Drywall Grid System Technical Guide Shortspan

Armstrong® CEILING SOLUTIONS

DRYWALL GRID SYSTEM

Drywall Grid Systems

Features and Benefits

Armstrong Drywall Grid is fast and easy to install and an economical alternative to TCR and Furring Channel construction.

Applications

Armstrong Drywall Grid Systems offer flexible design solutions for:

- Flat and Curved Ceilings
- Bulkheads (Multiple Step and Curved)
- Transitions to Acoustical Ceilings
- Margins
- Perimeters
- Walls

Features

- **PeakForm**
  Patented profile increases strength and stability for improved performance during installation
- **Knurled Face**
  Positive screw penetration into tees
- **SuperLock / XL²**
  Main Bar and Cross Runner clips are engineered for a strong secure connection and fast accurate alignment confirmed with an audible click; easy to remove and relocate
- **ScrewStop**
  Reverse hem prevents screw spin off on Tee face
- **38mm Wide Face**
  Main Bars and Cross Runners – easy installation of screw fixed plasterboard sheets
- **Rotary stitched Double Thickness Web**
  For additional torsional strength and stability
- **Simple Integration of Mechanical Services**

Benefits

- Reduced installation time
- Reduced labour costs
- Reduced material costs and wastage
- Low 38mm profile across one plane
- Material off cuts can be used for bracing and as an alternative suspension method

Physical Data

- Material: Hot dipped galvanised steel
- Recycled Content: 25%
- Surface Finish: Z275 galvanised
- Main Bar / Cross Runner Interface: Joggled ends
- End Detail:
  - Main Bar: staked-on SuperLock clip
  - Cross Runner: staked-on XL² clip

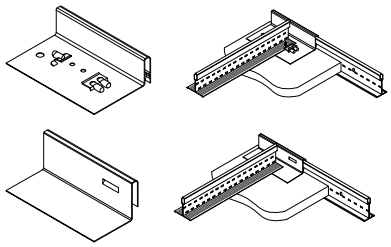
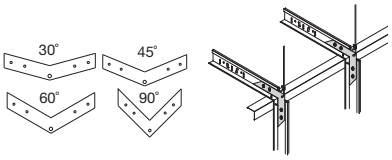
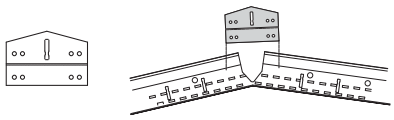
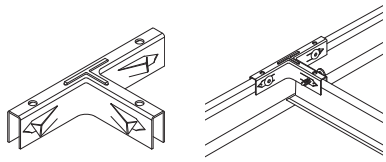
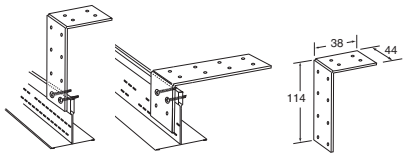
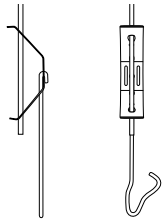
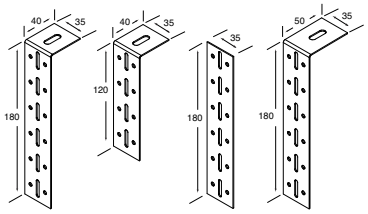
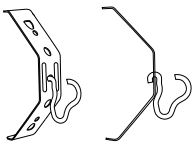
Code Compliance

Armstrong DGS is designed and manufactured to comply with the following standards:

AS/NZS 2785-2020: Suspended Ceilings – Design and Installation
AS/NZ 2589-2007: Gypsum linings – Application and finishing
AS/NZ 1397-2002: Steel sheet and strip – Hot-dipped zinc-coated or aluminium/zinc-coated
AS/NZ 4600-2005: Cold-formed steel structures
AS/NZ 1170-2002: Structural Design Actions

Grid Accessories

LEGEND: • Flat Ceilings, • Wall systems, • Curved Ceilings, • Quikstix Bulkheads, • ShortSpan

