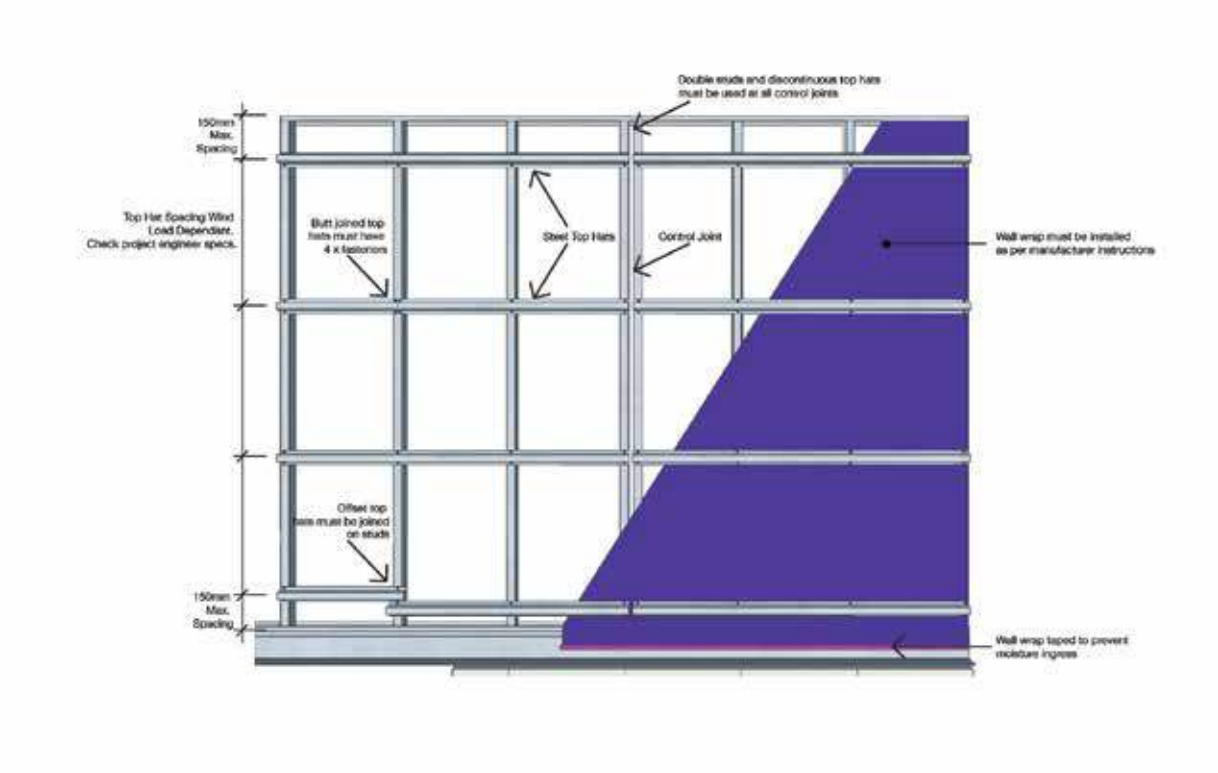


10.0 Detailed Drawing

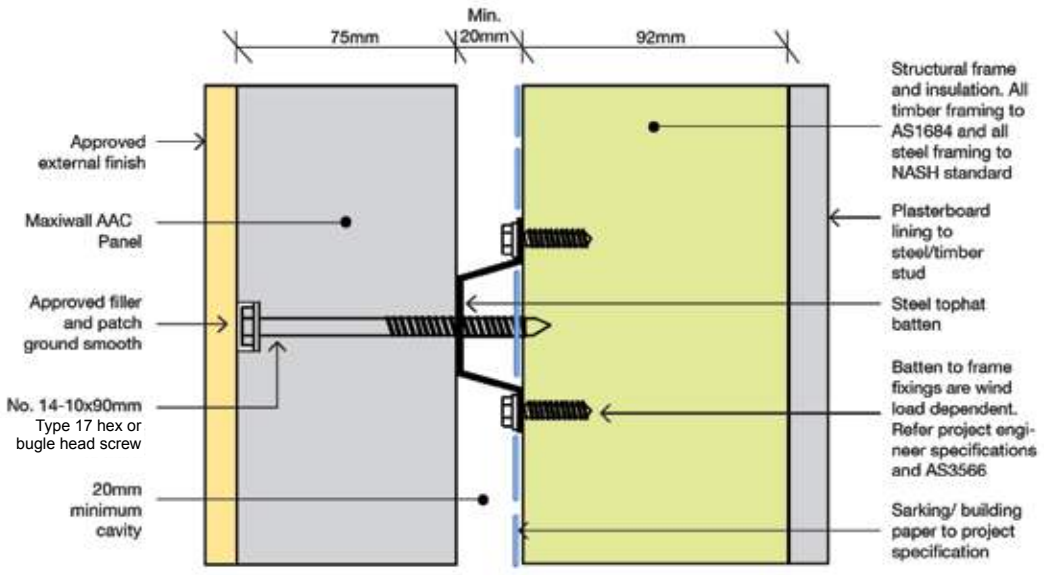
1a - Panel Layout



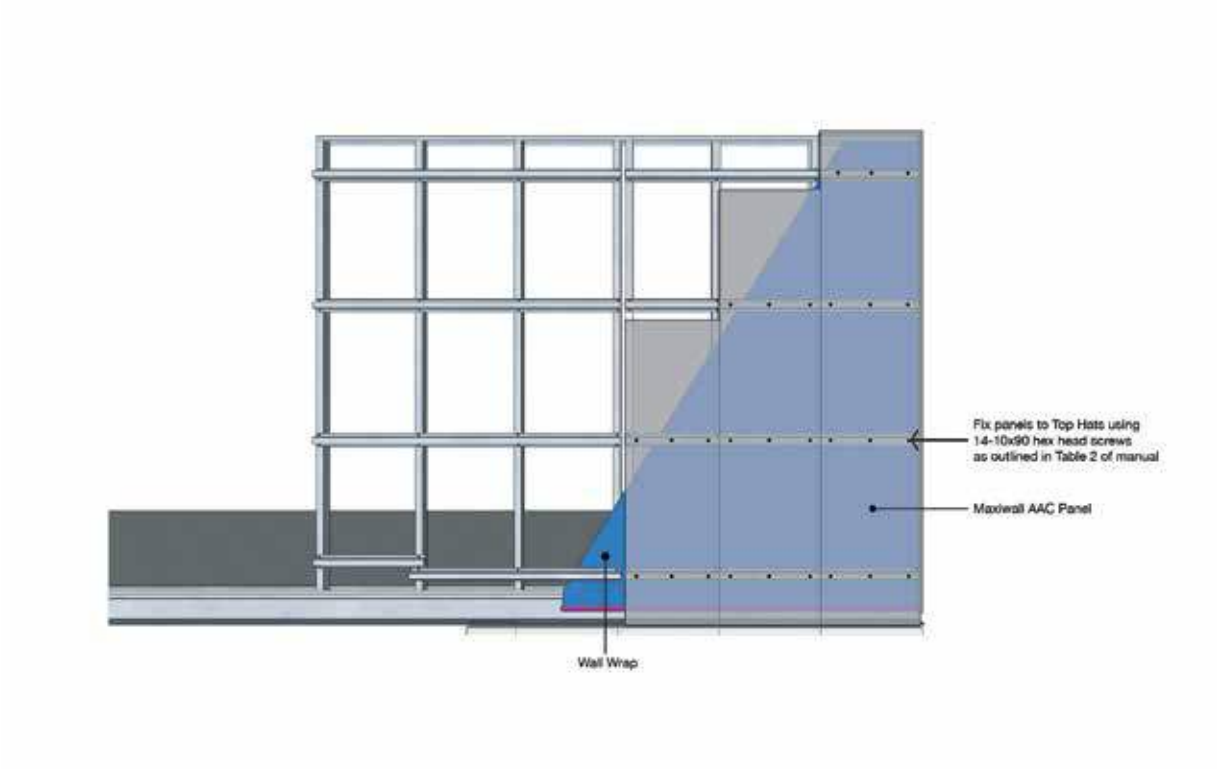
2a - Top Hat Fixing Layout



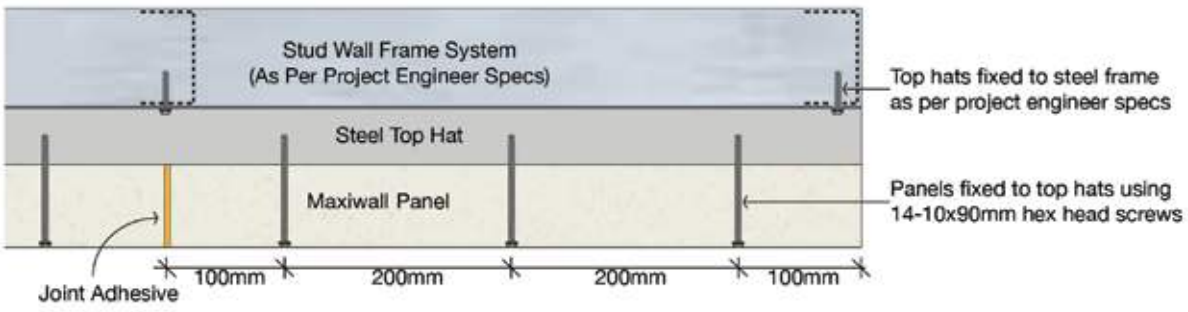
2b - Top Hat Fixing Layout



