



# BXUV.G548 - 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. G548

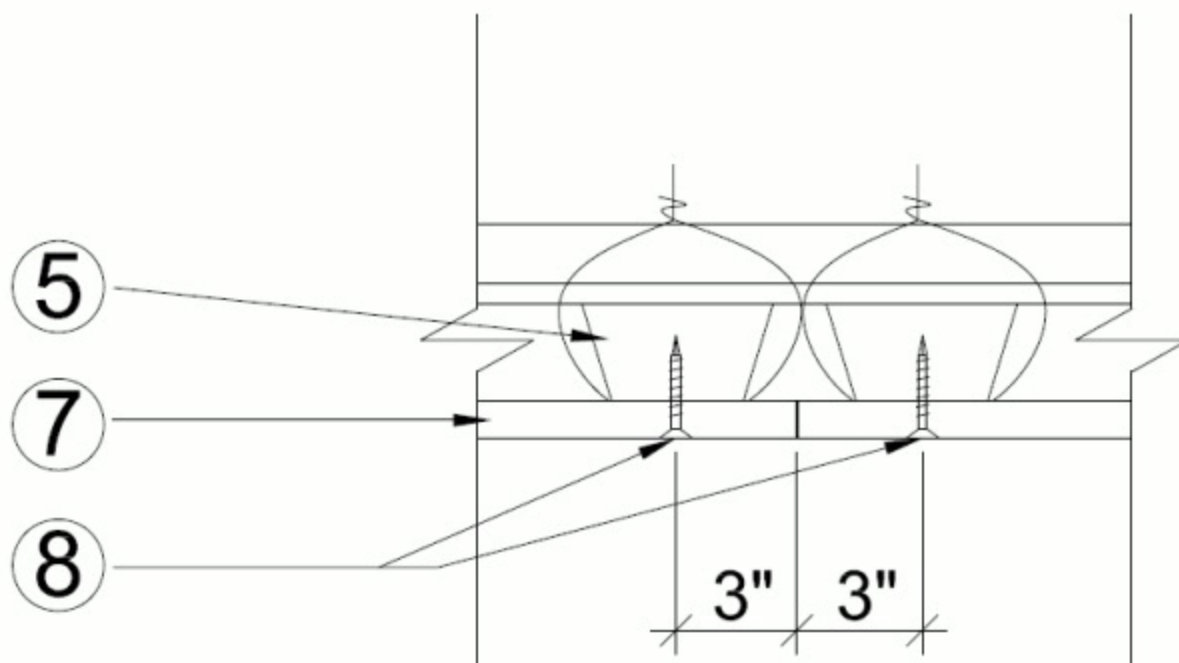
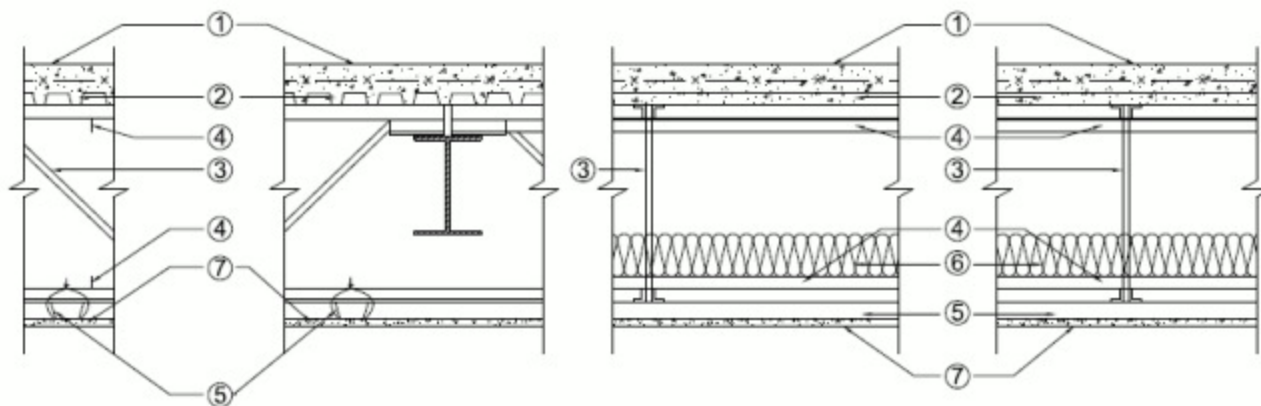
November 12, 2019

**Restrained Assembly Rating - 1 h**

**Unrestrained Assembly Rating - 1 h**

**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.**



## END JOINT DETAIL

**Beam** — W8 x 24 Minimum Size

1. **Normal Weight Concrete** — Min 2-1/2 in. as measured from the top plane of the steel floor and form units. Min 3500 psi, min. 145 pcf. Welded Wire Fabric — Min 6x6 - W1.4xW1.4 installed at approximately mid depth between top plane of steel deck and top plane of concrete.

