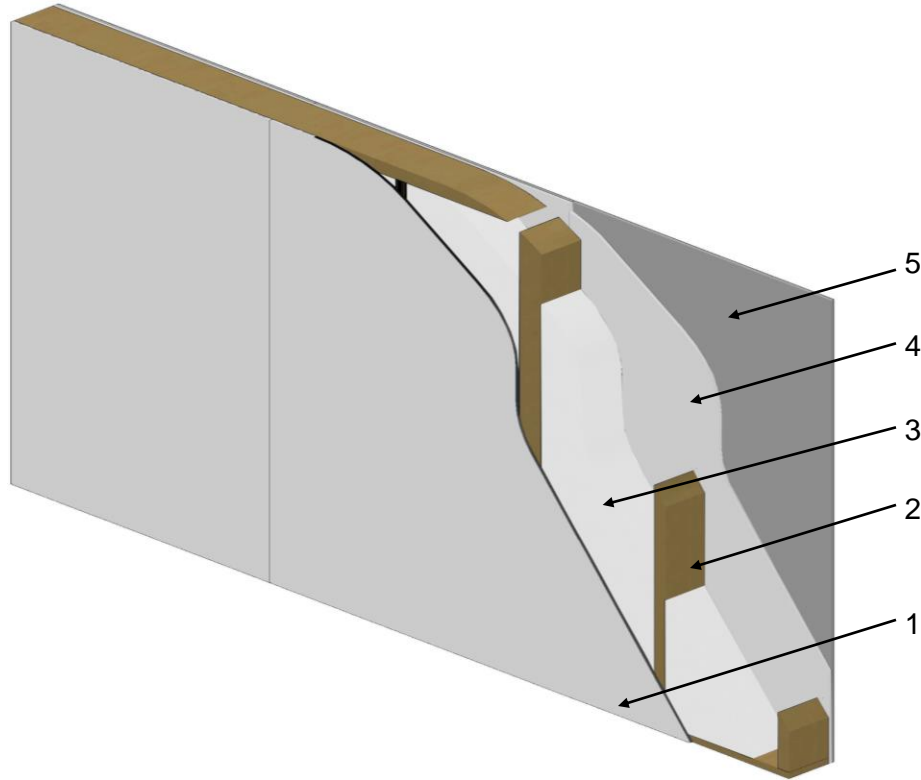


**QAI Design B1073-1a – ReThinking Construction - MEGCRETe™ Prefabricated Wall Assembly  
 CAN/ULC-S101/ASTM E119 - 1 Hour Restricted\*-Load Bearing Fire-Resistance-Rated Wall Assembly**



No.	COMPONENT	DESCRIPTION	
1	MgO Board	Manufacturer:	MBP-IP
		Product Name:	MEGCRETe™ MBP-IP MgO (Listed and Labeled by Underwriters Laboratories (UL))
		Minimum Thickness:	1 layer of 1/2 inch (12 mm)
		Application:	Board is adhered to the EPS (Item3) and Wood Studs (Item 2)
		Fasteners:	#8 - 1 3/4 inch (44 mm) screws were placed two every 6 inches (150 mm) on center, holes were pre-drilled with a 9/64 inch (3.6 mm) bit
		Joints:	Polyurethane sealant
2	Studs	Minimum Stud Size:	2 - 2 inch x 6 inch (38 mm x 140 mm) studs laminated with glue the entire length and nailed every 8 inches (203 mm) with 2 1/2" (64 mm) nails spaced at 24 inches (610 mm) on center
		Grade:	No.2 or Better
		Species:	SPF
		Plates	Single bottom plate and double top plate
		Maximum Wood Stud Spaced:	24 inch (610 mm) on center
3	Insulation	Product:	Approved and Labeled Expanded Polystyrene (EPS) Insulation Board – Type 1 per CAN/ULC-S701
		Maximum Density:	18 kg/m <sup>3</sup> (1.15 lb/ft <sup>3</sup> )
		Maximum Thickness:	5-1/5 inch (140 mm)
4	MgO Board	Manufacturer:	MBP-IP
		Product Name:	MEGCRETe™ MBP-IP MgO (Listed and Labeled by Underwriters Laboratories (UL))
		Minimum Thickness:	1 layer of 1/2 inch (12 mm)
		Application:	Board is adhered to the EPS (Item3) and Wood Studs (Item 2)
		Fasteners:	#8 - 1 3/4 inch (44 mm) screws were placed two every 6 inches (150 mm) on center, holes were pre-drilled with a 9/64 inch (3.6 mm) bit
		Joints:	Polyurethane sealant
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

\* Maximum allowable load of 3700 pounds per linear foot