

## **Design Guide**



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### **An Introduction to Aluminate**

Aluminate Solutions Limited (ASL) exists to provide locally made, more responsible alternatives in interior aluminium joinery products.

We created ASL for architects and interior fit-out companies because quality solutions and expert knowledge are becoming a necessity in a price-driven market. We are passionate about creating a world where environmentally friendly products with great quality can be supplied at a great price, meaning buildings and the environment are better tomorrow than they are today. Utilising recycled aluminium sourced from New Zealand, we supply a product

high in recycled content and with a low carbon footprint. Use ASL aluminium knowing it is the best choice for you, your customer, and the environment.

By choosing ASL, you will be using the most environmentally friendly interior aluminium joinery in New Zealand. Included in this design guide is a variety of standard details widely used across all construction sectors.

Specific details are available on request, contact your account manager for more information.

#### **Additional Services**

#### **CAD Drafting**

An important part of your project may be the production of "Shop" drawings.

ASL have an in-house CAD Draftsperson who can interpret the Architect's drawings and provide 2 dimensional "Shop" drawings with the measurements provided by your on-site personnel.

We can then provide fabrication drawings detailing how the joinery is cut, machined and assembled.

#### **Quantity Surveying**

ASL can assist you with your take-offs and calculating the quantity, size and price of the extrusions required for the project. This is an excellent way to check your own work minimizing the risk and cost of errors.

#### Site Inspection and Sign-off

ASL can assist you with site inspections to ensure your

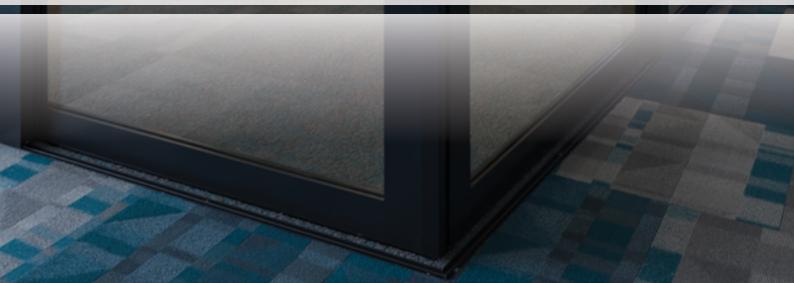
installation staff are installing the joinery correctly. Once installation is complete we can sign off that the installation has been completed as per the design requirements and to an acceptable standard.

#### **Glass Specification**

ASL have a certified NZ Glass Standard Advisor on board to guide you to specify/use the right type of glass on a given Project (NZS4223:Part3:2016 - Human Impact & Safety - Certificate # 144) (See pages 86-89).

#### **Bracing Plans**

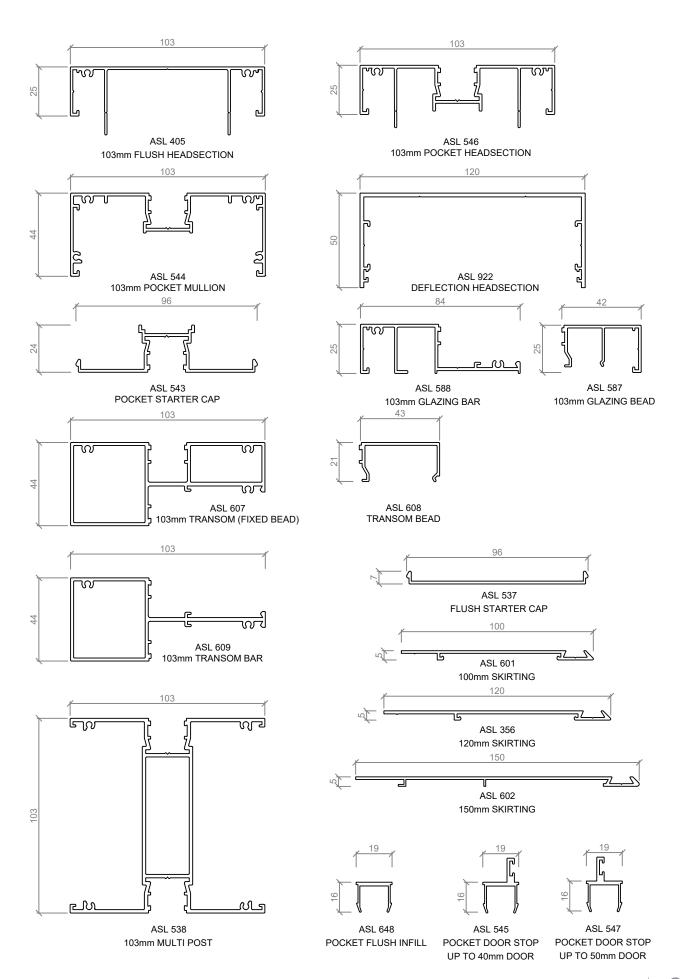
ASL can provide marked bracing plans for consent purposes, or for use as a guidance for construction professionals. These can also be retained for building inspections to ensure efficiency, compliance and consistency.



## **64** Series Our 64 series accommodates a 64mm stud with a single layer of plasterboard on each side, making it the ideal system for dividing up your office space. With the wide range of profiles, you can achieve exactly the look you want, be it a negative detail, varying door thicknesses or offset glazing when in conjunction with our Acoustic & Edge ranges. Our 64 series is widely used in both commercial office fitouts, and the education sector. Suited to 64mm stud Designed for ceiling heights up to 3.2m (but not limited to) 103mm wide and profile heights of 25mm to 44mm Easily accommodates 12.38mm Laminated glass Built in screw ports and staking bracket locators Negative detail options available Seismic head track option available Range of options for mullions, transoms & door frames **Volume 1.3 June 2022**

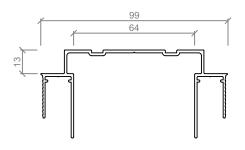


#### Standard Suite Profiles - Suitable for: 64mm Steel Stud, 13mm Plasterboard incl. Glazing Profiles

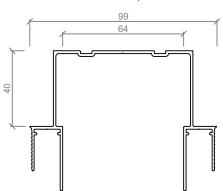




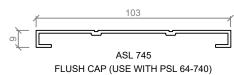
#### Negative Detail Profiles - Suitable for: 64mm Steel Stud, 13mm Plasterboard

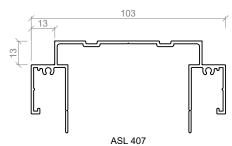


ASL 740 GROOVED HEADSECTION (13mm NEG. DETAIL)

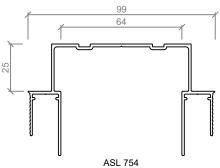


ASL 742 GROOVED HEADSECTION (40mm NEG. DETAIL)

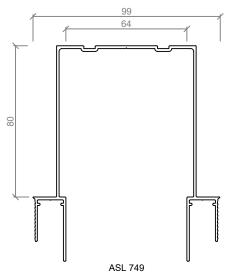




103mm SHADOWLINE HEADSECTION



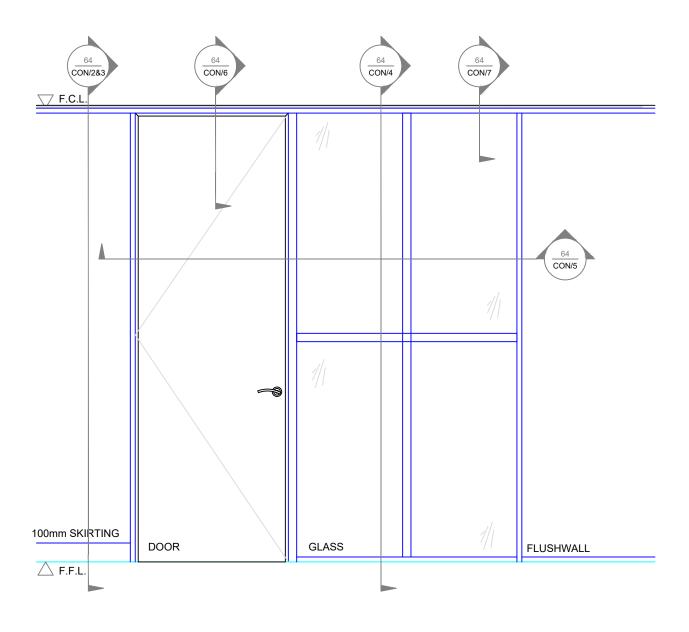
GROOVED HEADSECTION (25mm NEG. DETAIL)



GROOVED HEADSECTION (80mm NEG. DETAIL)

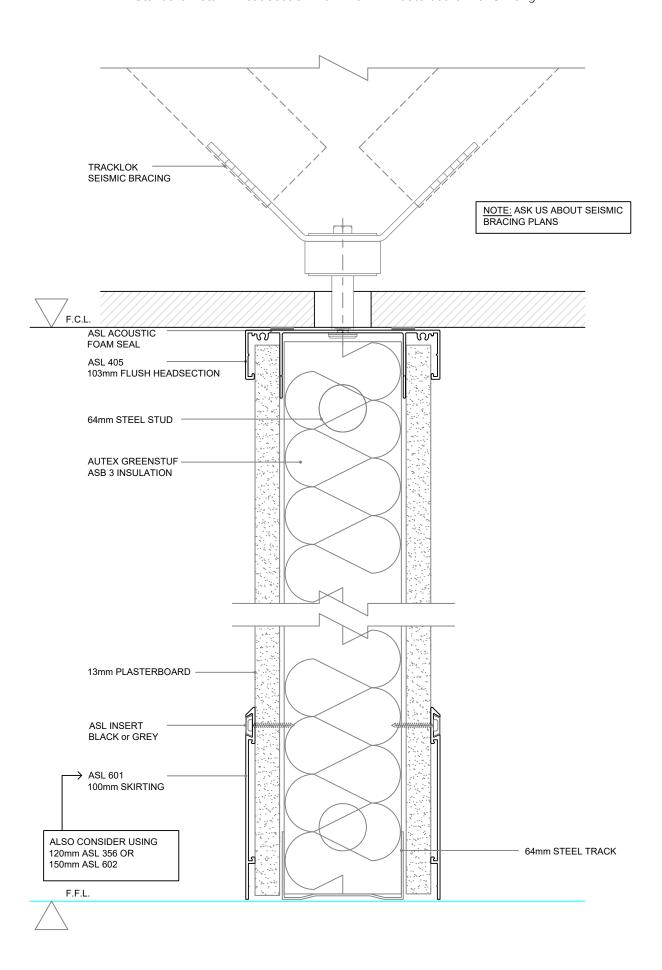


#### **Standard Elevation**



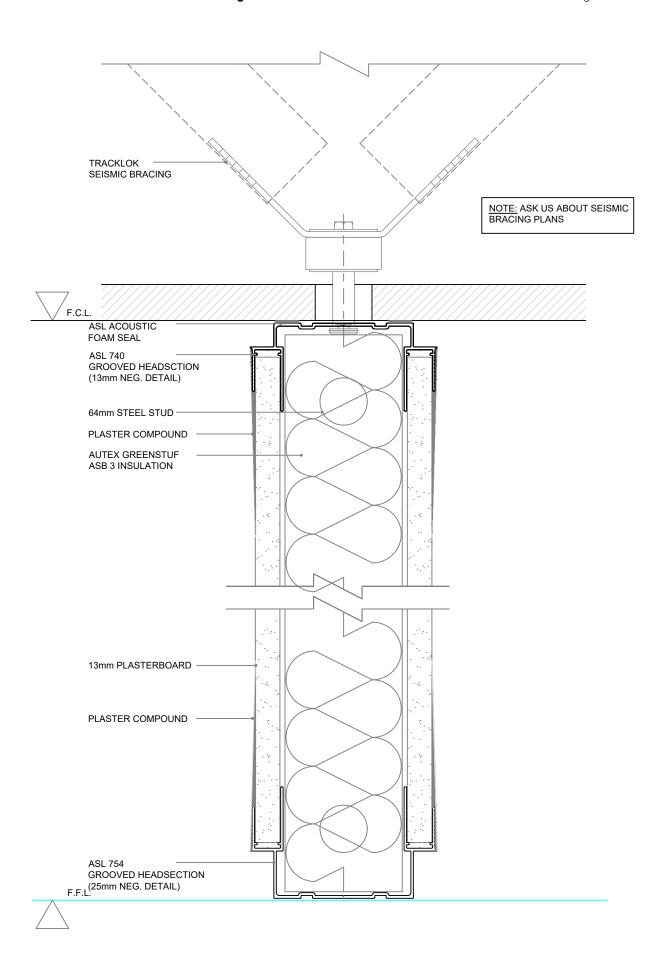


#### Standard Detail - Headsection Wall - 13mm Plasterboard with Skirting



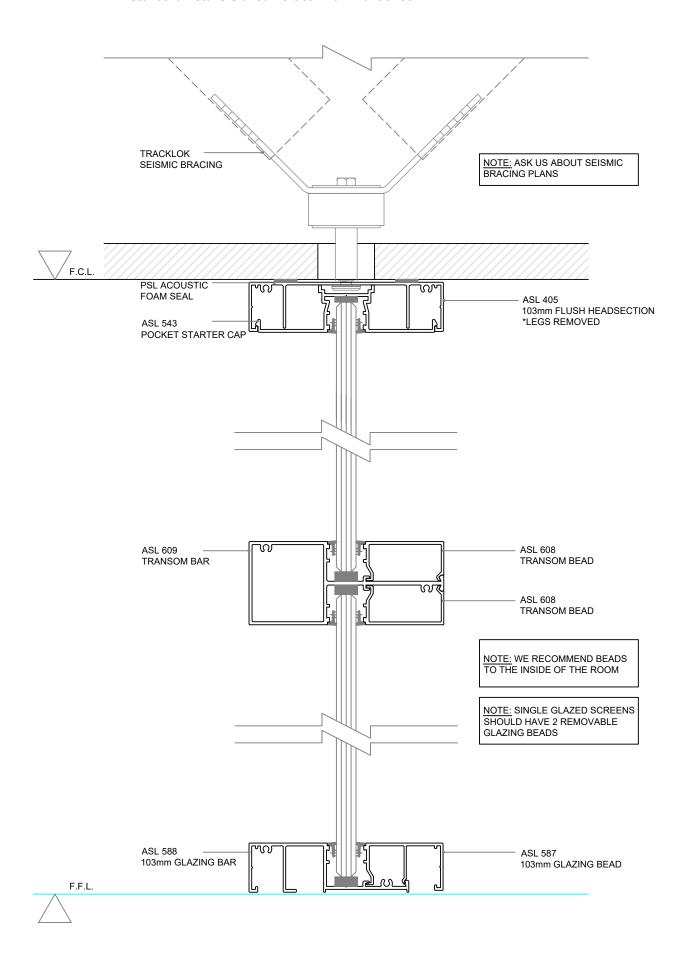


#### Standard Details Negative Detail Headsection Wall - 13mm Plasterboard with negative detail



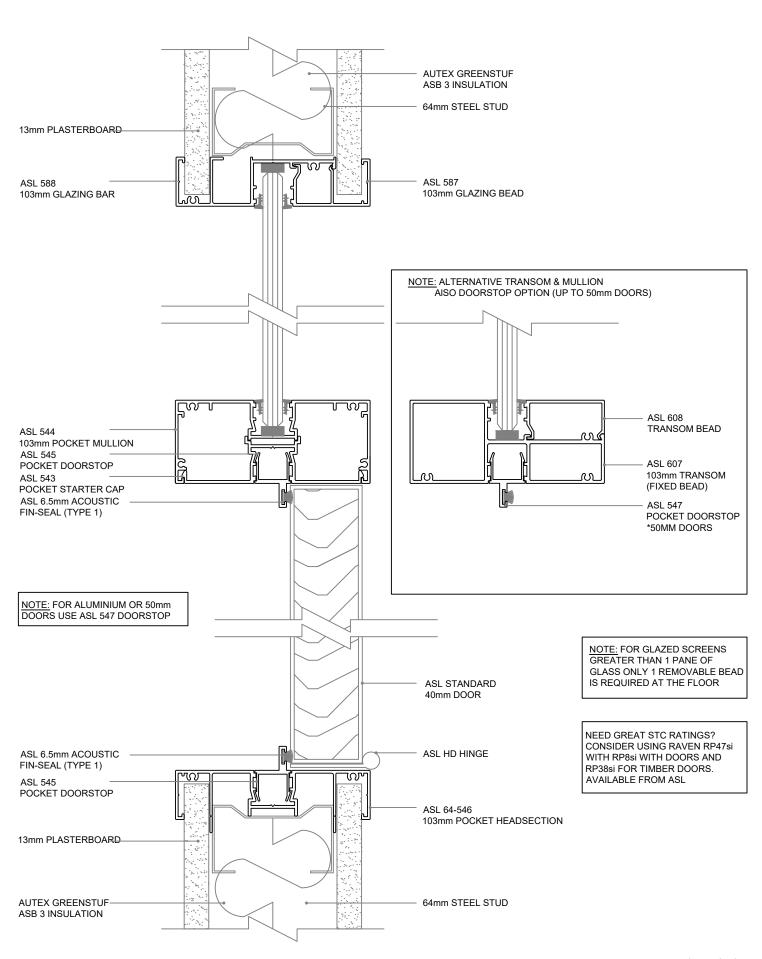


#### Standard Details Glazed Vertical Wall with transom



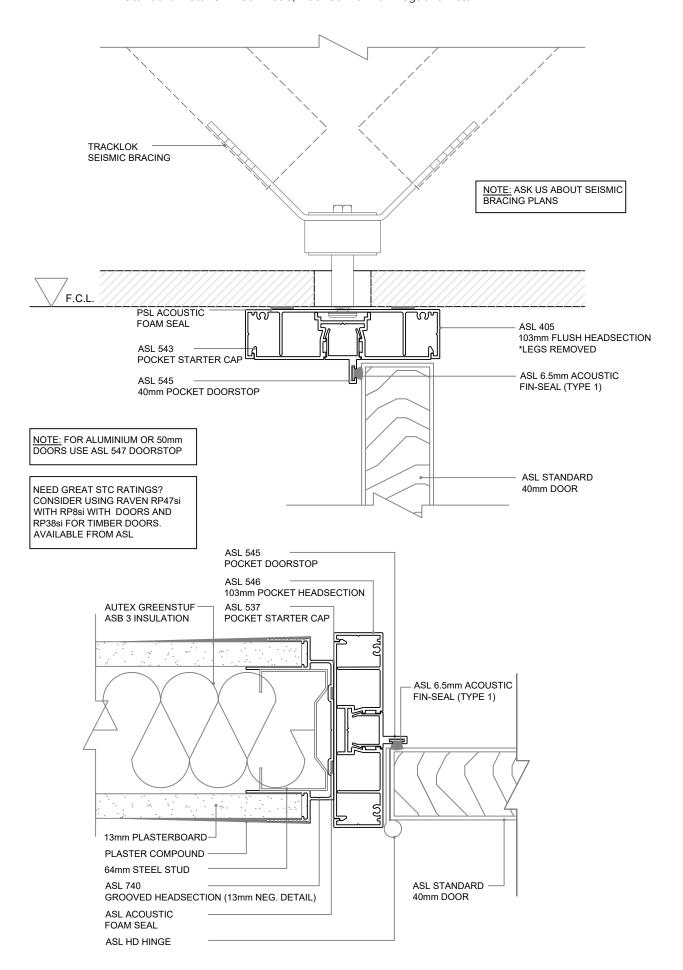


#### Standard Details - 64mm Steel Stud, Glazing, Solid Door, 13mm Plasterboard

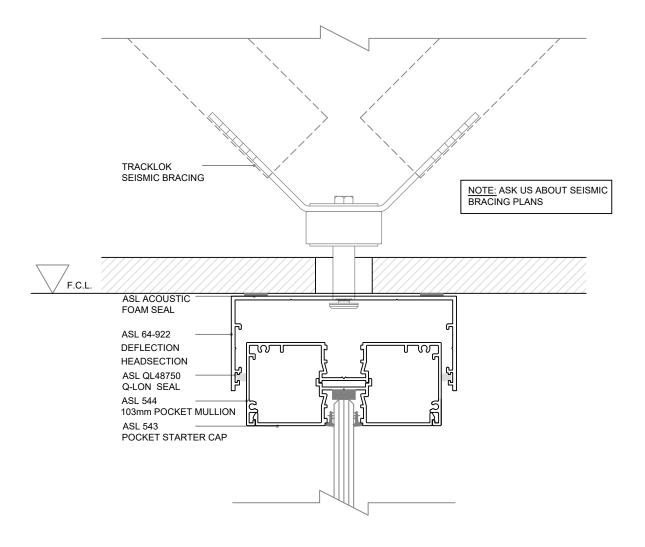




#### Standard Details - Door Head, Door Jamb with Negative Detail



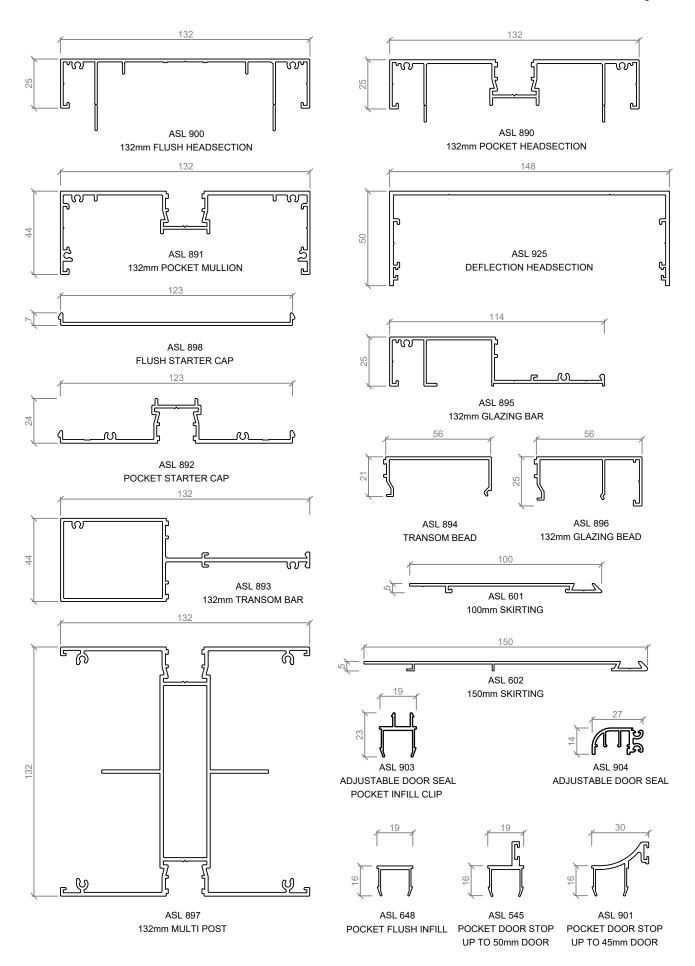
#### Standard Details - Deflection Headsection above Glazed Wall





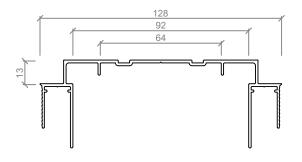


#### Standard Suite Profiles - Suitable for: 92mm Steel Stud, 13mm Plasterboard incl. Glazing Profiles

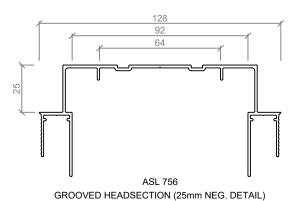


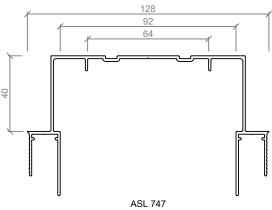


#### Negative Detail Profiles - Suitable for: 92mm Steel Stud, 13mm Plasterboard



ASL 741
GROOVED HEADSECTION (13mm NEG. DETAIL)

