

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States

BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States Design Criteria and Allowable Variances

See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada Design Criteria and Allowable Variances

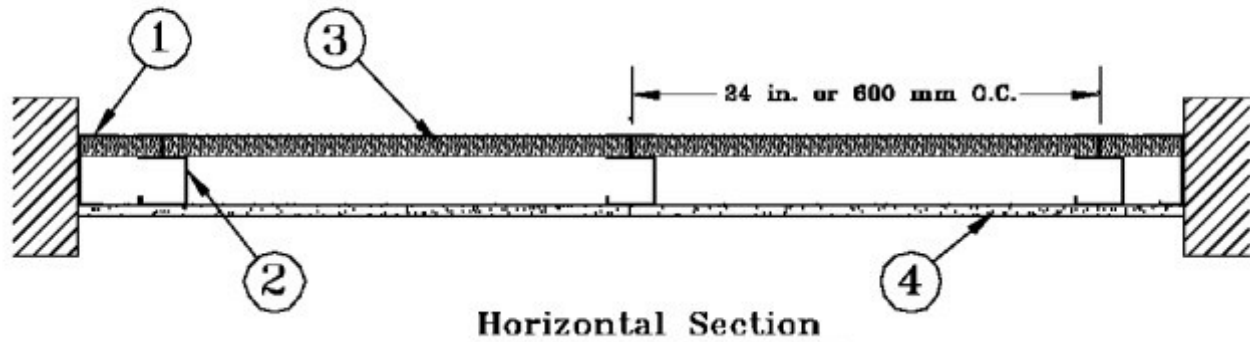
Design No. V455

