System No. F-E-1012
June 5, 2016
F Rating — 1 Hr
T Rating — 3/4 Hr
(UL/cUL)

SECTION A-A

1. **Floor-Ceiling Assembly** — The 1 hr fire-rated concrete and steel joist Floor-Ceiling assembly shall be constructed of the materials and in the manner described in the individual G500 Series Design in the UL Fire Resistance Directory, as summarized below:

   A. **Concrete Floor** — Normal weight or lightweight (100-150 pcf (1601-2402 kg/m$^3$)) concrete over metal lath or steel deck as specified in the individual G500 Series Design. Max diam of floor opening is 3-3/16 in (81 mm).

   B. **Joists** — Steel joists or Structural Steel Members* as specified in the individual G500 Series Design.

   C. **Gypsum Board*** — Min 5/8 in. (16 mm) thick, screw-attached to furring channels as specified in the individual G500 Series Design. Max diam of ceiling opening is 3-3/16 in (81 mm).

2. **Through Penetrating Products*** — Flexible Metal Piping Nom 2 in. (51 mm) diam (or smaller) steel Flexible Metal Piping to be installed either concentrically or eccentrically within the firestop system. The space between pipe and periphery of opening shall be min 0 (point contact) to max 7/8 in (0 to 22 mm). Pipe to be rigidly supported on both sides of floor assembly. Plastic covering on piping shall be removed for a distance of 2 ft (610 mm) on both sides of the floor.

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

   A. **Packing Material** — (Optional) — Foam backer rod firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor and bottom surface of the ceiling as required to accommodate the required thickness of fill material.

   B. **Fill, Void or Cavity Material*** — (Caulk) — Min 1/2 in. (12 mm) thickness of fill material applied within the annulus, flush with top surface of the floor and bottom surface of the ceiling. Additional fill material to be installed such that a min 1/16 in. (2 mm) crown is formed around the penetrating item and lapping 3/8 in. (10 mm) beyond the periphery of the opening.

   **TREMCO INC** — TREMstop Intumescent Acrylic, FyreCaulk, or TREMstop IA+

*Bearing the UL Classification Mark

Reprinted from the Online Certifications Directory with permission from Underwriters Laboratories Inc. Copyright © 2019 Underwriters Laboratories Inc. *