



BXUV.V410 -

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

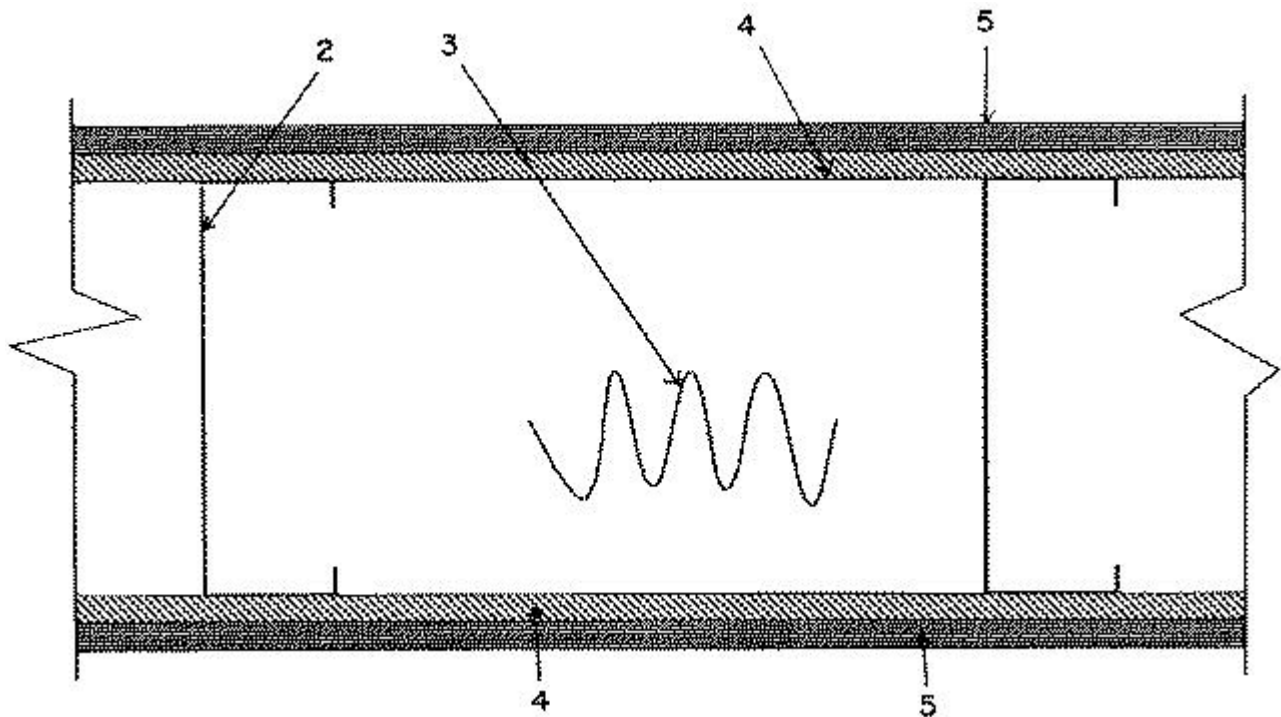
See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada
Design Criteria and Allowable Variances

Design No. V410

October 01, 2019

Nonbearing Wall Rating 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.**



1. Floor and Ceiling Runner — (Not Shown) — 25 MSG (min) galv steel 1 in. high, return legs 1-5/8 in. wide (min) attached to floor and ceiling with fasteners 24 in. OC.

1A. Framing Members* — Floor and Ceiling Runner — Not Shown — In lieu of Item 1 — For use with Item 2A, proprietary channel shaped runners, 1-1/4 in. deep by min 1-5/8 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

1B. Framing Members* — Floor and Ceiling Runners — Not Shown — In lieu of Item 1 — For use with Item 2B, channel shaped runners, 1-1/4 in. deep by min 1-5/8 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 ProTRAK

STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProTRAK

1C. Framing Members* — Floor and Ceiling Runner — Not Shown — In lieu of Item 1 — For use with Item 2C, proprietary channel shaped runners, 1-1/4 in. deep by min 1-5/8 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

