

BXUV.V435

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. V435

June 02, 2020

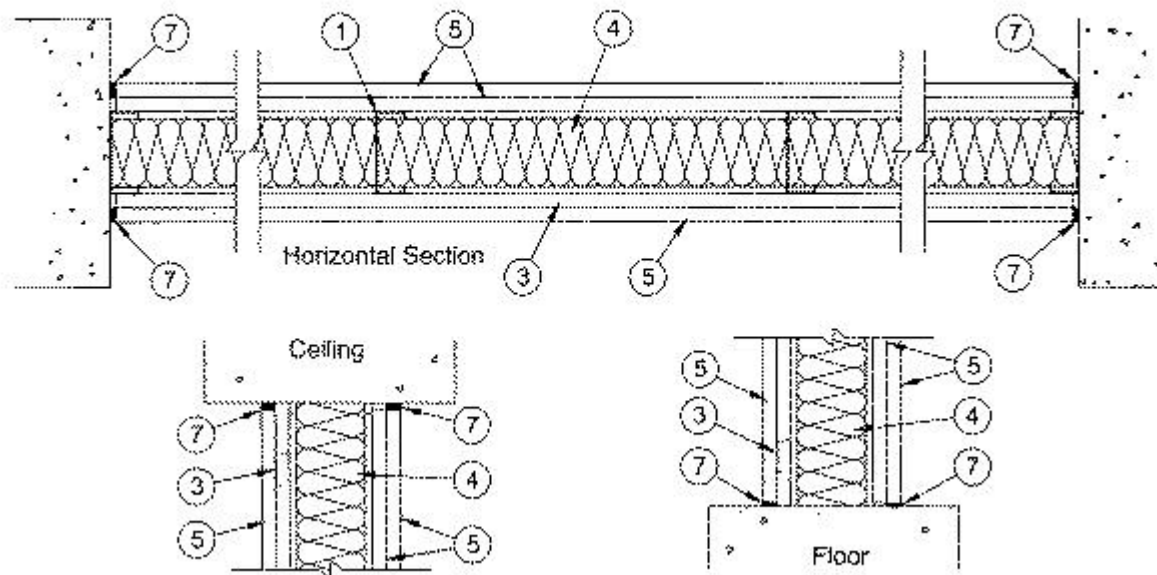
Nonbearing Wall Ratings- 1 Hr.

STC Rating-52

L Rating at Ambient- Less than 1 CFM/Lin Ft.

L Rating at 400 F- Less than 1 CFM/Lin Ft.

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



1. **Studs** — Channel-shaped, min 3-5/8 in. wide by 1-1/4 in. deep with 5/16 in. folded back return flange legs. Fabricated from No. 25 MSG galv steel. Max stud spacing 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

1A. **Framing Members* — Steel Studs** — Not Shown — In lieu of Item 1 — For use with Item 2A, proprietary channel shaped steel studs, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel. Max stud spacing 24 in. OC. Studs cut 3/4 in. less in length than assembly height.

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™

FUSION BUILDING PRODUCTS — Viper20™

IMPERIAL MANUFACTURING GROUP INC — Viper20™

1B. **Framing Members* — Steel Studs** — Not Shown — In lieu of Item 1 — For use with Item 2B, channel shaped steel studs, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel. Max stud spacing 24 in. OC. Studs cut 3/4 in. less in length than assembly height.

CLARKDIETRICH BUILDING SYSTEMS — CD ProSTUD

DMFCWBS L L C — ProSTUD

MBA METAL FRAMING — ProSTUD

RAM SALES L L C — Ram ProTRAK

STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProSTUD

1C. **Framing Members* — Steel Studs** — Not Shown — In lieu of Item 2 — For use with Item 2C, proprietary channel shaped steel studs, min 3-5/8 in. wide. Max stud spacing 24 in. OC. Studs cut 3/4 in. less in length than assembly height.

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper25™

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper25™

FUSION BUILDING PRODUCTS — Viper25™

IMPERIAL MANUFACTURING GROUP INC — Viper25™

1D. **Framing Members* — Steel Studs** — Not Shown — In lieu of Item 1 — For use with Item 2D, proprietary channel shaped steel studs, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel. Max stud spacing 24 in. OC. Studs cut 3/4 in. less in length than assembly height.