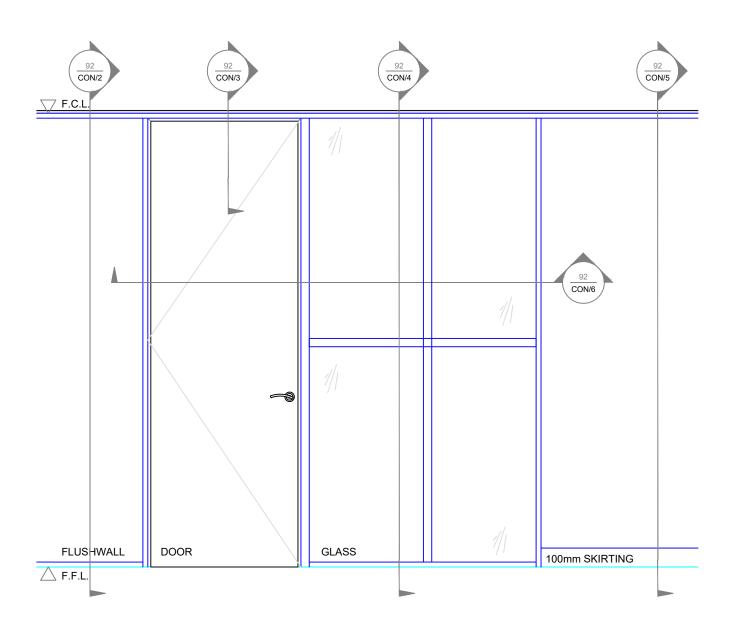




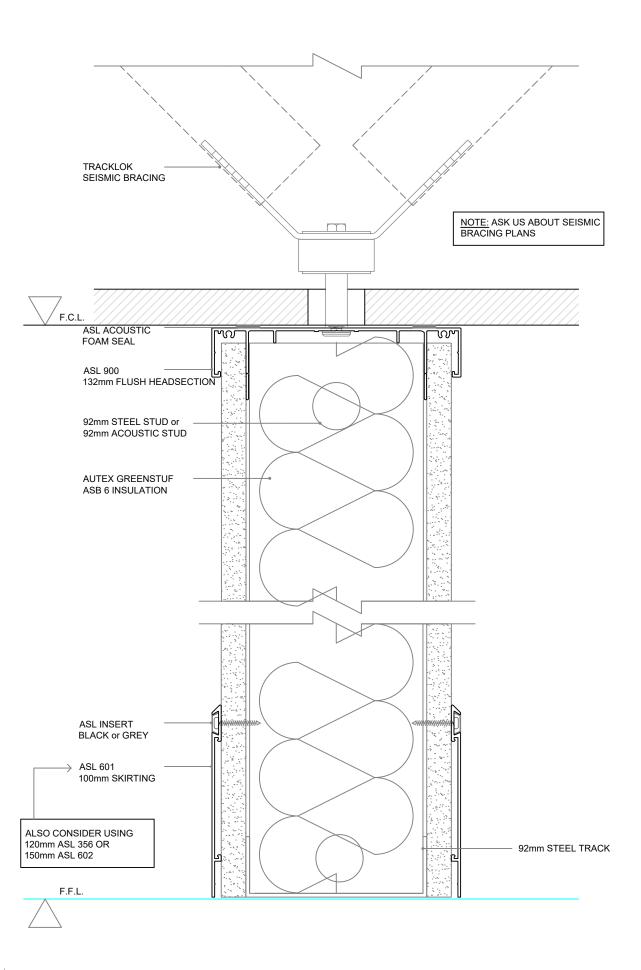
128mm GROOVED HEADSECTION (40mm NEG. DETAIL)



#### **Standard Elevation**

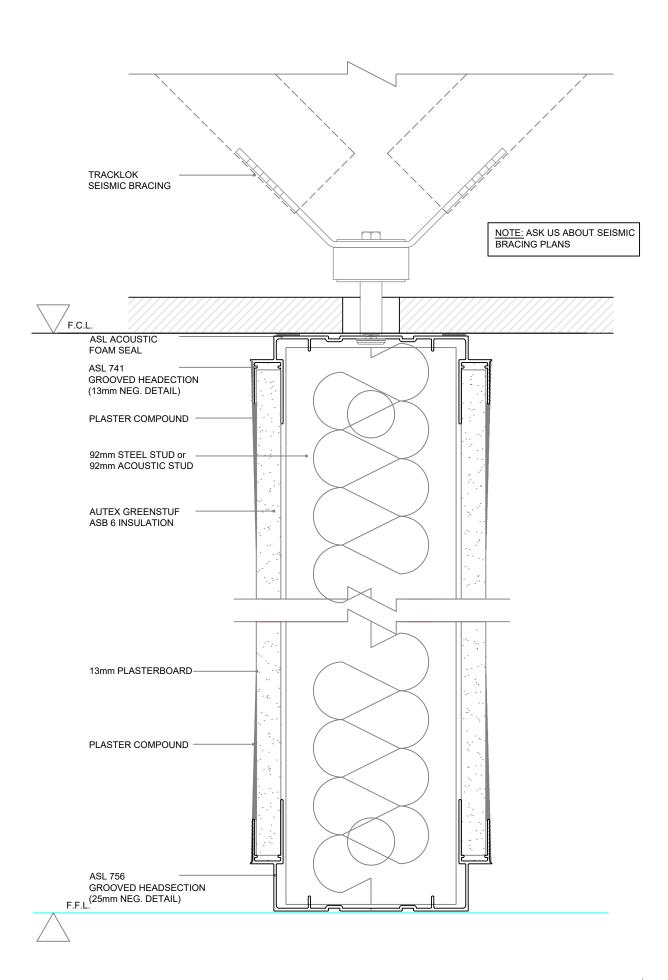


#### Standard Details - Headsection Wall with 13mm Plasterboard



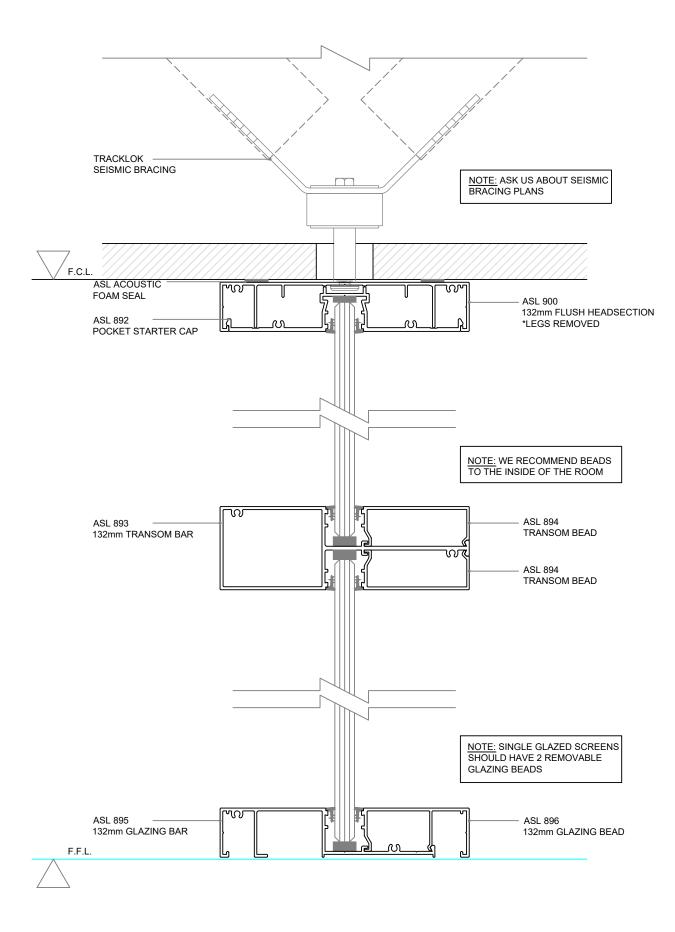


Negative Details - Headsection Wall, 13mm Plasterboard with negative detail

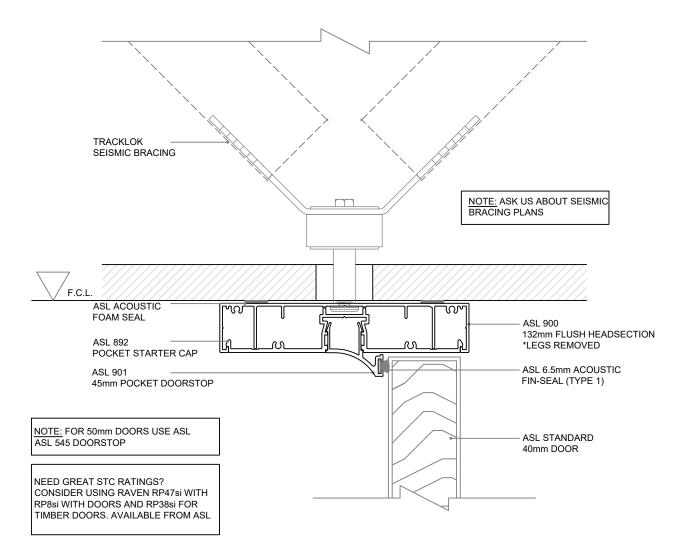




#### Standard Details - Full Height Glazing with Transom

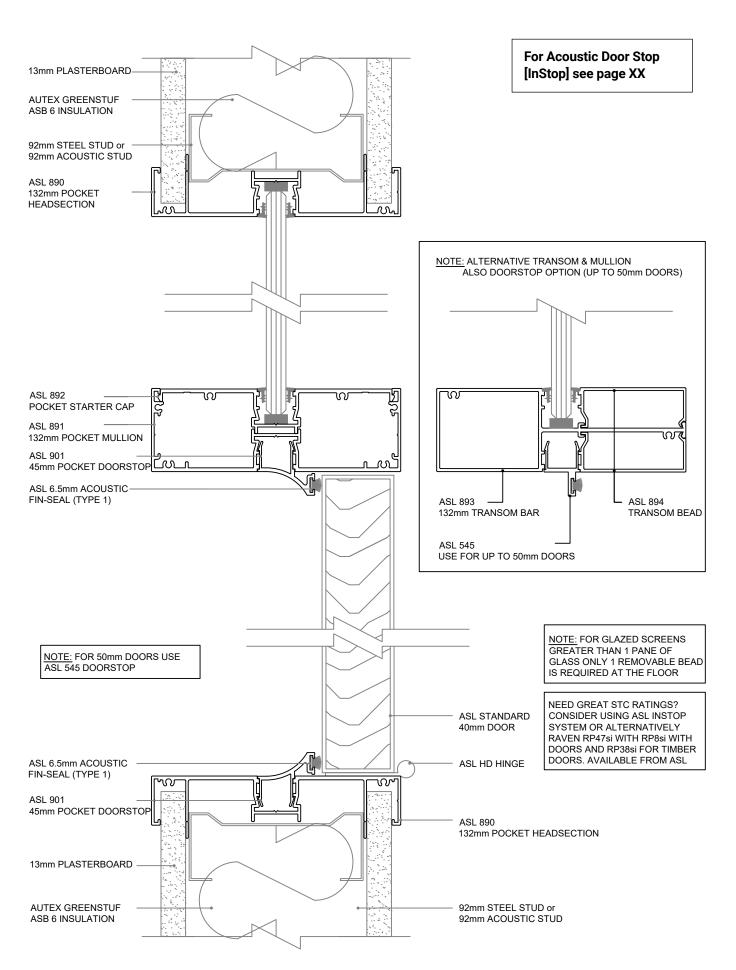


#### Standard Details - Door Head

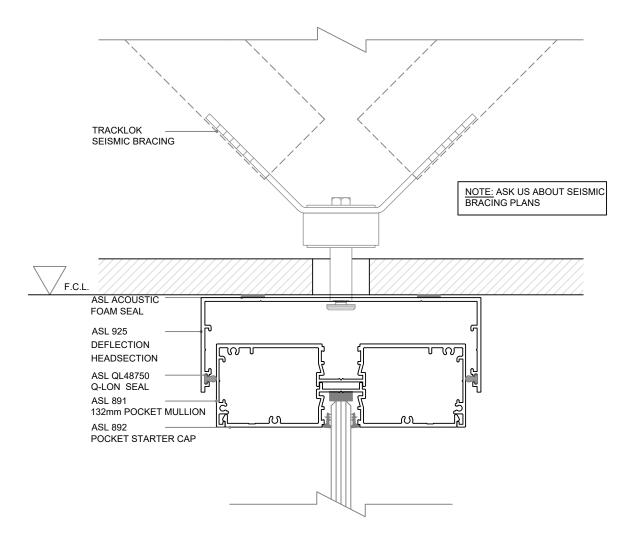




#### Standard Details - 92mm Steel Stud, Glazed Wall, Solid Door, 13mm Plasterboard



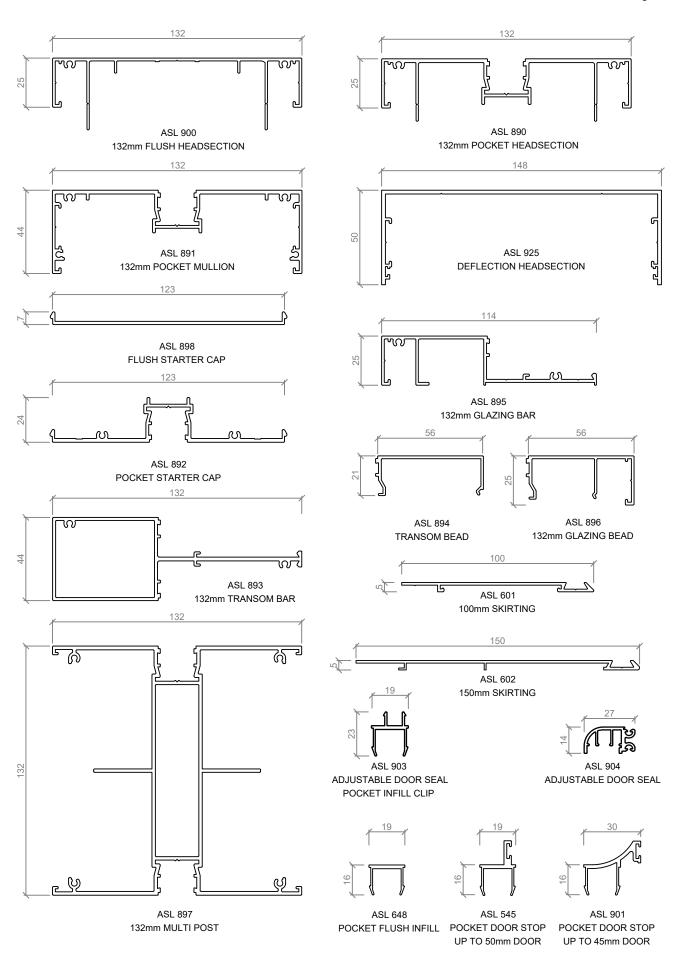
#### Standard Details - Deflection Headsection above Glazed Wall



## **Design**Line Designline is our answer to low cost office fitouts. The slim 45mm profiles offer a refined minimalistic look without compromising the stability of the walls. Our grooved headsections allow you to easily centre your glazing or door frame after capping the wall, and our door jamb options allow for door widths of up to 50mm. Works with all ASL systems Designed for ceiling heights under 2.8m Includes glazing profile of 44mm x 25mm Includes door jambs, glazing bars and mullions Can be used independently or in conjunction with ASL head tracks Volume 1.3 June 2022

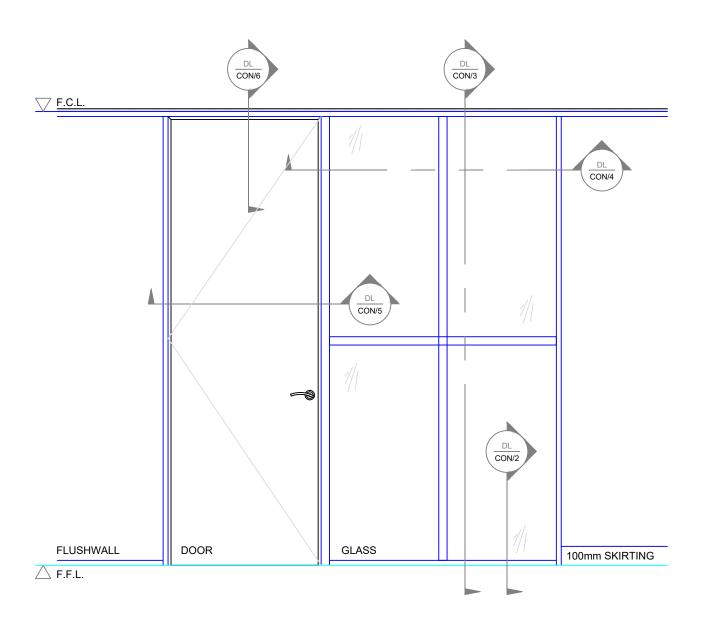


Standard Suite Profiles - Suitable for: 64 & 92 Steel Stud, 13mm Plasterboard incl. Glazing Profiles



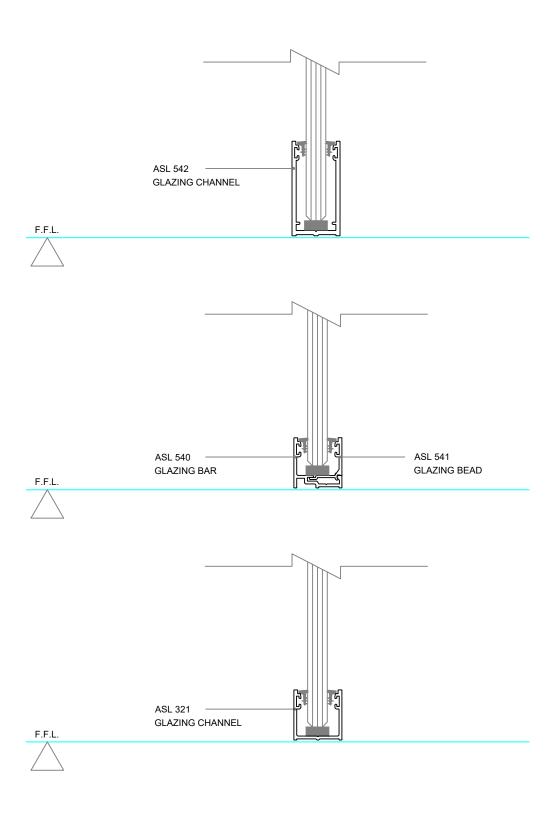


#### **Standard Elevation**





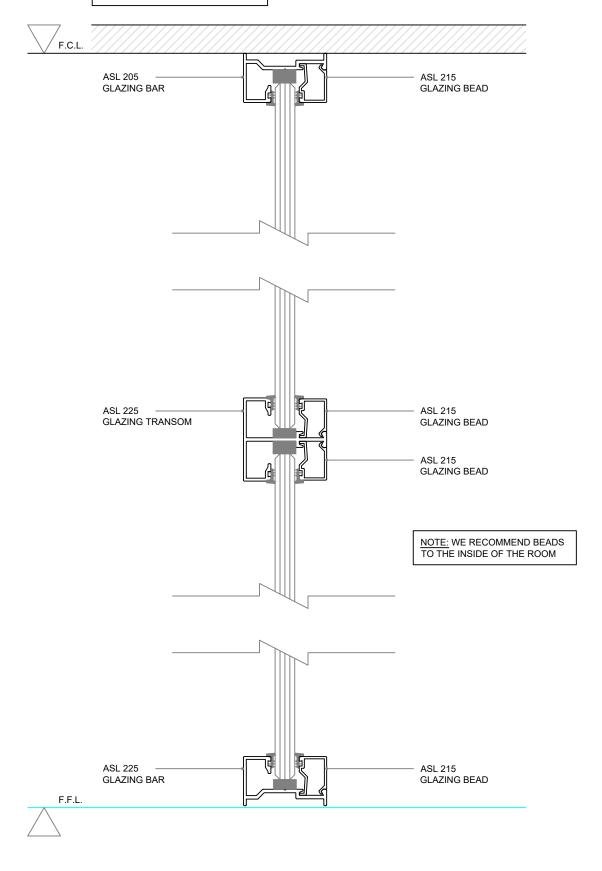
**Standard Details** - Door Head, Glazing Channel, Glazing Bar & Bead





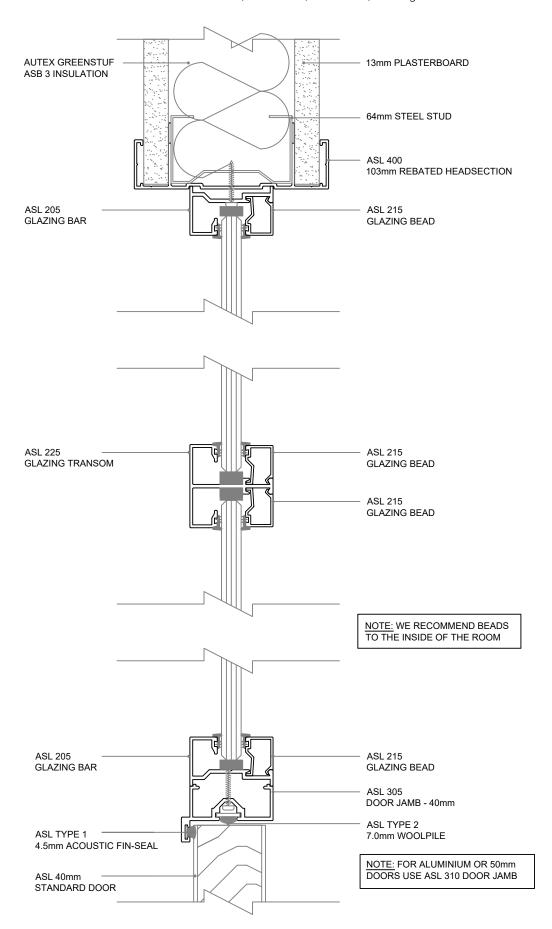
#### Standard Details - Full Height Glazed Wall with Transom

NOTE: WHERE SEISMIC BRACING IS REQUIRED, USE ASL 400 / 205 / 215



### **Design**Line

#### Standard Details - 64mm Steel Stud, Solid Door, Pillar Post, Glazing



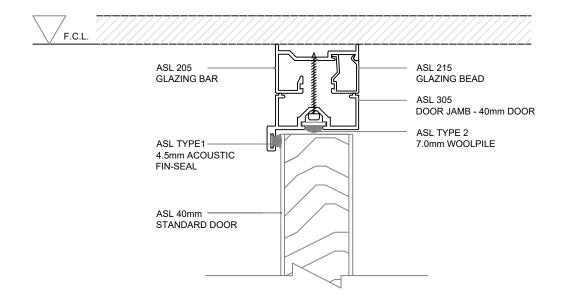


#### Standard Details - Solid Door with Mullion, 64mm Steel Stud

NOTE: FOR WALLS UP TO 2.8M TALL NOTE: FOR WALLS UNDER 2.3M TALL ASL 315 PILLAR POST ASL 215 **GLAZING BEAD** ASL 215 GLAZING BEAD ASL 205 **GLAZING BAR** ASL 305 DOOR JAMB - 40mm ASL 305 DOOR JAMB - 40mm ASL TYPE 2 ASL TYPE 1 7.0mm WOOLPILE 6.5mm ACOUSTIC FIN-SEAL ASL 40mm STANDARD DOOR ASL HD HINGE ASL TYPE 1 6.5mm ACOUSTIC FIN-SEAL ASL TYPE 2 7.0mm WOOLPILE **ASL 305** DOOR JAMB - 40mm ASL 400 103mm REBATED HEADSECTION 64mm STEEL STUD **AUTEX GREENSTUF** 13mm PLASTERBOARD ASB 3 INSULATION NOTE: FOR ALUMINIUM OR 50mm DOORS USE ASL DL-310 DOOR JAMB

