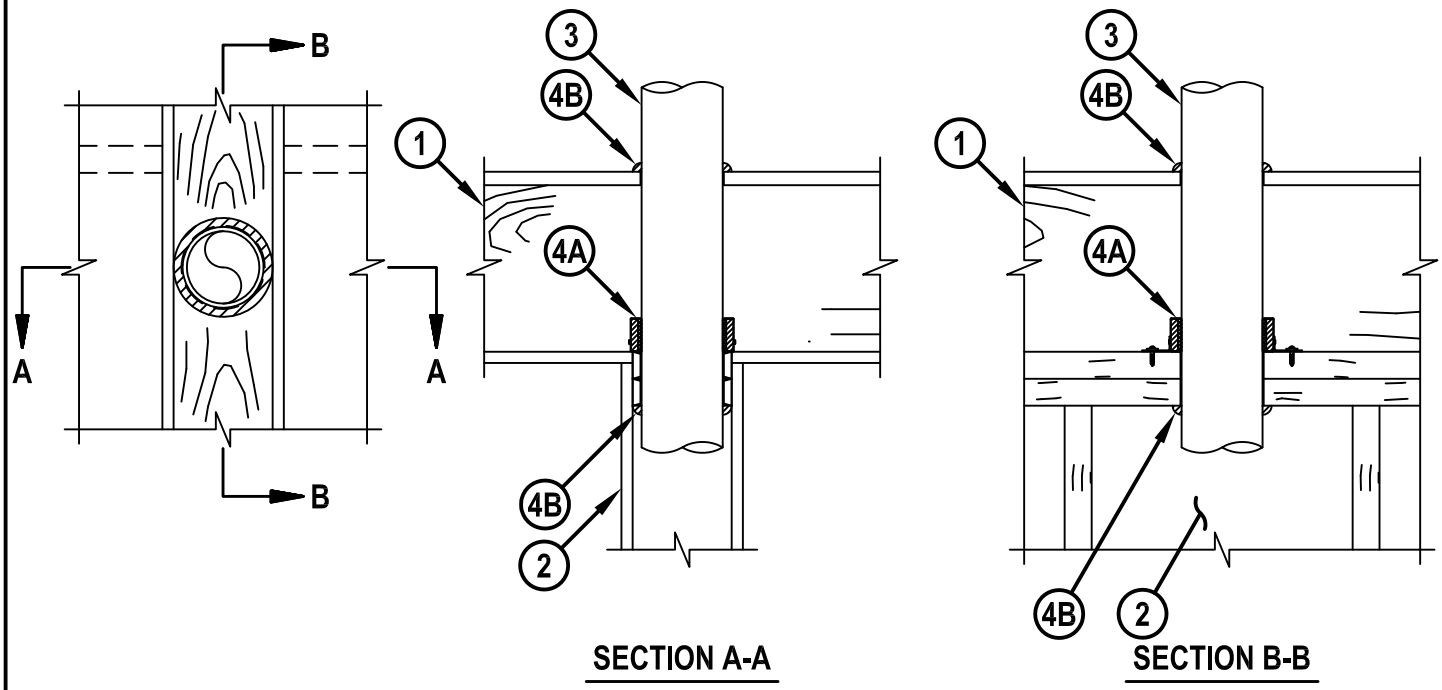
Classified by
Underwriters Laboratories, Inc.
to UL 1479

System No. F-C-2404

F Rating — 1 Hr
T Rating — 1/4 Hr



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 general construction details 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. Diam of opening shall max 1/8 in. (3 mm) larger than actual outside pipe diam.
   B. Wood Joists — 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.
   C. Gypsum Board* — Nom 4 ft (1219 mm) wide by 5/8 in. (16 mm) thick as specified in the individual Floor-Ceiling Design.
2. Chase Wall — The through penetrant (item no. 3) shall be routed through a single, double or staggered wood stud/gypsum board chase wall and shall include the following:
   A. Studs — Nom 2 by 4 in. (51 by 102 mm) or nom 2 by 6 in. (51 by 152 mm) lumber studs.
   B. Top Plate — A double 2 by 4 (51 by 102 mm) or 2 by 6 (51 by 152 mm) top plate shall be installed to the underside of the joists. Diam of opening shall be 1/8 in. (3 mm) larger than actual outside pipe diameter
   C. Gypsum Board — Min ½ in. (13 mm) rated or non-rated gysum board.

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3. Through Penetrants — One nonmetallic pipe or conduit installed concentrically within opening. Annular space between penetrant and periphery of opening to be min 1/16 in. (1.6 mm). Penetrant to be rigidly supported on both sides of wall. The following types and sizes of penetrants may be used:
   A. Polyvinyl Chloride (PVC) Pipe — Nom 4 in. (102 mm) diam (or smaller) Schedule 40 solid core or cellular core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
   B. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 4 in. (102mm) diam (or smaller) SDR13.5 CPVC pipe for use in closed (process or supply) piping systems.
4. Firestop System — The details of the firestop system shall be as follows:
   A. Firestop Device* — Firestop collar shall be installed in accordance with the accompanying installation instructions. Collar to be installed and latched around the pipe and secured to the top of the top plate using two anchor tabs provided. The anchor tabs are secured using ¾ in. (19 mm) wood screws and washers.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP643N Firestop Collar.
   B. Fill, Void or Cavity Material* - Sealant — Min ½ in. (12 mm) bead of sealant shall be applied at bottom surface of lower top plate. In addition, at the top of floor, a min ½ in. (12 mm) bead of sealant shall be applied at the top of sole plate or subfloor.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-One Sealant or FS-ONE MAX Intumescent Sealant

* 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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