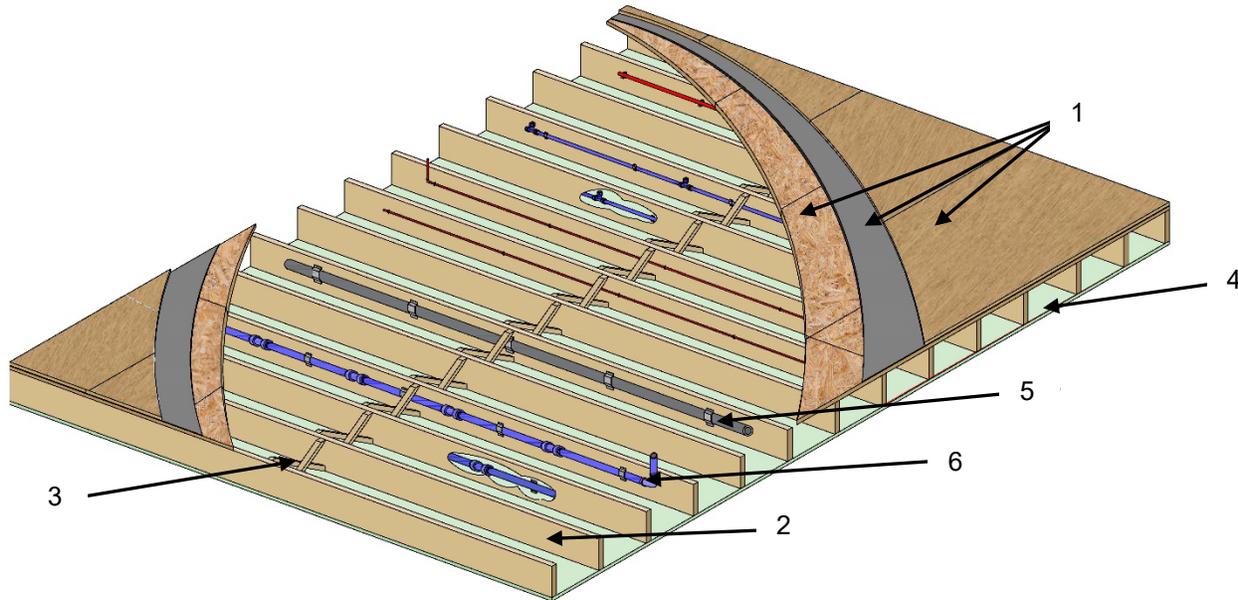


**QAI Listing P343-1C – Cash Acme PEX Floor/Ceiling Assembly - UL 263, ASTM E119, CAN/ULC S101
1 Hour Fire Resistance Rated Unrestrained Floor/Ceiling Assembly Restricted-Load Bearing¹**



No.	COMPONENT		DESCRIPTION
1	Flooring System	Subfloor:	Sheathing Type: 5/8 in. (16 mm) plywood
			Minimum Grade: "C-D" or "Sheathing"
			Installation: Face grain of the plywood is to be installed perpendicular to the joists with the joints staggered. Fastened using 8d sinker nails at 8 in. (204 mm) OC.
		Vapour Barrier:	Type: 0.010 in. thick commercial rosin-sized paper
		Finish Flooring:	Sheathing Type: 5/8 in. (16 mm) plywood
Minimum Grade: "Underlayment" or "single floor"			
	Maximum Spacing: Face grain of the plywood is to be installed perpendicular to the joists with the joints staggered. Fastened using 8d sinker nails spaced 8 in. OC.		
	Topping:	Type: Optional: Topping allowed as approved by local authority having jurisdiction as not deteriorating fire resistance of underlying assembly.	
2	Floor Joist	Type: 2 in. by 10 in. (38 mm x 235 mm) wood joists	
		Spacing: 16 in. (406 mm) on center	
		Application: Effectively fire-blocked in accordance with local codes	
3	Bracing	Type: Cross Bracing	
		Size: As per local codes	
4	Gypsum Wall Board	Type: Type X gypsum wallboard complying and listed by approved agency to ASTM C1396	
		Thickness: One layer of 5/8 in. (16 mm)	
		Application: Installed with the long dimension perpendicular to joists with end joints located under the bottom of joists. End joints in adjacent rows shall be staggered on adjacent joists. Board is to be fastened to joist with or 1-7/8 in. (48 mm) long, 6D nails spaced 6 in. (150 mm) OC. with starter nails 1/2 in. (12 mm) and 3 in. (75 mm) from board edges. Joints to be taped and mudded, and fastener heads to be mudded as per CSA A82.31-M or ASTM C840 (Minimum Level 3)	

5	Non-Metallic Tubing	Certified Manufacturer:	Cash Acme
		Certified Product:	SharkBite PEX-a or PEX-b Tubing
		Nominal Tubing Sizes:	1/2 in. to 2 in. (12 mm x 51 mm)
		Installation:	Installed to a maximum of 1.62 lbs per linear foot (074 kg per linear meter) per joist cavity. The min. spacing between bottom of the tubing and top of the gypsum board shall be 4-1/2 in. (114 mm). Optional Armacell AP by Armaflex pipe insulation to maximum 2 pipe runs per cavity at 0.25 lbs/ft (0.37 kg/m).
6	Manifolds / Fittings	Certified Manufacturer:	Cash Acme
		Certified Product:	EvoPEX Universal, 2XL, 2XLR, Plastic Crimp (Barb), Brass Crimp (Barb), Plastic Expansion, Brass Expansion, SharkBite Max, PEX Press, Standard Copper Brass or Steel Fittings.
		Installation:	Installed to maximum 0.24 lbs per foot (0.11 kg/m) per joist cavity, or standard copper, brass or steel plumbing fittings.
6	Fasteners (not shown)	Installation:	Nominal 1/2 in. to 1 in. wide perforated steel or copper straps, or steel or copper U or C shaped brackets with a radius conforming to the outer circumference of the tube to be supported. Fasteners are to be nailed to the wood joists with min. 1 in. long nails spaced 16 in. (406 mm) OC. Optional: Plastic J-Hooks (ABS or nylon type) can be used as pipe support, where anchored with noted 1 in. long nails spaced 16 in. (406 mm) max.

*Restricted-Load Bearing – Load rating for this assembly was calculated using the Working Stress Design Method. For jurisdictions employing the Limit States Design Method such as Canada, a load restriction factor shall be used.