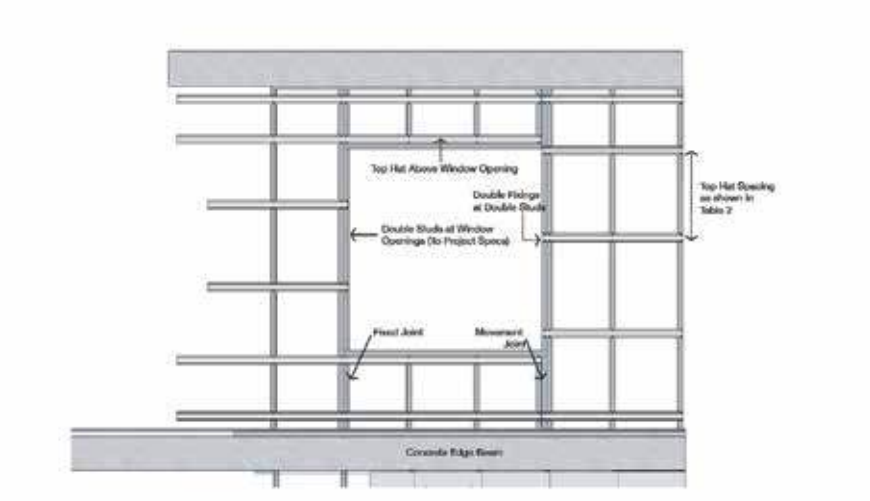
3a - Panel Fixing Detail



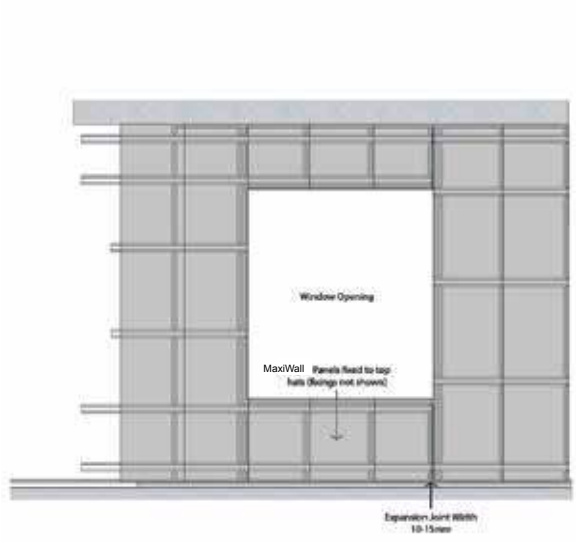
3b - Panel Fixing Detail



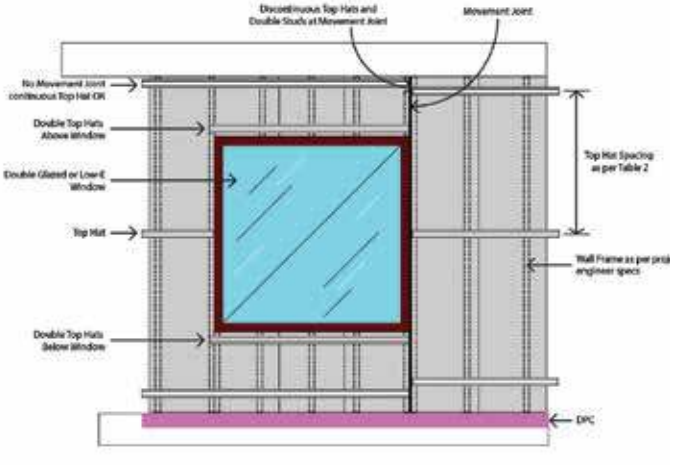
4a - Window Opening Detail



4b - Window Opening Detail - Panels

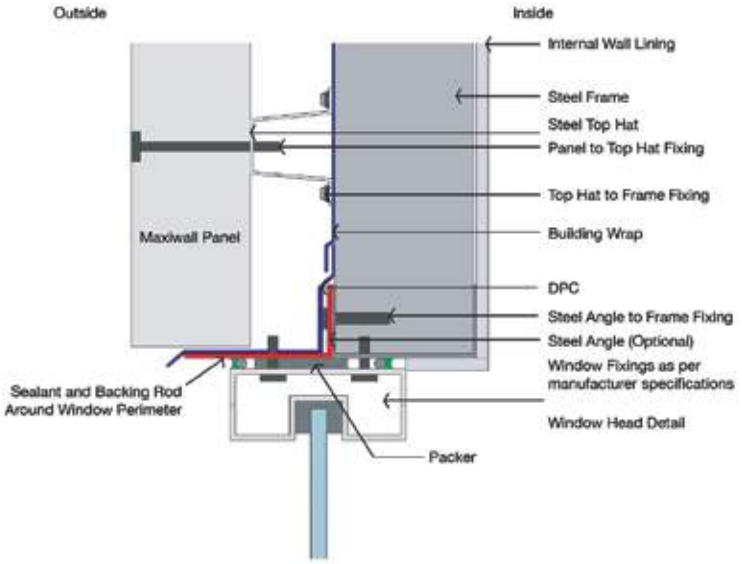