August 4, 2023

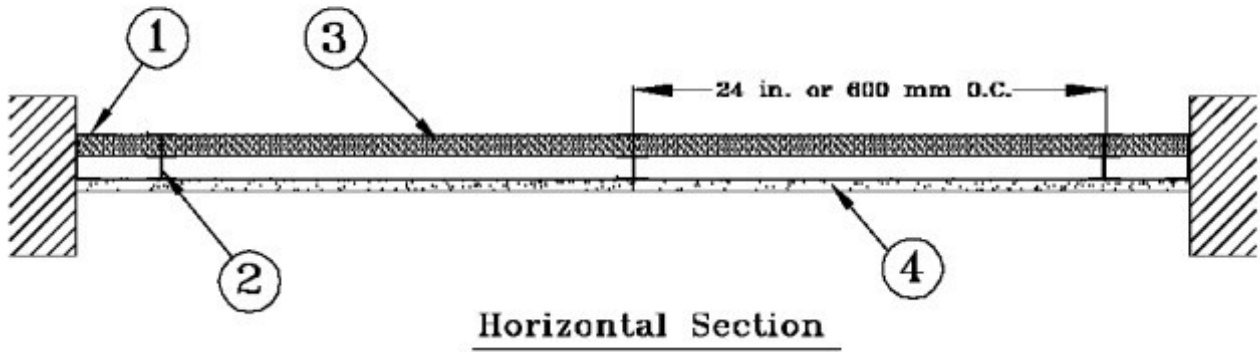
**Nonbearing Wall Rating — 1 and 2 Hr**

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

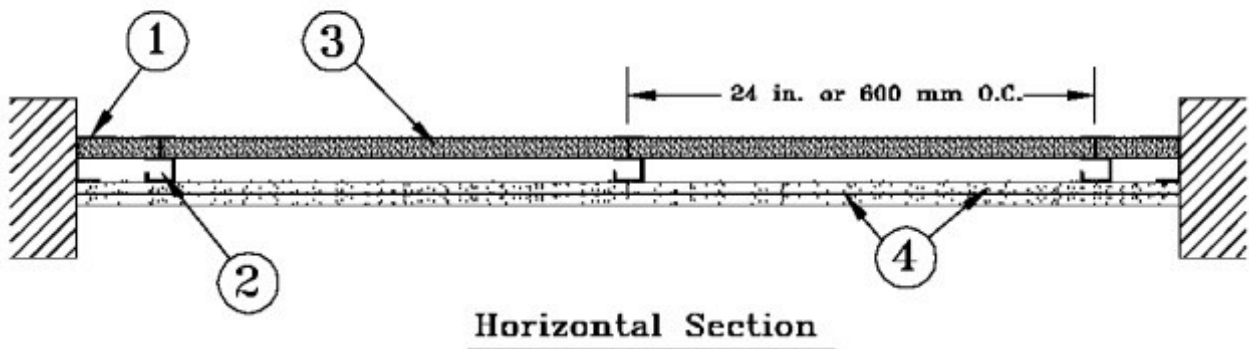
**System A - 1 Hr.**



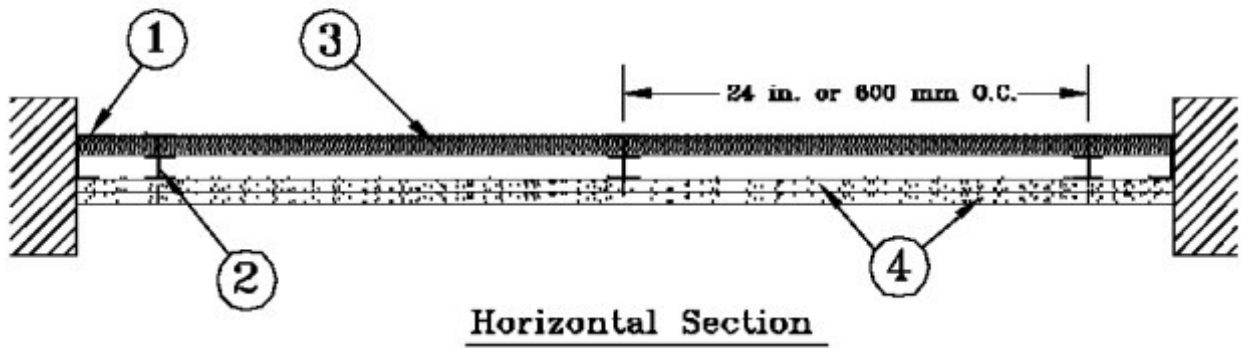
System A - 1 Hr.



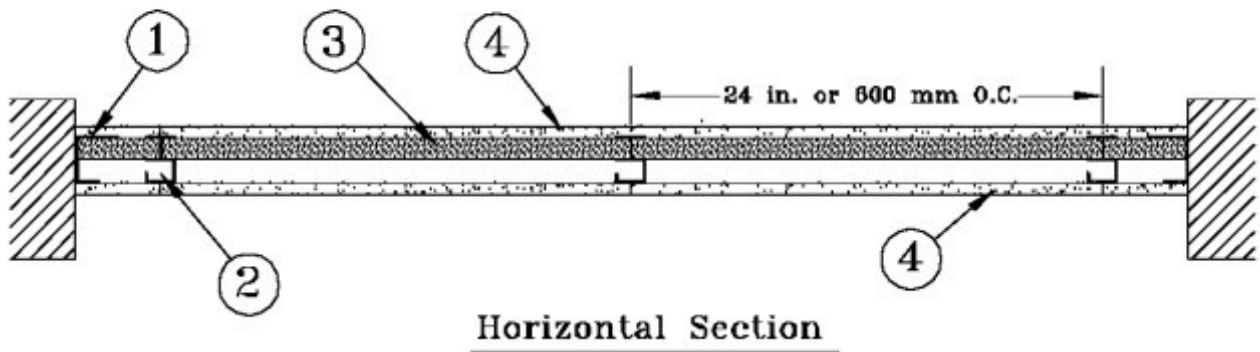
System B - 2 Hr.



