

# BXUV.N309 - 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. N309

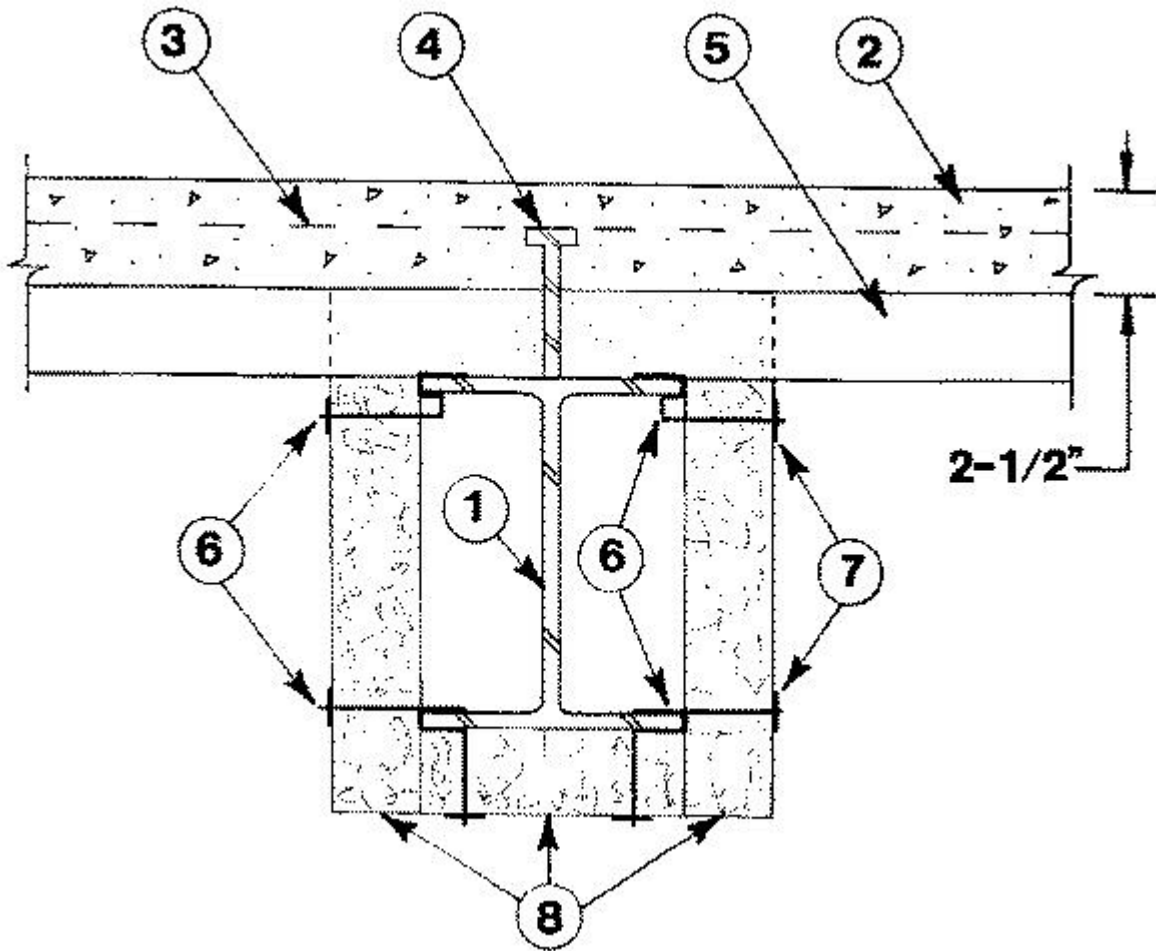
May 18, 2017

#### **Restrained Beam Rating — 3 Hr (See Item 8)**

#### **Unrestrained Beam Rating — 3 Hr(See Item 8)**

**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.**



1. **Beam** — W8x24, min size.

2. **Normal Weight or Lightweight Concrete** — Normal weight (carbonate or siliceous aggregate), or lightweight (expanded shale, clay or slate aggregate by rotary kiln method). Min 104 pcf unit weight and min 3700 compressive strength.

3. **Welded wire Fabric** — 6x6 in., No. 10/10 SWG.

4. **Shear Connectors** — (Optional) — Studs, 3/4 in. diam headed type or equivalent per AISC specification. Welded to the top flange of beam through the steel floor units.

5. **Steel Floor and Form Units\*** — Composite or noncomposite, min 1-1/2 in. deep fluted or cellular, minimum 22 MSG fluted, minimum 20/20 MSG cellular, welded to the beam.

6. **Fasteners** — Type Cafclip (No. 11 SWG) fasteners attached to the top and bottom beam flange edges and spaced lengthwise not greater than 14 in. O.C. and 3 in. from the ends of the batts. Batts impaled over cafclips and fastened with clinch shields (Item 7). Excess length of the stud is not required to be cut or bent. If the excess is cut, a minimum of 1/4 in. is required from the face of the clinch shields. Refer to Design No. D914 for illustration of the Cafclip fastener.

7. **Clinch Shields** — No. 28 MSG galvanized steel, 1-1/2 in. square, or 1-1/2 in. diameter round clinch shields.

8. **Batts and Blankets\*** — Mineral wool batts attached to the beam in one or more layers to the thicknesses shown below by impaling over wire fasteners. For multiple layered applications, staggered joints are not required. When fluted type units are used, minimum 4-pcf mineral wool shall be stuffed between the crests of the fluted steel deck and the beam.

Restrained & Unrestrained Beam Rating, Hr	Deck Unit Type	Mtl Thkns of Type CB on Beam, In.
3	Fluted	3
3	Cellular	4

**UNITED STATES MINERAL PRODUCTS CO, DBA ISOLATEK INTERNATIONAL** — Type CB

9. **Adhesive\*** — (Not Shown) — Applied to butt joints prior to installation of the batt.  
**ISOLATEK INTERNATIONAL** — Type CBA

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Last Updated on 2017-05-18

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