4c - Window Installation Detail

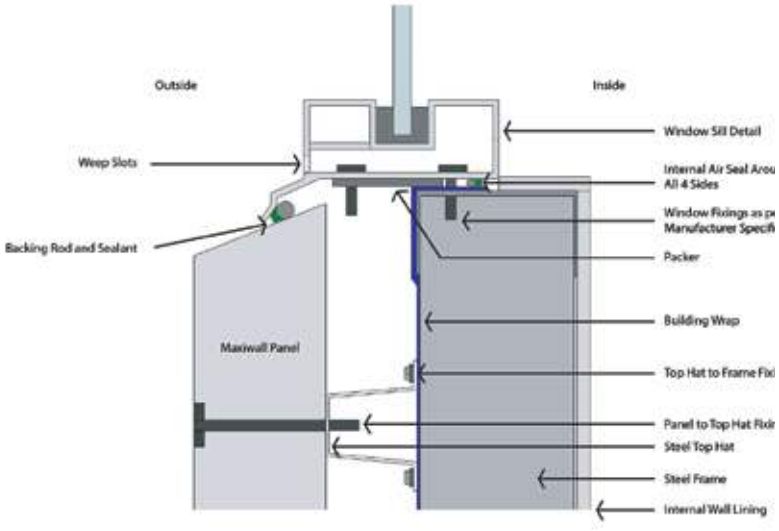


It is recommended that for all openings, an expansion joint be installed on one edge of the window. For openings greater than 2.4m wide, it is recommended that 2 expansion joints be installed; one at each edge of the window.

