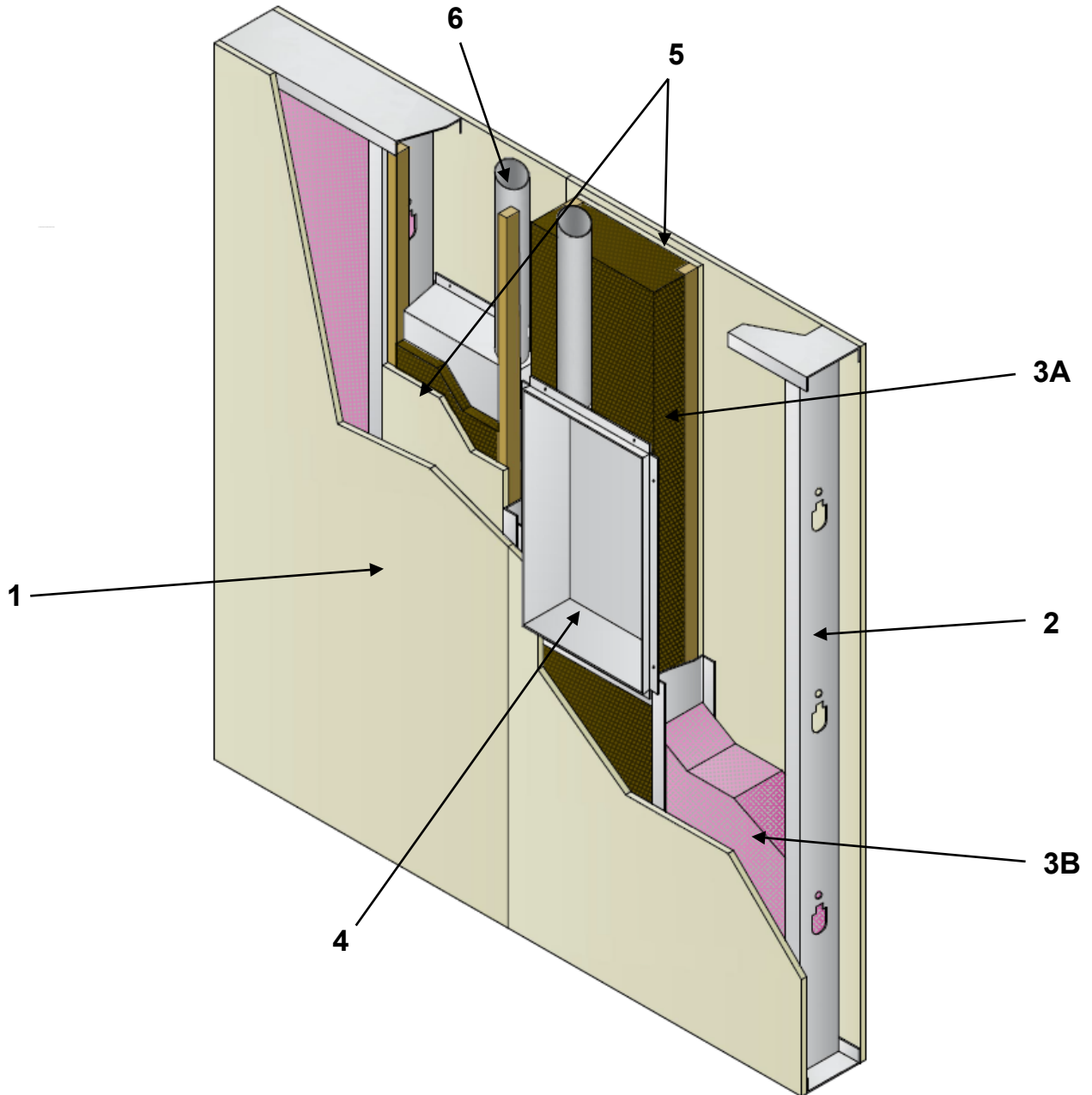




**QAI Design B1072-1H – Construction Solutions – Dryer Vent Box  
CAN/ULC S115 / ASTM E814 – 1 Hour & 2 Hour Membrane Penetration Assembly  
Non-Load Bearing**



No.	COMPONENT	DESCRIPTION		
1	Gypsum Board Sheathing	Type:	Type X gypsum wallboard complying with ASTM C1396 and labeled by an approved agency.	
		Thickness	<b>1-Hour Rating:</b> One layer of 5/8 in. (16 mm) on each face of the wall.	<b>2-Hour Rating (not shown):</b> Two layers of 5/8 in. (16 mm) on each face of the wall.
		Application	Installed vertically with joints located over stud locations. On each side, one layer of 5/8 in. (16 mm) Type X is attached to the steel studs with minimum #6 x 1-5/8-inch (41 mm) self-drilling drywall screws spaced at 12 in. (305 mm) around the perimeter and in the field.	Installed vertically with joints offset 24-inches (610 mm) from base layer. The second layer of 5/8 in. (16 mm) Type X is attached with minimum #6 x 2-1/4 inch (57 mm) self-drilling drywall screws spaced at 8 in. (203 mm) around the perimeter and 12 in. (305 mm) in the field.
