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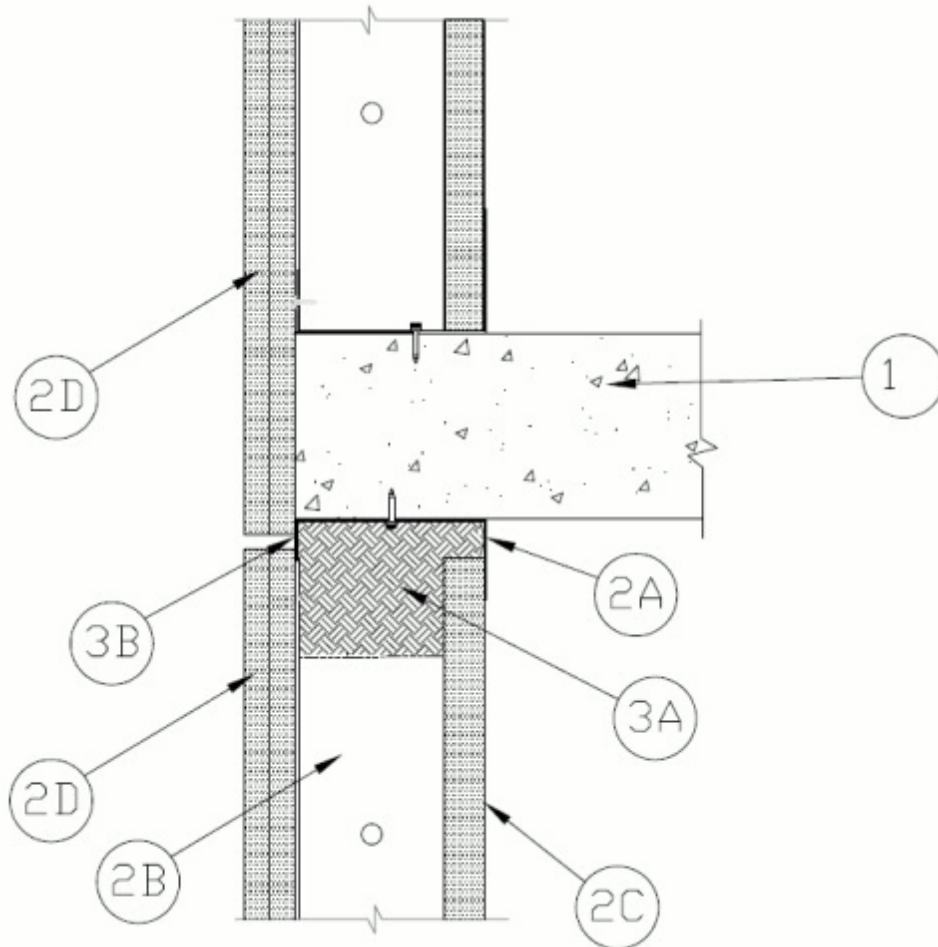
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### System No. HW-D-0724

October 24, 2013

ANSI/UL2079	CAN/ULC S115
Assembly Rating — 1 and 2 Hr (See Item 2)	F Rating — 1 and 2 Hr (See Item 2)
Nominal Joint Width - 3/8 in.	FT Rating — 1 and 2 Hr (See Item 2)
Class II and III Movement Capabilities — 100% Compression or Extension	FH Rating — 1 and 2 Hr (See Item 2)
L Rating at Ambient — Less than 1 CFM/Lin Ft	FTH Rating — 1 and 2 Hr (See Item 2)
L Rating at 400°F — Less than 1 CFM/Lin Ft	Nominal Joint Width - 3/8 in.
	Class II and III Movement Capabilities — 100% Compression or Extension
	L Rating at Ambient — Less than 1 CFM/Lin Ft
	L Rating at 400°F — Less than 1 CFM/Lin Ft



1. **Floor Assembly** — Min 4-1/2 in. (114 mm) thick steel reinforced lightweight or normal weight (100 -150 pcf or 1600-2400 kg/m<sup>3</sup>) structural concrete. Floor may also be constructed of any min 6 in. (152 mm) thick UL Classified hollow-core **Precast Concrete Units**\*.

See **Precast Concrete Units** (CFTV) category in the Fire Resistance Directory for names manufacturers.

**The hourly fire rating of the floor assembly shall be equal or greater than the hourly fire rating of the wall assembly.**

**2. Shaft Wall Assembly** — The 1 or 2 hr fire rated gypsum board/stud 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, min 4 in. (102 mm) wide with unequal legs of min 1 in. (25 mm) and min 2 in. (51 mm), fabricated from min 24 MSG galv steel. Ceiling runner installed with short leg toward finished side of wall. Floor or ceiling runner to be attached to concrete floor with steel fasteners spaced a max of 24 in. (610 mm) OC.

**B. Studs** — "C-T", "I", or "C-H" shaped steel studs to be min 4 in. (102 mm) wide and formed of min 25 ga galv steel. Studs cut 5/8 to 3/4 in. (16 to 19 mm) less in length than assembly height with bottom nesting in floor runner. Studs spaced max 24 in. (610 mm) OC.

**C. Gypsum Board\*** — 1 in. (25 mm) thick by max 24 in. (610 mm) wide gypsum board liner panels. Panels cut max 1 in. (25 mm) less in length than floor to ceiling height. Vertical edges inserted into "T" shaped section of "C-T" studs, into holding tabs of "I" studs or into "H"-shaped section of "C-H" studs.

**D. Gypsum Board\*** — Gypsum board sheets installed to a min total 5/8 in. (16 mm) or 1-1/4 in. (32 mm) thickness on finished side of wall for 1 and 2 hr fire rated assemblies, respectively. Wall to be constructed as specified in the individual Wall and Partition Design in the UL Fire Resistance Directory except gypsum board on finished side of upper wall to extend a max of 1/2 in. (13 mm) below the floor line overlapping the ceiling runner of lower wall by a min of 1/2 in. (13 mm) and attached to the ceiling runner. A max 3/8 in. (25 mm) gap shall be maintained between the edges of gypsum board of wall below to allow for movement capability of the joint.

**The hourly fire rating and the F, FT, FH and FTH ratings of the joint system is equal to the hourly fire rating of the wall.**

**3. Joint System** — **Max separation between edges of gypsum board on finished side of walls at time of installation is 3/8 in. (9.5 mm). The joint system is designed to accommodate a max 100 percent compression or extension from its installed width.** The joint system shall consist of the following:

**A. Forming Material\*** — Min 3 in. (76 mm) thickness of min 4 pcf (64 kg/m<sup>3</sup>) mineral wool batt insulation cut to width of stud, compressed min 25 percent in width and friction fit into ceiling runner between leg of track and gypsum liner board.

See **Forming Material** (XHKU) category in the Fire Resistance Directory for names of manufacturers.

**B. Fill, Void or Cavity Material\*** — Min 25 ga composite steel angle with one 5/8 in. (16 mm) leg and one 1-1/2 in (38 mm) leg with an intumescent strip affixed along the inside 1-1/2 in (38 mm) leg. The 5/8 in. leg of steel angle is friction fit between the top web of the ceiling runner and the concrete floor on one side of wall only.

**RECTORSEAL** — Track Safe

\*Bearing the UL Classification Mark