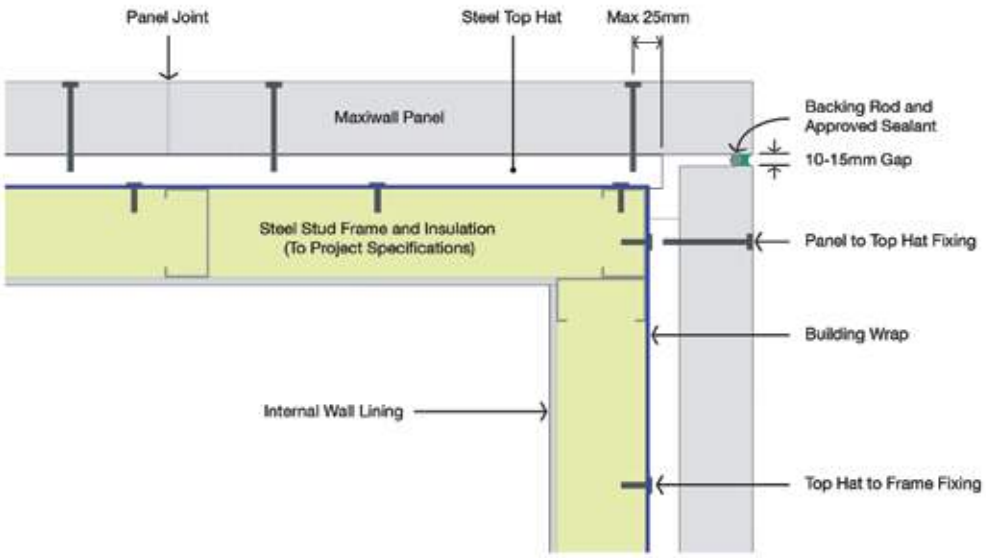
5a - Window Head Detail



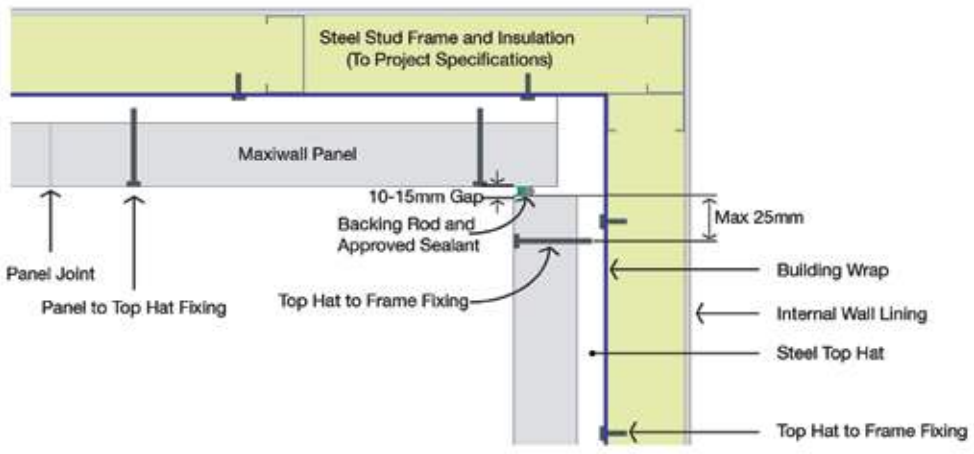
5b - Window Still Detail



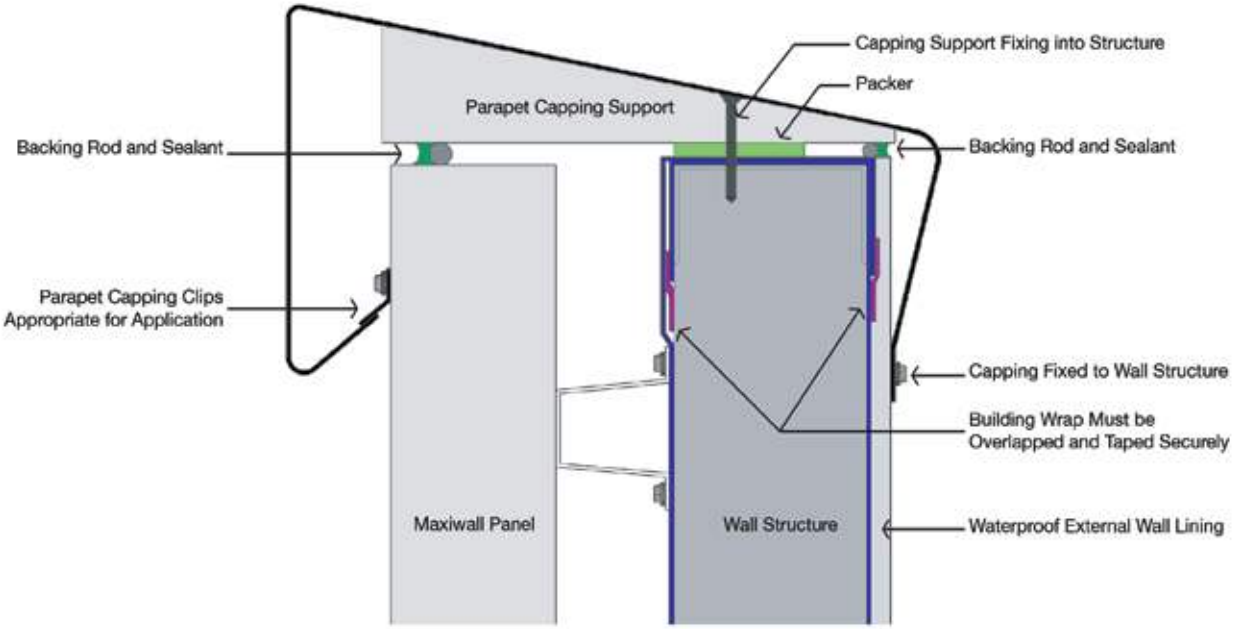
6a - External Corner Control Joint Detail



6b - Internal Corner Control Joint Detail



7a - Parapet Detail



11.0 Product Declaration

1. Durability & Maintenance

Autoclaved aerated concrete has high porosity and relatively low alkalinity compared to traditional concrete. As a cement-based material, AAC resists water, rot, mold and mildew and can be precisely shaped and conform to tight tolerances when used in building construction.

MaxiWall wall panels are embedded with a steel mesh that is coated with corrosion resistant paint applied in a two-dip coat process. If panels are cut apply anti-corrosion paint on the exposed steel. In typical applications, the completed external wall system is protected from moisture ingress by moisture proof sealed joints and an external surface coating. Where there is significant and prolonged exposure to moisture, a waterproof tanking membrane must be applied to the panel surface.

Acid, certain salts and acidic gases can attack AAC and therefore special treatment and attention is required for applications subject to these conditions.

2. Fire Resistance

The wall systems outlined in this manual are suitable for applications where a Fire Resistance Level (FRL) of not more than 60/60/60 minutes is required. If an FRL in excess to what is stated herein is required please consult a design and building construction professional, as there are certain performance requirements that must be complied as outlined in the NCC.