#### Standard Details - Door Head

NOTE: HEAD BAR & BEAD TO COVER THE FULL OPENING

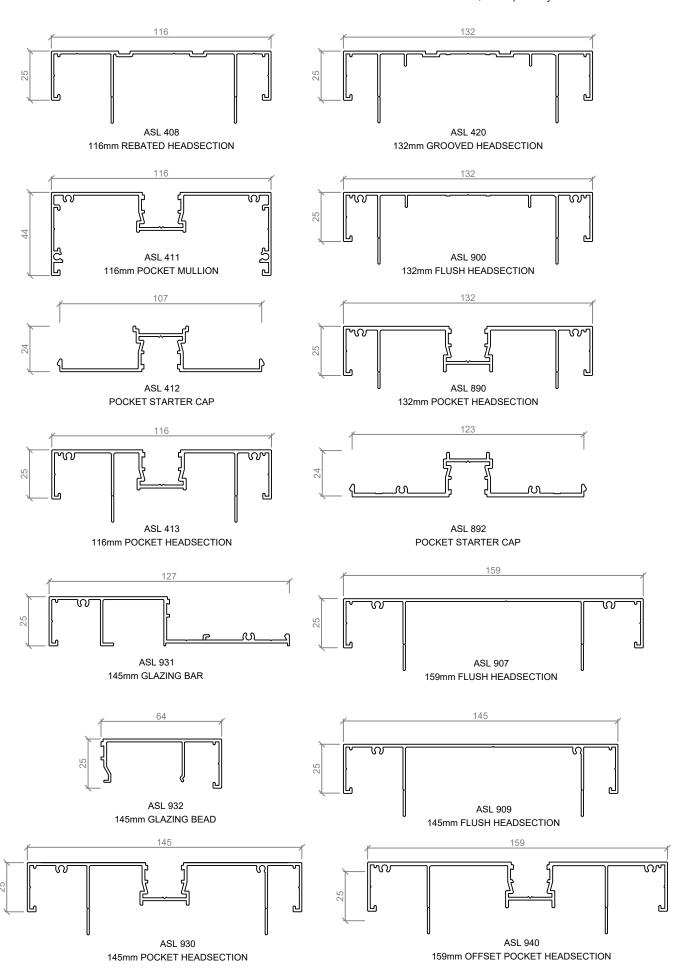


# MultiLayer Our Multilayer range is designed to allow multiple linings of plasterboard and achieve greater wall strength and acoustic ratings. This system is the preferred option when you need a thicker wall, or want a different look for your next fitout. With profile widths ranging from 116mm to 158mm, there is an option for almost any lining selection. Suited to both 64mm and 92mm stud walls Integrates with both 64 Series and 92 Series Multiple linings to suit any application Built in screw ports and staking bracket locators Volume 1.3 June 2022





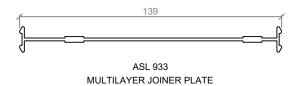
Standard Suite Profiles - Suitable for: 64 & 92mm Steel Stud, Multiple Layers 13mm Plasterboard

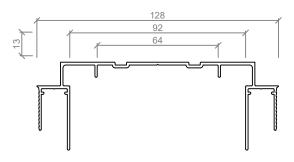




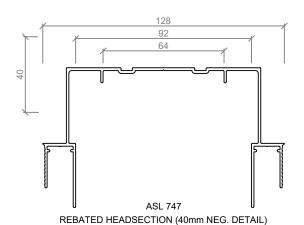


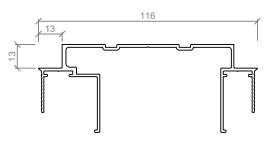
**Standard Suite & Negative Detail Profiles** - Suitable for: 64 & 92mm Steel Stud, Multiple Layers 13mm Plasterboard



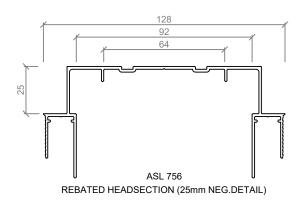


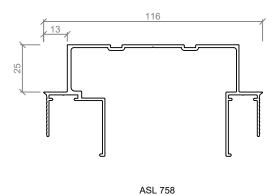
ASL 741
REBATED HEADSECTION (13mm NEG. DETAIL)





ASL 757
REBATED HEADSECTION (13mm NEG. DETAIL)

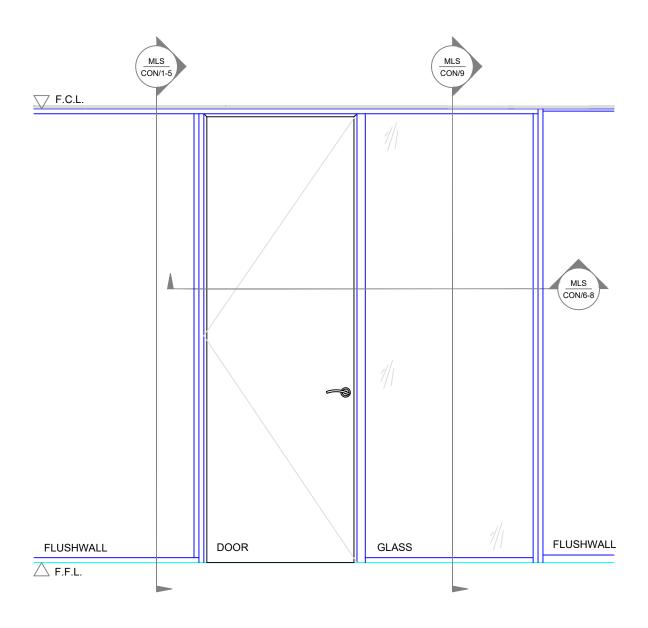




REBATED HEADSECTION (25mm NEG. DETAIL)

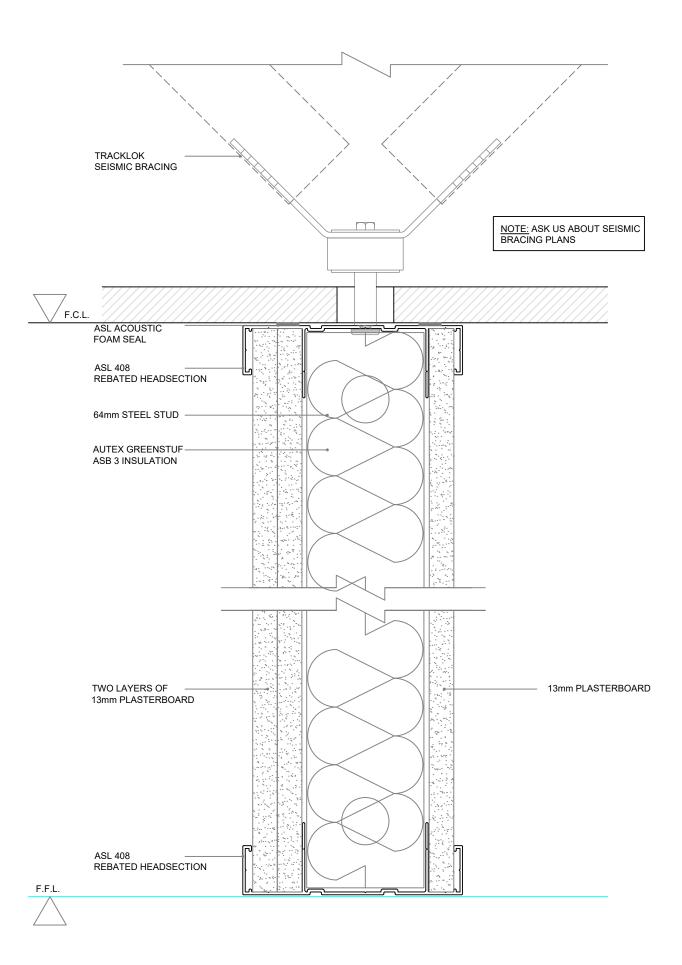


#### **Standard Elevation**

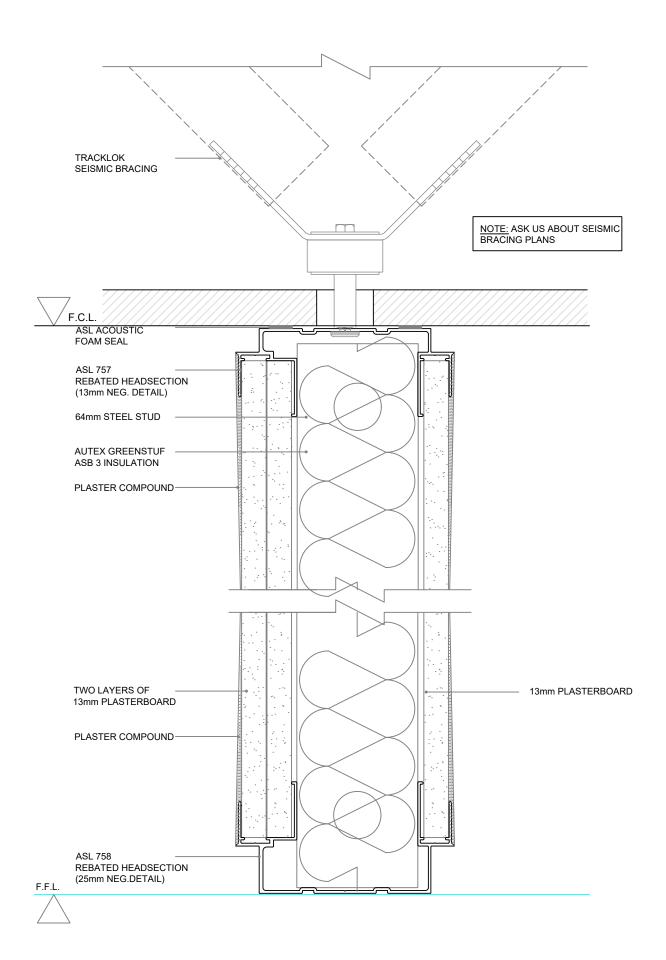




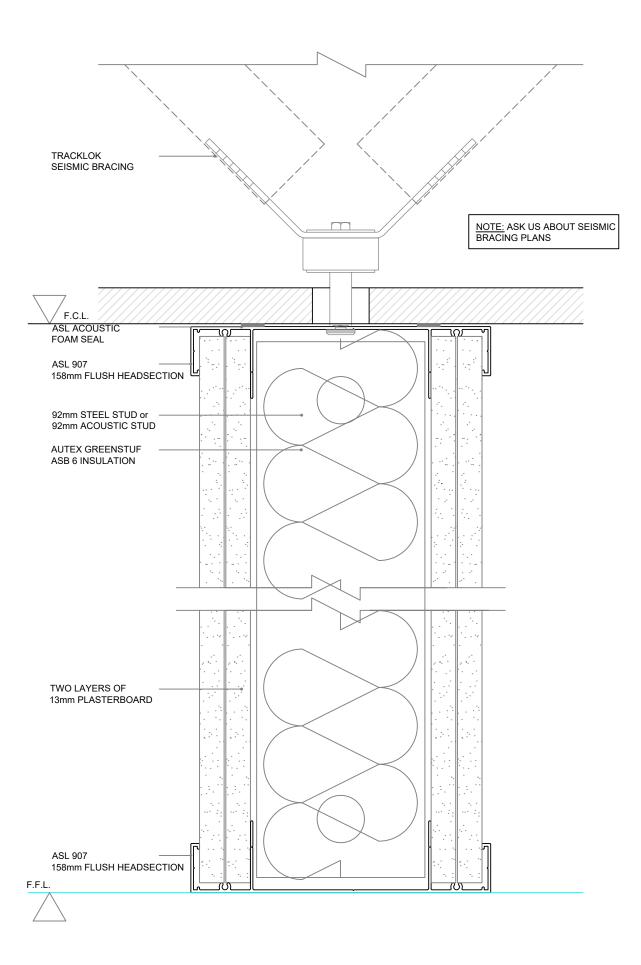
Standard Details - Suitable for: 64mm Steel Stud, Three Layers 13mm Plasterboard



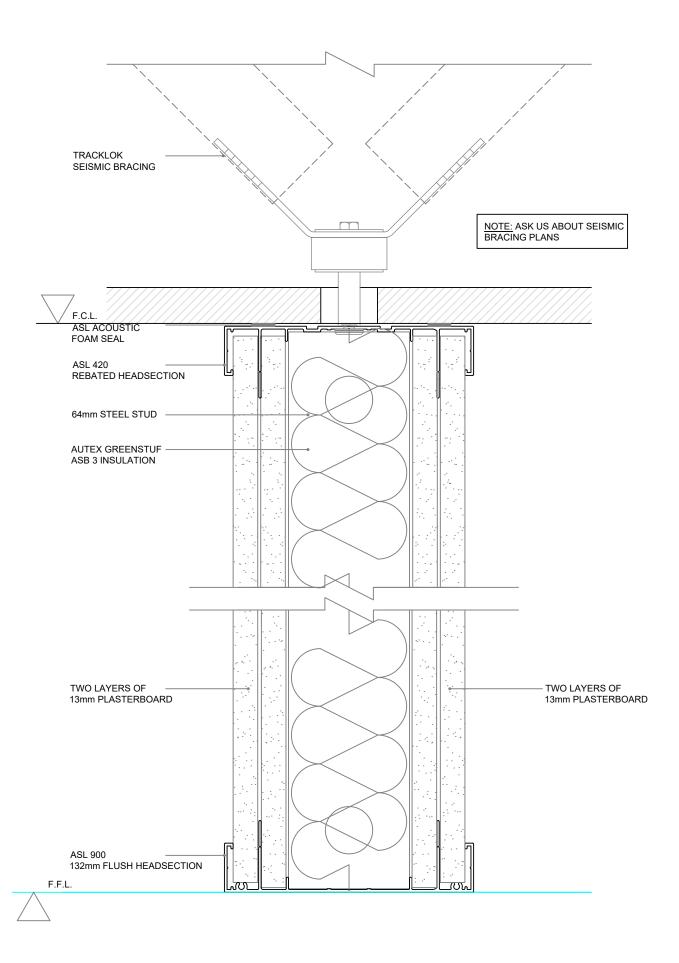
#### Negative Detail - Suitable for: 64mm Steel Stud, Three Layers 13mm Plasterboard



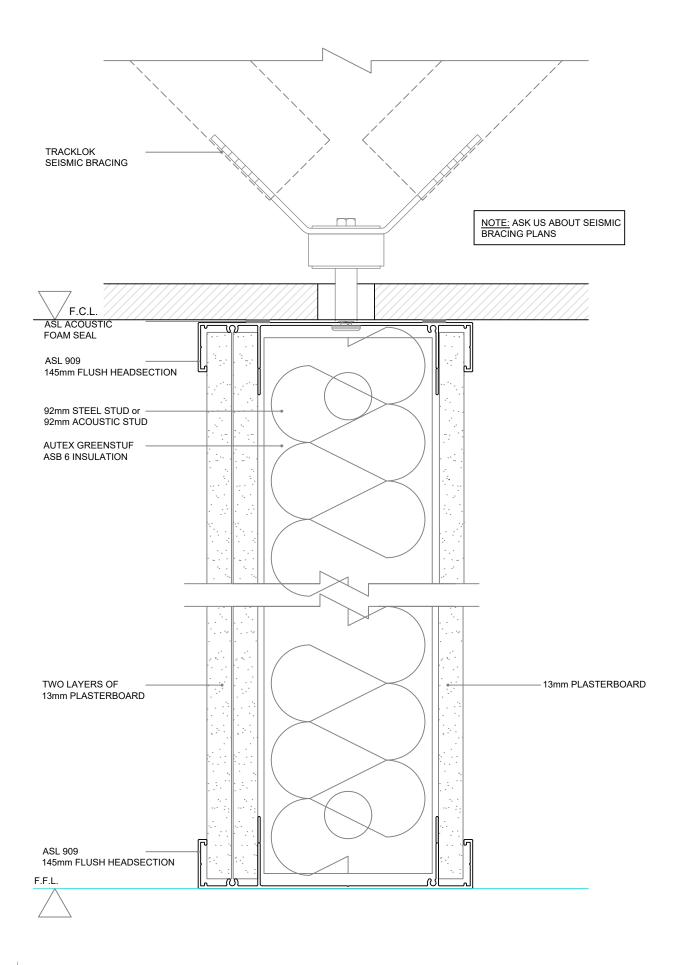
#### Standard Details - 92mm Steel Stud, Four Layers 13mm Plasterboard



#### Standard Details - 64mm Steel Stud, Four Layers 13mm Plasterboard



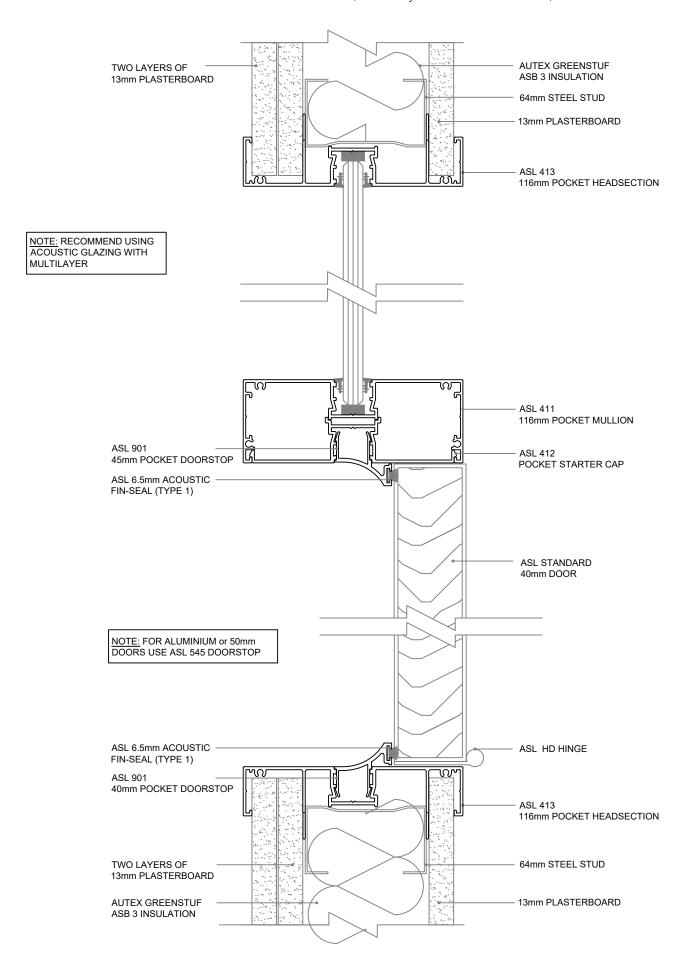
#### Standard Details - 92mm Steel Stud, Three Layers 13mm Plasterboard





