

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.
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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. **V306**

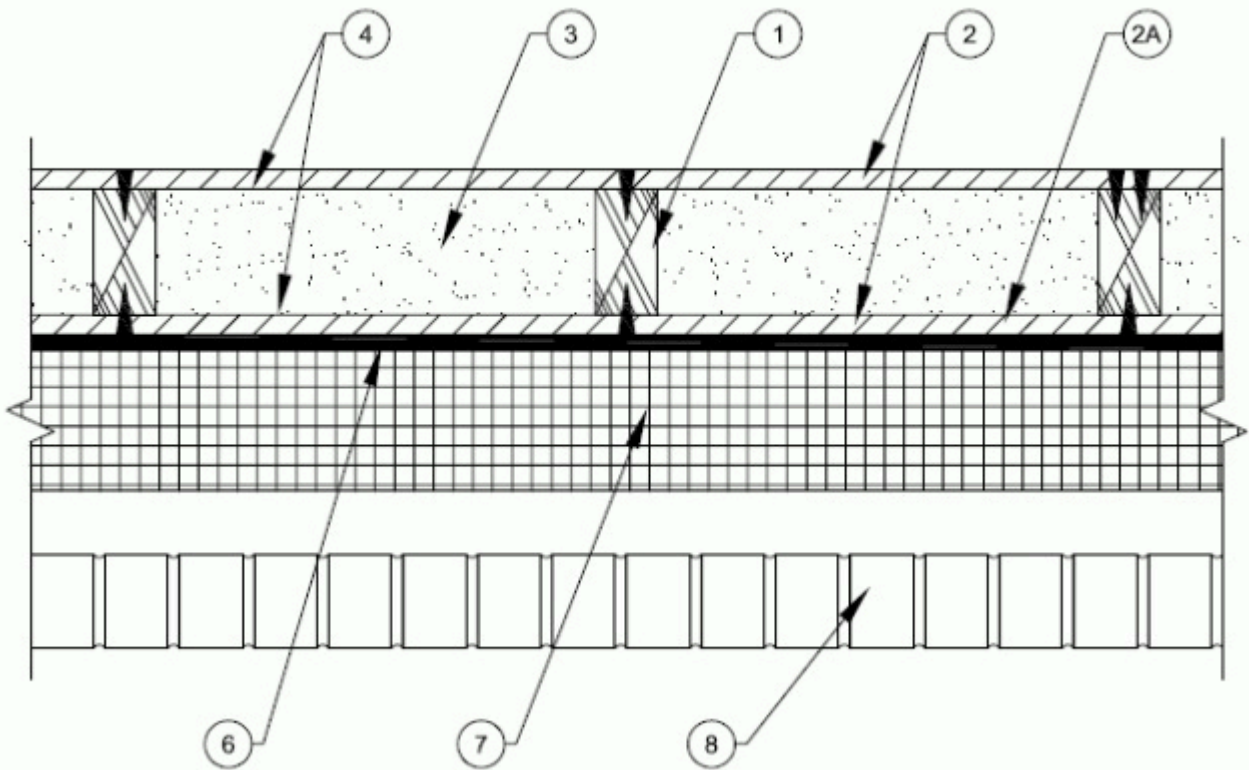
June 14, 2024

Bearing and Non-Bearing Wall Rating — 1 Hr (See Item 3)

Finish Rating — 21 min

Where Applicable Loaded Per 2005 NDS Supplement, LRFD Method, Wall Braced Mid-Height

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1. **Wood Studs** — Nom 2 by 4 in., spaced max 24 in. OC, effectively braced at mid-height and firestopped at top and bottom.

2. **Gypsum Board (CKNX)*** — 5/8 in. thick, 4 ft wide, applied vertically, screw attached to studs with 1-1/4 in. long Type W steel screws, spaced 8 in. OC. One face installed prior to application of foamed plastic (Item 3).

UNITED STATES GYPSUM CO — Type SCX

2A. **Gypsum Board (CKNX)* Any 5/8 in. thick UL Classified Gypsum Board that is eligible for use in Design Nos. L501, G512 or U305** — (Optional) — As an alternate to Item 2 on the exterior side of the assembly, one layer of 5/8 in. thick UL Classified glass mat gypsum sheathing applied to the studs, oriented vertically, and screw attached to studs with 1-1/4 in. long Type W steel screws, spaced 8 in. OC. Vertical joints staggered from vertical joints on opposite side of studs.

3. **Foamed Plastic (CCVW)*** — Spray applied, foamed plastic insulation, at any thickness from no fill to completely filling stud cavity. For bearing wall only Ewertite® NM, Ewertite® G, FE178®, Spraytite® 178, Spraytite® 81206, Walltite® 200, Walltite® US, Walltite® US-N, Walltite® HP+, Spraytite® Comfort XL, and Walltite® XL can be used. For non-loaded wall any product can be used.