2. **Steel Floor and Form Units (Unclassified)** — Non-composite fluted type, min 1 in. deep, min 22 gauge, welded to supports max 12 in. OC.

3. **Steel Joists** — Min 10 in. deep, min 4.5 lbs/lin. ft, designed in accordance with the relevant provisions of S.J.I. Specifications, spaced max 4 ft OC and welded to supports.

4. **Horizontal Bridging** — 1 in. by 1 in. by 1/8 in. angle, welded to top and bottom chords of each joist.

5. **Furring Channels** — Hat channels min 25 MSG galv steel, min 2-5/8 in. wide by min 7/8 in. deep, installed perpendicular to the joists and spaced a max of 16 in. OC when no insulation (Item 6) is fitted in the concealed space, or a max 12 in. OC when insulation (Item 6) is fitted in the concealed space, draped over the hat channel/gypsum board ceiling membrane. Two courses of channel positioned 6 in. OC, 3 in. from each end of wallboard. Channel splices overlapped 6 in. beneath

steel trusses. Channels secured to each truss with No. 18 SWG steel wire double strand saddle ties. Channels tied together with double strand of No. 18 SWG steel wire at each end overlap.

6. **Batts and Blankets\*** — (Optional) - Any glass fiber insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. When furring channels are spaced at 12 in. OC as described in item 5 above, maximum 3-1/2 in. thick, 0.50 pcf glass fiber batts or blankets may be laid over the furring channels.

7. **Gypsum Board\*** — One layer of nom 5/8 in. thick by 48 in. wide boards, installed with long dimension parallel to joists. Attached to the furring channels using 1 in. long Type S bugle-head screws. Screws spaced a max of 12 in. OC along butted end-joints and in the field when no insulation (Item 6) is fitted in the concealed space or a max of 8 in. OC along butted end-joints and in the field when insulation (Item 6) is fitted in the concealed space, draped over the resilient channel/gypsum wallboard ceiling membrane.

**CGC INC** — Type C, IP-X2.

**UNITED STATES GYPSUM CO** — Type C, IP-X2.

**USG BORAL DRYWALL SFZ LLC** — Type C

**USG MEXICO S A DE C V** — Type C, IP-X2.

7A. **Gypsum Board\* (As an alternative to Item 7)** — Nom 5/8 in. thick, 48 in. wide gypsum board, installed and secured as described in Item 7 with max screw spacing 8 in. OC.

**CGC INC** — ULIX

**UNITED STATES GYPSUM CO** — ULIX

8. **Joints** — Paper or fibreglass tape embedded in compound over joints and covered with additional compound. Exposed screw heads covered with compound.

9. **Light Fixtures** — (Not Shown) - **Luminaries Classified For Fire Resistance\*** - Any Luminaries Classified For Fire Resistance that are Classified for use in G500 Series Designs. See **Luminaries Classified For Fire Resistance (CDHW)** category for names of Classified Companies.

10. **Ceiling Damper\*** — (Not Shown - Optional) - Maximum nominal area 198 sq in. Maximum size not to exceed 12 in. wide by 16-1/2 in. long. Maximum damper height 8-3/4 in. Installed in accordance with manufacturer's installation instructions provided with the damper. Maximum damper openings not to exceed 198 sq. in. per 100 sq ft of ceiling area.  
**RUSKIN COMPANY** — Model CFD7.

11. **Air Duct\*** — (Not Shown - Optional) - For use with item 10. Any Class 0 or 1 flexible air duct material. Air duct supported by 18 SWG galv steel wire suspended from 16 gauge steel channel or hanger tabs integral with form units, in accordance with the installation instructions provided with ceiling damper (Item 10). Duct supports located 2 ft OC max.

11A. **Air Duct** — (Not Shown - Optional) - For use with item 10. In lieu of item 11, steel air duct formed from min 22 gauge galv. steel. Supported as described in item 11.

12. **Discrete Products Installed in Air-handling Spaces\*** — Automatic Balancing Valve/Damper — (Not Shown - Optional) — For use with item 10, Ruskin Company's Model CFD7 damper (CABS). Ceiling damper to be provided with

plenum box per damper manufacturer's instructions with side outlet only. Entire assembly to be installed into any UL Class 0 or Class 1 flexible air duct in accordance with the instructions provided by the automatic balancing valve/damper manufacturer.

**METAL INDUSTRIES INC** — Model ABV-4, ABV-5, ABV-6

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

Last Updated on 2019-11-12

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