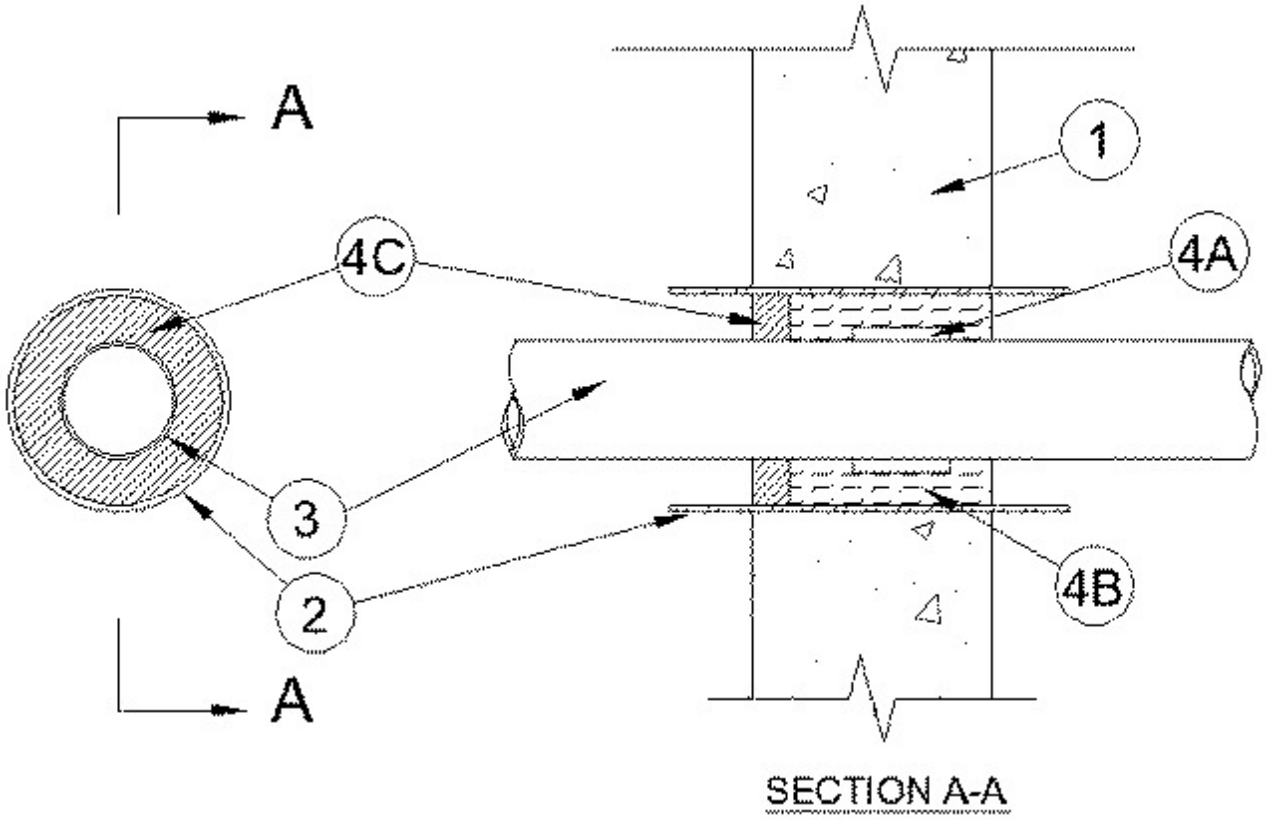
System No. W-J-2181

September 29, 2005

F Rating — 2 Hr

T Rating — 1 Hr



SECTION A-A

1. **Wall Assembly —** Min 3-3/4 in. (95 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600 - 2400 kg/m^3) concrete wall. Wall may also be constructed of any UL Classified **Concrete Blocks*.** Max diam of opening is 3 in. (76 mm).

See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. **Steel Sleeve —** (Optional) - Cylindrical sleeve fabricated from min 0.019 in. (0.49 mm) thick (28 gauge) galv sheet steel and having a min 1 in. (25 mm) lap along the longitudinal seam. Steel sleeve to be 2 in. (51 mm) longer than the thickness of wall such that, when installed, the ends of the sleeve will project 1 in. (25 mm) beyond each surface of the wall. Sleeve installed by coiling the sheet steel to a diam smaller than the opening, inserting the coil through the opening and releasing the coil. Steel sleeve required for concrete block construction.

3. **Through Penetrants —** One nonmetallic pipe, tubing or conduit installed concentrically or eccentrically within the firestop system. Annular space between penetrant and edge of opening shall be min 1/4 in. (6.4 mm) to max 3/8 in. (10 mm). Penetrant to be rigidly supported on both sides of wall assembly. The following types and sizes of nonmetallic pipes or conduits may be used:

A. **Polyvinyl Chloride (PVC) Pipe —** Nom 2 in. (51 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 2 in. (51 mm) diam (or smaller) SDR13.5 CPVC pipe for use in closed (process or supply) piping systems.

C. **Crosslinked Polyethylene (PEX) Tubing —** Nom 2 in. (51 mm) diam (or smaller) SDR 9 tube used for closed (process or supply) piping systems.

D. **Rigid Nonmetallic Conduit+ —** Nom 2 in. (51 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with Article 347 of the National Electrical Code (NFPA No. 70).

4. **Firestop System —** The firestop system shall consist of the following:

A. **Fill, Void or Cavity Materials* - Wrap Strip —** Nom 1/4 in. thick intumescent material supplied in 1 in. wide strips. Min 1 layer of wrap strip wrapped tightly around the nonmetallic penetrant, held in position with tape and recessed 1/2 in (13 mm) from one side of the wall.

RECTORSEAL — Metacaulk Wrap Strip

B. **Packing Material —** Nom 4 pcf mineral wool batt insulation tightly packed into the sleeve flush with the surface of the wall with the wrap strip and recessed 5/8 in. (16 mm) from the surface of the wall opposite the wrap strip to accommodate the required thickness of fill.

C. **Fill, Void or Cavity Material* — Caulk —** Min 5/8 in. (16 mm) thickness of caulk applied within annulus, flush with the surface of wall opposite the wrap strip.

RECTORSEAL — Biostop 500+

*Bearing the UL Classification Mark