

BXUV.U209 - Fire-resistance Ratings - ANSI/UL 263



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. U209

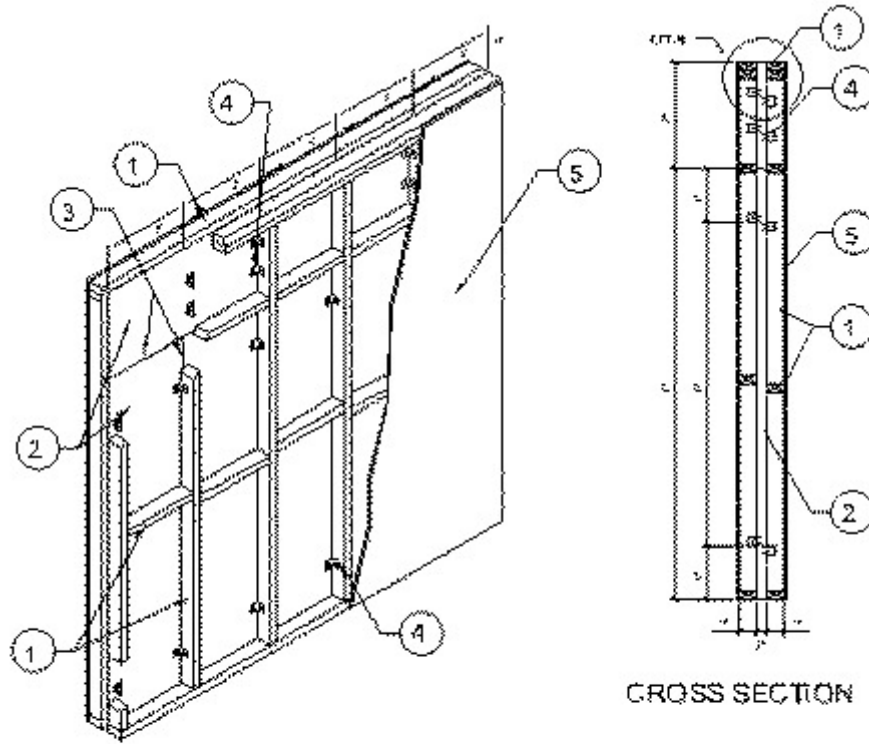
March 11, 2020

Bearing Wall Rating — 3 or 4 Hr (See Items 2 and 4)

Finish Rating — 25 Min. (for 2 in. thick panels)

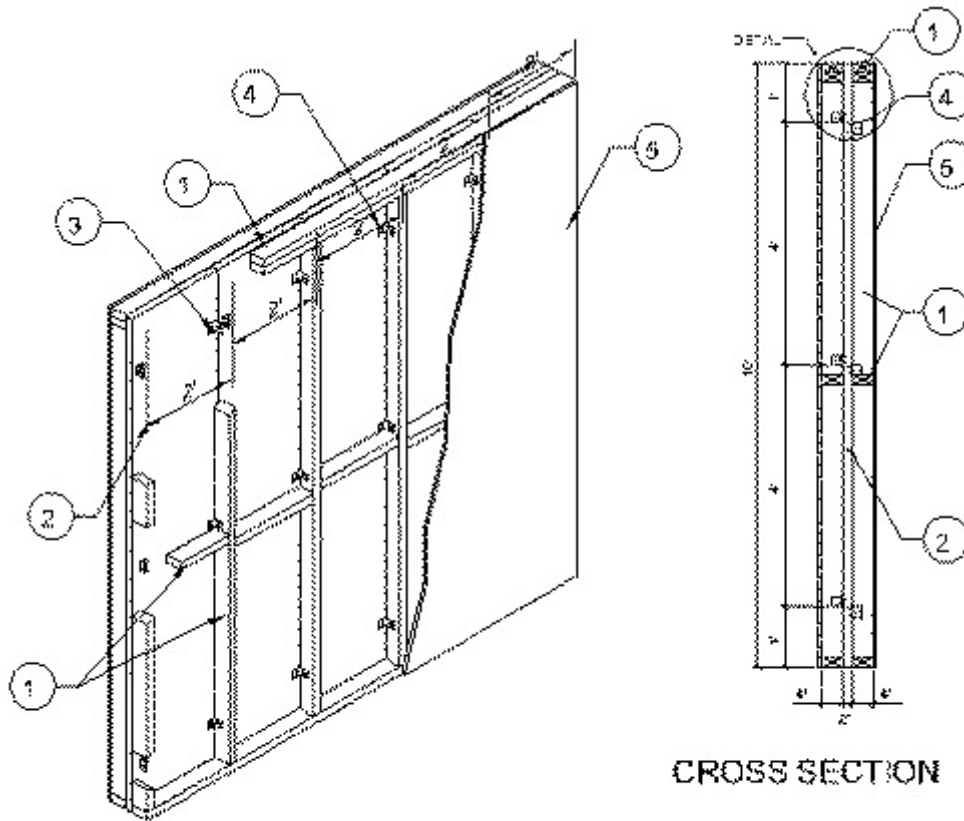
This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide [BXUV](#) or [BXUV7](#)