Application	Item Number	Product Description	Pcs / Bucket	Legend
		**Transition Clips with Locking Tabs** facilitate transition from drywall to acoustical ceiling; one-sided hold-down clip; eliminates need for drywall bead. Locking tabs provide secure location for DGS tees		
	BPDW10LT	**For 10mm Plasterboard**	125	•
	BPDW13LT	**For 13mm Plasterboard**	125	•
	BPDW16LT	**For 16mm Plasterboard**	125	•
	ALDW13	**Suits 45/50 Top Hat for 13mm Plasterboard**	100	•
	BPDW30C BPDW45C BPDW60C BPDW90C	30, 45, 60 and 90 degree **Drywall Angle Clips** are used to create positive and secure angles for drywall and ceiling installations on either Main Bars or Cross Runners	250 250 250 250	• • • •
	BPRC2	**Radius Clip** is used to secure the Main Bar at the desired angle in curved ceiling applications. Includes a rout for Cross Runners installation	205	•
	BPGC3W	**3 Way Bite Clip** connects Intersecting Cross Runners at any point along a Main Bar or other Cross Runners	250	• • •
	BPQSUTC*	**Up Tight Clip** is used for Direct fix applications *Non stock item – lead time required	150	• • • •
	SCDGS	**Rod Hanging Clip** is the standard height adjustable suspension clip connecting from 2.5mm or 5mm rod to the DGS Main Bar	100	• • •
	DWDFC DWDFC120 DWDFFC180 DWDFC18050	**Direct Fix Clip** – 180mm L Shape **Direct Fix Clip** – 120mm L Shape **Direct Fix Clip** – 180mm Flat Extension **Direct Fix Clip** – 180mm L Shape with 50mm Head	100 100 100 100	• • • • • • • • • • • • • • •
	DGSSCS	**DGS Suspension Clip Small** is the standard height adjustable suspension clip connecting from 2.5mm or 5mm rod to the DGS Main Bar	100	• • •
	DGSSCTR	**DGS Threaded Rod Clip** is a suspension clip for 6mm Threaded Rod	100	• • •

ShortSpan

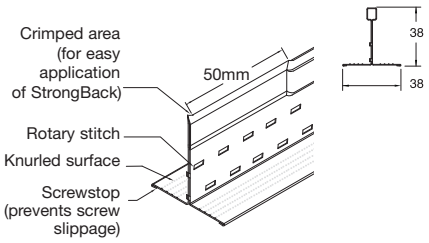
Armstrong DGS – ShortSpan is a fast and easy solution for framing short spans and an economical alternative to TCR and Furring Channel constructions.

Features

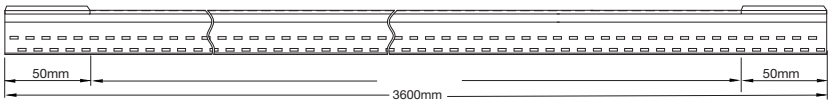
- ShortSpan enables framing without suspension hangers to a maximum span of 1600mm, saving material and time
- ShortSpan Tees engage to the Armstrong Locking Angles Trims at the perimeter without the need to screw fix.
- Longer spans can be simply achieved using the StrongBack Support at 1600mm centres.

Components

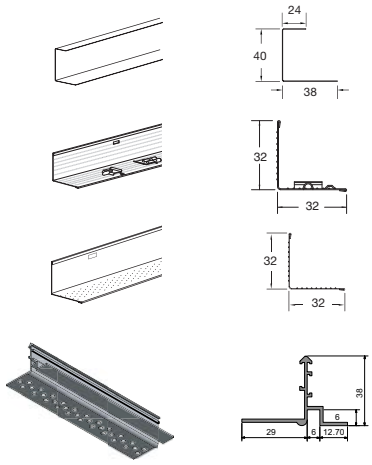
ShortSpan Tee with Knurled Face



Item Number	Dimensions length (mm)	height (mm).	face (mm)	Rout Spacing mm	Content / Bundle / Weight pcs	lm	kg
BP 79S36	3600	38	38	–	12	43.2	20

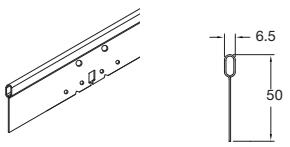


Perimeter Trims / Transition Trim



Perimeter Trim: Knurled Channel Moulding (hemmed with Knurled lower leg)							
BP KCM 36	3600	40	38	–	12	43.2	15.6
Perimeter Trim: Locking Angle Trim (hemmed with Knurled faces)							
BP LAT36	3600	32	32	75 in / 150 o.c.	20	72	26
Perimeter Trim: Angle Trim (hemmed with Knurled faces)							
BP KAM36	3600	32	32	–	20	72	26
Shadowline reveal with Knurled Face for PB fixing and Pre-painted Global White finish							
ALPTPERFTH36003600	38	45.5	–		20	72	24
Plasterboard Transition Set Bead With 6mm Revel – Satin White							