BASF CORP — Ewertite® NM, Ewertite® G, FE178®, Spraytite® 178, Spraytite® 81206, Walltite® 200, Walltite® US, Walltite® US-N, Walltite® HP+, FE137®, FE158®, Spraytite® 158, Spraytite® SP, and Spraytite® 81205, Spraytite® Comfort XL, Walltite® XL, Walltite® MAX, Walltite® LWP, Walltite® Plus and Ewertite® Max

4. **Vapor Barrier** — (Optional) — Commercial polyethylene vapor barrier, 6 mil (max) thickness. Vapor barrier installed between wood studs (Item 1) and gypsum wallboard (Items 2 or 2A).

5. **Joints and Screwheads** — Wallboard joints covered with paper tape and joint compound. Screw heads covered with joint compound.

6. **Exterior Weather Barrier** — (Optional) - Commercial weather barrier applied to exterior surface of gypsum board (Items 2 or 2A) to manufacturers specified application rate.

7. **Foamed Plastic (CCVW)*** — (Optional) - Expanded polystyrene insulation installed to a maximum thickness of 4-1/2 in. Maximum nominal density 2.0 lb/ft³.

BASF CORP STYRENIC FOAMS DIV — Types Neopor® GPS (Roofing Board), Neopor® GPS (EIFS), Neopor® GPS (Stucco), Neopor® GPS (CI), Neopor® GPS (IE), Neopor® GPS (Perma R-Chrome), Neopor® GPS (Termite Treated), Neopor® GPS (HALO Subterra), Neopor® GPS (Foundation PRO), Neopor® GPS (HALO Exterra), Neopor® GPS (HALO Interra), Neopor® GPS (PFT Pro Board), Neopor® GPS (PFT Red Label), and Neopor® GPS (PFT Chrome).

8. **Exterior Facings** — (Optional) — One of the following exterior facings is to be installed in accordance with the manufacturer's installation instructions.

8A. **Aluminum Siding** — (Not Shown) — 0.019 in. min thick painted aluminum meeting AAMA 1402. Fastened over Foamed Plastic (Item 7) to wood studs.

8B. **Steel Siding** — (Not Shown) — 0.017 in. min thick (No. 17 GSG gauge) painted steel. Fastened over Foamed Plastic (Item 7) to wood studs.

8C. **Vinyl Siding** — (Not Shown) — 0.035 in. min thick vinyl, UL Classified exterior plastic siding (Molded Plastic). Fastened over Foamed Plastic (Item 7) to wood studs.

8D. **Wood Siding** — (Not Shown) — 0.313 in. min thick lumber, plywood or OSB wood based siding. Fastened over Foamed Plastic (Item 7) to wood studs. As an option, the Wood Siding may be placed between the Foamed Plastic and Fiber-Cement Siding (Item 8F), Stucco (Item 8J) or One-Coat Stucco (Item 8K).

8E. **Hard board Siding** — (Not Shown) — 0.250 in. min thick hard board exterior siding. Fastened over Foamed Plastic (Item 7) to wood studs.

8F. **Fiber-Cement Siding** — (Not Shown) — 0.250 in. min thick fiber-cement based siding. Fastened over Foamed Plastic (Item 7) to wood studs.

8G. **Stone** — (Not Shown) — 2.0 in. min (natural stone) or 1.5 in. min (cast artificial) thick stone. Fastened over Foamed Plastic (Item 7) to wood studs.

8H. **Brick Veneer** — Any 4 in. wide brick. Min 1 in. airspace provided between veneer and Foamed Plastic (Item 7). Fastened over Foamed Plastic (Item 7) to wood studs with wall anchor ties.

8I. **Concrete Masonry Veneer** — (Not Shown) — 2.0 in. min thick concrete masonry units. Fastened over Foamed Plastic (Item 7) to wood studs with metal ties.

8J. **Stucco** — (Not Shown) — Portland cement type, 0.750 in. min thickness. Metal lath or mesh base fastened over Foamed Plastic (Item 7) to wood studs.

8K. **One-Coat Stucco** — (Not Shown) — 0.375 in. min thickness. Wire fabric lath fastened over Foamed Plastic (Item 7) to wood studs.

8L. **Exterior Insulation and Finish System (EIFS)** — (Not Shown) — Base coat with reinforcing mesh applied over Foamed Plastic (Item 7) followed by finish coat.

8M. **Metal Panel** — (Not Shown) — 0.039 in. min. thick metal panel or metal-composite-metal (MCM) panel. Fastened over Foamed Plastic (Item 7) to wood studs.

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