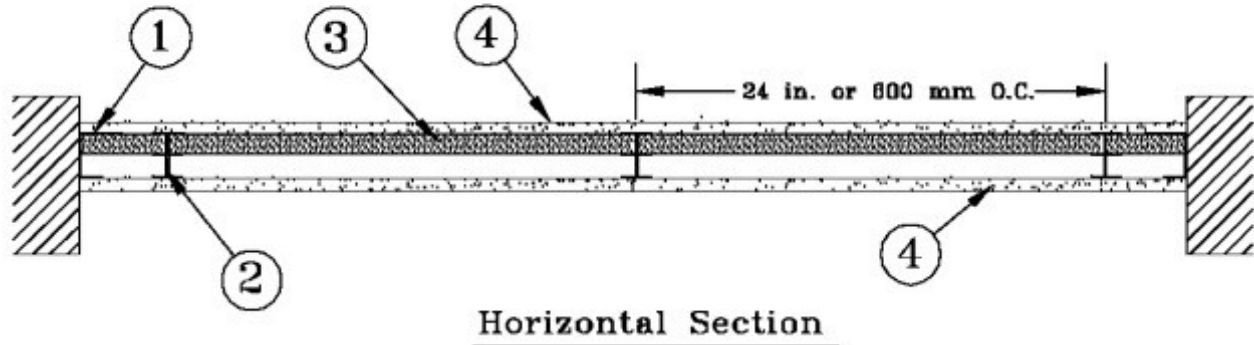
System B - 2 Hr.



System C - 2 Hr.



## System C - 2 Hr.



Horizontal Section

1. **Floor, Side and Ceiling Runners** — "J" -shaped runner, min 2-1/2 in. deep, with unequal legs of 1 in. and 2 in., fabricated from min 25 MSG galv steel. Runners positioned with short leg toward finished side of wall. Runners attached to structural supports with steel fasteners located not greater than 2 in. from ends and not greater than 24 in. OC.

2. **Steel Studs** — "I", "C-H, or "C-T" shaftwall studs. "C-T" or "C-H" -shaped studs, min 2-1/2 in. deep, 1-1/2 in. wide, fabricated from min 25 MSG galv steel. Cut to lengths 5/8 in. less than floor-to-ceiling height and spaced 24 in. Or, "I" -shaped studs fabricated from min 25 MSG galv steel, min 2-1/2 in. deep, 1-1/2 in. wide. Studs contain 3/4 in. wide by 2-1/4 in. high holding tabs spaced 2-3/4 in. OC. Cut to lengths 5/8 in. less than floor-to-ceiling height and spaced 24 in.

2A. **Furring Channels** — (Optional, Not Shown) — Resilient furring channels fabricated from min 25MSG corrosion protected steel, installed horizontally, and spaced vertically a max 24 in. OC. Flange portion of channel attached to each intersecting "C-H" or "E" stud on side of stud opposite the 1 in. liner panels with 1/2 in. long Type S or S-12 pan-head steel screws.

2B. **Steel Framing Members\*** — (Optional, Not Shown) — Furring channels and Steel Framing Members as described below.

a. **Furring Channels** — Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board installed vertically only and attached to furring channels as described in Item 4.

b. **Steel Framing Members\*** — Used to attach furring channels (Item 2a) to studs (Item 2). Clips spaced max. 24 in. OC., and secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips. RSIC-1 clip for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) clip for use with 2-23/32 in. wide furring channels.

**PAC INTERNATIONAL L L C** — Types RSIC-1, RSIC-1 (2.75).

2C. **Steel Framing Members\*** — (Optional, Not Shown) — Furring channels and Steel Framing Members as described below:

a. **Furring Channels** — Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 4.

b. **Steel Framing Members\*** — Used to attach furring channels (Item 2Ca) to studs. Clips spaced 24 in. OC., and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips.

**STUDCO BUILDING SYSTEMS** — RESILMOUNT Sound Isolation Clips - Type A237R

2D. **Steel Framing Members\*** — (Optional, Not Shown) — Furring channels and Steel Framing Members as described below:

a. **Furring Channels** — Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with a double strand of No. 18 AWG twisted steel wire. Gypsum board attached to furring channels as described in Item 4.

b. **Steel Framing Members\*** — Used to attach furring channels (Item 2Da) to studs. Clips spaced 24 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.