StrongBack Support

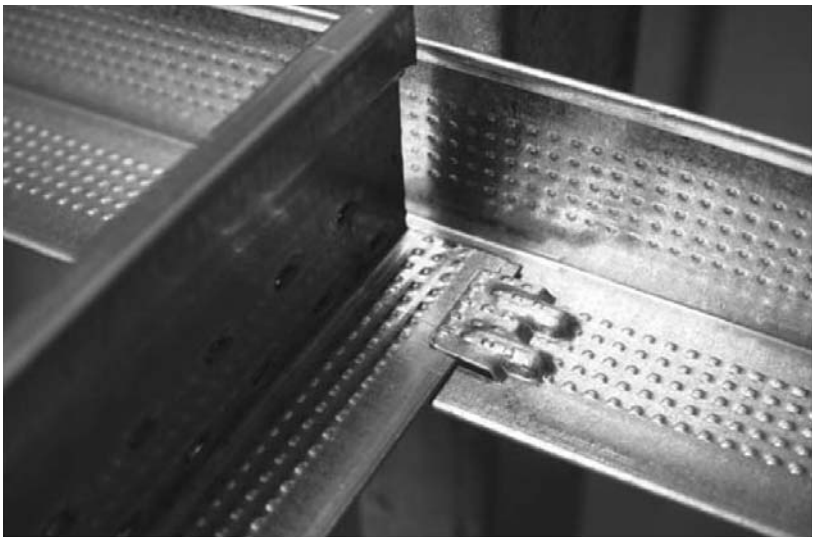


BP 79SB36	3600	50	–	75 in / 150 o.c.	12	43.20	20

ShortSpan

Locking Angle Trim

- A faster and more accurate solution for securing grid to wall angle
- Pre-engineered locking tabs punched 150mm on center:
  - Locking tabs prevent lateral and upward movement
  - Eliminate screws, pop rivets, or crimpers needed to attach tees to moulding
- Knurled surface on both flanges
- **ScrewStop** – Reverse hem prevents screw spinoff and provides safer handling
- Alignment crimp at locking tabs for fast, easy alignment



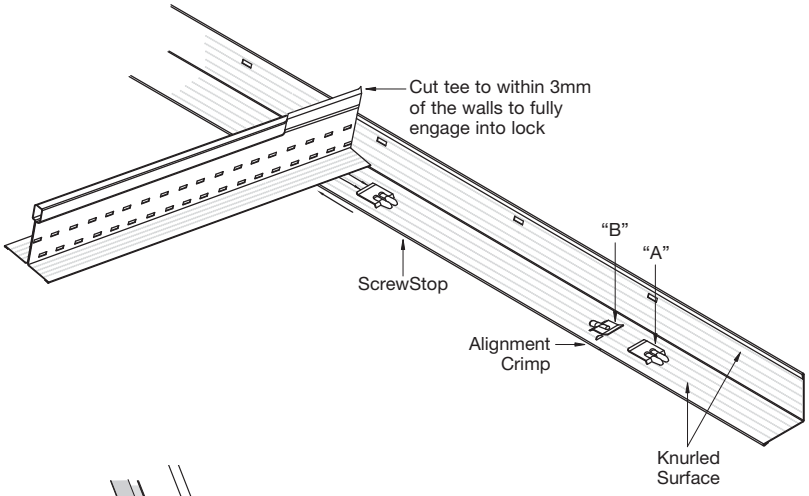
ShortSpan tee engaged in Locking Angle Trim

