

**E4SSA45**

**Staggered Steel Frame**

Non Load Bearing

Two Way FRR

**4** Layers: 2 Layers of Plasterboard to each side of frame

Full Intertency **A**coustic

System Number	Lining Suffix	Fire Rating	Load Bearing Ability	Noise Control		Lining Requirement
				STC	Rw	
<b>E4SSA45</b>	<b>-F40</b>	--/45/45	NLB	56	55	2 x 10mm Elephant FireSmart on One side 2 x 10mm Elephant FireSmart to Other side

**Framing**

**Staggered Steel Frame** – Tracks to be a minimum size of 92mm x 30mm x 0.55 BMT and are fixed to floor and ceiling. Steel studs with minimum dimensions 64 x 34 x 0.55 mm BMT with 6mm return.

Stud to be fixed to the tracks using Staggered Stud Clip and placed at 600mm centres with a 15mm expansion gap at top of frame.

Studs to be offset 300mm centres.

No other fixings to tracks are allowed.

**Wall Heights**

Recommended maximum height is 2.4m. Higher walls may be subject to specific engineering design or consult the framing manufacturer.

**Partition Width**

In order to achieve the STC ratings in the table above the partition width (excluding the board) shall be a minimum of 92mm.

Track Depth	Lining Suffix	Plasterboard	Total Partition
92mm	<b>S40</b>	40mm	132mm

**Wall Sound Absorber**

Install Sound Absorber between studs of the frame. Use 75mm thick R1.8 glass wool blanket. Split 600mm wide blankets into 300mm.

**Plasterboard Lining**

Two layers of 10mm Elephant FireSmart linings fixed to each side of the Staggered steel framing.

Vertical fixing only permitted. Use full height sheets where possible. All sheet joints must be fixed over steel framing. Vertical joints of the outer layer should be offset by 600mm from those of the inner layer. Sheet end butt joints must be formed over nogs and offset the outer layer joints from the inner layer.

The inner layers are fixed hard to the floor. Sheets shall be touch fitted.

**Fixing of Linings**

**Fasteners**

System Number	Side One		Side Two	
	1 <sup>st</sup> Layer	2 <sup>nd</sup> Layer	1 <sup>st</sup> Layer	2 <sup>nd</sup> Layer
<b>E4SSA45-F40</b>	Self-Tapping Drywall Screws			
	10mm	10mm	10mm	10mm
	25 x 6g	32 x 6g	25 x 6g	32 x 6g

**Fastener Centres**

Inner layer: Fix at 600mm centres up all studs.

Outer Layer: Fix at 300mm centres up all studs.

Place fasteners minimum 12mm from the sheet edge and 50mm from sheet ends

Place fasteners at 200mm centres where sheet end butt joints occur.

Avoid outer layer screws from hitting inner layer screws.

**Acoustic Sealant**

A bead of acoustical sealant is required around the perimeter of the inner layer and the outer layer is bedded onto the bead. The perimeter junctions of the wall must be airtight.

**Jointing**

Inner Layer: Unstopped

Outer Layer: All fastener heads stopped and all sheet joints reinforced with paper jointing tape and stopped. Wall to ceiling junctions are to be reinforced with paper tape and square stopped or finished with Cornice. All in accordance with Elephant Plasterboard Installation Guide.