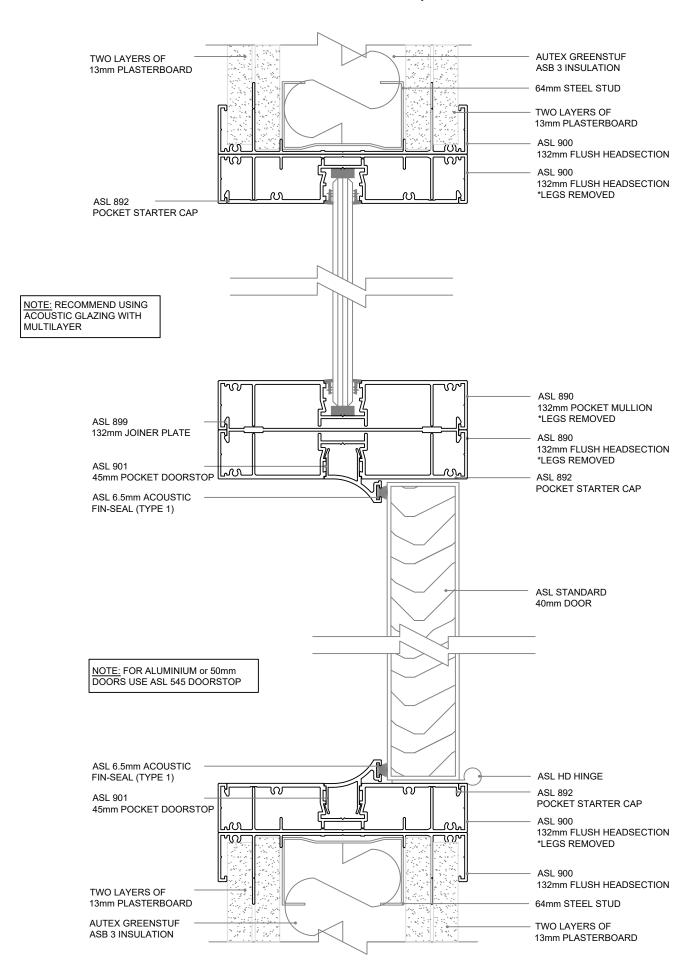
## MultiLayer

Standard Details - 64mm Steel Stud, Three Layers 13mm Plasterboard, Glazed Panel



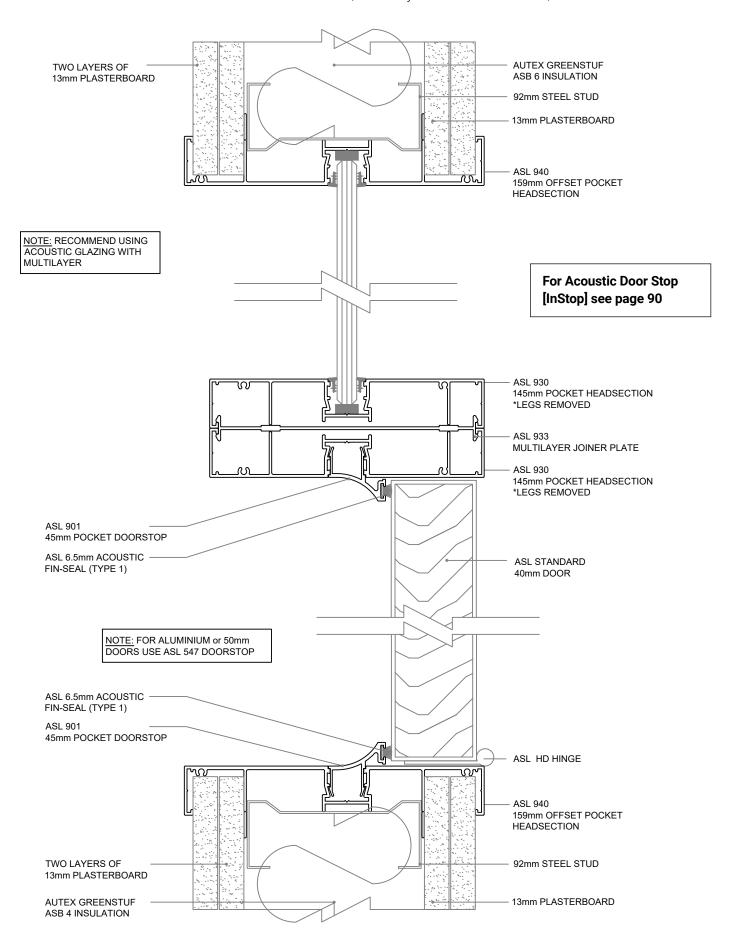


Standard Details - 64mm Steel Stud, Three Layers 13mm Plasterboard, Glazed Panel

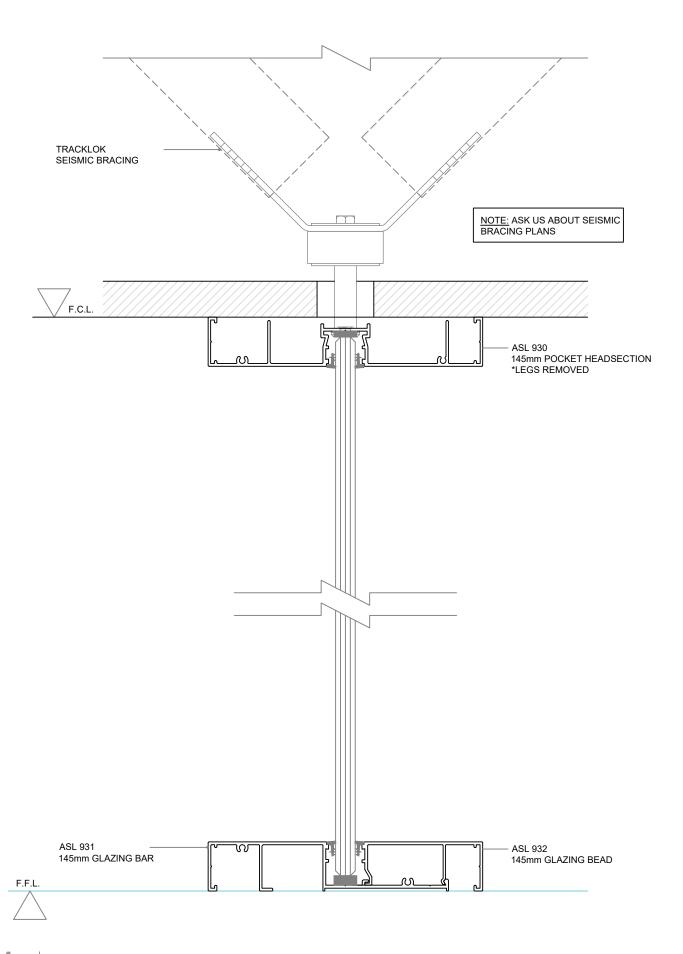




Standard Details - 92mm Steel Stud, Three Layers 13mm Plasterboard, Glazed Panel



#### Standard Details - Glazing



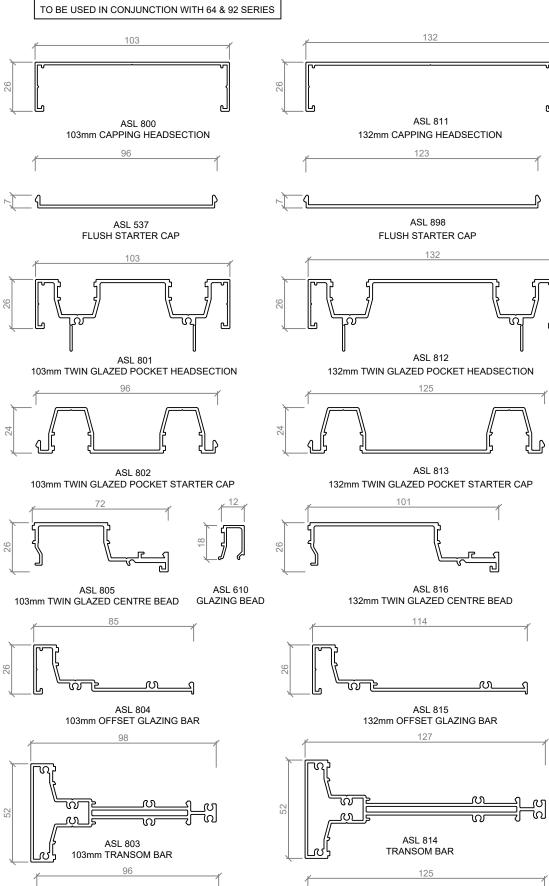
## Acoustic The Acoustic series accommodates two panels of glazing, with an air gap in between to achieve exceptional acoustic results within the same overall base profile width as our 64 & 92 Series. The Acoustic series is fully compatible with both of these ranges, so can be selected for a few key walls of your fitout where minimizing sound transfer is critical, such as for a meeting or interview room. Suited to both 64mm and 92mm stud walls Integrates with both 64 Series and 92 Series Air gap between glazing panels for optimal acoustic results Built in screw ports and staking bracket locators Easily accommodates 12.38mm Laminated glass Volume 1.3 June 2022





#### Standard Suite Profiles - Suitable for: 64 & 92mm Steel Studs

NOTE: SUITED TO 64mm & 92mm STEEL STUDS TO BE USED IN CONJUNCTION WITH 64 & 92 SERIES

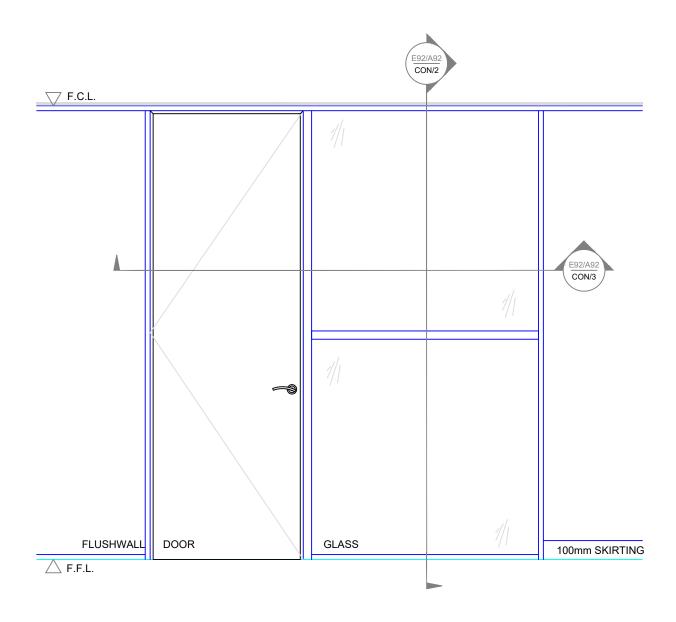


ASL 539 103mm JOINER PLATE

ASL 899 JOINER PLATE



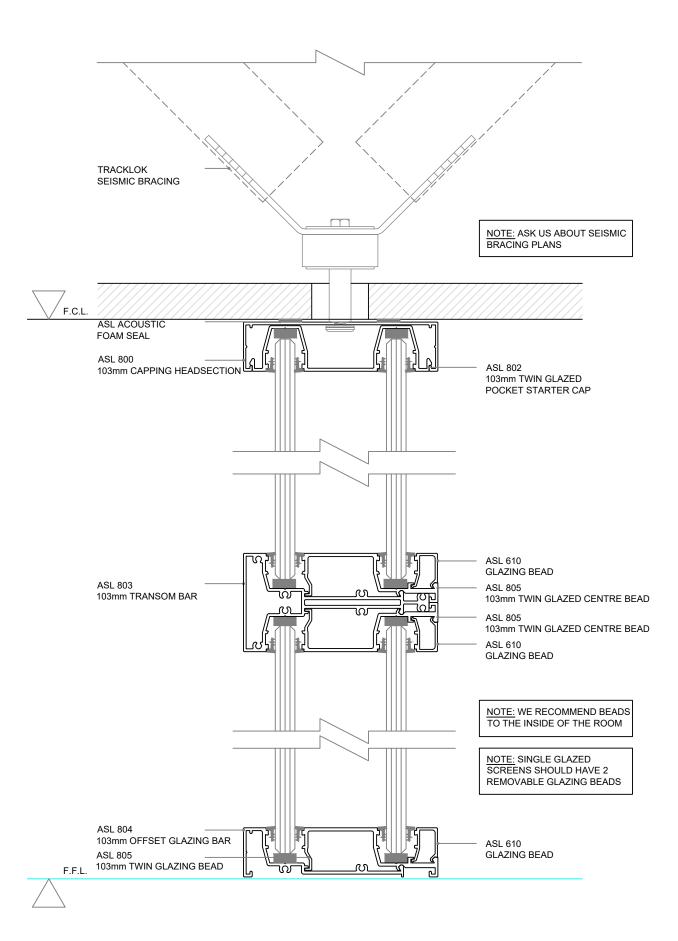
#### **Standard Elevation**







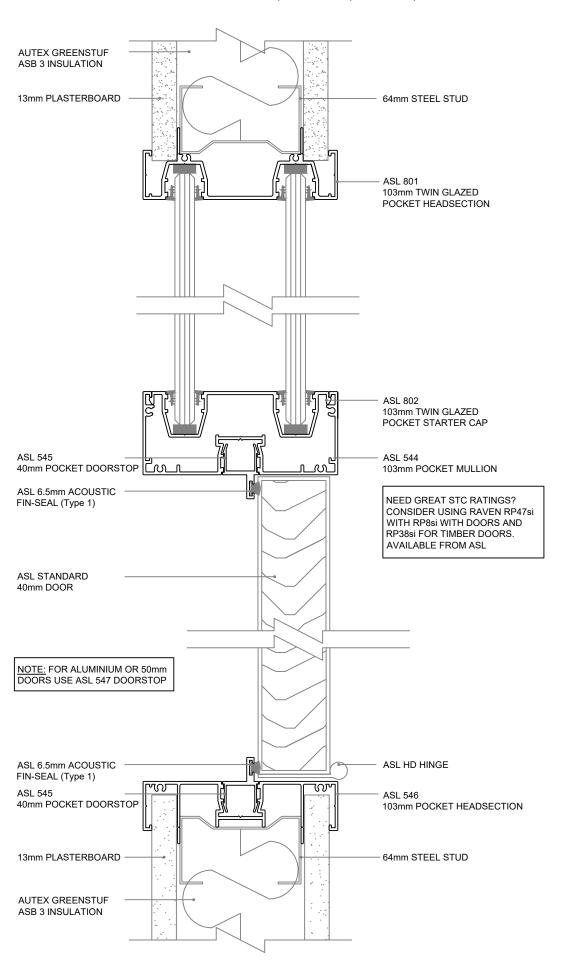
#### Standard Details - 64mm Profile, Full Height Glazing





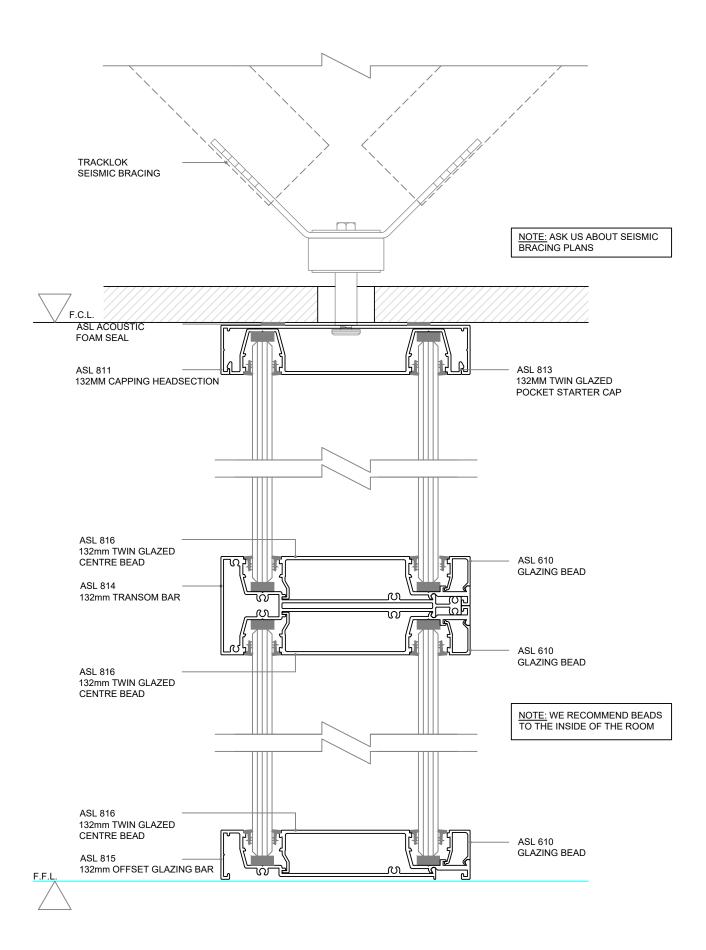


#### Standard Details - 64mm Steel Stud, Glazed Wall, Solid Door, 13mm Plasterboard



### **Acoustic**

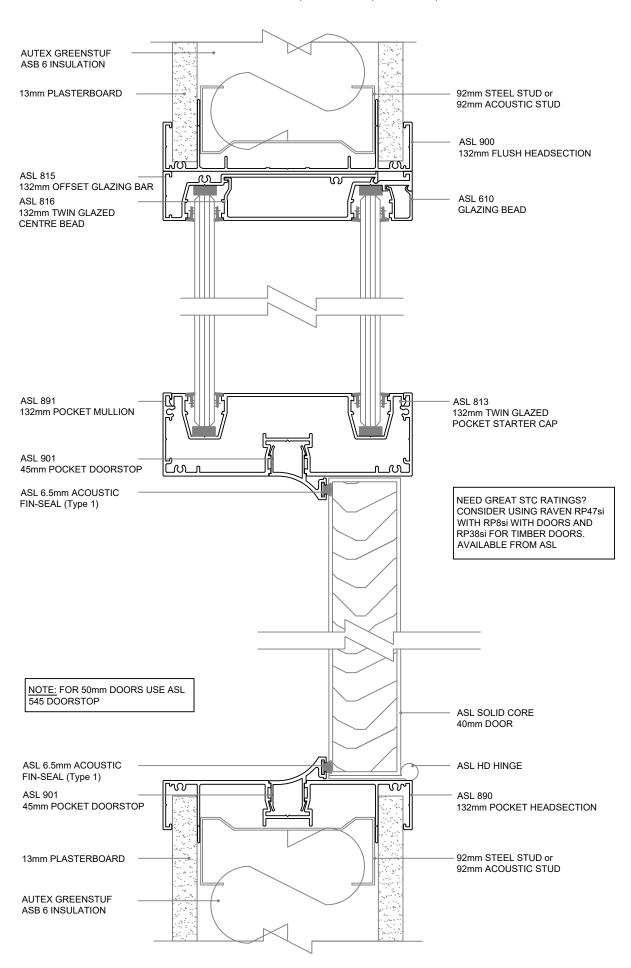
#### Standard Details - 92mm Profile, Full Height Glazing







#### Standard Details - 92mm Steel Stud, Glazed Wall, Solid Door, 13mm Plasterboard

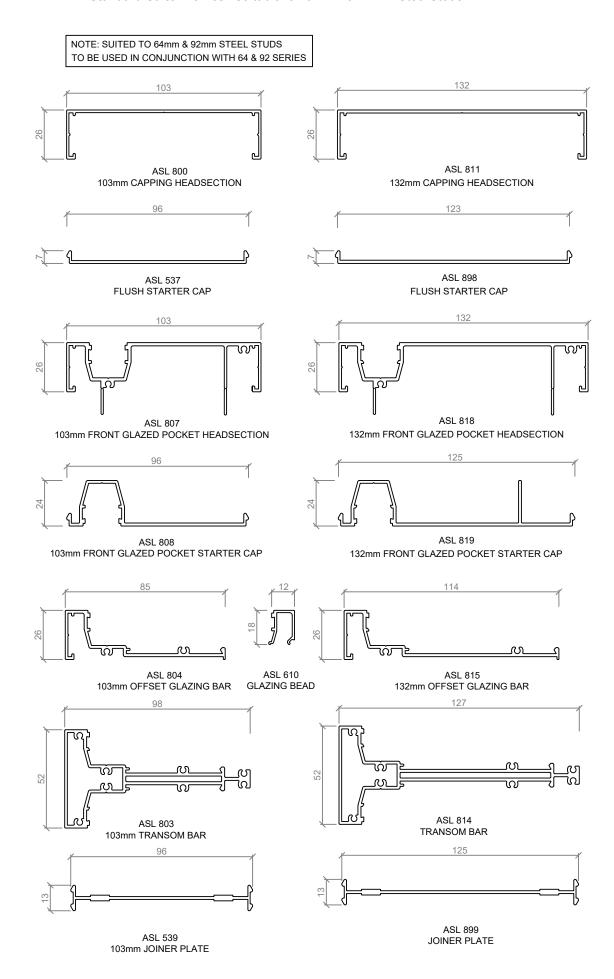


# Edge Edge has been designed to give an executive look and feel to any environment, with the offset glazing pocket on the edge of the profiles offering a unique look with exceptional style. Widely used in commercial office fitouts up and down the country. Suited to both 64mm and 92mm stud walls Integrates with both 64 Series and 92 Series Edge glazed setting Built in screw ports and staking bracket locators Easily accommodates 12.38 Laminated glass Volume 1.3 June 2022



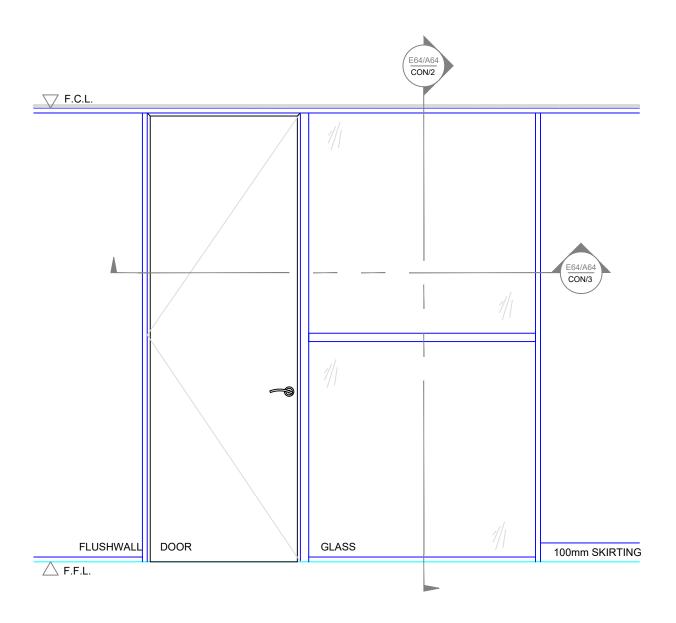


#### Standard Suite Profiles - Suitable for: 64mm & 92mm Steel Studs





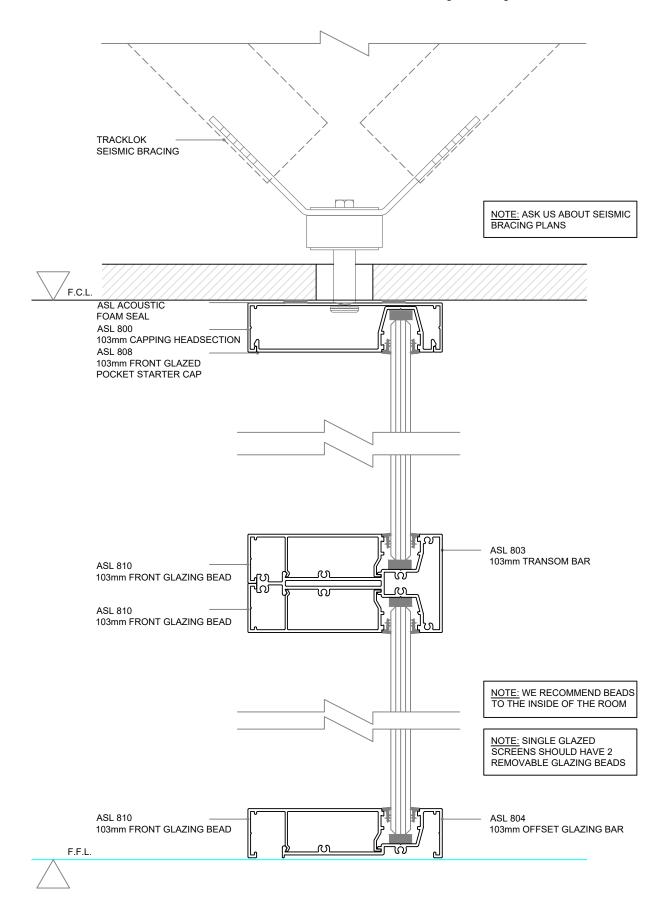
#### **Standard Elevation**





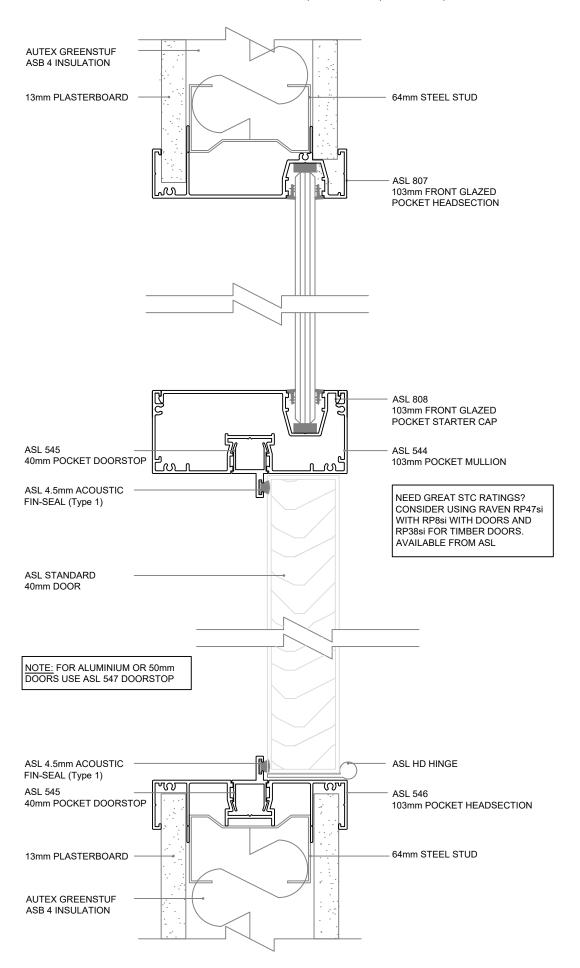


#### Standard Details - Front Glazed - 64mm Profile, Full Height Glazing





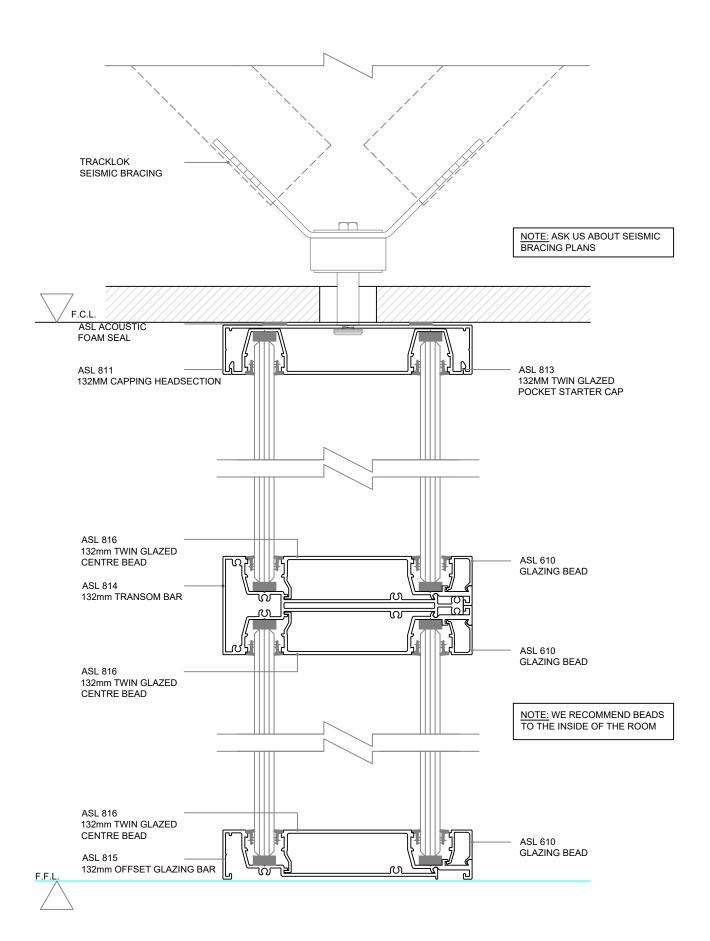
#### Standard Details - Front Glazed - 64mm Steel Stud, Glazed Wall, Solid Door, 13mm Plasterboard