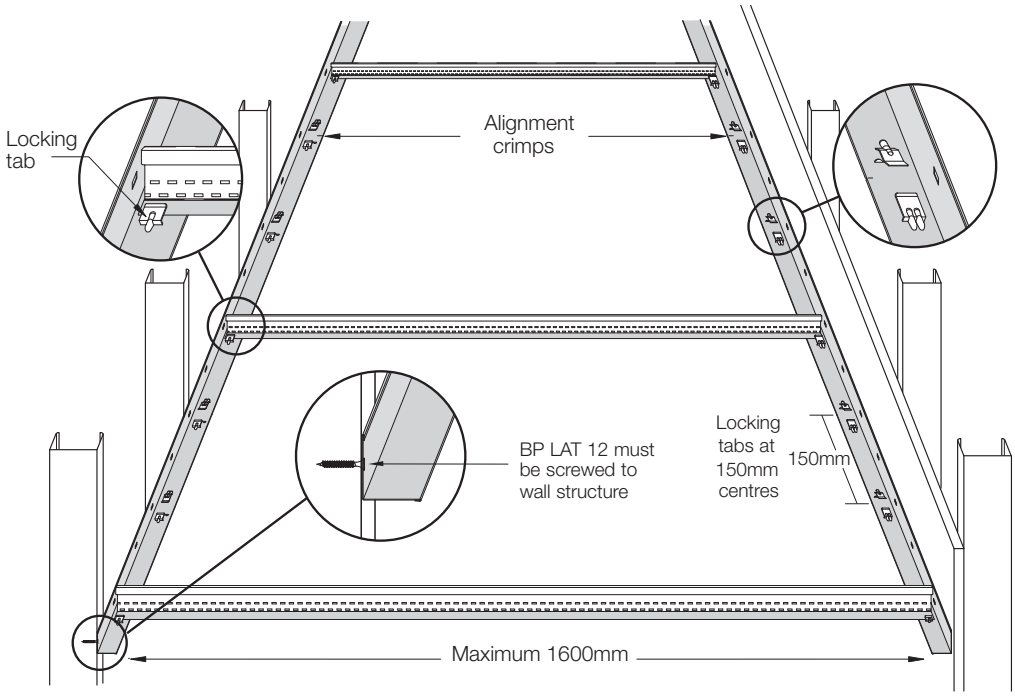
Installation Notes

1 ShortSpan tees must be cut within 3mm of the vertical leg of the Locking Angle Trim

2 **Must** screw LAT 36 and KAM 36 to wall structure at module spacing of 450 or 600mm centres

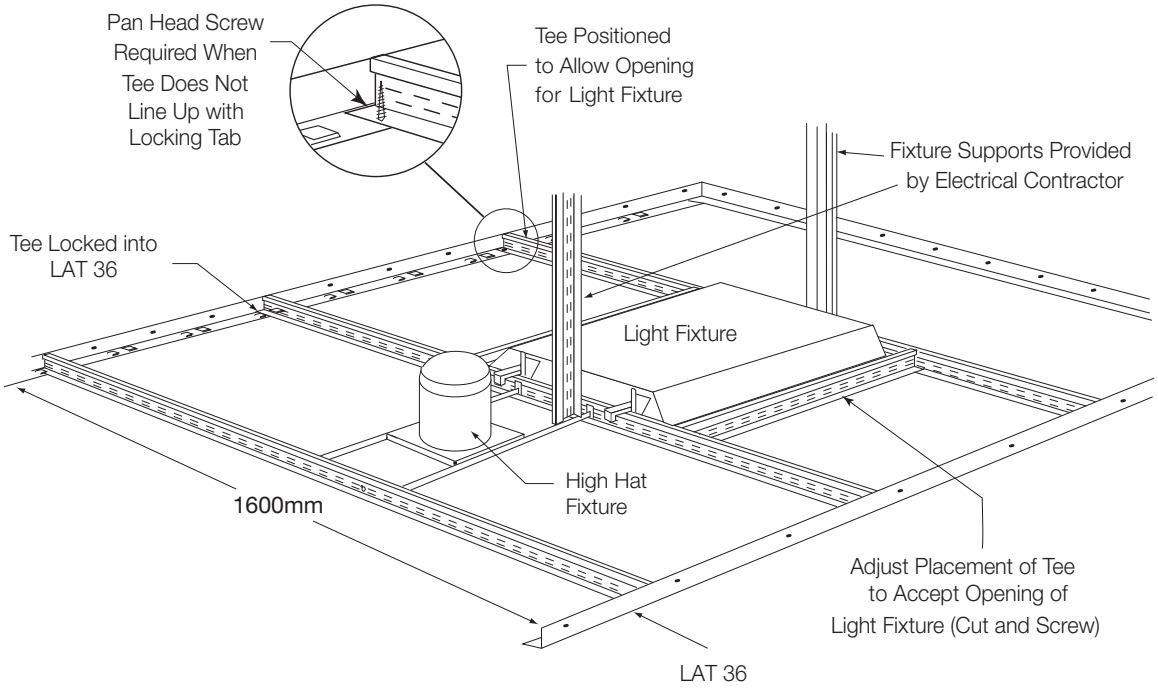
3 Insert right hand flange of tee into pocket "A" first and allow left flange to clear pocket "B" and rest on angle moulding. Slide tee to the left to engage in pocket "B" (audible click)