**REGUPOL AMERICA** — Type SonusClip

2E. **Steel Framing Members\*** — (Optional, Not Shown) — Resilient channels and Steel Framing Members as described below:

a. **Resilient Channels** — Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Phillips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 4.

b. **Steel Framing Members\*** — Used to attach resilient channels (Item 2Ea) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw.

**KEENE BUILDING PRODUCTS CO INC** — Type RC+ Assurance Clip

3. **Gypsum Board\*** — Gypsum liner panels, nom 1 in. thick, 24 in. wide. Panels cut max 1 in. less in length than floor to ceiling height. Vertical edges inserted in "T" -shaped section of "C-T" studs, Vertical edges inserted in "H" -shaped section of "C-H" studs, or holding tabs of "I" studs. Free edge of end panels attached to long leg of "J" -runners with 1-5/8 in. long Type S bugle head steel screws spaced not greater than 12 in. OC.

**AMERICAN GYPSUM CO** — Type AG-S, M-Glass

4. **Gypsum Board\*** —

#### **System A**

Gypsum panels, nom 5/8 in. thick, 48 in. wide, applied vertically with edges centered over studs, with 1 in. long Type S bugle head steel screws spaced 12 in. OC.

**AMERICAN GYPSUM CO** — Types AGX-1, M-Glass, AG-C

#### **System B**

1/2 or 5/8 in. thick, 4 ft wide, applied in two layers. Base layer attached horizontally to studs and side "J" runners with 1 in. long Type S self-tapping steel screws starting at 2 in. from the floor and ceiling runners and spaced a maximum 24 in. OC along the vertical edges and in the field of the boards.

Face layer applied vertically to studs and side "J" runners and attached with 1-5/8 in. long Type S self-tapping steel screws, starting at 3 in. from the floor and ceiling runners and spaced a maximum 12 in. OC along the vertical edges and in the field of the boards. Face layer joints covered with paper tape and two coats of joint compound. Exposed screw heads covered with two coats of joint compound.

**AMERICAN GYPSUM CO** — 1/2 or 5/8 in. Type AG-C, 5/8 in. Type AGX-1 or M-Glass

#### **System C**

1/2 or 5/8 in. thick, 4 ft wide, applied vertically and attached to studs and runners with 1 in. long Type S steel screws starting at 2 in. from the top and the bottom, and spaced at 12 in. OC. Vertical joints are offset one stud space each side. Outer layer joints covered with paper tape and two coats of joint compound. Exposed screw heads covered with two coats of joint compound.

**AMERICAN GYPSUM CO** — 1/2 or 5/8 in. Type AG-C, 5/8 in. Type AGX-1 or M-Glass

5. **Joint Tape and Compound** — (Not Shown) — Vinyl or casein, dry or premixed joint compound applied in two coats to joints and screw heads of outer layers. Paper tape, nom 2 in. wide, embedded in first layer of compound over all joints of outer layer panels. Paper tape and joint compound may be omitted when gypsum panels are supplied with a square edge.

6. **Batts and Blankets\*** — (Optional — Not Shown) — Mineral wool or glass fiber batts partially or completely filling stud cavity. Any mineral wool or glass fiber batt mineral bearing the UL Classification Marking as to Fire Resistance.

See **Batt and Blankets** (BZJZ) category for names of Classified Companies.

6A. **Fiber, Sprayed\*** — As an alternate to Batts and Blankets (Item 6) — (100% Borate Formulation) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft<sup>3</sup>. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft<sup>3</sup>, in accordance with the application instructions supplied with the product.

**Applegate Greenfiber Acquisition LLC** — Insulmax and SANCTUARY for use with wet or dry application.

6B. **Fiber, Sprayed\*** — As an alternate to Batts and Blankets (Item 6) — Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.

**NU-WOOL CO INC** — Cellulose Insulation

6C. **Fiber, Sprayed\*** — As an alternate to Batts and Blankets (Item 6) — Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft<sup>3</sup>.

**INTERNATIONAL CELLULOSE CORP** — Celbar-RL

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