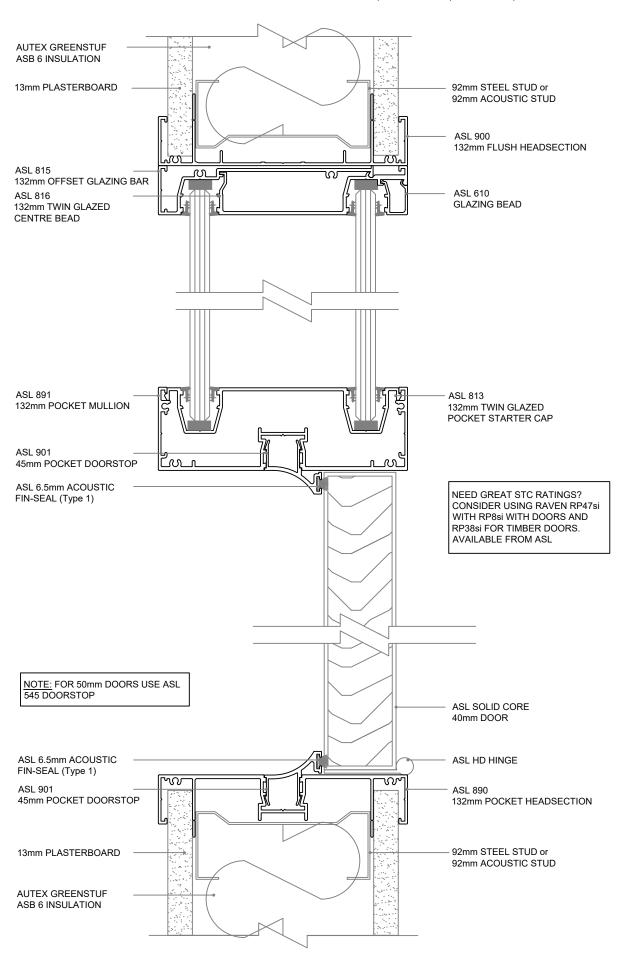
#### Standard Details - Front Glazed - 92mm Profile, Full Height Glazing

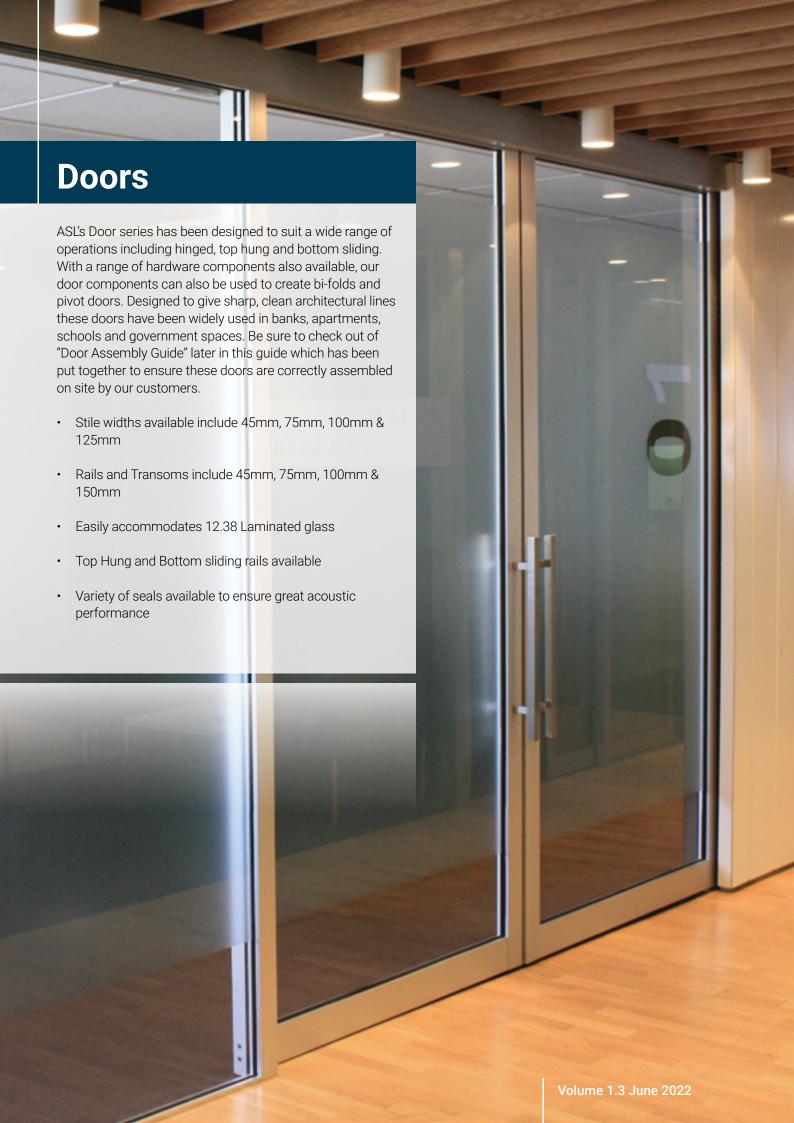






#### Standard Details - Front Glazed - 92mm Steel Stud, Glazed Wall, Solid Door, 13mm Plasterboard

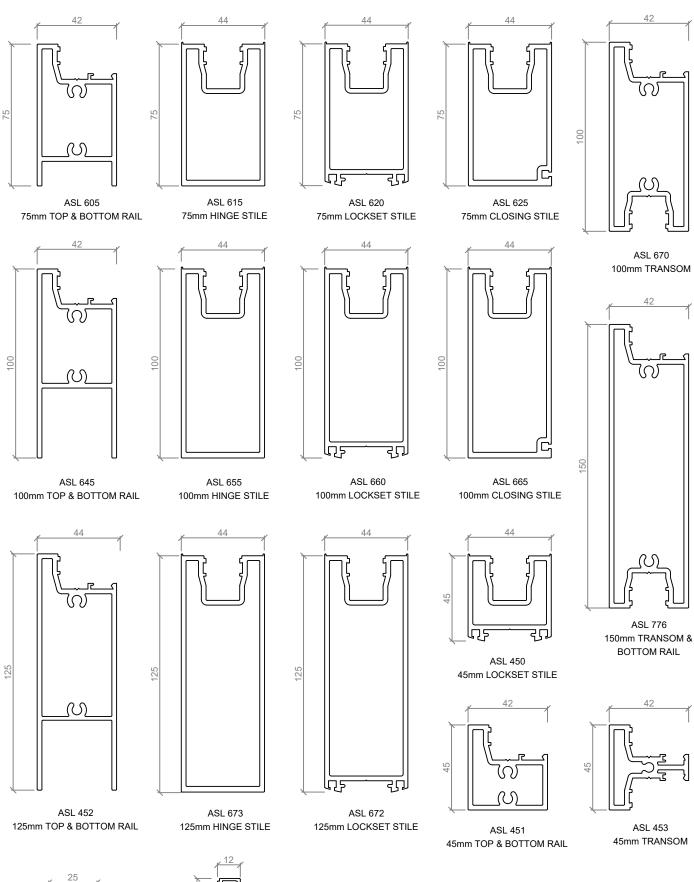








#### Standard Suite Profiles - Suits all ASL Systems



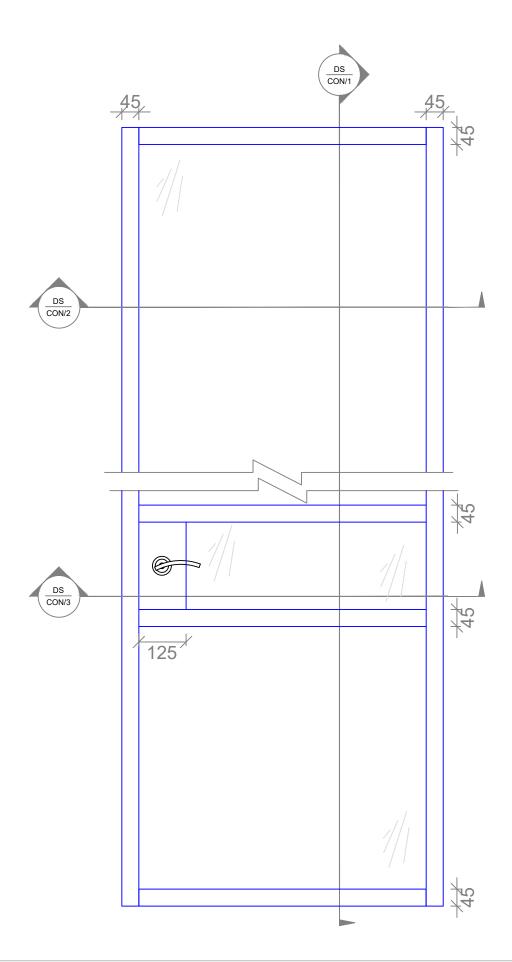


ASL 640 INFILL FOR LOCKSET STILE



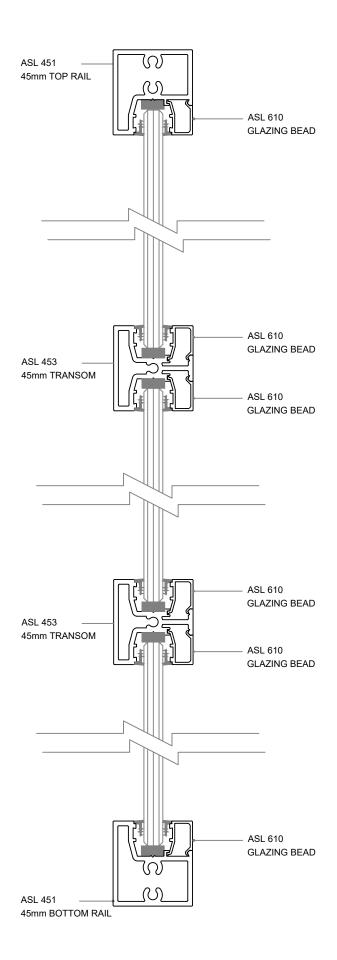


#### **Standard Elevation** - 45mm Profiles





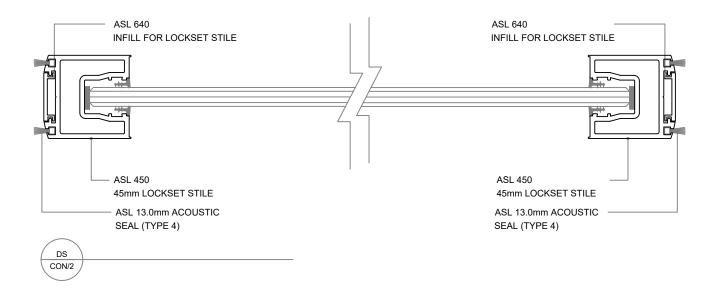
#### **45mm Profiles** - 45mm Top Rail - Vertical Options

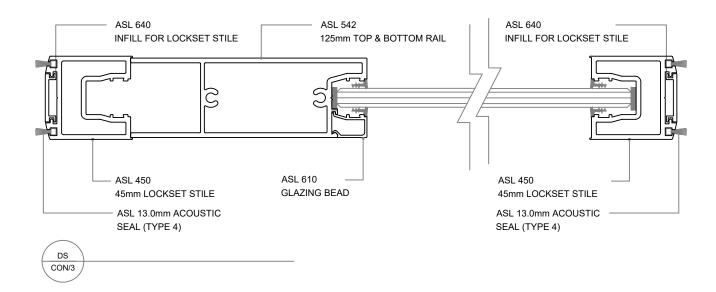






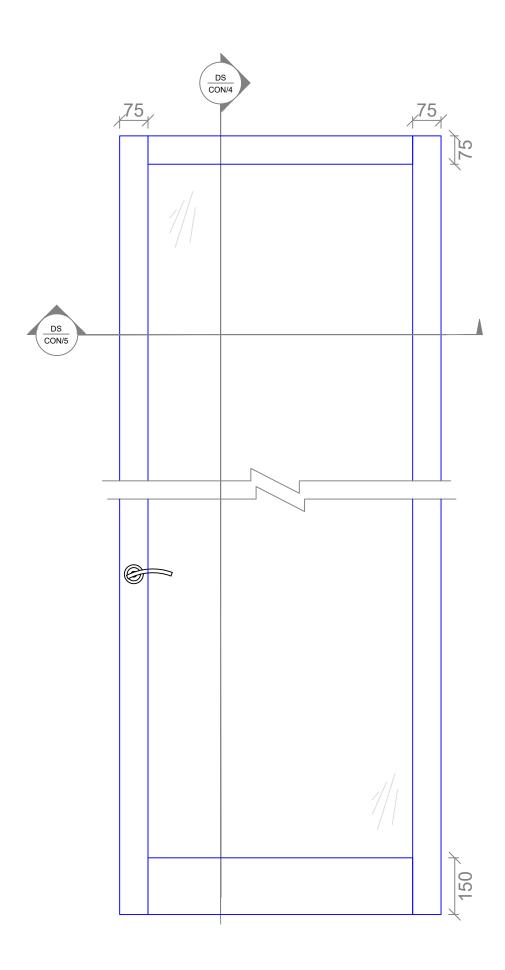
#### 45mm Profiles - 45mm Hinged & Lockbox





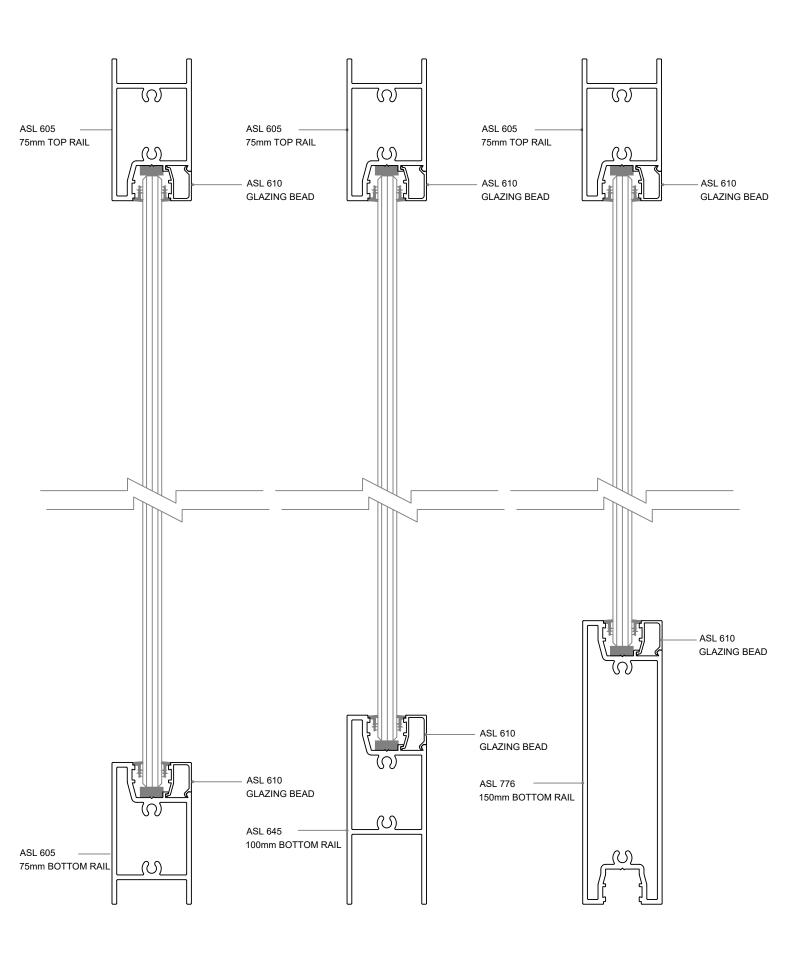


#### **Standard Elevation** - 75mm Profiles



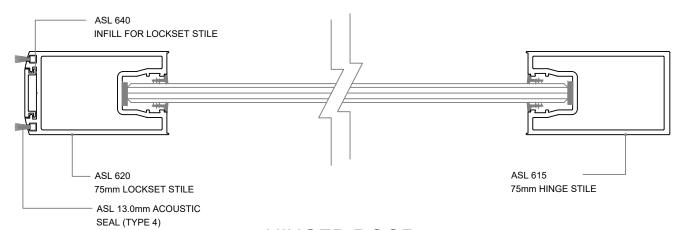


#### **75mm Profiles** - 75mm Top Rail - Vertical Options

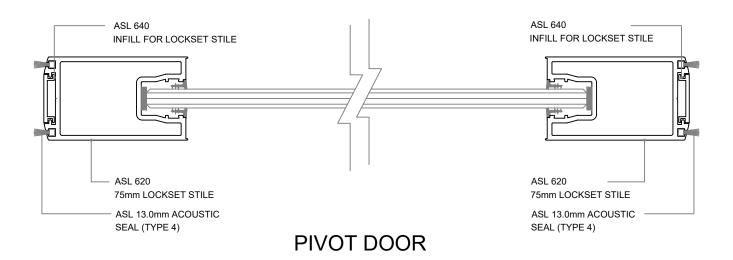


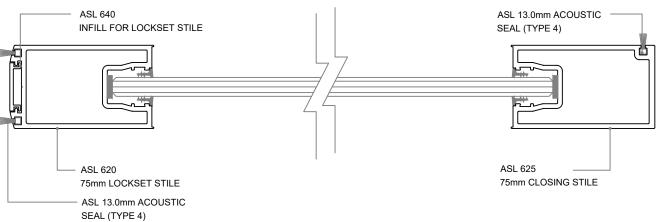


#### 75mm Stiles - Hinged Pivot & Sliding



#### **HINGED DOOR**

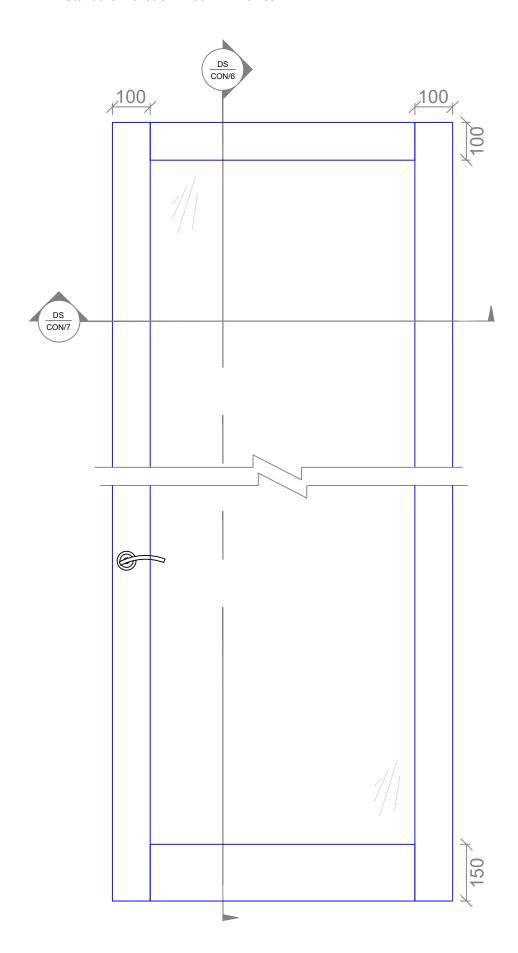




**SLIDING DOOR** 

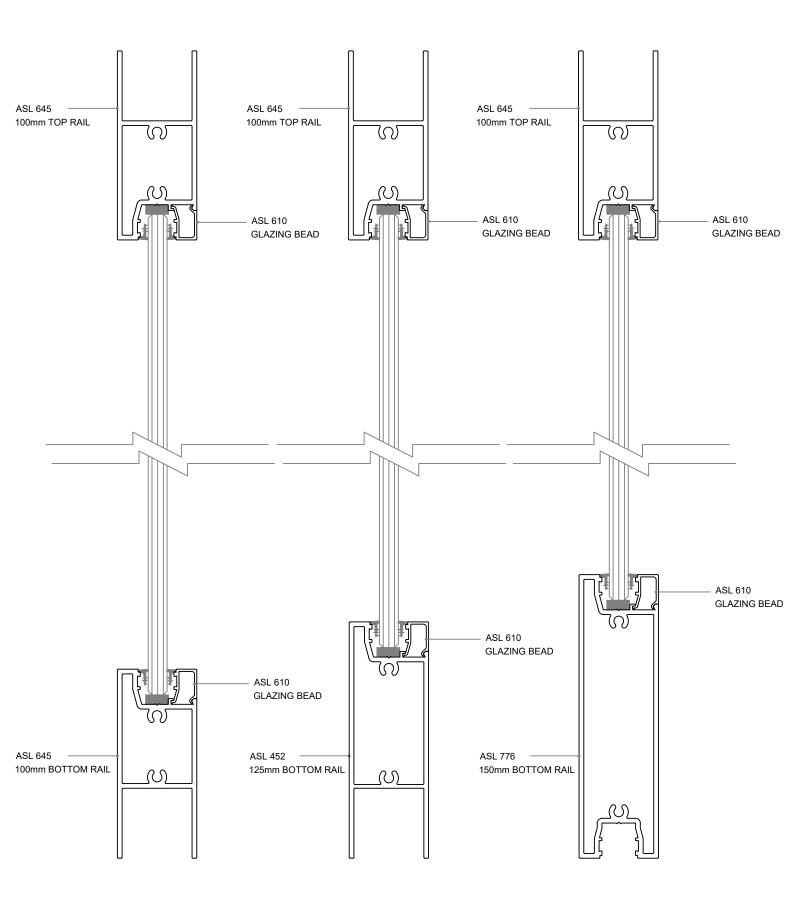


#### Standard Elevation - 100mm Profiles



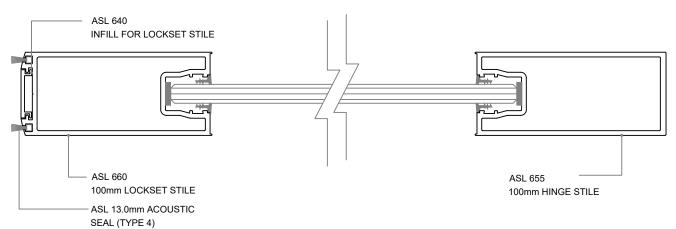


#### 100mm Profiles - 100mm Top Rail - Vertical Options

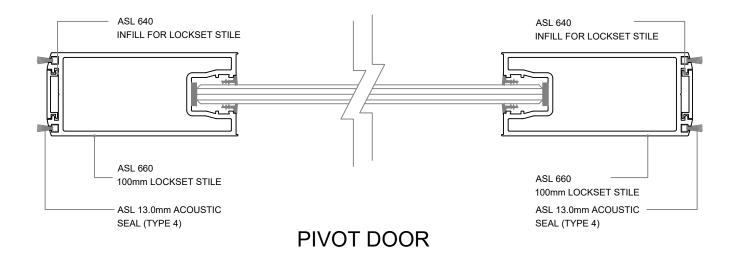


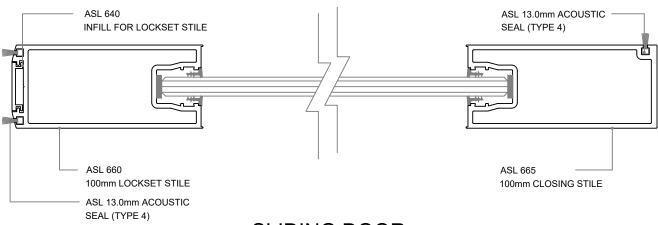


#### 100mm Stiles - Hinged Pivot & Sliding



#### **HINGED DOOR**

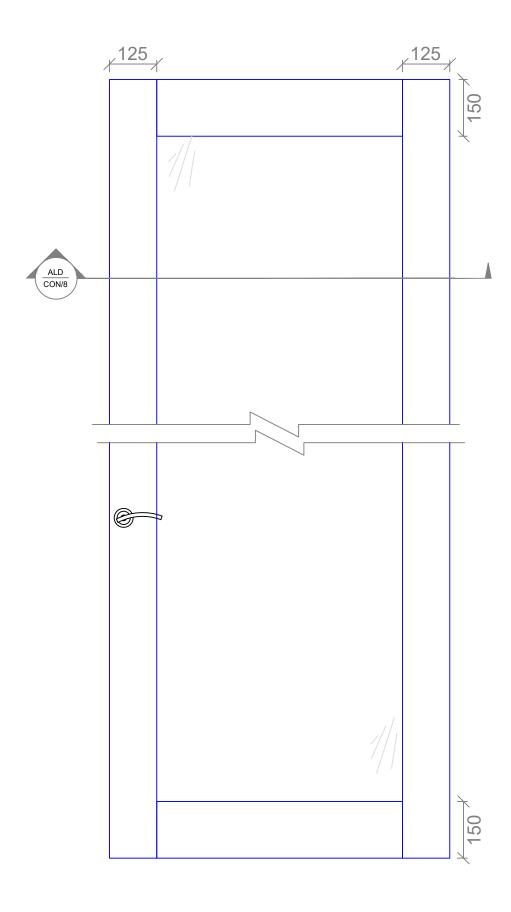




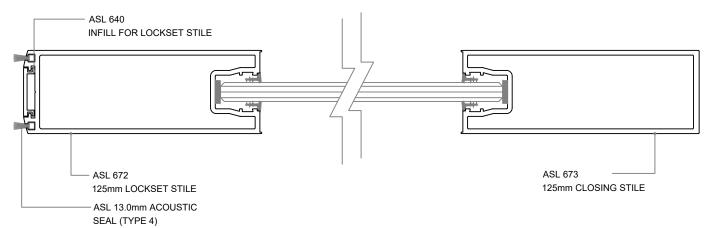
**SLIDING DOOR** 



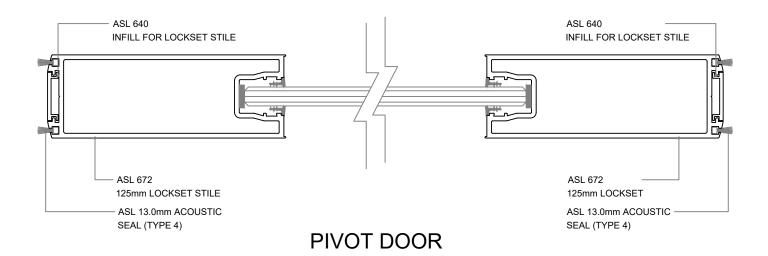
#### Standard Elevation - 125mm Profiles