3. Energy Efficiency

The main advantage in using MaxiWall wall panels for external wall systems is in its excellent insulation properties with improved thermal efficiency that reduces the heating and cooling loads in buildings. For cooler climates the efficiencies can be obtained by ensuring an appropriate mass, efficient thermal insulation and control of air tightness of the construction. For warmer climates thermal insulation and air tightness is more important. Isolation strips between top hat and the panel can reduce thermal bridging. It is the responsibility of the design and building construction professionals to ensure that the insulation material selected and installed complies with AS/NZS4859.1.

Table 3 below shows the energy efficiency performance of the wall systems outlined in this manual.

Table 3. – Energy Efficiency Performance

MaxiWall System	System Description	Total R-Value (m2/K-W)	
		Winter	Summer
443w01	75mm MaxiWall panel – 70mm studs + semi reflective wrap + R1.5 insulation	R2.94	R2.72
443w03	75mm MaxiWall panel – 70mm studs + unreflective wrap + R2.0 insulation	R2.98	R2.78
443w04	75mm MaxiWall panel – 70mm studs + semi reflective wrap + R2.0 insulation	R3.47	R3.21

R-Value in Table 5 is calculated based on the mean dry thermal conductivity density λ10dry (50%) as per BS EN 12602:2008 Clause 4.2.13, Table 4.

4. Acoustic Performance

Where there is need for a specific requirement, such as local council regulations or for a particular purpose, the MaxiWall wall panels are expected to meet the acoustic properties listed in Table 4 - Sound Transmission Performance.

Acoustic performance of MaxiWall wall panel may be impacted if standard installation configurations shown in this manual are changed, such as increasing cavity widths or use of interior wail linings of a higher density and installation of thicker insulation products or plasterboard. A specialist acoustic consultant should be engaged if the project requires non-standard sound transmission performance.

Table 4. - Sound Insulation Performance

Wall System	Description	Rw	Rw + Ctr
MaxiWall External Wall System	10mm Plasterboard 92mm Steel Stud R2.5 Glasswool Batts 35mm Top Hat 75mm MaxiWall Panel	53	47

5. Quality Assurance

Quality is important to our business. We strive to provide our customers with products and systems that meet and exceed their expectations. MaxiWall wall panels are manufactured exclusively for Big River. The manufacturing operations and quality assurance of MaxiWall wall panels have been independently audited and certified to meet the requirements of the ISO 9001:2008 Quality Management Systems.

MaxiWall wall panels used in the external wall systems for low-rise multi-residential buildings and houses are specifically developed to combine performance attributes for structural capacity, fire resistance and acoustic insulation. Subject to the conditions and exclusions set out under the MaxiWall Warranty Statement, Big River warrants that the MaxiWall wall panels sourced from its manufacturing partners are free from defects in materials and manufacture.

6. Sustainability

Autoclaved aerated concrete offers sustainability in terms of material and performance. It uses approximately one-quarter of the concrete raw material and incorporates large quantity of air resulting in fewer raw materials used per square meter than many other building materials. It also has superior insulation properties compared to concrete and conventional masonry and is about one-fifth of the mass of concrete. The air-tightness in the system creates an energy efficient envelope and prevents unwanted air losses compared to conventional frame construction thus reducing energy use.

12.0 Coating and Weatherproofing

A range of options for exterior surface coatings is available for MaxiWall wall panels to achieve various styling features and finishes. These are as simple as colour schemes and wall textures to give attractive and different appearances.

Coatings are readily available in several colour possibilities for MaxiWall wall panels from our approved supply partners. They can be applied economically with brush, sprayer or roller depending on the styling feature and finish required. Patching compounds specifically designed to be compatible with the panels are available to repair damaged areas prior to coating application.

MaxiWall wall panels are natural white to grey-white in colour. Slight variations may occur due to storage, raw materials and climate. Pores of different size at the surface are an inherent characteristic of autoclaved aerated concrete. The compounds and coatings must bond with the autoclaved aerated concrete to prevent moisture penetration yet allow breathability for moisture vapour.

The use of sarking helps to control condensation and act as an air-barrier to reduce energy loss through the walls in the building. The design and building construction professionals must approve the sarking configuration and the material selected and installed must comply with AS/NZS4200 Part 1 - Materials and Part 2 - Installation.

13.0 Material Handling

Panel Unloading

MaxiWall wall panels are shipped in packs of 10, stacked on the longitudinal edge. The packs are strapped to strengthened timber pallets and are wrapped in resilient plastic sheeting. Crane slings and forklifts may be used in accordance with standard industry practice. The Project Engineer is cautioned regarding the initial delivery of the panel packs that should be unloaded as close as possible to the installation area. Secondary handling of the panels increases the risk of damage, and installation of damaged panels may void the warranty.