			Exposed joints to be taped and mudded. Fastener heads to be mudded for a monolithic surface. Follow ASTM C840 for level of finish.	
2	Wall Studs	Stud Type:	Minimum 6 in. (152 mm) steel stud with 1-1/4 in. (32 mm) Flange.	
		Gauge:	Minimum 25 Gauge.	
		Stud Spacing:	Maximum 16 in. (406 mm) on center.	
3A	Insulation (Dryer Vent Box Cavity)	Type:	Mineral wool firestopping insulation, compliant to ASTM C612 Type IVA or CAN/ULC S702 Type 1 and non-combustible as defined by ASTM E136 or CAN/ULC-S114.	
		Nominal Density:	Minimum 4.0 lb/ft <sup>3</sup> (64 kg/m <sup>3</sup> ).	
		Installation:	1 in. mineral wool firestopping insulation shall be installed behind the dryer vent box. Remainder of the cavity shall be filled with non-combustible mineral wool firestopping insulation including between the box and the steel stud.	
3B	Insulation (Adjacent Cavities)	Type:	Minimum R-19 unfaced fiberglass batt insulation, complaint to ASTM C665 Type 1 or CAN/ULC S701 Type 1 and non-combustible as defined by ASTM E136 or CAN/ULC-S114.	
		Minimum Thickness:	6 inch (152 mm).	
		Installation:	Fiberglass batt must be installed in the adjacent cavities.	
4	Dryer Vent Box	Certified Manufacturer:	Construction Solutions, LLC.	
		Certified Products and Box Dimensions:	<b>DBX1000M 4 in.</b> Metal Dryer Vent Box with Snap on Trim Ring	10 in. (254 mm) wide by 17 in. (432 mm) high by 3-1/2 in. (89 mm) deep with a 1-1/4 in. (32 mm) flange. A 3 x 5 in. (76 x 127 mm) oval cut out for the dryer vent on the top and 1-1/8 in. (29 mm) knockouts on the top and bottom for gas hook up. The box is formed from 22 Gauge galvanized steel.
			<b>DBX1017FR4 3.5 in.</b> Metal Dryer Vent Box	10.77 in. wide by 17.82 in. high by 4 1/4 in. deep with a 1 in. flange. A 3.157 in. cut out for the dryer vent. 1-1/8 in. knockout on the top of the box. The box is formed from 24 Gauge steel.
			<b>DBX1017FR 4.25 in.</b> Metal Dryer Vent Box	10 in. (254 mm) wide by 17 in. (432 mm) high by 4.25 in. (108 mm) deep with a 1 in. (25 mm) flange. A 4 in. (102 mm) cut out for the dryer vent on the top and 1-1/8 in. (29 mm) knockout on the top. The box is formed from 24 Gauge steel.
			<b>DBX1424 4.25 in.</b> Metal Dryer Vent Box	14 in. (356 mm) wide by 24 in. (610 mm) high by 4.25 in. (108 mm) deep with a 1 in. (25 mm) flange. A 4 in. (102 mm) cut out for the dryer vent. 1-1/8 in. (29 mm) knockout on the top of the box. 24 Gauge steel.
		Sealing:	PFP 4800DW, Hilti FS-ONE MAX, STI LC Endothermic Firestop Sealant, 3M Fire Barrier Sealant CP 25WB+, WF300 Intumescent Caulking, Foil Tape listed to UL 723.	
		Installation:	The dryer vent box is fastened to the stud and sill through two holes on the side and bottom of the box using #8 x 5/8 in. (16 mm) self-drilling screws. The galvanized steel dryer vent is inserted through the top of the box then caulked at the vent/box interface. The opening cut into the gypsum board shall be a maximum of 10-1/2 in. (267 mm) wide by 17- 1/2 in. (445 mm) high. Only one box is permitted per stud cavity.	
5	Gypsum Board (Back of Dryer Box Cavity)	Type:	Type X gypsum wallboard complying with ASTM C1396 and labeled by an approved agency.	
		Thickness:	Single layer of 5/8 in. (16 mm).	
		Application:	The cavity containing the dryer vent box shall have a layer of 5/8 in. (16 mm) Type X gypsum placed behind the box. The gypsum shall be fastened to two 3/4 in. (19 mm) by 1-1/2 in. (38 mm) wood strips fastened to the stud with steel stud screws such that the gypsum will be flush with the 1-1/4 in. (32 mm) face of the studs prior to fastening the sheathing. The gypsum board shall be fastened with #6 x 1-5/8 in. (41 mm) drywall screws.	
6	Vent Pipe	Size:	4 in. (101 mm) round.	
		Type:	26 Gauge galvanized steel.	