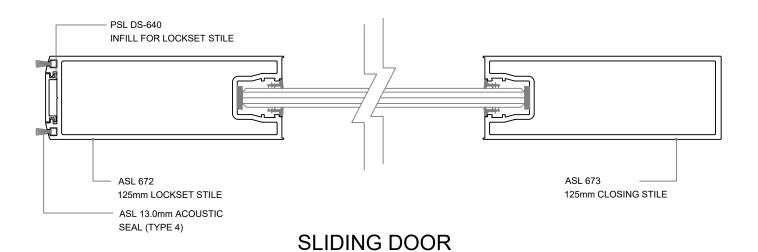






#### HINGED DOOR



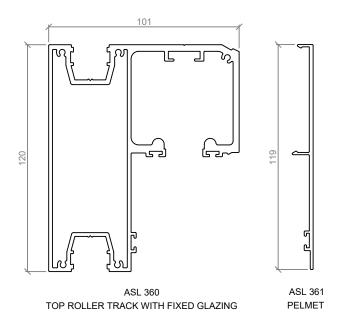


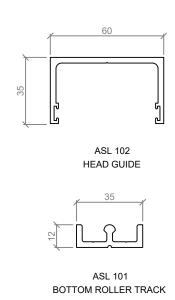
7-

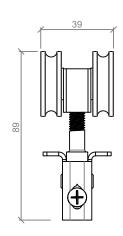




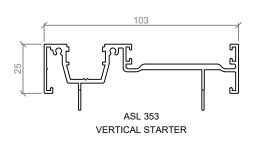
#### Standard Sliding Suites Profiles - Suits All ASL Systems

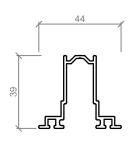






ZEB-ASL75 ASL ZERO CLEARANCE TOP HUNG CARRIAGE - 200Kg PANEL RATING, SUITS 75mm STILES

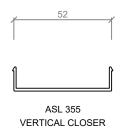


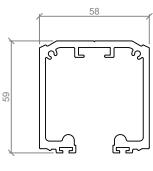


ASL 365
BOTTOM ROLLER GUIDE
& RP8 RAVEN SEAL RECIEVER

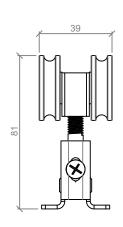


ASL 364 TRACK JOINER CLIP

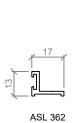




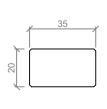
ASL 363 TRACK



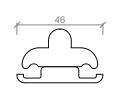
ZEB-ASL100 ASL ZERO CLEARANCE TOP HUNG CARRIAGE - 200Kg PANEL RATING, SUITS 100mm STILES



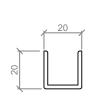
ASL 362 INTERLOCKER



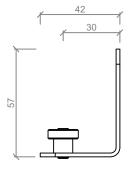
NYLON FLOOR GUIDE



DOOR STOP 180 / 250



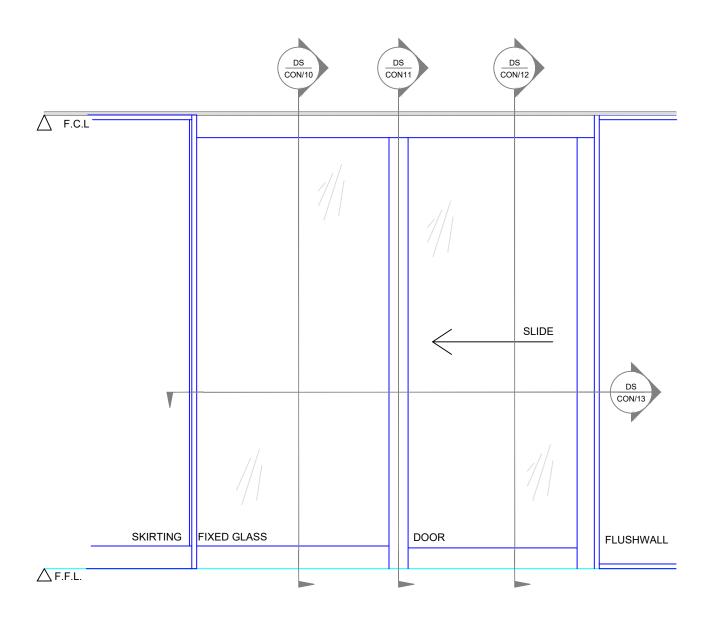
GUIDE CHANNEL



ROLLER GUIDE

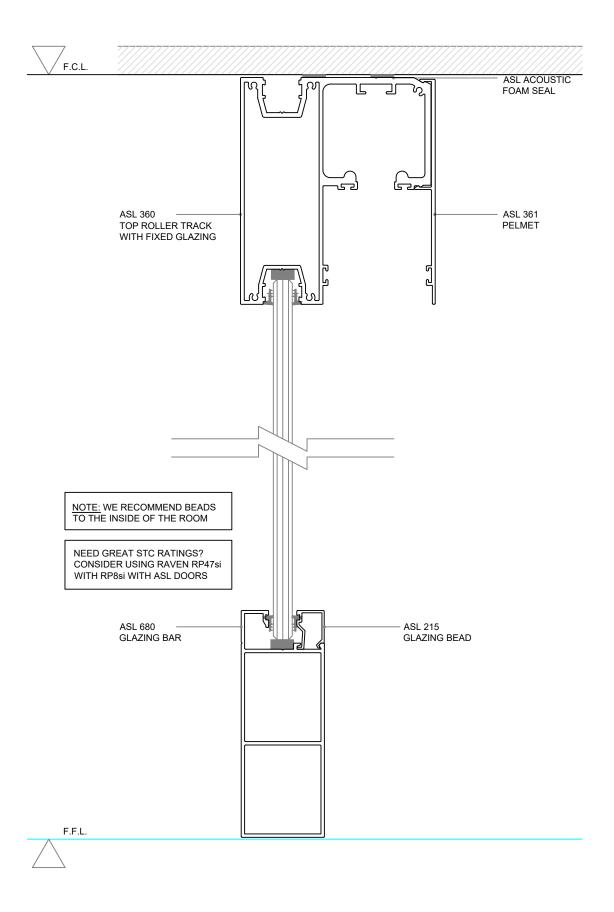


## **Standard Elevation** - Single Sliding Door with Fixed Glazing



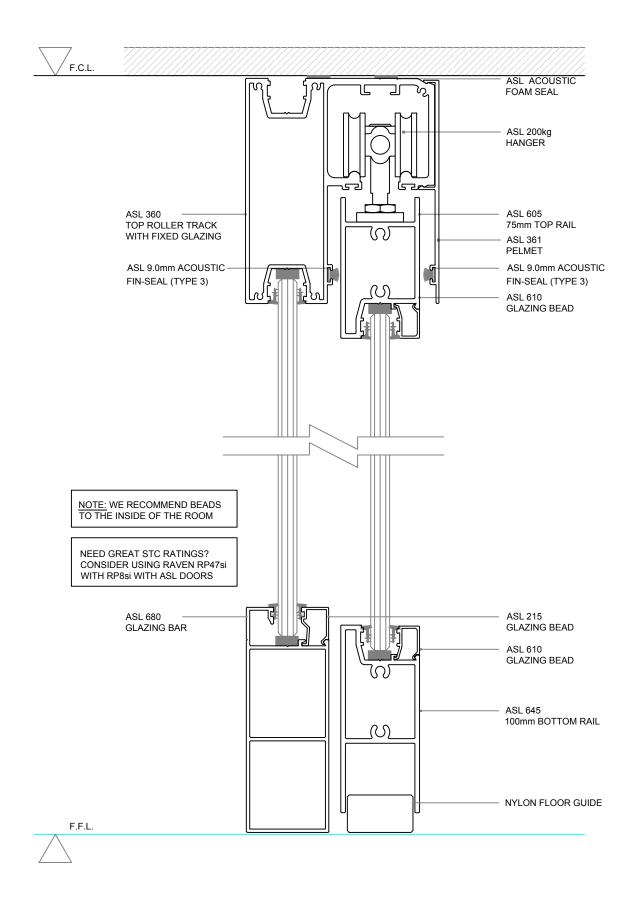


### Standard Details - Top Hung Sliding Door, Fixed Panel





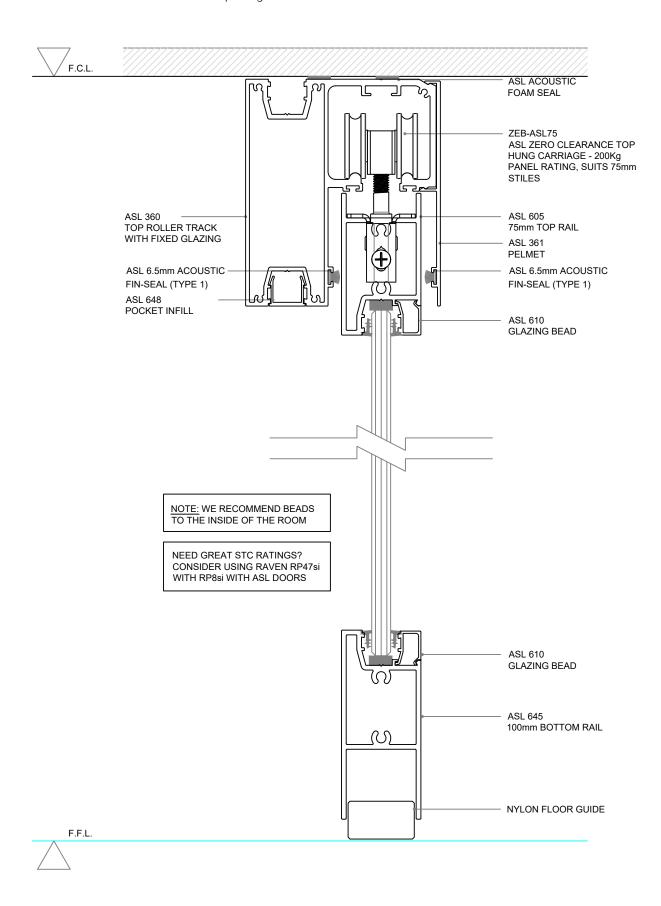
### Standard Details - Top Hung Sliding Door, Fixed Panel







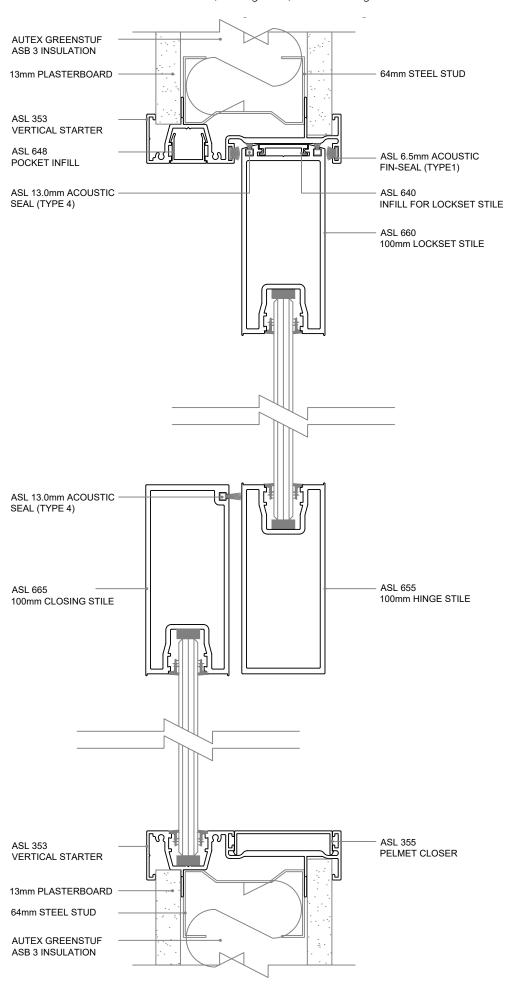
#### Standard Details - Opening & Door Panel





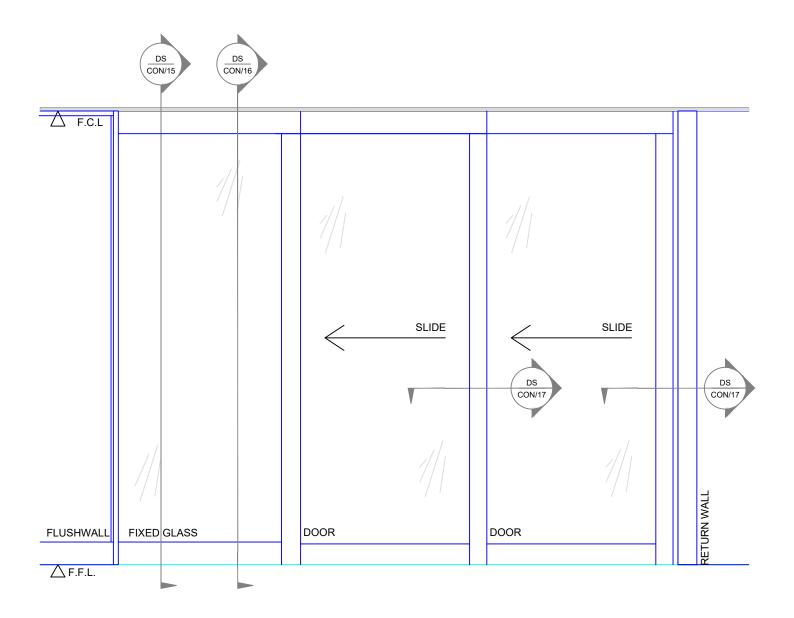


### Standard Details - 64mm Steel Stud, Sliding Door, Fixed Glazing





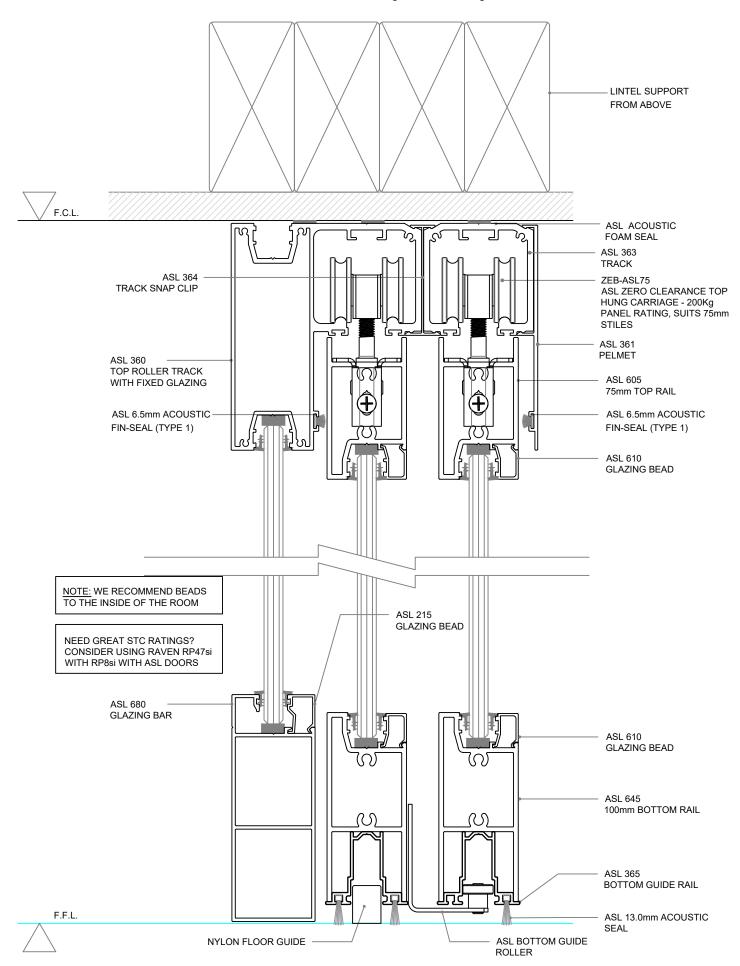
## **Standard Elevation** - Double Sliding Doors with Fixed Glazing



## **Doors**



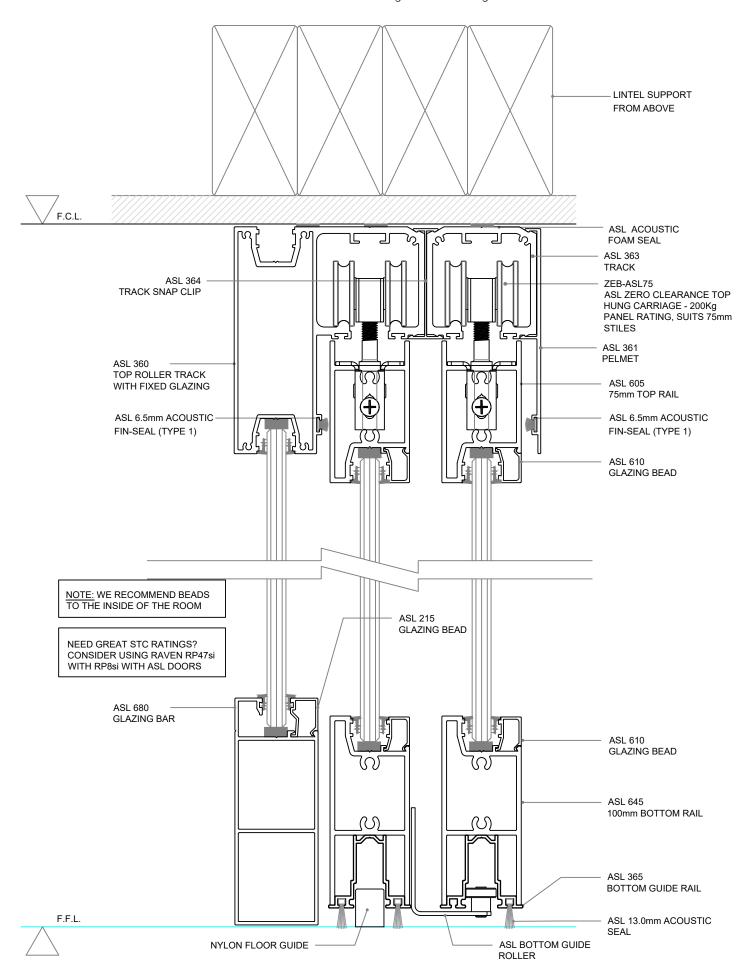
#### Standard Details - Bottom Roller Stacking Doors - Mating Head





