



Logicwall® Trade Coordination, Concreting, Electrical/Plumbing, Internal and External Finishing, Windows and Doors, Connections of Structural Steel.

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J1. Trade Coordination

Disclaimer: This section of the AFS Logicwall® Design Guide is intended only by AFS to represent good building practice in achieving suitable internal design of AFS Logicwall®. This section is not intended in any way by AFS to represent all relevant information required on a project. It is the responsibility of those using AFS Logicwall®, including but not limited to builders, designers, consultants and engineers, to ensure that AFS Logicwall® is suitable for use on a project in relation to internal design. All diagram, plans and illustrations used in this section including any reinforcement shown are included for indicative and diagrammatic purposes only. It remains the responsibility of those using AFS Logicwall® to ensure that reference is made to the structural engineer's details for all diagrammatic and reinforcement requirements.

Formwork/Flooring System

The interface between AFS Logicwall® and the floor deck above, whether it be conventional formwork or pre stressed beams and plank systems, requires

consideration at contract stage. The following table illustrates some of the common coordination activities, but does not represent all site specific situations.

TABLE J1: Common Coordination Activities Formwork/Flooring

Coordination Activity	Diagram	Responsibility
<p>FIG J1: Slab Zone Preparation</p> <p>Where the removal of the AFS Logicwall® steel stud frame may be necessary for the placement of floor beams, hollow core planks or reinforcement, the AFS Logicwall® outer sheets (Edgeform) needs to be supported by conventional formwork to prevent deflection at slab edge.</p>	<p>AFS LOGICWALL Edge Form to be supported by conventional formwork</p> <p>Remove steel stud and angle as required for floor system beam or planks</p>	As contracted by builder.
<p>FIG J2: Support of AFS Logicwall® Edgeform</p> <p>Conventional formwork is to be used to support the slab edge where the AFS Logicwall® edgeform depth is greater than 200mm to prevent deflection at slab edge.</p>	<p>D > 200</p> <p>Timber</p> <p>Formwork</p> <p>Concrete slab</p> <p>Concrete Beam</p>	As contracted by builder.
<p>FIG J3: Top of Wall Tolerances</p> <p>AFS Logicwall® panels will follow the level of the floor slab substrate, which results in a 10-20mm tolerance in top of wall heights. Trimming at top of walls will be a contract variation. Tolerances vary depending on slab type including, Flat Plate Conventional PT, Bondek, Ultrafloor, Pre Cast Floor Panels.</p>	<p>Tolerance 20mm</p>	As contracted by builder.
<p>FIG J4: Slab Edge Water Proofing Options</p> <p>There are 3 slab details documented by AFS in this manual. This detail illustrates a rebated slab edge and 20mm expressed joint mould. Refer to chapter I for options.</p>		As specified by builder and architect.

Concreting

The Core filling of AFS Logicwall® and the interface between AFS Logicwall® and concrete slabs needs consideration at contract stage. TABLE J2 illustrates

some of the common coordination activities, but does not represent all specific situations

TABLE J2: Common Coordination Activities Concreting

Coordination Activity	Diagram	Responsibility
<p>FIG J5: Concrete placement around starter bars</p> <p>needs to be finished neatly to allow fixing of the AFS Logicwall® track with sealant and power pins to slab.</p>		Concrete placement company as contracted by builder.
<p>FIG J6: Leakage Points</p> <p>To prevent concrete slurry leakage, the top of AFS Logicwall® / formwork junction is sealed with sealant foam to prevent potential slurry leaks</p>		Formwork Contractor as contracted by builder
<p>FIG J7: Corefilling</p> <p>The corefilling procedure of AFS Logicwall® is detailed in chapter K and must be adhered to. Refer to Appendix for concrete design guide for AFS Logicwall®.</p>		AFS Logicwall® installation contractor
<p>FIG J8: Footings</p> <p>When walls are to be erected on footings the following points must be considered:</p> <ul style="list-style-type: none"> • Footings must be stepped with level planes. Not raked. • Footings must be flush finished to allow for fixing of AFS Logicwall floor track • Starter bars to be cast in or drilled and chem-anchored. 		As contracted by the builder

