

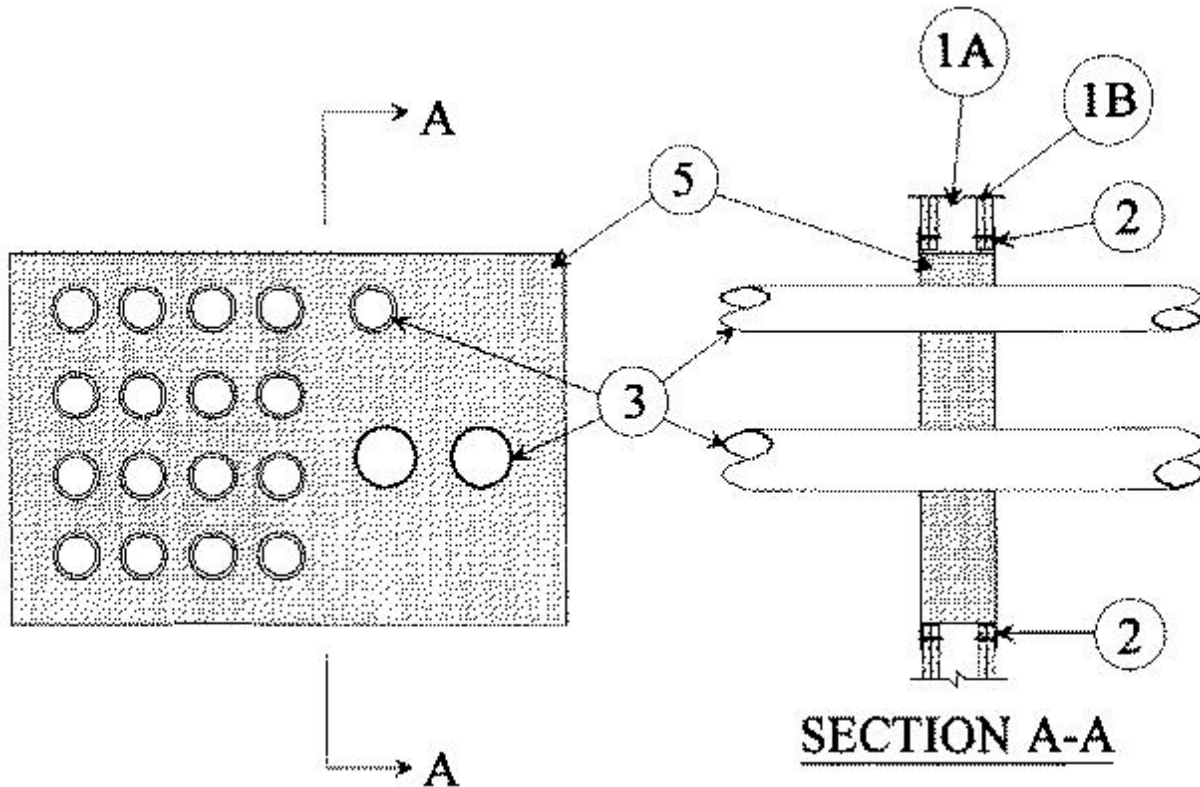


### System No. W-L-1124

September 14, 2002

F Rating — 2 Hr

T Rating — 0 Hr



**1. Wall Assembly** — The fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

**A. Studs** — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC Steel studs to be min 2-1/2 in. wide and spaced max 24 in. OC. Additional framing members to be installed in stud cavity containing the through penetrating item to form a rectangular box around the penetrants.

**B. Gypsum Board\*** — Two layers of nom 5/8 in. thick gypsum board, as specified in the individual Wall and Partition Design. Max area of opening is 864 sq in. with max dimension of 36 in. for steel stud walls. Max width of opening in wood stud walls is limited to 14-1/2 in.

**2. Angle Clips** — Nom 1-1/2 in. by 1-1/2 in. by No. 22 gauge (or heavier) steel angles attached to all four sides of the opening on both sides of the wall. The angle shall be attached to the wall with min 1-5/8 in. long Type S self-drilling, self-tapping bugle-head steel screws spaced max of 2 in. from each end and at a max of 5 in. OC.

**3. Through Penetrants** — The space between pipes, conduits or tubing shall be min 1 in. The space between pipes, conduits or tubing and periphery of opening shall be min 1/4 in. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

**A. Steel Pipe** — Nom 4 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.

**B. Iron Pipe** — Nom 4 in. diam (or smaller) cast or ductile iron pipe.

**C. Conduit** — Nom 4 in. diam (or smaller) electrical metallic tubing or steel conduit.

D. **Copper Tubing** — Nom 3 in. diam (or smaller) Type L (or heavier) copper tubing.

E. **Copper Pipe** — Nom 3 in. diam (or smaller) Regular (or heavier) copper pipe.

4. **Forms** — (Not Shown) — Used as a form to prevent leakage of fill material during installation. Forms to be a rigid sheet material, cut to fit the contour of the penetrating items and fastened to both sides of wall. Forms to be removed after fill material has cured.

5. **Fill, Void or Cavity Material\*** — **Mortar** — Min 4 in. thickness of fill material applied within the annulus, centered within the wall. Material to be mixed with water in accordance with the mixing instructions on the bag and pumped or trowelled into the through opening.

**RECTORSEAL** — Bio K10+ Mortar

\*Bearing the UL Classification Mark