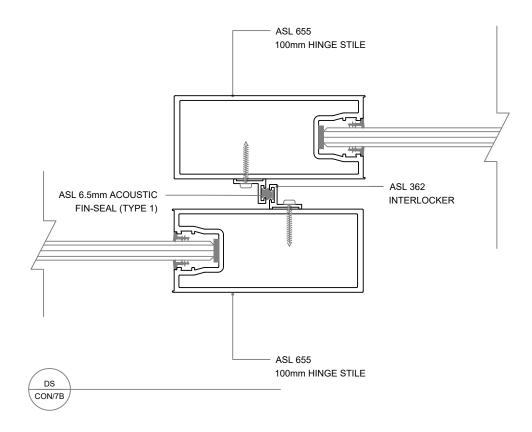


#### Standard Details - Bottom Roller Stacking Doors - Mating Head Guide

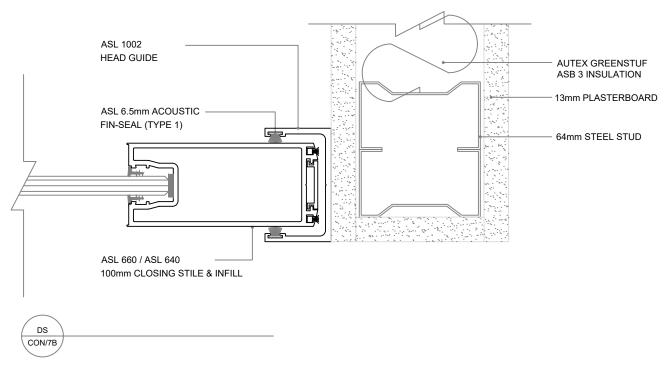


Standard Details - Vertical End Wall, Interlockers

# **INTERLOCKERS**

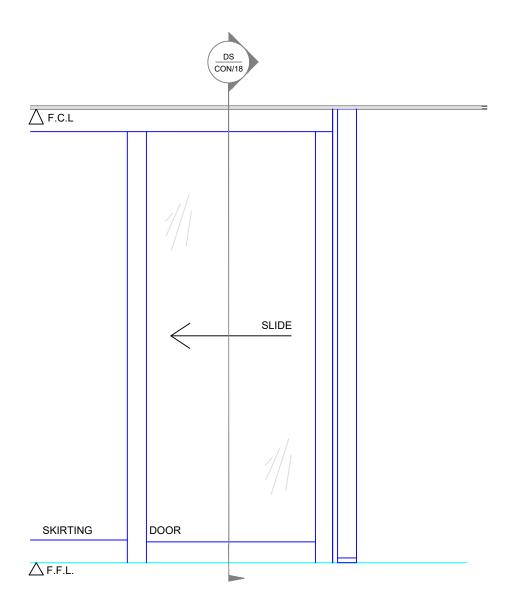


# **VERTICAL END WALL**



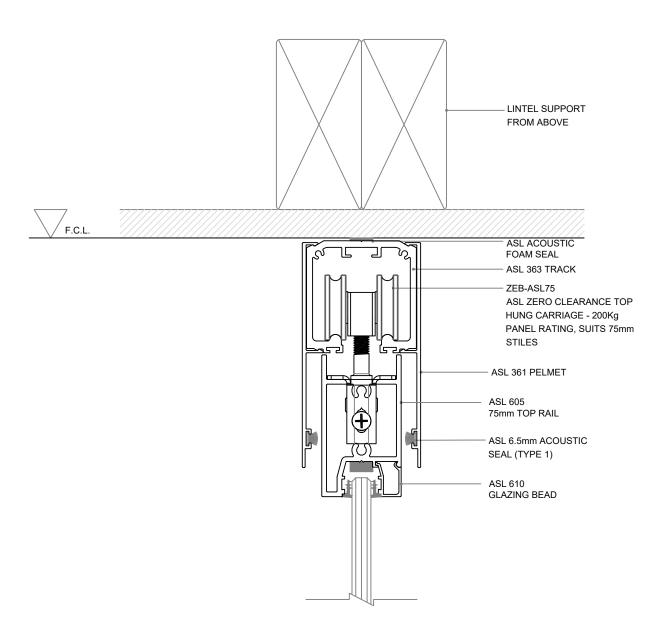


## **Standard Elevation** - Single Sliding Door



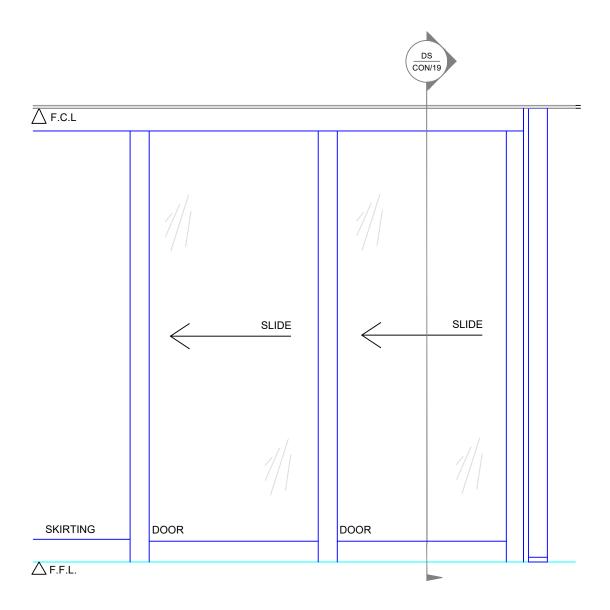


### Standard Details - Single Sliding Door - Top Track



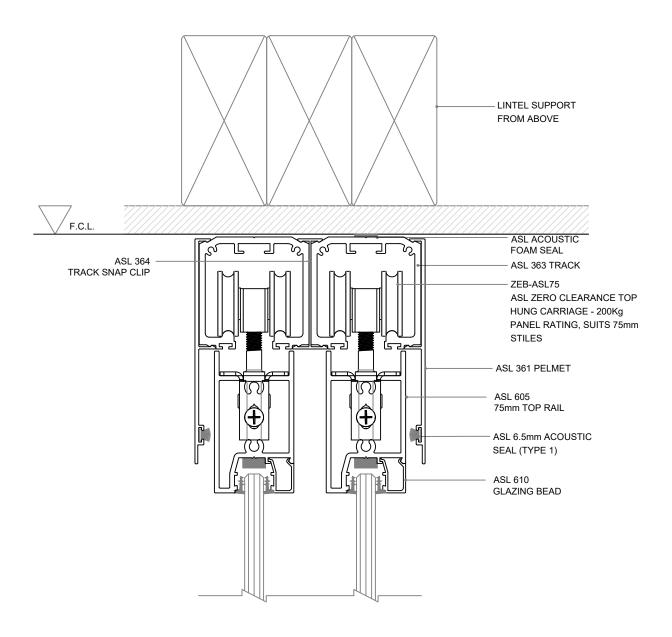


## Standard Elevation - Double Sliding Door



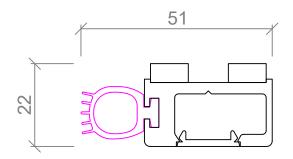


### Standard Details - Double Sliding Door - Top Track





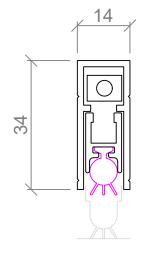
#### Acoustic Door Seal Options - Raven and inStop

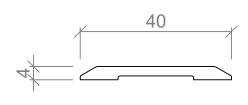


27

RP47 RP47Si

RP10 RP10Si

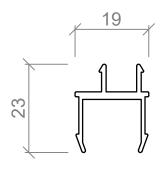




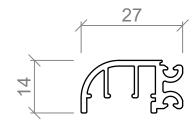
RP8 RP8Si

**RP96 FLOOR PLATE** 

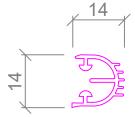




ASL 903
ADJUSTABLE DOOR
SEAL POCKET INFILL CLIP



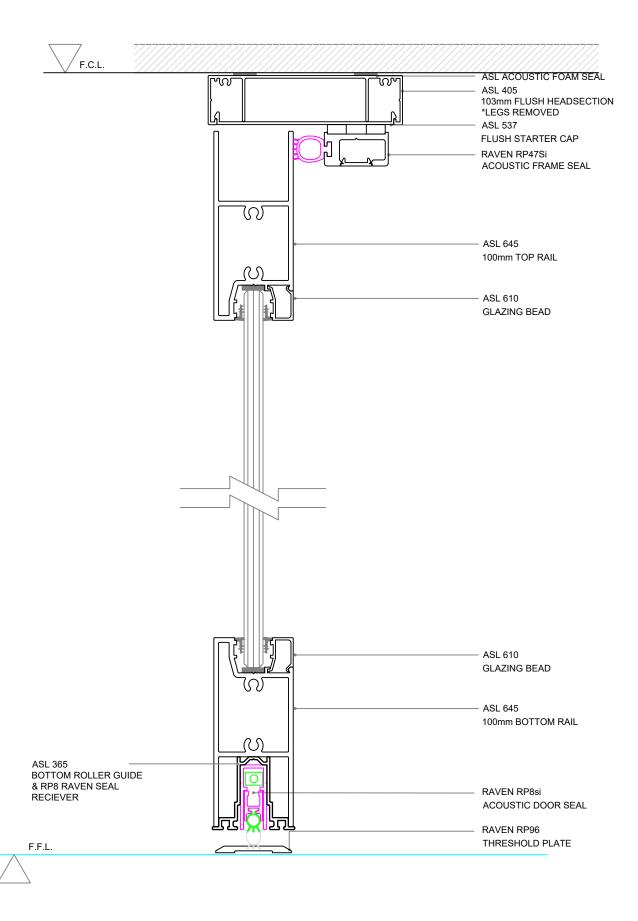
ASL 904 ADJUSTABLE DOOR SEAL



ASL RP310SI RP310Si SILICON RUBBER SEAL (SUITS ASL 903)

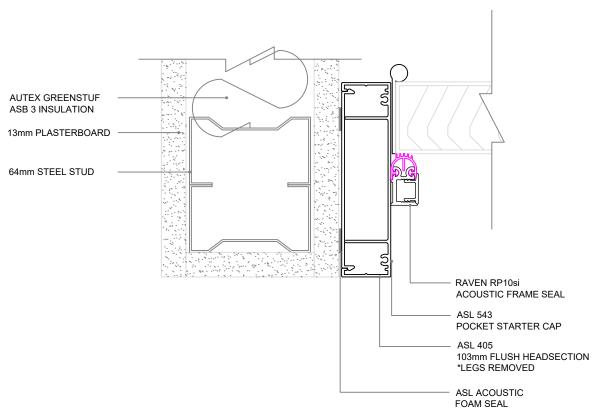


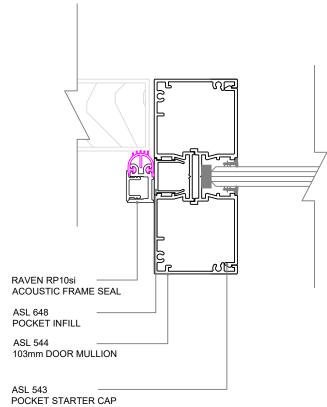
#### Acoustic Door Seal Options - Raven





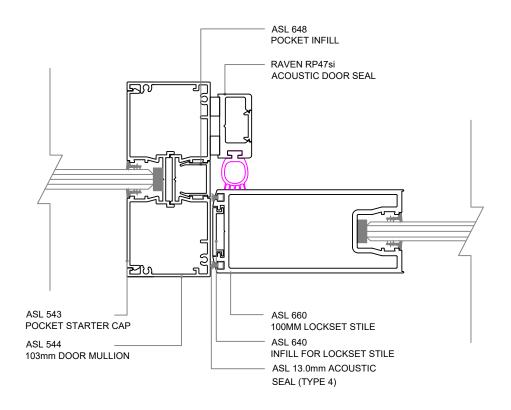
### Acoustic Door Seal Options - Raven

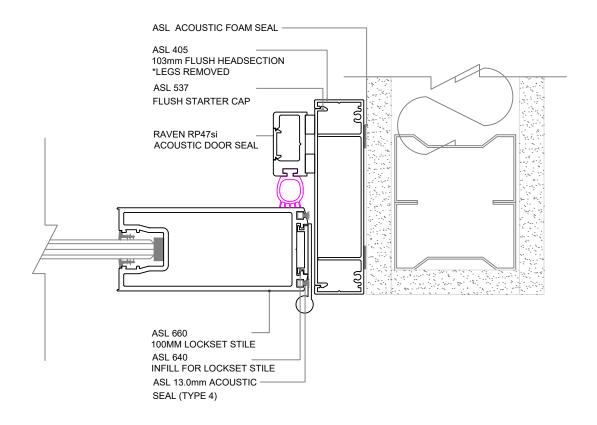






#### Acoustic Door Seal Options - Raven



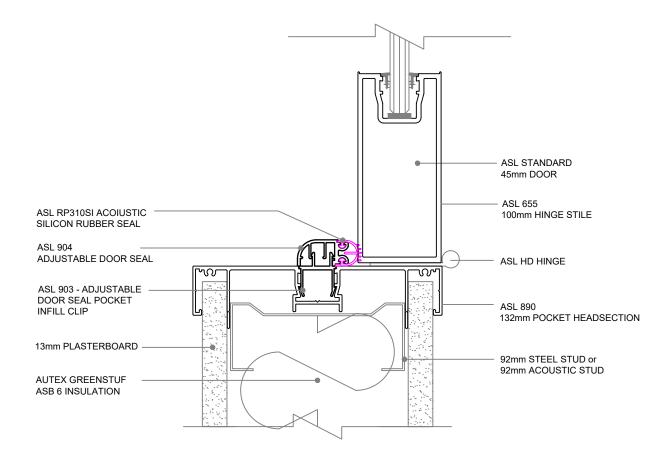


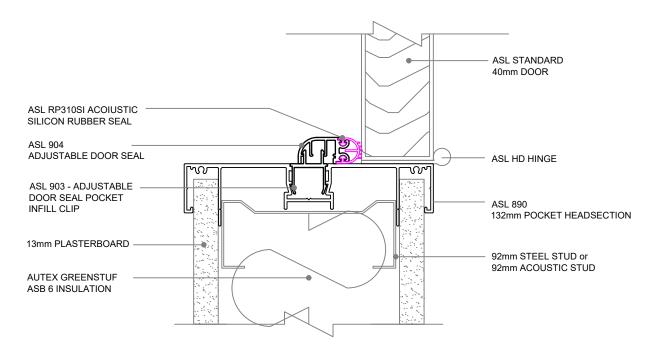




#### **Acoustic Door Seal Options**





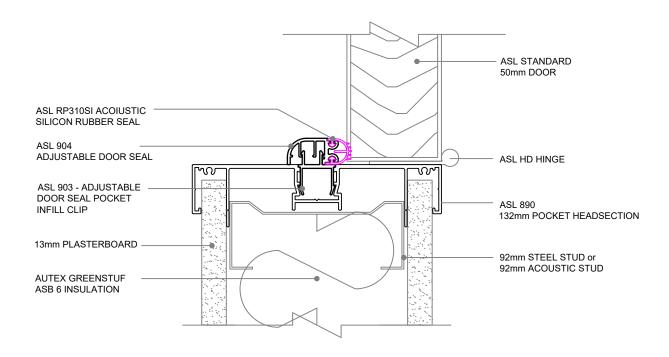






### **Acoustic Door Seal Options**





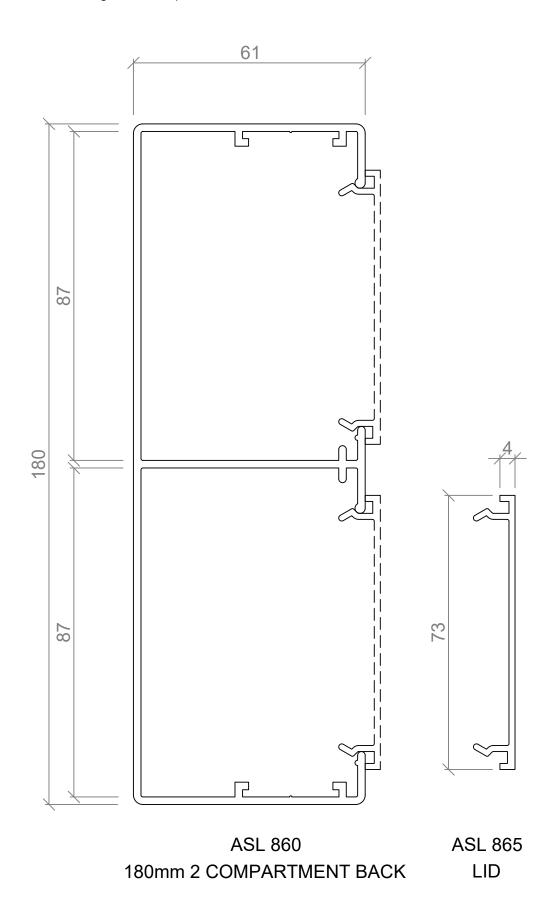
# **Trunking**

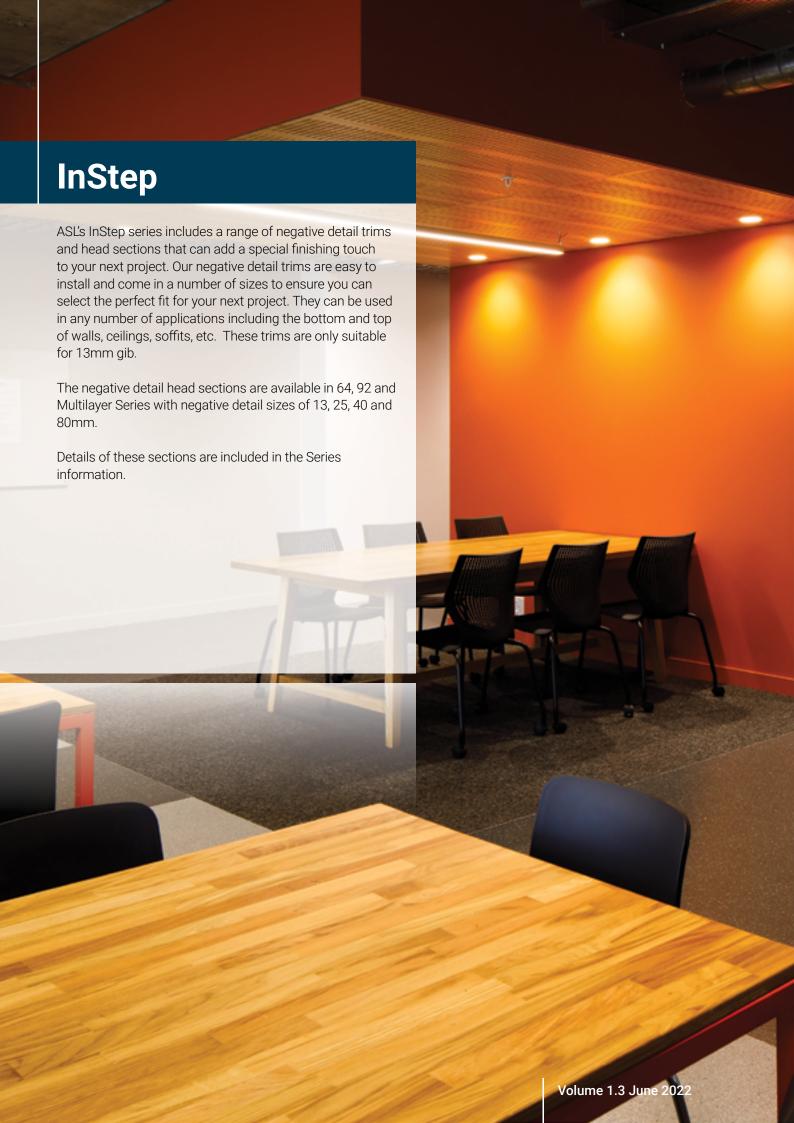
An essential part of any office environment, Trunking provides the ideal solutions for powder and data cable management. The separated cavities of our Trunking profiles provide perfect containment of cords with no interference.

- Power and Data cables separated
- Capacity, volume and bend radiuses comply with all applicable standards



## **Trunking** - Twin Compartment





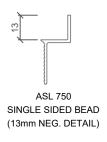


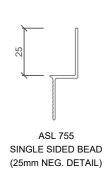


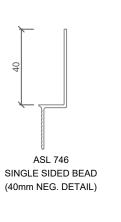
### Standard Suite Profiles - For all Stud types and sizes



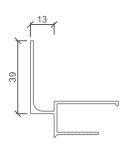




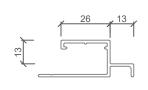




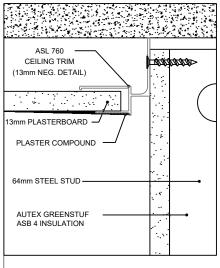


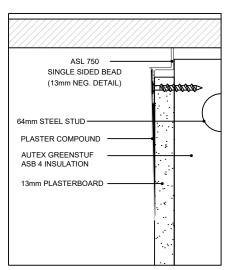


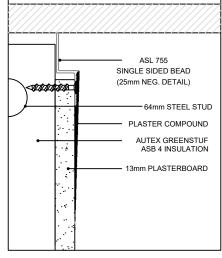
ASL 760 CEILING TRIM (13mm NEG. DETAIL)

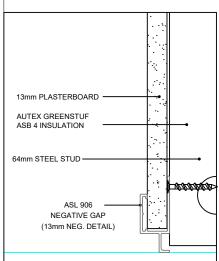


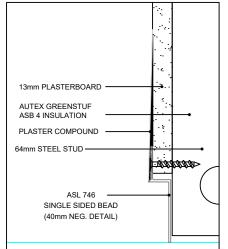
ASL 906 NEGATIVE CAP

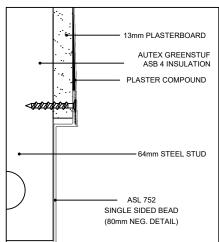
















# Door Assembly Guide

These installation instructions are of a general nature and designed to assist suitably experienced tradesmen assemble ASL Doors to a high standard. For installation support, contact your ASL Account Manager before you start.

#### MANUFACTURER'S DOCUMENTS

ASL recommends that all persons engaged in the assembly have full knowledge of the product and installation procedure as set out in the most recent edition of the manufacturer's instructions and related documents. Manufacturer's documents relating to work in this section are:

- ASL's Product Catalogue
- · ASL's Design Guide
- · ASL's Door Assembly Instructions
- · ASL's Caring for Aluminium Guide

Copies of the above literature are available on request or from the ASL website. (www.aluminate.nz)

#### INSPECTION

Before starting assembly of ASL Doors, check again that the materials have been supplied as ordered and are free from damage or faults. Check colour and delivery docket to ensure product has been supplied correctly. Any variations must be reported to ASL prior to commencing the installation. No claims will be accepted where the job continues with obvious faults and no consultation with ASL has taken place.

#### TRANSPORTATION, STORAGE & HANDLING

ASL profiles must be transported, stored and handled with care. Avoid impacts or distortion and protect edges from being crushed. Do not accept damaged goods. If product arrives damaged note the condition on the freight documents and contact ASL immediately. Goods signed as receipted in 'good condition' will not be the responsibility of ASL. Always transport and store aluminium profiles on a flat, clean, dry surface.

#### **CUTTING DOOR PROFILES**

Measure door opening size (Height and Width) required. Make allowance for door sizing to 'fit' inside the opening (Recommended opening Height size minus 15mm, opening Width size minus 8mm). Ensure all blades are sharp and straight. Ensure all cuts are at 90 degrees to ensure square doors.

Cut Door Height (Stile) same as calculated door height (\*Note - not opening size).

Cut Door Width (Top and Bottom Rails, also transoms if required). Width of Door - 150mm, 100mm or 75mm x 2 (Stile widths) + 2mm - Stile lip (Top/Bottom rail inserts into stile \*unique to ASL doors) = Cut size. We recommend you "measure twice and cut once".

#### **DOOR ASSEMBLY**

ASL Doors should always be installed in accordance with these Install Instructions and as per the specification detail and customer requirements. If there is conflicting information, you must seek clarification from all appropriate parties before proceeding with the work. It is imperative that the installation is planned before cutting any product.

Use a small cut section of top/bottom rail as a template to drill holes through the stile. Starting from the outside of the stile use the template to measure the required pilot hole location, holes to be drilled in the center of the stile using a 9.5mm drill bit. Using the same template, drill through the glazing pocket on the stile using a 6mm drill bit. Place the fabrication block in the glazing channel in line with the drilled holes. On a clear bench or surface place the stile and rails square to each other and insert the bolts through the outside of the stile, in through the fabrication block and into the rail screw ports. You will require a long drill head to reach through the stile holes to tighten the bolt. Ideally prior to fitting of the bolt, tap out the rail screw port hole. Repeat on all corners (Transoms should be installed after one end of door is assembled). Install caps following fixing of all bolts.

Surface contamination should be cleaned immediately ensuring the ASL's Caring for Aluminium Guide instructions are followed.

#### **CLEAN UP**

Clean up as the work proceeds.

#### **ON COMPLETION**

Leave work to the standard required by following procedures. Clean surfaces of aluminium swarf. Remove any debris, unused materials and waste from site.

#### **SERVICE**

For more information contact your ASL Account Manager or visit our website.



## **Overview**

#### **Door Series**

- Designed to fit with ASL systems
- Available in 44mm thick doors only
- Styles and rails sizes 75mm, 100mm, 125mm and 150mm
- Can accommodate glass thicknesses of 13mm thick laminated glass

#### **Slider Series**

Designed to fit with ASL aluminium systems, available in numerous configurations based around the 44mm door series.

Table 1. SAFETY GLAZING MAXIMUM AREA AND THICKNESS - For doors and sliders

Type of glass	Thickness Grade A	Maximum area m²
Toughened safety glass	6mm	4.0
Toughened safety glass	8mm	6.0
Toughened safety glass	10mm	8.0
Toughened safety glass	12mm	10.0
Laminated safety glass	6mm	3.0
Laminated safety glass	8mm	5.0
Laminated safety glass	10mm	7.0
Laminated safety glass	12mm	9.0

#### Series 64

Series 64 provides an Edge, Centre and Acoustic (Double-glazed) glazed design with clean lines to provide a clean look to your aluminium joinery system.

Series 64 gives a standard detail of 103mm x 25mm.

Series 64 has the following features:

- Can accommodate glass thicknesses 6mm 13mm
- Door thicknesses of 38mm 50mm can be used
- Standard wall size based around 64mm steel stud with one layer of plaster board on each side.

#### Series 92

Series 92 also provides an Edge, Centre and Acoustic (Double-glazed) glazed design very similar to the Series 64 but utilising a wider frame.

Series 92 gives a standard detail of 132mm x 25mm.

Series 92 has the following features:

- Can accommodate glass thicknesses 6mm 13mm
- Door thicknesses of 38mm 50mm can be used
- Standard wall size based around 92mm steel stud with one layer of plaster board on each side.



