

# BXUV.H514 - 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

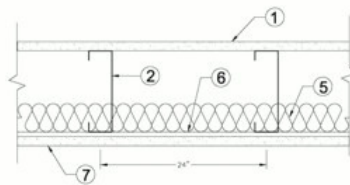
See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada  
Design Criteria and Allowable Variances

## Design No. H514

January 11, 2019

### Unrestrained Assembly Rating — 1-1/2 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. **Flooring System - Building Units\*** — Nom 3/4 in. thick, ship-lap edge detail. Long dimension of boards to be perpendicular to joists with end joints staggered a min of 4 ft. and centered over the joists. Boards secured to steel joists with #8 x 1-5/8 in. long self-drilling, self-countersinking, steel cement board screws, Grabber GH8158LG spaced a max of 12 in. OC in the field 8 in. OC along butt ends and perimeter of assembly with 1/2 in. setback from all board edges. Corner fasteners set back minimum 4 in. from corner along butt end and 2 in. from corner along adjacent corner edge.

AMERIFORM L L C — Type Nocom

2. **Structural Steel Members — Joists** — C-shaped, galvanized steel section, min 10 in. deep with min 1-5/8 in. flanges and min 1/2 in. returns. Joists fabricated from min 16 MSG galv steel with Yield Strength of 50,000 psi. Joists spaced max 24 in. OC with center joists located 12 in. OC on either side of centerline.

2A. **Rim Track** — Not Shown - U-shaped, galvanized steel, min 10 in. deep with 2 in. legs. Where rim splices occur, rim tracks are connected using an overlapping section of a 19 in. long splice plate fabricated from a section of joist, with nine 3/4 in. long No. 10 self-drilling steel TEK screws to each rim piece.

3. **Joist Bridging** — Not Shown — Installed at the center of the joist span immediately after joists are installed and before construction loads are applied. Bridging consisting of cut-to-length joist sections (Item 2) placed between the joists with a max spacing of 8 ft. OC.

4. **Angle Clips** — Not Shown — 1-1/2 x 4 x 9-3/4 in. long, 16 MSG clips used to fasten joists to joist rim track. 4 in. side of clip placed against inside web of joists and 1-1/2 in. side placed against joist rim track. Each side secured with three #10-3/4 in. TEK screws.

4A. **Bridging Clips** — Not Shown - 1-1/2 x 4 x 8 in., 16 MSG clips used to fasten joist bridging. Clip is located on the web/flange side of the joist. Clip fastened with three #10-3/4 in. TEK screws per leg per clip.

4B. **Web Stiffeners** — Not Shown — Web stiffeners, min 3-5/8 in. wide with min 9/16 in. flange and min 1-1/4 in. flange, having the same depth as the joists. Fabricated from min 16 MSG galv steel. Secured to each joist on the non-flange side of the joist at support ends with four #10 by 3/4 in. long self-drilling screws.

5. **Batts and Blankets\*** — 3-1/2 in. thick glass fiber batt insulation of nominal 0.92 pcf density, draped over the resilient channels (Item 6). Any glass fiber batt insulation bearing the UL Classification Marking for Surface Burning Characteristics or Fire Resistance may be used. See **Batts and Blankets** (BKNV) category in the Building Materials Directory or BZJZ in the Fire Resistance Directory for names of manufacturers.

6. **Resilient Channels** — Formed of No. 25 MSG galv steel, 1/2 in. deep, spaced max 12 in. OC, perpendicular to joists. Channel splices located beneath joists and overlapped 4 in. Channels secured to each joist with one 1/2 in. long Type S-12 low profile steel screw. Two additional channels spaced 6 in. OC, oriented opposite each gypsum board end joint. The additional channels shall extend min 12 in. beyond each side edge of board.

7. **Gypsum Board\*** — Single layer of nom 5/8 in. thick, 48 in. wide gypsum panels installed with long dimension perpendicular to resilient channels. Butted end joints shall be staggered min. 6 ft within the assembly, and be centered over the continuous furring channels. Gypsum panels secured to resilient channels with 1 in. long Type S bugle-head screws spaced 8 in. OC in the field and end joints starting 1-1/2 in. and 4 in. from the side joints. End joints secured to the two additional channels placed 3 in. from each side of the end joints.

**NATIONAL GYPSUM CO** — Type FSW-C

8. **Finishing System** — (Not Shown) Vinyl, dry or premixed joint compound, applied in two coats to joints and screw-heads. Nom 2 in. wide paper tape embedded in first layer of compound over all joints.

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