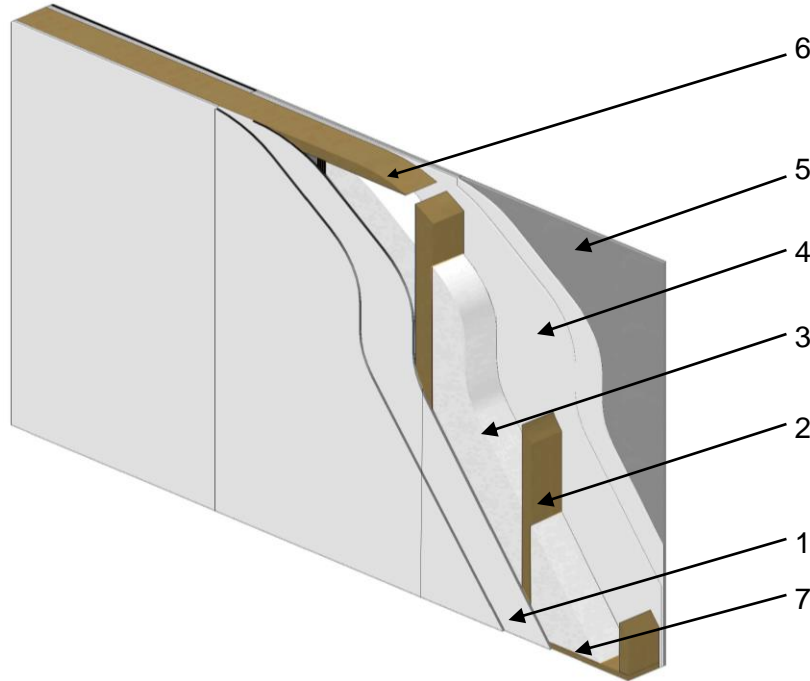


**QAI Design B1073-1c – ReThinking Construction - MEGCRETe™ Prefabricated Wall Assembly  
 CAN/ULC-S101/ASTM E119 - 2 Hour Restricted\* Load Bearing Fire-Resistance-Rated Wall Assembly**



No.	COMPONENT	DESCRIPTION	
1	Exterior Sheathing	Manufacturer:	MBP-IP
		Product Name:	MEGCRETe™ MBP-IP (Listed and Labeled by Underwriters Laboratories (UL))
		Minimum Thickness:	2 layers of 1/2 inch (12 mm)
		Applications:	First sheet adhered to the EPS Insulation/ LVL Splines. Second sheet is bonded to the first sheet
		Adhesive:	Dow Chemical Model MOR-AD M-657, one-part urethane adhesive (ICC-ES AC05 approved)
		Fasteners:	GRK #9 x 3-1/8 inch (80 mm) screws fastened around the spaced 6 inch OC, holes were pre-drilled with a 9/64 inch (3.6 mm) bit
		Panel Joints:	Polyurethane sealant
2	Spline	Size	2 inch by 7-1/4 inch (50 mm x 184 mm)
		Type:	Laminated Veneer Lumber (LVL)
		Spacing:	Maximum 24 inch (610 mm)
		Grade:	2900fb Grade: 2.0e MR
		Laminated Spline:	Two LVL studs are laminated together with polyurethane adhesive and 3 spiral shanked nails every 6 inches down the LVL.
		Installation:	A single LVL is installed while panels are being adhered together in between the EPS boards. A laminated LVL is installed on only one side of the panel.
3	Insulation	Product:	Approved and Labeled Expanded Polystyrene (EPS) Insulation Board – Type 1 per CAN/ULC-S701
		Thickness:	7-1/4 inch maximum
		Maximum Density:	18 kg/m <sup>3</sup> (1.15 lb/ft <sup>3</sup> )
		Installation:	Adhered in between the sheathing on either side of the middle LVL spline.
4	Interior Sheathing	Manufacturer:	MBP-IP
		Product Name:	MEGCRETe™ MBP-IP (Listed and Labeled by Underwriters Laboratories (UL))
		Minimum Thickness:	2 layers of 1/2 inch (12 mm)
		Applications:	First sheet adhered to the EPS Insulation/LVL Splines. Second sheet is bonded to the first sheet
		Adhesive:	Dow Chemical Model MOR-AD M-657, one-part urethane adhesive (ICC-ES AC05 approved)
		Fasteners:	GRK #9 x 3-1/8 inch (80 mm) screws fastened around the spaced 6 inch OC, holes were pre-drilled with a 9/64 inch (3.6 mm) bit
5	Gypsum Board	Type:	Type X gypsum wallboard complying with ASTM C1396, listed by approved agency
		Minimum Thickness:	1 layer of 5/8 inch (16 mm)
		Application:	Fasten to studs with 2 inch (50 mm) length #6 Type S screws spaced at 6 inches (150 mm) on center around the perimeter, and 12 inch (305 mm) on center spacing in the field. Joints to be taped and mudded, and fastener heads to be mudded as per CSA A82.31-M
6	Top Plate	Type:	Double Layer – 2 inch x 8 inch (38 mm x 184 mm) lumber
7	Bottom Plate	Type:	Single Layer – 2 inch x 8 inch (38 mm x 184 mm) lumber

\* Maximum allowable load of 3700 pounds per linear foot