Electrical/Plumbing/Mechanical

The interface between AFS Logicwall® and services illustrates some of the common coordination activities, but does not represent all specific situations

TABLE J3: Common Coordination Activities Services


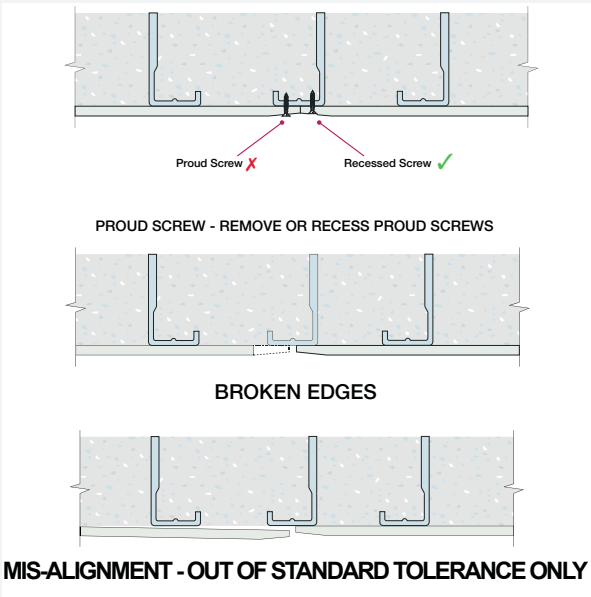

Coordination Activity	Diagram	Responsibility
<p>FIG J9: Services within Walls</p> <p>Placement of electrical and plumbing services within the AFS Logicwall® panel must take place between installation and concrete corefill.</p>		<p>Electrical contractor/ Plumbing contractor as contracted by builder.</p>
<p>FIG J10: Service Penetrations</p> <p>Penetrations for services and mechanical requirements are cut out on site where the penetration is less than 400mm x 400mm.</p> <p>Penetrations larger than 400x400 which are detailed in project drawings can be scheduled in the AFS Logicwall® shop drawings.</p>		<p>As contracted by builder.</p>
<p>FIG J11: Plumbing Services</p> <p>Plumbing for services are typically run in wall cavities or service shafts. AFS Logicwall® can be used as substrate for fixing pipes and PVC sections.</p> <p>In situations such as party walls between apartments, plumbing services shall be mounted within the stud frame of a discontinuous stud wall to meet BCA acoustic requirements.</p>		<p>Electrical contractor/ Plumbing contractor as contracted by builder.</p>

Internal Settings and Finishes

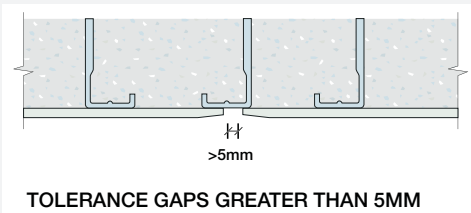
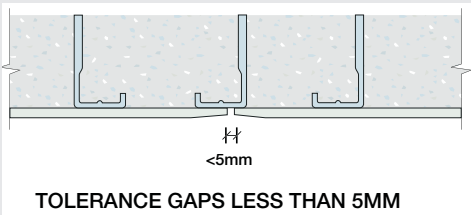
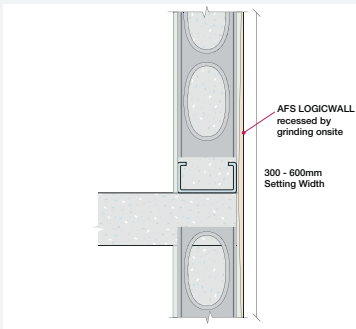

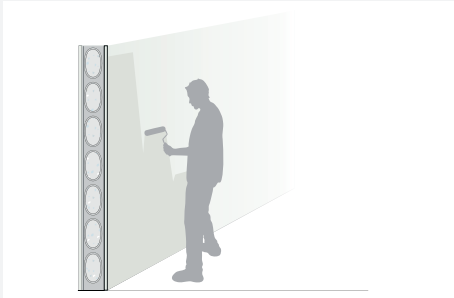
The interface between AFS Logicwall® as a finished wall face or over clad wall and the finishing trades must be given consideration at contract stage. TABLE J4 illustrates some of the common coordination activities

but does not represent all site specific situations. This Section (Internal Settings and Finishes) shall be read in conjunction with Chapter E - Internal Design Considerations