ShortSpan

Fixture Installation



ShortSpan Framing and Locking Angle Moulding make drywall framing faster and easier

Corridor framing using traditional steel studs

ShortSpan Board Loadings – Maxium Weight m²

Span (mm)	Spacing	Load kgs/m²
1200mm	450mm	2 x 16mm Plasterboard
	600mm	2 x 13mm Plasterboard
1500mm	450mm	2 x 13mm Plasterboard
	600mm	1 x 13mm Plasterboard
1600mm	450mm	2 x 10mm Plasterboard
	600mm	1 x 13mm Plasterboard
*Spans Greater Than 1600mm Strong Back To Be Installed Mid Span		
*1800mm	450mm	3 x 16mm Plasterboard
	600mm	2 x 13mm Plasterboard
*2100mm	450mm	2 x 16mm Plasterboard
	600mm	2 x 13mm Plasterboard

10mm Plasterboard	6.8kgs m²
13mm Plasterboard	8.6kgs m²
13mm Plasterboard	10.5kgs m²
16mm Plasterboard	13kgs m²
10mm Ceiling Board	7.2kgs m²

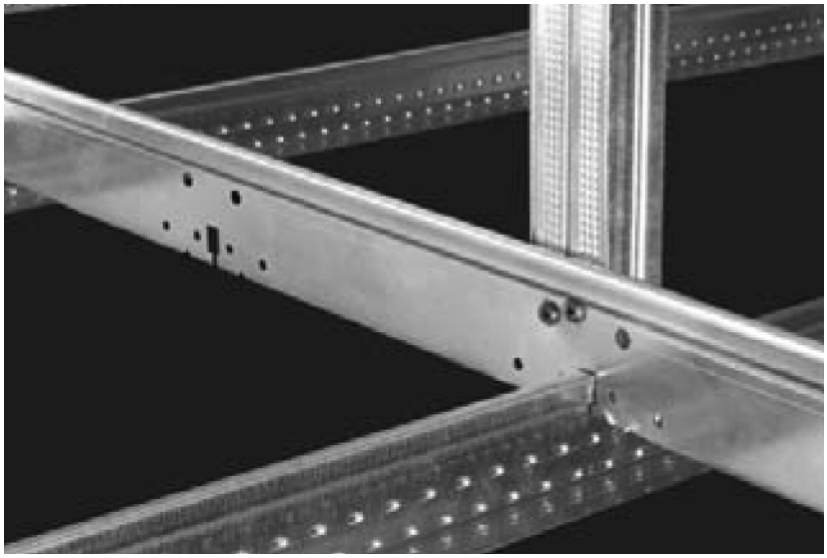
Design Loads Based On Items Below

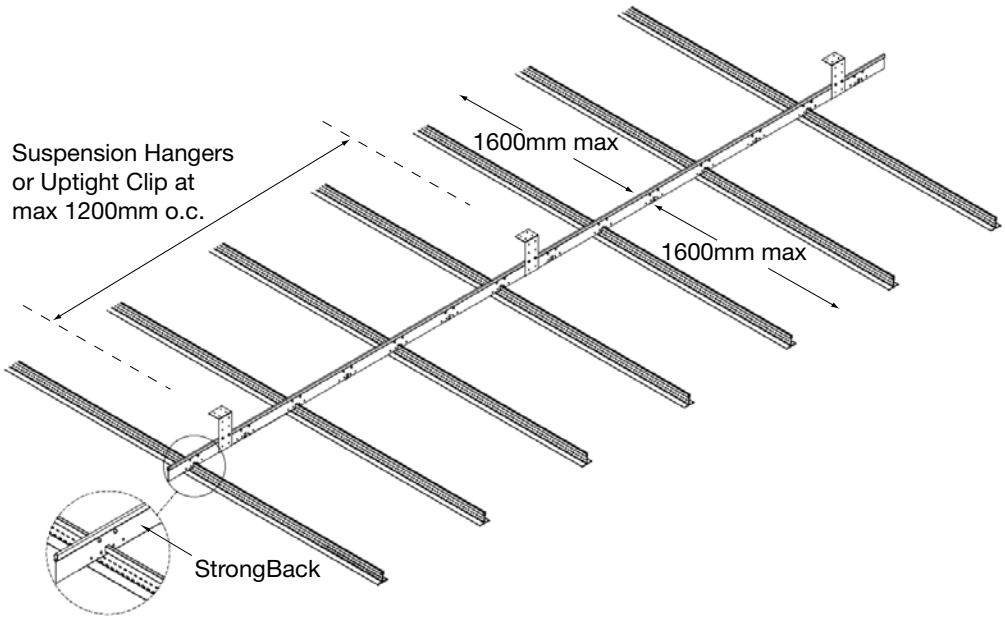
BP79S36 SHORTSPAN
BP79SB36 STRONGBACK

ShortSpan

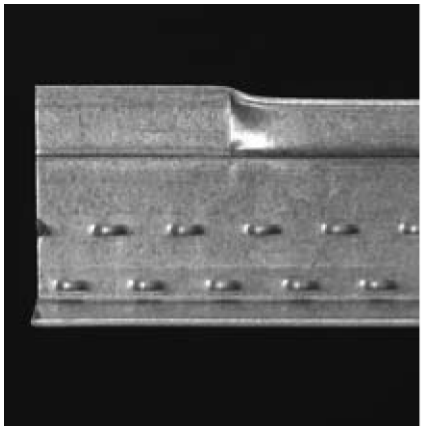
StrongBack

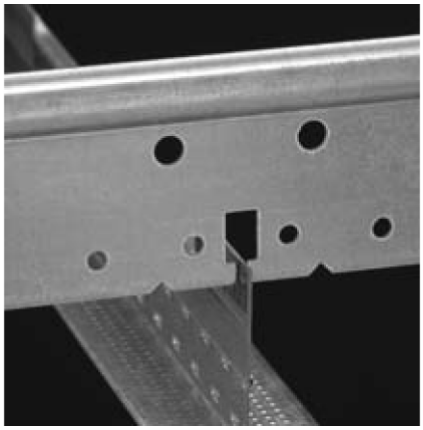
- Easier, pre-engineered solution to support spans over 1600mm
- Knockouts 150mm on center eliminates measuring, screwing, and splicing
- Allows vertical supports at 1200mm on centre
- Reduces lateral movement
- Resists upward movement if used with vertical tee post or stud
- Easier to level system compared to traditional framing

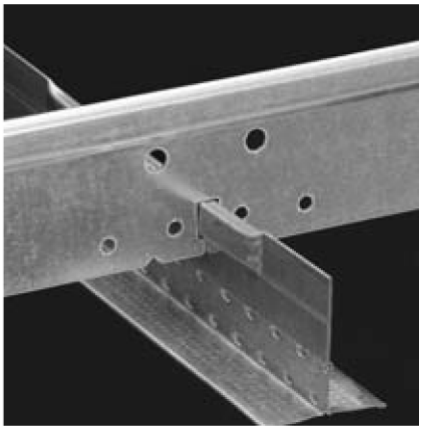




Method to Install StrongBack