TELLING INDUSTRIES L L C — Viper20™

1E. **Framing Members* — Steel Studs** — Not Shown — In lieu of Item 1 — For use with Item 2E, channel shaped steel studs, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel. Max stud spacing 24 in. OC. Studs cut 3/4 in. less in length than assembly height.

TELLING INDUSTRIES L L C — TRUE-STUD™

1F. **Framing Members* — Steel Studs** — Not Shown — In lieu of Item 1 — For use with Item 2F, proprietary channel shaped steel studs, min 3-5/8 in. wide. Max stud spacing 24 in. OC. Studs cut 3/4 in. less in length than assembly height.

TELLING INDUSTRIES L L C — Viper25™

1G. **Framing Members* — Steel Studs** — As an alternate to Item 1 — For use with Item 2A (3-5/8 in. wide track), channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, 1-1/4 in. wide by 3-5/8 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.

MARINO/WARE, DIV OF WARE INDUSTRIES INC — StudRite™

1H. Framing Members* — Steel Studs — Not Shown — In lieu of Item 1 — For use with Item 2G, channel shaped steel studs, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel. Max stud spacing 24 in. OC. Studs cut 3/4 in. less in length than assembly height.

RESCUE METAL FRAMING, L L C — AlphaSTUD

1I. Framing Members* — Steel Studs — Not Shown — In lieu of Item 1 — For use with Item 2H, proprietary channel shaped steel studs, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 25 MSG (0.018 in. min. bare metal thickness). Max stud spacing 24 in. OC. Studs cut 3/4 in. less in length than assembly height.

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper X

2. Floor and Ceiling Runners — (Not Shown) — Channel-shaped runners, 3-5/8 in. wide by 1-1/4 in. deep, fabricated from 25 MSG galv steel. Attached to floor and ceiling with fasteners spaced max 24 in. OC.

2A. Framing Members* — Floor and Ceiling Runners — Not Shown — In lieu of Item 2 — For use with Item 1A, proprietary channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™ Track

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track

FUSION BUILDING PRODUCTS — Viper20™ Track

IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track

2B. Framing Members* — Floor and Ceiling Runners — Not Shown - —In lieu of Item 2 — For use with Item 1B, channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

CLARKDIETRICH BUILDING SYSTEMS — CD ProTRAK

DMFCWBS L L C — ProTRAK

MBA METAL FRAMING — ProTRAK

RAM SALES L L C — Ram ProSTUD

STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProTRAK

2C. **Framing Members* — Floor and Ceiling Runners** — Not Shown — In lieu of Item 1 — For use with Item 1C, proprietary channel shaped runners, min 3-5/8 in. wide, attached to floor and ceiling with fasteners spaced 24 in. OC max.

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper25™Track

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper25™Track

FUSION BUILDING PRODUCTS — Viper20™ Track

IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track

2D. **Framing Members* — Floor and Ceiling Runners** — Not Shown — In lieu of Item 2 — For use with Item 1C, proprietary channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

TELLING INDUSTRIES L L C — Viper20™ Track

2E. **Framing Members* — Floor and Ceiling Runners** — Not Shown — In lieu of Item 2 — For use with Item 1E, channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

TELLING INDUSTRIES L L C — TRUE-TRACK™

2F. **Framing Members* — Floor and Ceiling Runners** — Not Shown — In lieu of Item 1 — For use with Item 1F, proprietary channel shaped runners, min 3-5/8 in. wide, attached to floor and ceiling with fasteners spaced 24 in. OC max.

TELLING INDUSTRIES L L C — ViperTrack™

2G. **Framing Members* — Floor and Ceiling Runners** — Not Shown — In lieu of Item 2 — For use with Item 1H, channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

RESCUE METAL FRAMING, L L C — AlphaTRAK

2H. **Framing Members* — Floor and Ceiling Runners** — Not Shown — In lieu of Item 2 — For use with Item 1I, proprietary channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 25 MSG (0.018 in. min. bare metal thickness), attached to floor and ceiling with fasteners spaced 24 in. OC max.

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper X Track

3. **Furring Channel** — Resilient 25 MSG galv steel furring channels installed on one side of wall and spaced vertically max 24 in. OC. Flange portion attached to floor and ceiling with fasteners spaced max 24 in. OC.