TABLE J4: Common Coordination Activities Finishings

Coordination Activity	Diagram	Responsibility
<p>FIG J12: Internal Setting</p> <p>Internal joint setting procedure, namely CSR wet area base coat, and topping system, must be adhered to. (Refer to the CSR Internal Joint Setting Specification in Chapter E - Internal Design Considerations).</p> <p>* Refer to appendix Joint Setting Specifications</p>		<p>Internal joint setting / plastering company as contracted by builder.</p>
<p>FIG J13: Wall Preparation</p> <p>Wall preparation work includes:</p> <ul style="list-style-type: none"> • Removing screws or punching screws flush. • Patching broken FC edges • Grinding flush protruding FC board or concrete where misalignment is greater than 2mm. 		<p>AFS Logicwall® installation company.</p>
<p>FIG J14: Critical Light</p> <p>Where AFS Logicwall® walls are adjacent to external windows, vertical flush set joints will be visible and further treatment to the wall is required.</p> <p>(I.e. - skim coat, direct stick plasterboard or batten and sheet plasterboard).</p>		<p>As contracted by builder.</p>

Internal Settings and Finishes (continued)

Coordination Activity	Diagram	Responsibility
FIG J15: Tolerance Gaps <ul style="list-style-type: none"> Tolerance gaps between vertical panel joints greater than 5mm wide are to be filled with a suitable joint filler. Tolerance gaps between vertical panel joints less than 5mm wide are to be filled with the base coat of the setting system. 	 <p>TOLERANCE GAPS GREATER THAN 5MM</p>	Internal joint setting / plastering company as contracted by builder.
	 <p>TOLERANCE GAPS LESS THAN 5MM</p>	
FIG J16: Horizontal Butt Joints Rebates are to be ground onsite with the joint to be treated as per the CSR joint setting procedure. This rebate will not reflect standard rebated joints and will require additional preparation by the internal setting contractor.		Internal joint setting / plastering company. As contracted by builder.
FIG J17: Scratches and Dents As AFS Logicwall® is a permanent formwork system which comes through the construction phase, any scratches and dents in the fibre cement panel surface are to be patched by the internal setting contractor prior to and/or following the first prep coat. Note: This especially applies to reinforcing bar penetrations on corner panels.		Internal joint setting / plastering company. As contracted by builder.
FIG J18: Internal Painting (Refer to Chapter E - Internal Design Considerations). Patching of scratches and dents to the fibre cement surface is to be completed between initial preparation coat and the final top coats.		Internal painting contractor as contracted by builder.

External Settings and Finishes

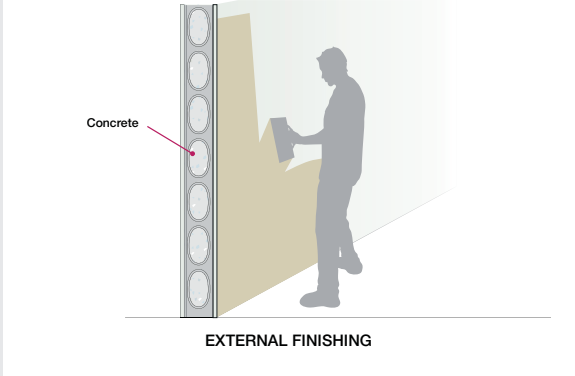
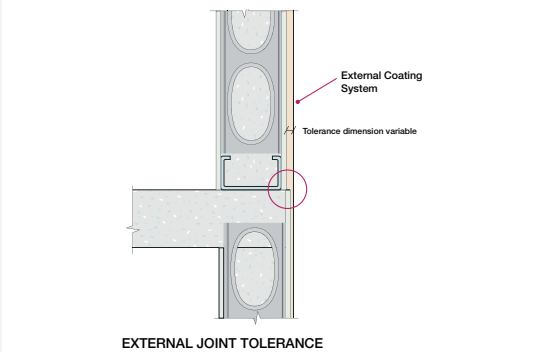
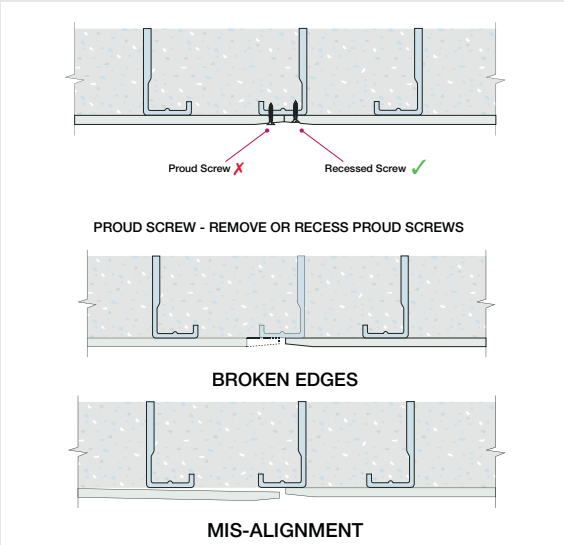
The interface between AFS Logicwall® and the external applied finish must be given consideration at contract stage. High quality external finishes can be achieved provided the correct finishing procedures are followed and coordinated with the associated trades.