Storage & Protection

MaxiWall panel packs, when on construction site must be stored on a flat-grade level that is not prone to standing water, erosion or settling. It must be left on its edge to avoid sagging. The packs may be stacked up to 3 packs high on flat load-bearing stable platform so far as is reasonably practical and safe for workers and others. The packs should not be stacked if stored on un-level and natural ground.

MaxiWall wall panels should ideally be kept dry with attention paid to protecting panel ends, edges and surfaces. In adverse weather conditions the panels must be kept covered. Do not “shake-out” stored panels until they are ready to be installed. MaxiWall wall panels with a central single layer of reinforcement and length over 1800mm are at risk of cracking under their self-weight when carried or lifted from the horizontal or tilted from the vertical position. Adequate support must be provided when lifting. Panels must always be carried edge up. Lifting equipment must be used when necessary.

Most chipped corners and edges can be repaired with MaxiWall’s approved patching compounds, if reinforcing steel mesh is visible it must be protected using the approved touch-up paint. Panels that have surface or minor cracks are usable but if not sure contact an authorized Big River representative.

Health & Safety

Safety Data Sheets (SDS) are provided with all MaxiWall wall panels including major components associated with the system such as coatings, patching compound, thin-bed adhesive and reinforcement touch-up paint. AAC building products contain Crystalline Silica (Quartz) that as dust is produced during cutting, grinding or drilling. It is categorized as a health hazard when inhaled. Approved dust masks and protective safety glasses or goggles must be worn for dust generating operations.

All AAC products are to be handled and worked on-site with the appropriate protective clothing. Protective gloves must be used for all construction operations. It is the responsibility of the builder/site supervisor to ensure that installation contractors adhere to safe work practices and suitable clothing.

14.0 Material Property

Table 5. - MaxiWall Wall Panel Physical Properties & Tolerances

No.	Description	Characteristics	Specifications
1	Dimensional tolerance	Length Width Thickness	≦ ±3.0 mm ≦ ±1.5 mm ≦ ±2.0 mm
2	Physical	Dry density Working Density	≦ 510 kg ≦ 675 kg
3	Strength	Compressive strength Modulus of rupture	≧ 3.50 Mpa ≧ 0.75 Mpa
4	Acoustic	Weighted sound reduction	34 dB
5	Thermal	Thermal resistance value (R-value)	0.6
6	Steel mesh	Position from center of panel	±3.0 mm

Table 6. - Wall System Thickness Comparison

Wall System	Wall element width (mm)			Total width (mm)
	Stud	Cavity	Masonry leaf	
Brick veneer	70	40	110	220
MaxiWall wall panel	70	24 - 35	75	169 - 180
Brick veneer	90	40	110	240
MaxiWall wall panel	90	24 - 35	75	189 - 200

Table 7. - MaxiWall Wall Panel Weight Information

Length (mm)	Panel weight (kg)	10 panels on pallet weight (kg)
1200	36	397
1800	54	595
2200	66	728
2400	72	794
2550	77	845
2700	81	900
2850	86	943
3000	90	992
Thickness 75mm, Width 600mm		

15.0 Standard & Compliance

Table 5. - MaxiWall Wall Panel Physical Properties & Tolerances

No.	Standard Compliance	Description
1.	NCC Vol. One: BP1.1 (a). (b) i, ii, iii	For non-load bearing internal wall systems for high-rise residential and commercial buildings.
2.	NCC Vol. One: Specification C2.1	External attachments to fire resistance level of up to 60/60/60 including SA state variation C1.1 (a) (v).
3.	NCC Vol. One: FP1.4	Applicable to prevention of water penetration of external walls.
4.	NCC Vol. One: FP5.5	For non-load bearing walls, including NT state and territory variations.
5.	NCC Vol. One: Part J1.5	R-values vary with installation configurations and must satisfy achievement of minimum R-values for the stated climate zones. Refer to manufacturer's specification and Table J1.5a.
6.	NCC Vol. Two: P2.2.2	Applicable to prevention of water penetration of external walls.
7.	NCC Vol. Two P2.3.4	For external walls including TAS state variations for AAC panels. Due consideration should be given to fire resistance of other components used in construction.
14	AS 2904	Damp-proof course and flashings
15	AS 3600	Concrete structures
16	AS 1170 Part 1	Loading Code
17	AS 1170 Part 2	Wind Code
18	AS 3660.1	Protection of building against subterranean termite – Part 1 New building
20	AS 3623/ASNZ 4600	Steel Framing
21	NASH Standard	Steel framing – Part 1
22	AS/NZS 1170.0	Structural design actions – Part 0,1 & 2
23	AS 1530.4	Methods for fire tests on building materials, components and structures – Part 4
26	AS 1720.1	Timber Structures – Part 1: Design methods
27	AS 3566.1	Self – drilling screw for the building and construction industries – Part 1 & 2
29	BS EN 12602	Prefabricated reinforced components of autoclaved aerated concrete.

