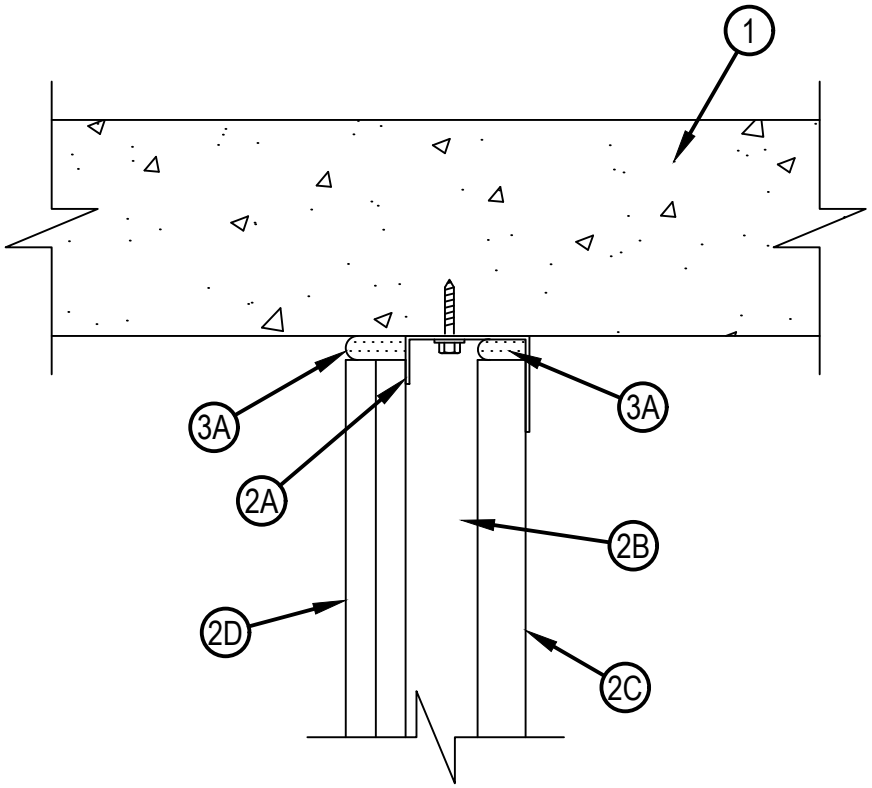
Classified by
Underwriters Laboratories, Inc.
to UL 2079 and CAN/ULC-S115

System No. HW-D-0920

ANSI/UL2079	CAN/ULC S115
Assembly Rating — 2 Hr	F Rating — 2 Hr
Nominal Joint Width - 1/2 or 3/4 In. (See Item 3)	FT Rating — 2 Hr
Class II or III Movement Capabilities — 50% Compression or Extension or 66% Compression Only (See Item 3)	FH Rating — 2 Hr
L Rating at Ambient — 1.65 CFM/Lin ft	FTH Rating — 2 Hr
L Rating at 400°F — 1.33 CFM/Lin ft	Nominal Joint Width - 13 or 19 mm (See Item 3)
	Class II or III Movement Capabilities — 50% Compression or Extension or 66% Compression Only (See Item 3)
	L Rating at Ambient — 2.55 L/s/Lin m
	L Rating at 204°C — 2.06 L/s/Lin m



System No. HW-D-0920

1. Floor Assembly — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) structural concrete. Floor may also be constructed of any 6 in. (152 mm) thick UL Classified hollow-core Precast Concrete Units*.
   See Precast Concrete Units category in the Fire Resistance Directory for names of manufactures.
2. Shaft Wall Assembly — The 2 hr fire-rated gypsum board /steel stud shaft wall assembly shall be constructed of the materials and in the manner described in the individual U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
   A. Floor and Ceiling Runners — J-shaped runner, 2-1/2 in. (64 mm) wide with unequal legs of min 1 in. (25 mm) and 2 in. (51 mm), fabricated from min 24 MSG galv steel. Runners positioned with short leg toward finished side of wall. Runners attached to floor with steel fasteners located not greater than 2 in. (51 mm) from ends and not greater than 24 in. (610 mm) OC.
   B. Steel Studs — C-H or CT-shaped studs, min 2-1/2 in. (64 mm) wide by 1-1/2 in. (38 mm) deep, fabricated from min 25 MSG galv steel, cut to lengths 3/8 to 1/2 in. (10 to 13 mm) less than floor to ceiling height and spaced 24 in. (610 mm) OC. Studs nest in floor runner at bottom and J runner ceiling track at top. After installation of gypsum board liner panels (Item 2D), studs secured to flange of floor runner on finished side of wall only with No. 6 by 1/2 in. (13 mm) long self-drilling, self-tapping steel screws.
   C. Gypsum Board* — 1 in. (25 mm) thick by 24 in. (610 mm) wide gypsum board liner panels as specified in the individual design. Panels cut 3/4 in. (19 mm) less in length than floor to ceiling height. Vertical edges inserted into the "H"-shaped section of "C-H" studs or "T"-shaped section of "C-T" studs. At the ends of the assembly, the free edge of the end panels are attached to the long leg of vertical J-runners (Item 2A) with 1-5/8 in. (41 mm) long Type S steel screws spaced max 12 in. (305 mm) OC.
   D. Gypsum Board* — Gypsum board sheets, 5/8 in. (16 mm) thick Type C, applied vertically or horizontally in two layers on finished side of wall as specified in the individual design. A max 1/2 in. (13 mm) or 3/4 in. (19 mm) gap shall be maintained between the top of the gypsum board and the bottom surface of the concrete floor. The screws attaching the gypsum board layers to the C-H or C-T studs shall be located 1 in. (25 mm) below the bottom of the J-runner or slotted ceiling track. No gypsum board attachment screws are to penetrate the ceiling J-runner.
3. Joint System — When max separation between the bottom of floor and top of wall (gypsum liner panel and gypsum board) is 1/2 in. (13 mm), the joint system is designed to accommodate a max 50 percent compression or extension from its installed width. When max separation between the bottom of floor and top of wall (gypsum liner panel and gypsum board) is 3/4 in. (19 mm), the joint system is designed to accommodate a max 66% compression only from its installed width.
   A. Fill, Void or Cavity Material* — Top Track Seal — Factory supplied foam seal cut in half lengthwise at dotted line or tear strip, and the halves then folded and pushed into the joint to be friction fit and to be flush against the ceiling runner at each side of wall. Butt joints in CFS-TTS shall be compressed min 1/4 in. (6 mm).
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-TTS 212, CFS-TTS 358, CFS-TTS 600, CFS-TTS R OS or CFS-TTS-OS

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.