1D. **Framing Members* — Floor and Ceiling Runners** — Not Shown — In lieu of Item 1 — For use with Item 2D, channel shaped runners, 1-1/4 in. deep by min 1-5/8 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™

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

STEEL INVESTMENT GROUP L L C — AlphaTRAK

2. **Steel Studs** — 1-5/8 in. wide (min), 1-1/4 in. legs, 1/4 in. return, formed of 25 MSG (min) galv steel max stud spacing 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

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

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™

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

FUSION BUILDING PRODUCTS — Viper20™

IMPERIAL MANUFACTURING GROUP INC — Viper20™

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

CLARKDIETRICH BUILDING SYSTEMS — CD ProSTUD

DMFCWBS L L C — ProSTUD

MBA METAL FRAMING — ProSTUD

RAM SALES L L C — Ram ProSTUD

STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProSTUD

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

TELLING INDUSTRIES L L C — Viper20™

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

TELLING INDUSTRIES L L C — TRUE-STUD™

2E. **Framing Members* — Steel Studs** — As an alternate to Item 2 — For use with Item 1A (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™

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

STEEL INVESTMENT GROUP L L C — AlphaSTUD

3. **Batts and Blankets*** — (Optional) — Mineral wool or glass fiber batts, partially or completely filling stud cavity. Fasten each batt to building unit with a min 9/16 in. long staple. Use five staples for each 4 ft long piece. Drive one staple in the center of each piece and a staple at each corner, approx 3 in. from edges.

See Batts and Blankets (BZJZ) category for names of manufacturers.

3A. **Fiber, Sprayed*** — As an alternate to Batts and Blankets (Item 3) — (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/ft³. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft³, in accordance with the application instructions supplied with the product.

U S GREENFIBER L L C — INS735, INS745 and INS750LD for use with wet or dry application. INS765LD and INS773LD are to be used for dry application only.

3B. **Fiber, Sprayed*** — As an alternate to Batts and Blankets (Item 3) and Item 3A — 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

3C. **Fiber, Sprayed*** — As an alternate to Batts and Blankets (Item 3) — 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/ft³.

INTERNATIONAL CELLULOSE CORP — Celbar-RL

4. **Building Unit*** — Nom 1/2 in. thick, faced gypsum board panel with the faced side on the interior wall cavity. Panel vertically attached to studs with 1 in. long Type S steel screws spaced 24 in. OC along vertical edges and 24 in. OC in the field.

MOMENTIVE PERFORMANCE MATERIALS — Type CoreGuard

5. **Gypsum Board*** — 1/2 in. thick. (Laminated System) Gypsum board laminated to building unit with joint compound, applied with a notched spreader producing continuous beads of compound about 3/8 in. diam, spaced not greater than 2 in. OC. Joints of gypsum board offset 12 in. from building unit joints. Gypsum board attached to building unit with 1-1/2 in. long Type G steel screws spaced 24 in. OC along edges and center line of each sheet.

Optional (Direct Attached System) Gypsum board attached to the studs over the building unit with 1-5/8 long Type S steel screws spaced 12 in. OC in the field, along the vertical edges, and to the floor and ceiling runners. Joints of screw-attached gypsum board offset from inner building unit joints.

Optional (Direct Attached System) Gypsum board attached to the studs over the building unit with 1-5/8 in. long Type S steel screws spaced 12 in. OC in the field, along the vertical edges, and to the floor and ceiling runners. Gypsum board secured to building unit with 1-1/2 in. long Type G steel screws located midway between studs and 1 in. from the horizontal joint.

Gypsum board joints covered with joint tape and min two coats of joint compound and screw heads covered with min two coats of joint compound. As an alternate, nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced.

CGC INC — Types C, IP-X2, IPC-AR.

UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR.

USG BORAL DRYWALL SFZ LLC — Type C

USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR.

5A. **Gypsum Board*** — (Not Shown) - As an alternate to Item 5. 5/8 in. thick installed as described in Item 5.

UNITED STATES GYPSUM CO — Type ULIX

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). Building Units (Item 4) and 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

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