activities to be agreed to by the contractor but does not represent all site specific situations

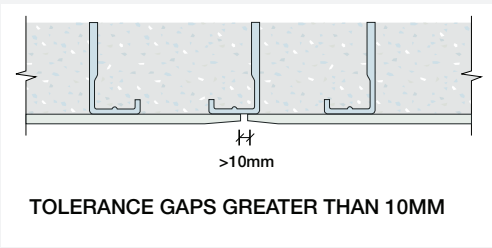
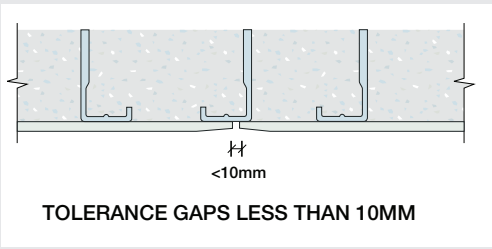
This section (external Settings and Finishes) must be read in conjunction with Chapter F - External Design Considerations

TABLE J5 illustrates some of the common coordination

TABLE J5: Common Coordination Activities External

Coordination Activity	Diagram	Responsibility
<p>FIG J19: External Coating Systems</p> <p>AFS Logicwall® external walls require the application of high quality coating system.</p> <p>Refer to Chapter F - External Design Considerations for details</p>		<p>External coating system applicator as contracted by builder</p>
<p>FIG J20: Misalignment Tolerances</p> <p>When selecting an external coating system wall misalignment tolerances must be considered. These vary according to site conditions. Such misalignment tolerances can occur at the horizontal joint / slab joint junction due to set out. External coating applicator must allow for areas of extra build up to achieve an acceptable level of finish.</p>		<p>External coating system applicator as contracted by builder.</p>
<p>FIG J21: Wall Preparation</p> <p>Wall prep work includes:</p> <ul style="list-style-type: none"> • Removing patches • Removing screws or punching screws flush. • Patching broken FC edges • Grinding flush protruding FC board or concrete. 		<p>AFS Logicwall® installation company.</p>

External Settings and Finishes (continued)