16.0 Responsibility & Warranty

Responsibility

The final specification and certification of the external wall system using MaxiWall 75mm AAC wall panels lie solely with qualified design and building construction professionals responsible for the project. These professionals would generally comprise of structural engineers, fire engineers and acoustic engineers. The design consideration, fixing specifications and installation details in this manual represent common types of construction and detailing practice used in Australia. A competent professional must approve any variations or alternatives to the technical information described in this manual.

Disclaimer

The information contained in this technical manual is only advisory and general in nature. It is not intended to substitute advice or consultation from registered building construction professionals to ensure designs, systems and installation for projects conform to the National Construction Code and Building Codes of Australia including any other laws imposed by the States or local councils. The user of this manual understand and agree that MaxiWall, its member companies, its officers, agents and employees shall not be liable in any manner under any theory of liability for the user's reliance on this manual. The user agrees to release, hold harmless and indemnify MaxiWall, its member companies, successors, assigns, officers, agents and employees from any and all claims of liability, costs, fees (including lawyer's fees), or damages arising in any way out of the use of this information.

PRODUCT WARRANTY

MaxiWall 75mm Autoclaved Aerated Concrete Panels

Provided by:	Big River Group Pty Ltd Trenayr Road, Junction Hill NSW 2460 **02 6644 0907**
Product type:	MaxiWall 75mm autoclaved aerated concrete panels.
Warranty statement:	Big River warrants that its MaxiWall 75mm autoclaved aerated concrete (AAC) building panels are free from defects in materials and manufacture subject to the conditions and exclusions set out in the Product Warranty.
Warranty cover:	This Warranty covers the above product type that has defects in materials or workmanship due solely to improper manufacture. Defects include but not limited to structural defects, dimensional discrepancies beyond acceptable tolerances and failure to meet product quality standards and specifications as set forth in our approved Technical Manuals.
Warranty conditions:	This Warranty shall only apply where the relevant building system constructed complies with Big River approved Technical Manuals for High- Rise Residential Internal Wall System and External Wall Panels for Low-Rise Residential Buildings. Ensure registered professionals, such as licensed builders, architects and engineers are consulted to determine that the design, system and installation are suitable for the project and conforms to the Building Code of Australia.
Warranty period:	Subject to the conditions and exclusions, set out under this Warranty, Big River warrants that its MaxiWall AAC 75mm panels are sourced from reputable manufacturers or suppliers and are covered by their respective guarantees or warranties and any warranties imposed by the Australian Consumer Law. The term of warranty is 7 years from the date of purchase.

PRODUCT WARRANTY

Warranty exclusion:	This Warranty shall not cover any defect arising from non-compliance of structural design in accordance to the Building Code of Australia, faulty installation, environmental conditions that are beyond Big River control, modifications, alterations, failure to comply with the conditions of cover, force majeure or any other cause or damage not resulting from defects in materials or workmanship due solely to improper manufacture.
Warranty settlement:	Subject to the legal rights of a consumer under law, if any of the MaxiWall AAC 75mm panels are so defective, Big River will, subject to verification and inspection of such defects by a MaxiWall representative and at its sole option: either replace the products or supply equivalent products, repair the defective products or reimburse for the replacement and repair of the products. Big River will not be liable for any punitive, indirect, special, incidental or consequential damages other than what is stated in the Product Warranty.
Associated materials warranty:	This Warranty does not cover any materials, components or system associated with or supplied by third parties. Please refer to your supplier's warranty terms and conditions.
Warranty Claims:	Homeowners should contact their Builders. Builders wishing to make a claim under this Warranty should contact an authorised Big River distributor or representative. Otherwise please contact Big River directly on 1300 881 958. Claims for warranty must be presented in writing to Big River and will require proof of purchase itemizing the panel sizes, and batch numbers, name of project and nature of defects along with the proof when the panels were installed.

Except as provided herein, Big River makes no express or implied warranties. This Warranty is exclusive of all other warranties and shall not be extended, altered or varied except by a written instrument signed by an authorised representative of Big River.

Contact Us

For all sales and technical enquiries please contact the experts at Big River:

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For your nearest Big River branch or to download information:

Visit: www.bigrivergroup.com.au

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Big River Group Pty Ltd
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