1 Flattened bulb allows StrongBack to slide over bulb

2 Slide StrongBack into place – no bending of tab required

Archtectural Specifications

Flat Plasterboard Ceilings: Suspended Grid shall be Armstrong Drywall Grid System, comprising of Main Bars and Cross Runners, including Wall Mouldings and Transition Trims, as per manufacturer's instructions.

Curved Plasterboard Ceilings: Suspended Grid shall be Armstrong Drywall Grid System, comprising of Main Bars (facetted) and Cross Runners, including Wall Mouldings and Transition Trims, as per manufacturer's instructions.

Corridors or Plasterboard Margins: Suspended Grid shall be Armstrong DGS ShortSpan, comprising of ShortSpan Tees and StrongBack Support sections (where required), including Wall Mouldings and Transition Trims as per manufacturer's instructions.

Bulkhead / Soffit: Suspended Grid structure shall be Armstrong DGS QuickStix, comprising of QuickStix Tees and Cross Runners, including Wall Mouldings and Transition Trims, as per manufacturer's instructions.

Wall Battening: Wall framing shall be Armstrong Drywall Grid System, comprising of ShortSpan, or Main Bar, including Knurled Channel mouldings, as per manufacturer's instructions.

Contact your Armstrong Office for additional project specification details.

For Seismic Design support please contact your local Armstrong Ceilings office.

Contact us

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