4. **Batts and Blankets*** — Min 2.5 pcf density unfaced mineral wool batts supplied in 24 by 48 by 3 in. thick boards installed to completely fill each stud cavity.

See **Batts and Blankets*** (BKNV and/or BZJZ) categories for names of Classified companies.

5. **Gypsum Board*** — **Any 5/8 in. thick UL Classified Gypsum Board that is eligible for use in Design Nos. L501, G512 or U305.** Nom 5/8 in. thick, 4 ft wide. Screw-attached to resilient furring channels on one side of wall with 1 in. long type S steel screws spaced 12 in. OC. On direct attached side, base layer screw attached to studs with 1in. long type S-12 steel screws spaced 16 in. OC and face layer screw attached to studs with 1-5/8 in. long type S-12 screws spaced 16 in. OC. Gypsum board joints oriented vertically, located over studs and offset between layers. Max gap at perimeter of partition is 3/16 in.

AMERICAN GYPSUM CO (View Classification) — CKNX.R14196

BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO (View Classification) — CKNX.R19374

CABOT MANUFACTURING ULC (View Classification) — CKNX.R25370

CERTAINTED GYPSUM INC (View Classification) — CKNX.R3660

CGC INC (View Classification) — CKNX.R19751

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C (View Classification) — CKNX.R18482

GEORGIA-PACIFIC GYPSUM L L C (View Classification) — CKNX.R2717

LOADMASTER SYSTEMS INC (View Classification) — CKNX.R11809

NATIONAL GYPSUM CO (View Classification) — CKNX.R3501

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM (View Classification) — CKNX.R7094

PANEL REY S A (View Classification) — CKNX.R21796

SIAM GYPSUM INDUSTRY (SARABURI) CO LTD (View Classification) — CKNX.R19262

THAI GYPSUM PRODUCTS PCL (View Classification) — CKNX.R27517

UNITED STATES GYPSUM CO (View Classification) — CKNX.R1319

USG BORAL DRYWALL SFZ LLC (View Classification) — CKNX.R38438

USG MEXICO S A DE C V (View Classification) — CKNX.R16089

5A. **Gypsum Board*** — (As an alternate to 5/8 in. Type FSW in Item 5) — Nom. 5/16 in. thick gypsum panels applied vertically. Two layers of 5/16 in. for every single layer of 5/8 in. gypsum board described in Item 5. Horizontal joints on the same side need not be staggered. Inner layer of each double 5/16 in. layer attached with fasteners, as described in item 5, spaced 24 in. OC. Outer layer of each double 5/16 in. layer attached per Item 5.

NATIONAL GYPSUM CO — Type FSW

6. **Joint Tape and Compound** — (Not Shown) — Vinyl, dry or premixed joint compound, applied to joints and screw heads. Paper tape, 2 in. wide, embedded in first layer of compound over all joints. When used in conjunction with a suspended ceiling, joints and screw heads above ceiling shall be also be finished.

7. **Caulking and Sealants*** — Nom 5/8 in. depth of sealant applied to fill max 3/16 in. wide gaps around the perimeter on both sides of partition for sound and smoke control. A nominal 1/4 in. diam bead of sealant shall be applied to cover intermittent point contact locations.

SPECIFIED TECHNOLOGIES INC — SpecSeal Smoke "N" Sound Sealant.

6. **Barrier Mesh** — (Optional, Not Shown) - Attached to steel studs on one or both sides of the wall using Barrier Mesh Clips spaced at maximum 12 inches on center vertically, using a flat head type screw penetrating through the steel at least 3/8 of an inch. For Steel Studs less than 0.033 inches in thickness, use self-piercing screws. For Steel Studs equal to or greater than 0.033 inches in thickness, use steel drill screws (self-tapping). Gypsum Board (Item 5) to be installed directly over the Barrier Mesh using prescribed screw patterns with lengths increased by a minimum 1/8 in. Barrier Mesh may be installed with the long dimension of the diamond pattern positioned vertically or horizontally. Barrier Mesh joints may occur as butt joints at the framing members and secured using the Barrier Mesh Clips or occur in between framing members as overlapping joints secured using 18 SWG wire ties spaced a maximum 12 in. on center.

CLARKDIETRICH BUILDING SYSTEMS — Barrier Mesh, Barrier Mesh Clips

*** 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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