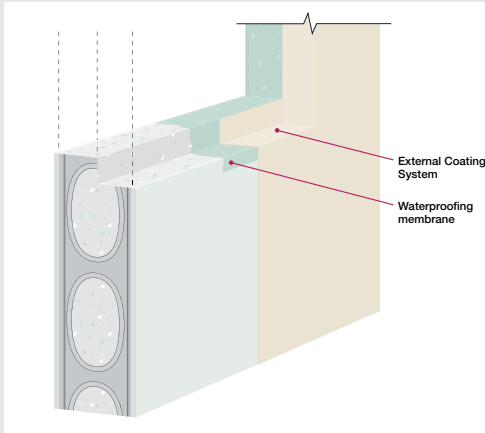
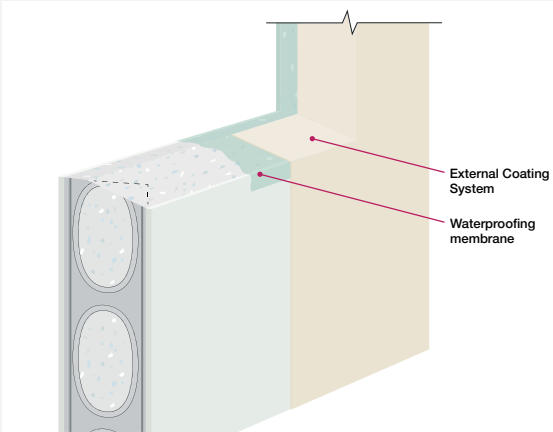
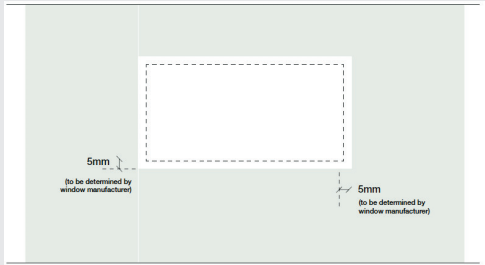
Coordination Activity	Diagram	Responsibility
<p>FIG J22: Tolerance Gaps > 10mm</p> <p>Tolerance gaps between vertical panel joints greater than 10mm wide are to be filled with a suitable joint filler.</p>	 <p>TOLERANCE GAPS GREATER THAN 10MM</p>	External coating applicator.
<p>FIG J23: Tolerance Gaps < 10mm</p> <p>Tolerance gaps between vertical panel joints less than 10mm wide are to be filled with the base coat of the external setting system.</p>	 <p>TOLERANCE GAPS LESS THAN 10MM</p>	External coating system applicator as contracted by builder.
<p>FIG J24: External Facade Water Proofing</p> <p>Refer to Chapter F - External Design Considerations.</p> <ol style="list-style-type: none"> 1. Adoption of horizontal slab junction details as detailed by AFS. 2. Appropriate location of flashings, especially to cap exposed parapet walls. 3. Correct application of a quality external coating system, to manufacturer's/supplier's specifications. 		External coating system applicator as contracted by builder.

Windows and Doors

The interface between AFS Logicwall® and window and door units must be considered at contract stage.

Figure J7.1 illustrates some of the common coordination activities to be considered but does not represent all site specific situations.

TABLE J6: Common Coordination Activities Windows and Doors

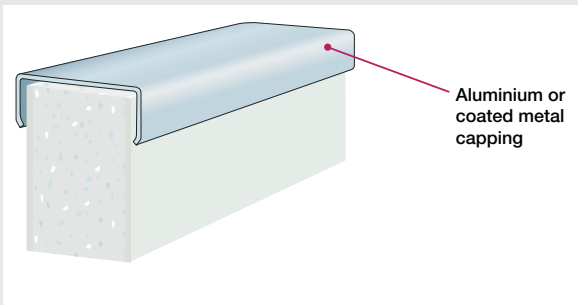
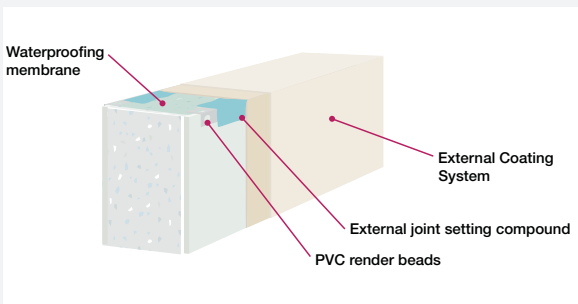
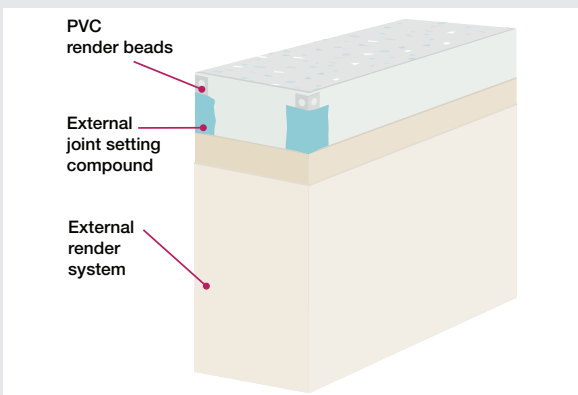
Coordination Activity	Diagram	Responsibility
<p>FIG J25: Window Openings - Rebates</p> <ul style="list-style-type: none"> Vertical and horizontal window surrounds are to be water proofed with a compatible paintable waterproofing membrane prior to application of external coating system. Rebated window openings are to be formed on site by AFS Logicwall® installation company. Window sill rebates are to be water proofed with a paintable water proofing membrane prior to application of external coating system. 		<p>As contracted by builder ie. Waterproofing contractor.</p>
<p>FIG J26: Window Openings - Chamfer</p> <p>Chamfered window sills are to be formed on site by AFS Logicwall® installation company.</p> <ul style="list-style-type: none"> Vertical and horizontal window surrounds are to be water proofed with a compatible paintable waterproofing membrane prior to application of external coating system. Window sill chamfers are to be water proofed with a paintable water proofing membrane prior to application of external coating system. 		<p>As contracted by builder ie. Waterproofing contractor.</p>
<p>FIG J27: Tolerances</p> <p>Window openings in the AFS Logicwall® panels are to suit the window manufacturer's minimum specifications.</p> <p>Minimum Tolerances:</p> <ul style="list-style-type: none"> 10mm on overall width 10mm on overall height <p>For actual tolerances, refer to window/architectural specifications</p>		<p>As contracted by builder ie. Waterproofing contractor.</p>