## **Glass Options**

For information on all glass types consult with Window & Glass Association NZ (WGANZ) <a href="https://www.wganz.nz">www.wganz.nz</a>

#### Glass thickness

ASL aluminium systems can accommodate glass thickness ranges from 6mm – 13.00mm maximum for laminated glass.

For more information on glass thickness and compliance with New Zealand Building Code requirements, refer to the "Human Impact Safety Requirements S/B NZS4223 Part 3. 2016 found on the WGANZ website <a href="https://www.wganz.nz">www.wganz.nz</a>

#### Glass weight

In kg's – Area of glass  $m^2$  (length x width) x thickness of the glass(m) x 2500kgs. e.g. (12mm thick glass) 0.012m x 1.7m H x 0.5m W 1.7 x 0.5 = 0.85m<sup>2</sup> 0.85 x 0.012 = 0.0102m<sup>3</sup> 0.0102 x 2500 = 25.5kgs

#### **GLASS SOUND TRANSMISSION RATINGS**

#### **Single Glazed System**

6mm Standard Float = 31 STC 6.38 Standard Laminate = 33 STC 6.76 Sound Reduction Laminate = 34 STC

8mm Standard Float = 33 STC 8.38 Standard Laminate = 34 STC

10mm Standard Float = 35 STC 10.38 Standard Laminate = 35 STC 10.76 Sound Reduction Laminate = 36 STC

12mm Standard Float = 36 STC 12.38 Standard Laminate = 37 STC 12.76 Sound Reduction Laminate = 38 STC

#### **Twin Glazed System**

50mm Air Space

10.38 Standard Laminate / 50mm Air Space / 12.38mm Standard Laminate = STC 45 (Estimated Performance by Saflex® SoundPro)
10.76 Sound Reduction Laminate / 50mm Air Space / 12.76 Sound Reduction Laminate = STC 50

(Estimated Performance by Saflex® SoundPro)

70mm Air Space

10.38 Standard Laminate / 70mm Air Space / 12.38mm Standard Laminate = STC 47 (Estimated Performance by Saflex® SoundPro)
10.76 Sound Reduction Laminate / 70mm Air Space / 12.76 Sound Reduction Laminate = STC 52 (Estimated Performance by Saflex® SoundPro)

#### **GLASS TO METAL CONTACT**

Glass to metal contact should avoided on installations. This is for two reasons, to mitigate against thermal movement and to reduce sound transmission. Thermal movement created by the different expansion rates between glass and metal can cause breakage, particularly in annealed laminated glass.

ASL aluminium systems utilise a be double wedge system.

#### **DESIGN GUIDELINES FOR GLAZED INTERIOR ALUMINIUM JOINERY**

Interior aluminium joinery includes various framing systems that include infills such as glass and gib. The glass systems incorporate gaskets, wedges and blocking similar to exterior aluminium joinery, but without the concerns of weather-tightness or regional wind loads, key considerations for external joinery. ASL's joinery is designed to support the glass under low internal pressures and human impact. (NZS 4223.3:2016 Glazing in buildings - Part 3: Human impact safety requirements)

#### **Glass Standards**

The New Zealand Building Code references Glazing in Buildings NZS 4223: Standard as an acceptable solution.

#### Glass design

Glass design for internal aluminium joinery is covered by NZS 4223 Part 3: 2016, Section 10. This section defines: area and glass thickness tables for:

- General doors and side panels
- Fully Framed Four edge support in other areas
- Partly Framed
- · Unframed side edges
- Unframed top edge
- Other unframed glazing

WGANZ members can advise on the effect on glass thickness, type and cost of various framing types and spacing.

#### **Framing**

NZS 4223 Part 3: 2016 defines containment of glass in Section 2 and requires glass to be installed to meet the edge cover requirements.

For glass to be considered as framed minimum framing rigidity requirements are set out in Appendix 3.C of NZS4223 Part 3: 1999. NZS 4223 Part1: 2008 provides minimum glazing dimensions and minimum edge cover, the key data is abridged in Table 1.

**Table 2. GLASS THICKNESS AND EDGE REQUIREMENTS** 

Glass thickness (mm)	Minimum edge cover	Minimum edge clearance	Total rebate depth
6	6	4	18
8	8	5	18
10	8	5	18
12	9	6	18

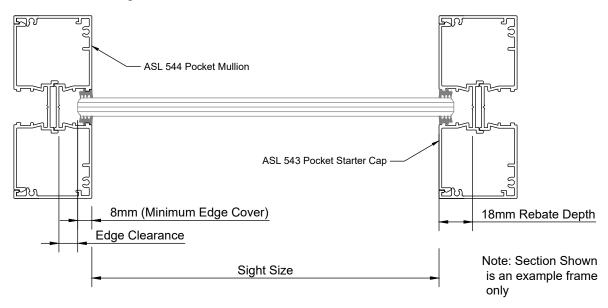
#### Aluminium joinery frame design

ASL aluminium joinery systems have removable beads and adequate (18mm) pocket depth to get both the edge cover and edge clearance required.

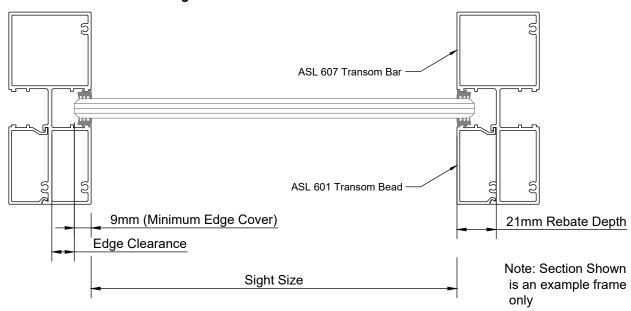
As illustrated in Detail 1 & 2 (below) the glass size cannot be more than the visible size plus the depth of one rebate, less a glazed clearance of 2mm-4mm (This depends on glass thickness, type, frame straightness and squareness). This glass is then centred in the frame when installed.

Therefore, an 18mm rebate will only allow a maximum edge cover of 7mm or 8mm (1/2 rebate depth minus ½ of clearance) with the maximum glass thickness derived from Table 2 (above).

### **Detail 1. Shuffle Glazing Tolerances**



#### **Detail 2. Bar and Bead Glazing Tolerances**



Note: Edge cover is defined as full support for the glass. Glazing gasket/wedge extending beyond the pocket should not be considered as part of the edge cover.



#### Table 3. INTERIOR GLAZING FOR PARTITIONS AND SHOPFRONTS WITH UNFRAMED SIDE EDGES

Max height of glass (span) (mm)	Type of glass	Unlimited number of vertical sealed joints, glass panes, and pane width Minimum glass thickness (mm)	Three-edge support with one vertical sealed joint, maximum pane width of 1200 mm Minimum glass thickness (mm)
1600	Annealed	8	6
	Toughened	6	6
	Laminated	8	6
2400	Annealed	10	8
	Toughened	10	8
	Laminated	10	8
2600	Annealed	12	10
	Toughened	10	10
	Laminated	12	10
3000	Annealed	12	10
	Toughened	12	10
	Laminated	12	10
3200	Annealed	NA	NA NA
	Toughened	12	10
	Laminated	16	10
3600	Annealed	NA NA	NA NA
	Toughened	15	12
	Laminated	16	12
4000	Annealed	NA	NA NA
	Toughened	15	12
	Laminated	20	12

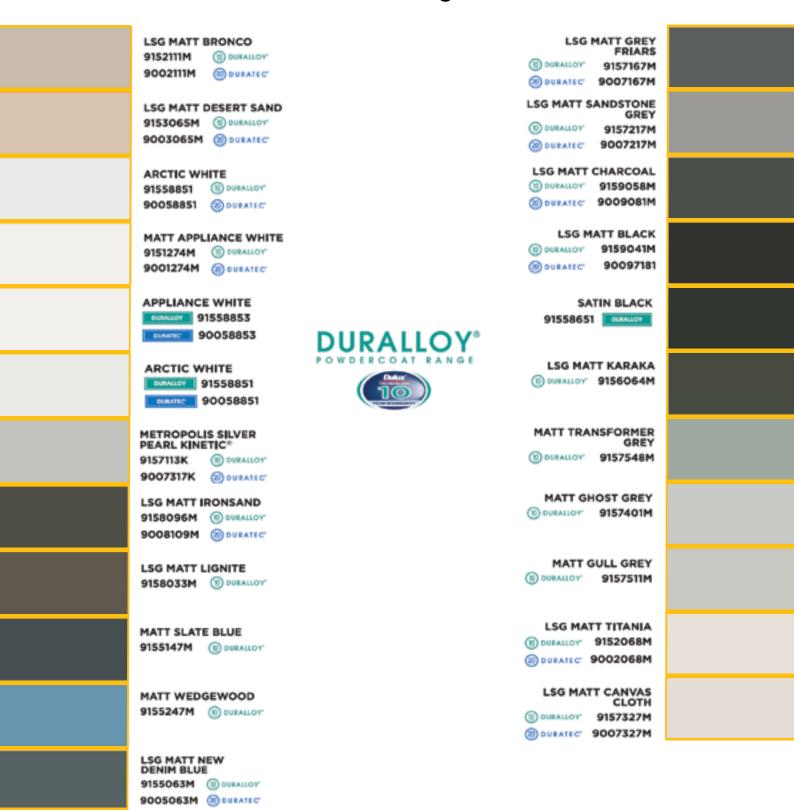
#### NOTE-

- Use specific design for heights above 4000 mm.
- (2) Adequate edge cover is required to retain the glass under load (Refer to section 4 of NZS 4223.1).
- (3) Glass design is based on ULS and SLS internal design wind pressures of 0.50 kPa and 0.36 kPa respectively.
- (4) Maximum deflection at SLS pressure is restricted to span/ 60, and 30 mm for three-edge support.
- (5) For design loads exceeding those in note 3, Table 5 may be used up to its limits.
- (6) Joints between glass panes are to be sealed with silicone.
- (7) For toughened laminated glass use the toughened glass limits.
- (8) NA = Not applicable.



# Powder Coating

## **Standard Colour range**



#### **PLEASE NOTE**

Our standard colour range covers the Duralloy® finish for the listed colours, however some colours are available in Duratec® at additional cost.

Duralloy® is a tough thermosetting powder coating that exhibits decorative and durable characteristics suitable for a broad range of interior and exterior product applications where excellent overall performance is required. For more information contact your ASL account manager.



## **Seismic Wall Bracing**

The TRACKLOK® suite of bracing products have been designed, tested and internationally accredited to seismically secure part height partition walls in commercial interiors.

Architects, Engineers and Construction Professionals benefit from these pre-engineered, cost effective and consistent seismic bracing solutions.

#### The TRACKLOK® range:

TRACKLOK®	For new builds, connect directly to the partition head, starter or glazing pocket.
TRACKLOK® RETRO	Enables retroactive installation to provide sequencing benefits.
TRACKLOK® TIMBA	Enables installation to timber top plates.
TRACKLOK® VERT	Allows for vertical bracing options to mitigate service clashes. Available in RETRO, TIMBA and DEFLOK® configurations.
TRACKLOK® FLAT	Allows for unlimited vertical deflection and mitigates service clashes. Available in RETRO and TIMBA configurations.
DEFLOK® RETRO/ TIMBA	Allows for +/- 35mm of vertical deflection. Straight swap in / swap out for TRACKLOK® units. Available in VERT configuration.

#### Compliance:

- Complies with NZ Building Code Clause B1-Structure
- Complies with NZ Building Code Clause B2-Durability
- Contributes to compliance with NZ Building Code Clause F6 Visibility in Escape Routes and Clause D1 Access Routes.

#### Applications:

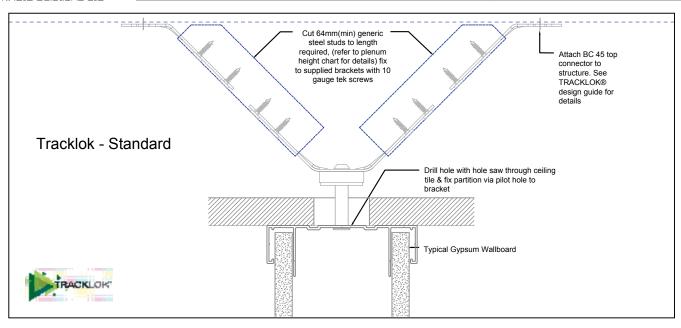
- Importance Level 2, 3 and 4 Buildings
- Hospitals
- Commercial Interiors
- Schools

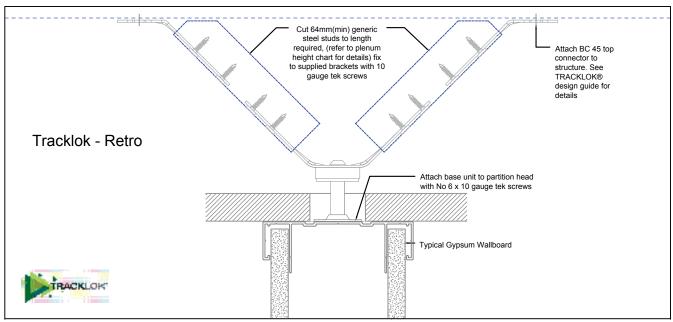
For a FREE plan markup please use the online form <a href="http://www.tracklok.com/plan-mark-up">http://www.tracklok.com/plan-mark-up</a>

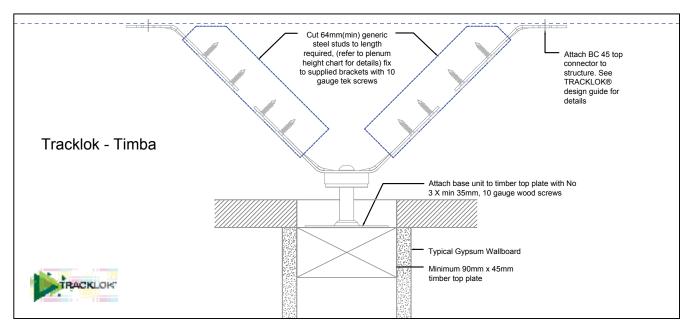
For all installation details and limitations, plus a range of support documents and drawing files please visit <a href="http://www.tracklok.com/downloads">http://www.tracklok.com/downloads</a>

Please visit <a href="http://www.tracklok.com/downloads">http://www.tracklok.com/downloads</a> for a copy of the TRACKLOK® Seismic Bracing Guide for Partitions and Ceilings.

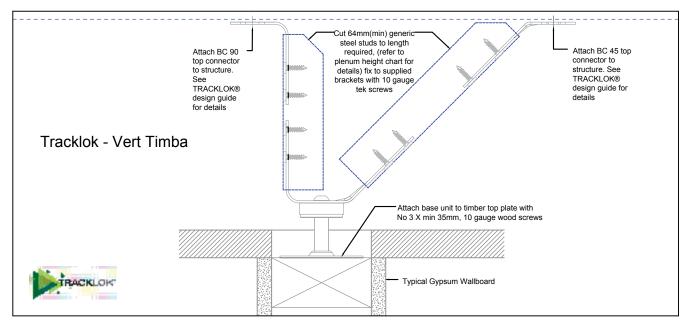


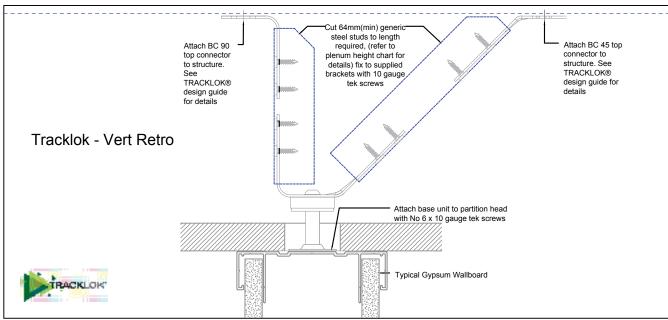


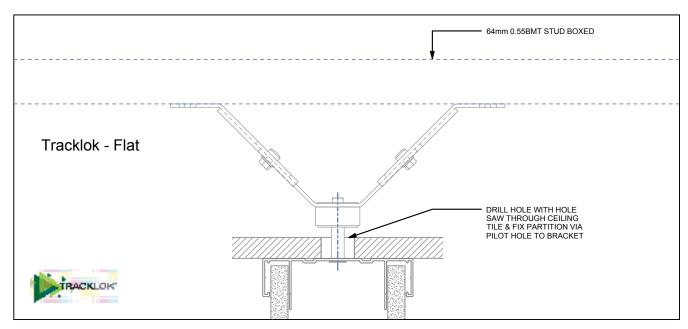




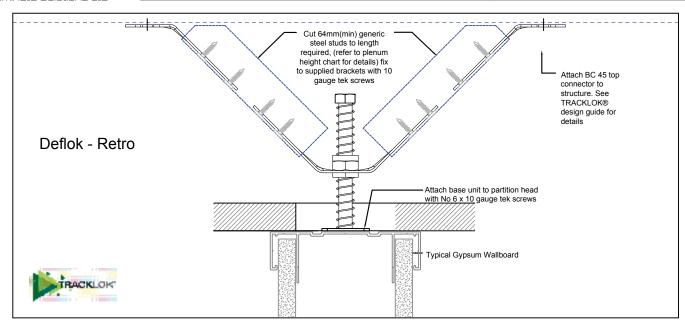


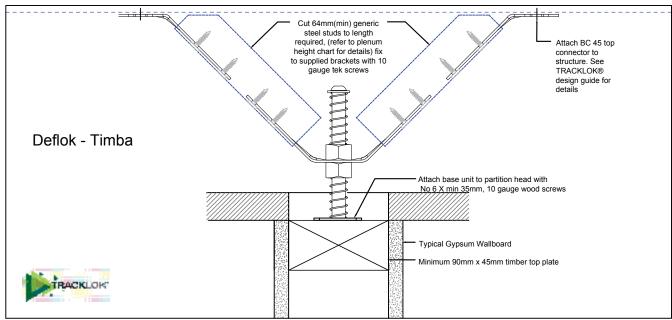


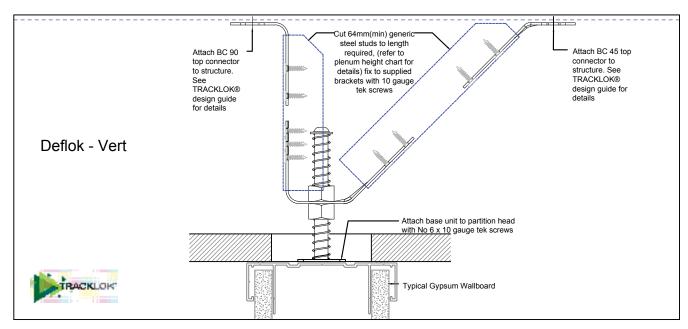














## Maintenance

## **Caring for your Aluminium**

#### **POWDER COATED PRODUCTS:**

Many products are powder coated both to protect and to beautify the article. These powder coated articles can include such diverse products as your window joinery, entrance or garage doors, letterboxes, meter boxes, lawn mowers, plant pots and many other every day items.

To extend the life of powder coated products and to comply with warranty requirements for powder coated aluminium joinery, a simple, regular maintenance program should be implemented. The effects of ultra violet light, atmospheric pollution, dirt, grime and airborne salt deposits can all accumulate over time and should be removed at regular intervals.

As a general rule cleaning should take place every six months. In areas where pollutants are more prevalent, such as coastal areas and industrial or geothermal areas, then a cleaning program should be carried out on a more frequent basis i.e. every one to three months.

# THREE STEPS TO CLEANING YOUR POWDER COATING:

- Carefully remove any loose surface deposits with a wet sponge.
- 2. Use a soft brush (non-abrasive) and a mild household detergent (do not use solvents) in warm water, remove dust, salt and other deposits.
- 3. Rinse off with clean fresh water.

# RESTORING WEATHERED OR SCRATCHED SURFACES:

If through some misadventure your powder coated aluminium joinery is scratched or damaged, don't panic Dulux Powder & Industrial Coatings colour Repair Kits are available in all colour card colours.

Spray cans make easy aesthetic repairs to scuffed or scratched powder coated surfaces. Weathered areas or mild scratches can also be restored with the use of Dulux Gloss Up which is a light to medium cutting cream ideally suited for gloss restoration and has been specifically designed for this purpose.

# THE GOLDEN RULES FOR PROTECTING YOUR ALUMINIUM:

- Please mask your joinery when building, renovating, plastering or painting.
- If paint splatters or sealants do get on joinery, do not allow to dry, remove immediately.
- DO NOT use turpentine, white spirits, thinners, citrus based cleaners or other aggressive solvents on powder coating (these may be harmful to the extended life of the powder coated surface and should be avoided as the damage may not be visible immediately and may take up to twelve months to appear) affect painted finishes.
- DO use isopropyl alcohol or Methylated spirits and rinse with warm soapy water.
- DO clean only when powder coated surface temperature is below 25 C°.
- DO NOT rub powder coating excessively, especially metallic finishes.
- DO use approved tapes only to mask joinery.
- Use masking tapes in accordance with manufacturer's instruction.

#### **IMPORTANT FOR ALL TRADES:**

This valuable aluminium joinery will suffer permanent damage from: plaster, mortar and paint splashes - Protect if splashes occur - Immediately wash down the joinery with water or meths - Do not allow splashes to harden - Do not use solvents!

#### **ANODISED PRODUCTS:**

The life of an anodised finish can be greatly enhanced by the adoption of a regular documented maintenance programme. Any chemical attack on decorative surfaces which is not regularly cleaned becomes increasingly severe and after several years, may be impossible to restore. A regular cleaning and maintenance regime is essential for two very good reasons:

- To maintain a decorative appearance and to reduce any chemical attack, if applicable
- Anodised surfaces are cleaned to remove dirt, grime, grit, atmospheric pollutants and iridescence.

## Maintenance

2

## **Caring for your Aluminium**

Initial cleaning should occur after installation, to remove atmospheric dust, smut, deposits of dirt, possible Cement deposits, glues, etc. from the anodised surface. Periodic cleaning that should be done on a regular basis. The intervals of each cleaning cycle are dependent on the atmospheric pollutants, area, region, corrosive level, etc. for a particular region. i.e. coastal areas

#### WHAT YOU SHOULD DO:

- Protect exposed Aluminium surfaces until all wet trades etc. have been completed.
- Any cement or acid should be removed as soon as practical. This will prevent any chemical attack.
- When cleaning, wash down all surfaces with a neutral detergent and rinse thoroughly.
- Remove awkward deposits on ANODISED aluminium, with a suitable nylon abrasive cleaning pad or brush, plus neutral detergent, and then rinse.
- The use of an Anodising sanding rubber is also recommended where appropriate, please consult your ASL Representative for more information.
- To clean long neglected areas it is advisable to use proprietary cleaners specifically formulated for aluminium surfaces. These products contain residual waxes etc. and can substantially improve the appearance of worn or weathered surfaces.

#### WHAT YOU SHOULD NEVER DO:

- Use of wire brushes, steel wool, and emery paper are NOT recommended under any circumstances.
- Avoid mechanical damage from scaffolding, site handling, mechanical impact etc.
- Do NOT allow strong acids such as Hydrochloric, Acetic etc. to come into contact with anodised aluminium
- Do NOT allow mortar or mortar cleaning chemicals to come into contact with anodised surfaces.
- Do NOT allow strong alkalis such as caustic soda, lime etc. to come into contact with anodised aluminium.
- Do NOT allow Brass or Copper to come into direct contact or close proximity to Anodised Aluminium.

#### **ONSITE HANDLING:**

Ensure that the aluminium is properly protected with interleaved wrapping in paper or plastic and ensure that the wrapping does not get damp during storage. To ensure that the anodised coating is not attacked by corrosive chemicals, a temporary protective coating can be applied in the form of a suitable non-yellowing lacquer, e.g. methyl methacrylate or cellulose acetate butyrate, or a strippable coating or tape (polyethylene) is recommended. Tape and strippable coatings should be easily removable and should not leave residues.