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



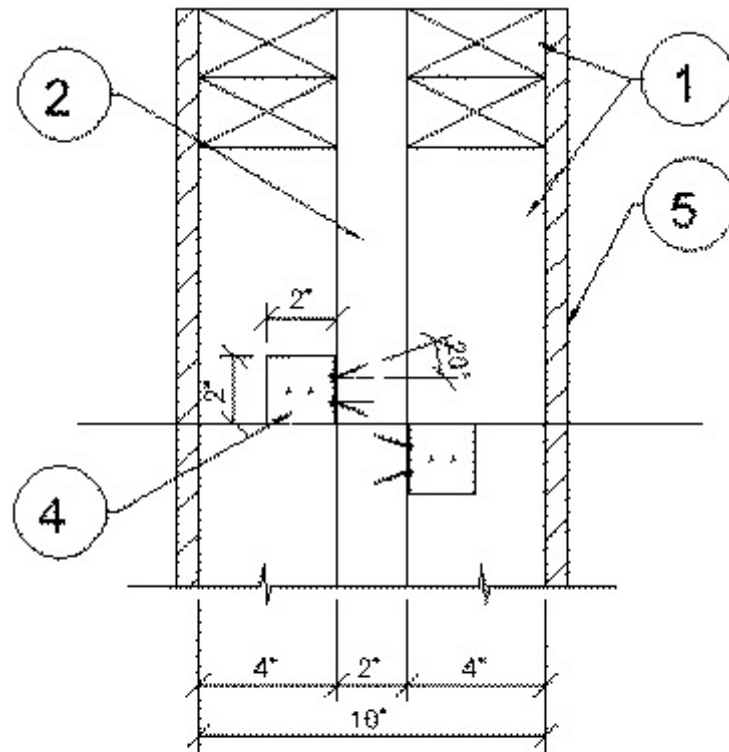
COMBINED ASSEMBLY
VERTICAL 8'X2'X2" PANELS
HORIZONTAL 10'X2'X2" PANEL

FIG. 207A



SINGLE-PANEL ASSEMBLY
VERTICAL 10'X2'X2" PANELS

FIG. 207B



DETAIL

1. Wood Studs — Nom 2 in. by 4 in., spaced a max of 24 in. OC. Studs to be effectively firestopped at the top and bottom of the wall with nom 2 in. by 4 in. plates. Studs effectively cross-braced.

1A. Steel Studs — (Not shown) — Min 0.0329 in., bare metal thickness (No. 20 MSG) corrosion-protected steel studs, min 3-1/2 in. wide, cold formed, designed in accordance with the current edition of the Specification for the Design of Cold-Formed Steel Structural Members by the American Iron and Steel Institute (AISI). All design details enhancing the structural integrity of the wall assembly, including the axial design load of the studs, shall be as specified by the steel stud designer and/or producer, and shall meet the requirements of all applicable local code agencies. The max stud spacing shall not exceed 24 in. OC. Studs attached to floor and ceiling runners (Item 1B) with 1/2 in. long Type S-12 steel screws on both sides of the studs or by welded or bolted connections designed in accordance with the AISI specifications.

1B. Floor and Ceiling Runners — (Not shown) — For use with Item 1A. Channel shaped, fabricated from min 0.0329 in., bare metal thickness (No. 20 MSG) corrosion-protected steel, that provide a sound structural connection between steel studs and adjacent assemblies such as floors, ceilings and/or other walls. Attached to floor and ceiling assemblies with steel fasteners spaced not greater than 24 in. OC.