Parapet Cappings, Balcony Balustrades and Blade Walls

The capping of AFS Logicwall® extremities on parapets, balcony balustrades and blade walls must be considered at contract stage. TABLE J7 illustrates

some of the common coordination activities to be considered but does not represent all site specific situations.

TABLE J7: Common Coordination Activities Capping

Coordination Activity	Diagram	Responsibility
FIG J28: Top of Parapet Walls Top of walls exposed in parapet applications are to be capped with an aluminium or coated metal capping by the appropriate trade		By builder
FIG J29: Balcony Balustrades Top of walls exposed in balcony balustrade applications are to be waterproofed by the appropriate trade.		External coating applicator as contracted by builder.
FIG J30: Blade Walls Blade walls are to be finished using PVC render beads or mesh tape and acrylic render to supplier's specifications. Final alignment of continuous blade walls must be performed by the external coating applicator.		External coating applicator as contracted by builder.

Connections of Structural Steel and Other Building Elements

The interface between AFS Logicwall® and other building elements, such as structural steel etc, requires consideration at contract stage. TABLE J8 illustrates

some of the common coordination to be considered but does not represent all site specific situations.

TABLE J8: Common Coordination Activities Connections

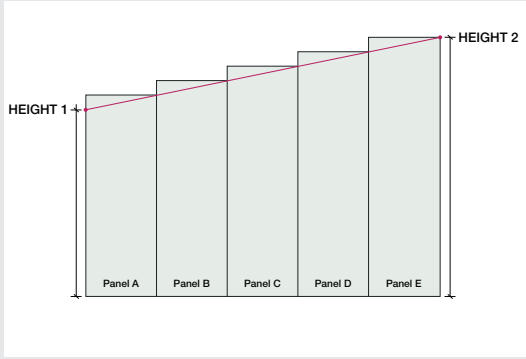
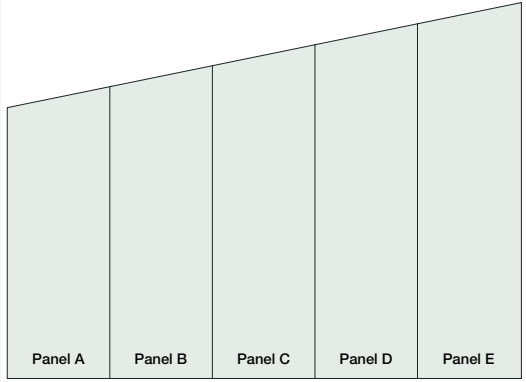
Coordination Activity	Diagram	Responsibility
<p>FIG J31: Shop Drawings</p> <p>AFS Logicwall® shop drawings are coordinated with structural steel detail drawings so that wall cut-outs can be detailed for structural steel connections.</p> <p>Alternatively, connections can be marked out on site after installation of AFS Logicwall® panels.</p>		Builder and AFS Shop Detailer
<p>FIG J32: Cut Outs</p> <p>Where AFS Logicwall® panels are required to be cut out to allow for structural steel connections, the panel is to be cut on site and blocked out prior to corefill.</p>		External coating applicator as contracted by builder.

