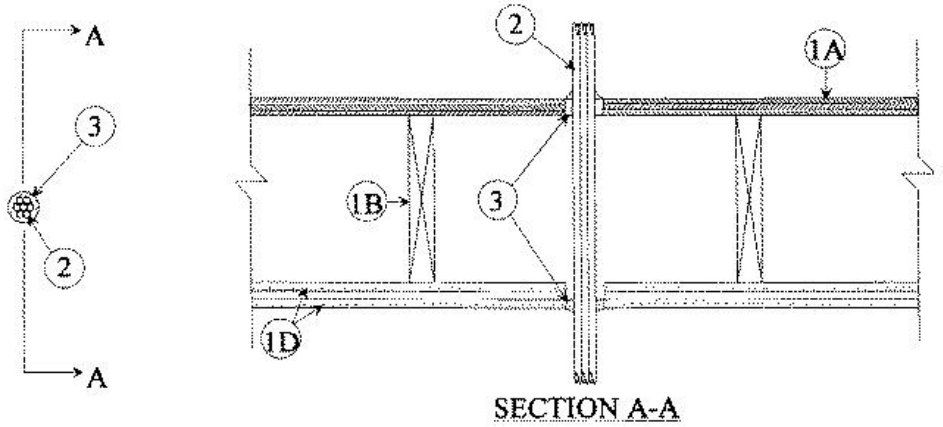
| ANSI/UL1479 (ASTM E814) | CAN/ULC S115 |
|---|---|
| F Rating — 1 and 2 Hr (See Item 1) | F Rating — 1 and 2 Hr (See Item 1) |
| T Rating — 3/4 and 1-1/2 Hr (See Item 1) | FT Rating — 3/4 and 1-1/2 Hr (See Item 1) |
| L Rating At Ambient — Less Than 1 CFM/sq ft | FH Rating — 1 and 2 Hr (See Item 1) |
| L Rating At 400 F — Less Than 1 CFM/sq ft | FTH Rating — 3/4 and 1-1/2 Hr (See Item 1) |



SECTION A-A

1. **Floor Ceiling Assembly —** The 1 hr fire-rated solid or trussed lumber joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Series Floor-Ceiling Designs in the UL Fire Resistance Directory. The 2 hr fire-rated wood joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in Design No. L505, L511 or L536 in the UL Fire Resistance Directory. The general construction features of the floor-ceiling assembly are summarized below:

A. **Flooring System —** Lumber or plywood subfloor with finish floor of lumber, plywood or **Floor Topping Mixture*** as specified in the individual Floor-Ceiling Design. Max diam of floor opening is 2 in. (51 mm).

B. **Wood Joists —** For 1 hr fire-rated floor-ceiling assemblies nom 10 in. (254 mm) deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or Structural Wood Members* with bridging as required and with ends firestopped. For 2 hr fire-rated floor-ceiling assemblies, nom 2 by 10 in. (51 by 254 mm) lumber joists spaced 16 in. (406 mm) OC with nom 1 by 3 in. (25 by 76 mm) lumber bridging and with ends firestopped.

C. **Furring Channels —** (Not Shown) — For 2 hr fire-rated assemblies, resilient galv steel furring installed perpendicular to wood joists between first and second layers of gypsum board (Item 1D) and spaced max 24 in. (610 mm) OC. In 1 hr fire-rated assemblies, resilient galv steel furring installed perpendicular to wood joists between gypsum board and wood joists as specified in the individual Floor-Ceiling Design. Furring channels spaced max 24 in. (610 mm) OC.

D. **Gypsum Board* —** Nom 4 ft (1.2 m) wide by 5/8 in. (16 mm) thick as specified in the individual Floor-Ceiling Design. First layer of gypsum board nailed to wood joists. Second layer of gypsum board screw-attached to furring channels (2 hr fire-rated assembly). Max diam of ceiling opening is 2 in. (51 mm).

**The F and T Ratings of the firestop system are dependent upon the hourly rating of the assembly in which the firestop system is installed as shown in the table below:**

| Rating of Assembly, Hr | F Rating, Hr | T Rating, Hr |
|---|---|---|
| 2 | 2 | 1-1/2 |
| 1 | 1 | 3/4 |

1.1 **Chase Wall —** (Optional, not shown) - The through penetrant (Item 2) may be routed through a 1 or 2 hr fire-rated single, double or staggered wood stud/gypsum board chase wall having a fire rating consistent with that of the floor-ceiling assembly. The chase wall shall be constructed of the materials and in the manner specified in the individual U300 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. **Studs —** Nom 2 by 6 in. (51 by 152 mm) or double nom 2 by 4 in. (51 by 102 mm) lumber studs.

B. **Sole Plate —** Nom 2 by 6 in. (51 by 152 mm) or parallel 2 by 4 in. (51 by 102 mm) lumber plates, tightly butted.

C. **Top Plate —** The double top plate shall consist of two nom 2 by 6 in. (51 by 152 mm) or two sets of parallel 2 by 4 in. (51 by 102 mm) lumber plates, tightly butted. Max diam of opening is 2 in. (51 mm)

D. **Gypsum Board* —** Thickness, type, number of layers and fasteners shall be as specified in individual Wall and Partition Design.

2. **Cables —** One or more cables to be installed either concentrically or eccentrically within firestop system. The annular space the within firestop system shall be a min 1/8 in. (3.2 mm) to max 1/4 in. (6 mm). Cables to be rigidly supported on both sides of floor-ceiling assembly. Any combination of the following types and sizes of cables may be used:

A. Max 100 pair No. 24 AWG (or smaller) copper conductor telephone cable with polyvinyl chloride (PVC) insulation and jacket materials.

B. Max 2/C (with ground) No. 12 AWG (or smaller) copper conductor nonmetallic sheathed cable with PVC insulation and jacket materials.

C. Max RG/U No. 22 AWG (or smaller) copper conductor coaxial cable with PVC insulation and jacket materials.

D. Max 3/C (with ground) No. 2/0 AWG aluminum conductor service entrance cable with PVC insulation and jacket materials.

E. Max 2/C No. 24 AWG (or smaller) copper conductor cable with PVC insulation and jacket materials.

3. **Fill, Void or Cavity Material* — Sealant —** Min 3/4 in. (19 mm) thickness of fill material applied within annulus on top surface of floor. Min 5/8 in. (16 mm) thickness of fill material applied within annulus on bottom surface of ceiling or lower top plate of chase wall assembly. Additional fill material to be installed such that a min 1/4 in. (6 mm) crown is formed around the through penetrant on top surface of floor and bottom surface of ceiling or lower top plate of chase wall assembly. Fill material to be forced into interstices of cable bundle to max extent possible.
**RECTORSEAL** — FlameSafe FS1900, FS1901, FS1905, FS1929,Metacaulk 1000, Metacaulk 350i, Biostop 350i or Biostop 500+

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

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