2. Precast Autoclaved Aerated Concrete Panels * —

3 Hr Rating — 2 in. thick, max 24 in. wide and 8 ft or 10 ft long panels installed vertically. Panels secured to studs with attachment clips (Item 4). Vertical and horizontal joints to occur at studs.

4 Hr Rating — (not shown) 3 in. thick, max 24 in. wide and 8 ft or 10 ft long panels installed vertically. Panels secured to studs with attachment clips (Item 4). Vertical and horizontal joints to occur at studs.

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3. Thin Bed Mortar — Applied to the joints of each panel.

4. Attachment Clips —

3 Hr Rating — Aluminum angles 0.060 in. thick with one 2 in. leg and one 2-3/8 in. leg. Clips positioned with 2 in. leg on panel side and 2-3/8 in. leg on stud side. Clips attached to studs (Item 1) with one 1-5/8 in. long screw and 1/4 in. washer secured through each angle leg at hole cut 5/8 in. diameter. Clips attached to 2 in. thick panel (Item 2) with two 1-5/8 in. long fine cement board screws spaced 3/4 in. OC at pre-drilled holes. Panel screws angled 20 degrees from the horizontal as shown. Minimum of four clips per 8 ft long side of panel. Minimum of six clips per 10 ft long side of panel. Clips spaced max 12 in. from horizontal joints and max 6 ft OC vertically per panel. Clips staggered on opposite sides of panel to permit attachment to studs and panels.

4 Hr Rating — (not shown) Aluminum angles 0.060 in. thick with one 2 in. leg and one 2-3/8 in. leg. Clips positioned with 2 in. leg on panel side and 2-3/8 in. leg on stud side. Clips attached to studs (Item 1) with one 1-5/8 in. long screw and 1/4 in. washer secured through each angle leg at hole cut 5/8 in. diameter. Clips attached to 3 in. thick panel (Item 2) with two 2-7/16 in. long fine cement board screws spaced 3/4 in. OC at pre-drilled holes. Panel screws angled 20 degrees from the horizontal as shown. Minimum of six clips per 8 ft long side of panel. Minimum of six clips per 10 ft long side of panel. Clips spaced max 12 in. from horizontal joints and max 3 ft OC vertically per 8 ft long panel and max 4 ft OC vertically per 10 ft long panel. Clips staggered on opposite sides of panel to permit attachment to studs and panels.

3 and 4 Hr Rating — (4 Hr Rating not shown, alternate horizontal installation of a single panel) When 8 ft long panels are installed vertically, one 8 ft long or one 10 ft long by 24 in. wide panel may be installed horizontally above the 8 ft long vertical panels to complete a 10 ft high wall. Horizontal panel fastened to studs with attachment clips and screws appropriate for 3 or 4 hr rating as described above. Minimum of six clips per horizontal panel. Clips spaced a max of 4 ft OC horizontally per horizontal panel. Vertical and horizontal joints to occur at studs. No other horizontal installation is permitted.

5. Gypsum Board* — Any 5/8 in. thick UL Classified Gypsum Board that is eligible for use in Design Nos. L501, G512 or U305. One layer of nom 5/8 in. thick by 48 in. wide boards installed horizontally or vertically to wood studs or steel studs. Joints to occur at stud locations. Gypsum board attached to wood studs using 1-5/8 in. bugle head coarse drywall screws spaced 8 in. OC along the edges and in the field. Gypsum board attached to steel studs using 1 in. long Type S-12 steel screws spaced 8 in. OC along the edges and in the field.

CABOT MANUFACTURING ULC ([View Classification](#)) — CKNX.R25370

AMERICAN GYPSUM CO ([View Classification](#)) — CKNX.R14196

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

CERTAINTED GYPSUM INC ([View Classification](#)) — CKNX.R3660

CGC INC ([View Classification](#)) — CKNX.R19751

CERTAINTED GYPSUM INC ([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 MEXICO S A DE C V ([View Classification](#)) — CKNX.R16089

6. **Thin Bed Mortar or Repair Mortar** — Applied to surface cracks on both sides of panel per manufacturer's specifications.

7. **Finishing System** — (Not Shown) - Vinyl, dry or premixed joint compound, applied in two coats to joints and screw-heads or nail heads; paper tape, 2 in. wide, embedded in first layer of compound over all joints. As an alternate, nom. 3/32 in. thick veneer plaster may be applied to the entire surface of the gypsum wallboard.

*** 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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