Raked Walls

Raking of AFS Logicwall® and the interface between raked AFS Logicwall® and other building elements, such as structural steel, roofing etc. requires consideration at contract stage. TABLE J9 illustrates the steps involved in raking

AFS Logicwall® and outlines some of the coordination activities to be considered, but does not represent all site specific situations.

TABLE J9: Common Coordination Activities Raked walls

Coordination Activity	Diagram	Responsibility
<p>FIG J33: Installation of Raked Walls</p> <ol style="list-style-type: none"> 1. Panels supplied & installed as stepped height panels. 2. Wall heights as per drawings are marked on the wall. 3. Line of rake is marked on face of panel by appropriate method. (e.g. Chalk line.) 		<ul style="list-style-type: none"> • AFS LOGICWAL® installation contractor • Alternatively panels can be cut on the rake prior to installation provided all measurements are detailed on the shop drawings. • Rakes to be checked on-site prior to cutting, with builder and other interfacing trades (i.e. roofing and structural steel).
<p>FIG J34: Cutting of Raked Walls</p> <ul style="list-style-type: none"> • Panels are cut at marked line using appropriate equipment prior to being filled with concrete. (eg. grinder or circular saw). Typically required to be cut from both wall faces. 		<ul style="list-style-type: none"> • AFS Logicwall® Installation contractor • Rakes to be checked on-site prior to cutting, with builder and other interfacing trades (i.e. roofing and structural steel.)

Door Frames

The interface between AFS Logicwall® and metal door frames requires consideration at contract stage. TABLE J10 illustrates some of the common coordination


activities to be considered, but does not represent all site specific situations.

TABLE J10: Common Coordination Activities Door Frames

Coordination Activity	Diagram	Responsibility
<p>FIG J35: Fire Door Frames</p> <p>Fire door frames can be manufactured with a profile to be integrated with AFS Logicwall® and be installed during the AFS Logicwall® installation. For further details refer to</p> <p>Chapter I - Architectural Detailing and Chapter K - Installation.</p> <p>Contact AFS for door frame profile drawings.</p> <p>Note: Fire door frame to be braced on site to prevent movement / twisting during concrete core filling.</p>		As contracted by builder

Appendix – Concrete Mix Specification Sheet.

FIG J36: Concrete Mix Specification Sheet.




concrete mix design guide

	standard afs pump mixes			
Location	Refer Structural Documentation			
Strength F'c (MPa)	S25	S32	S40	S50
Target Installation Slump	140±10	140±10	140±10	140±10
Design Slump (mm)	120±30	120±30	120±30	120±30
Maximum W/C Ratio	0.7	0.6	0.45	0.4
Nominal Fine to Total Aggregate Percentage (%)	65	60	55	50
Maximum Aggregate Size (mm)	10	10	10	10
Maximum 56 Day Drying Shrinkage (um)	1000	1000	1000	1000
Hanson Recommended Admixtures	WRPAPN20 (WR) ex Grace, ADVA-142 (HWR) ex Grace, or equivalent			

NOTE:

- Refer AFS Installation Manual for details and procedures for installing AFS Structural Walls.
- For high onsite temperature environments, slump at batching plant may be varied to suit conditions.
- Site water allowed to reach desired Installation Slump (at hose onsite) however, the maximum W/C ratio must not be exceeded.
- All requested property data that are not in the above table has not been determined or will vary significantly due to local raw material availability and characteristics.
- The addition of all admixtures are typically dosed at the beginning of the batch.
- Concrete mix should have a typical 'Gel' time of 30-60min in accordance with the Gel Test detailed in the Installation Manual.



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