

BXUV.N505 - 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. N505

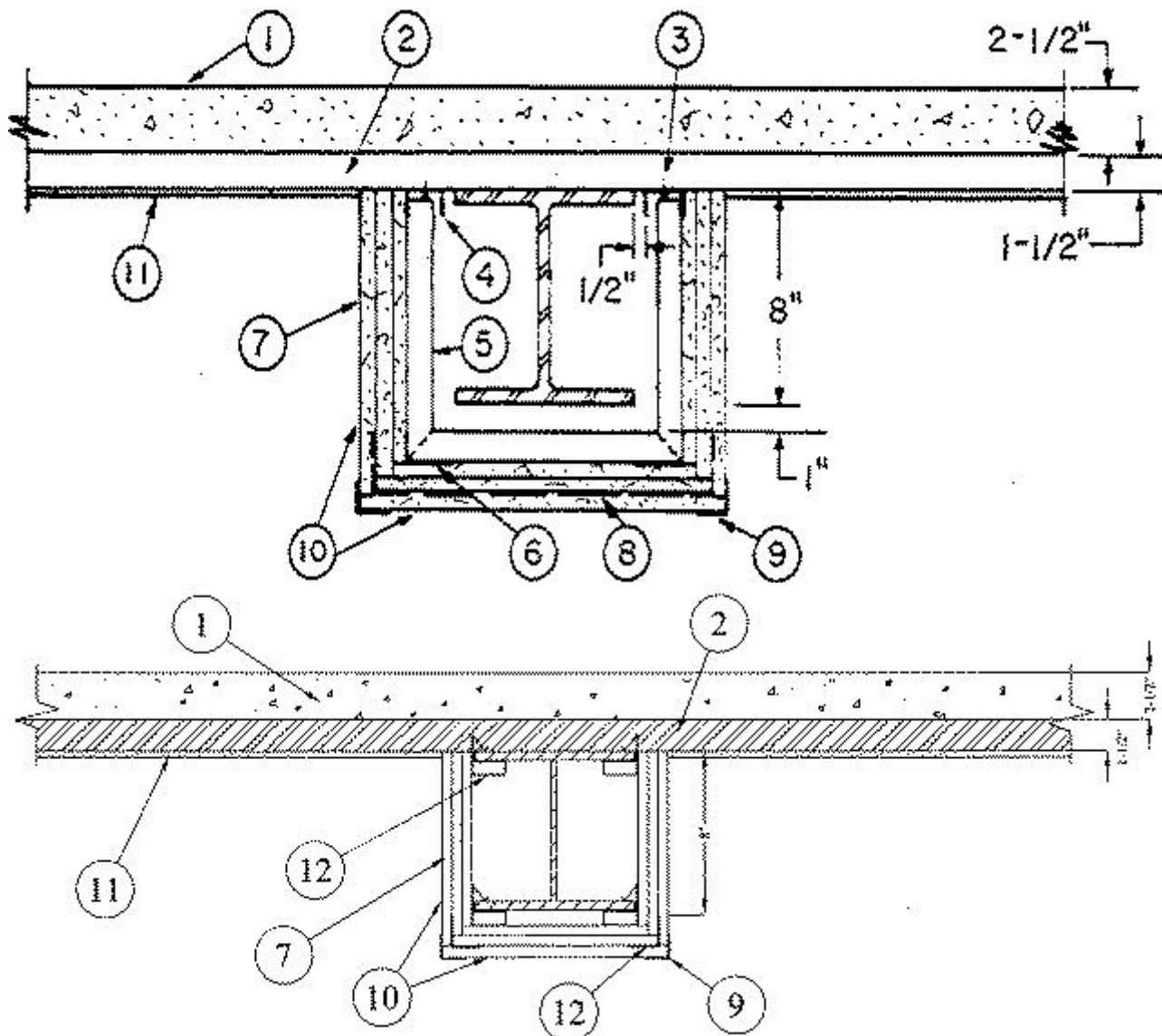
October 06, 2020

Restrained Beam Rating — 3 Hr.

Unrestrained Beam Rating — 2 Hr.

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.**



Steel Beam — Min size, a W8 x 24 with outside dimensions of 7-7/8 x 6-1/2 in. with a flange thickness of 3/8 in., a web thickness of 1/4 in., and a cross-sectional area of 7.06 sq in.

1. **Normal Weight Concrete** — 151 pcf.

2. **Steel Floor and Form Units*** — 1-1/2 in. fluted type, welded to beam.

3. **Drill Screw** — No. 8-18 by 1/2 in. long Phillips panhead drill screws, self-drilling and tapping, made of case-hardened steel.

4. **Runner Channel** — Fabricated from 25 MSG galv steel, 1-11/16 in. deep with 1-in. legs. Fastened to steel deck with drill screws, 12 in. O.C.

5. **Bracket** — Same material as runner channel or 24 MSG galv steel angle with 1 and 2-in. legs, and fastened to runner channels with drill screws (Item 3). Brackets spaced 24 in. O.C.

6. **Corner Angle** — No. 24 MSG galv steel with 1 and 2-in. legs, fastened to brackets with drill screws (Items 3).

7. **Gypsum Board*** — 5/8 in. thick. Inner layer fastened with 1 in. long 0.150 in. diam screws and spaced 16 in. OC. Middle layer attached with 1-5/8 in. long 0.150 in. diam screws spaced 12 in. OC. Outer layer attached with 2-1/4 in. long, 0.150 in. diam screws spaced 8 in. OC. At least one screw at mid-depth of brackets in each layer. Screws are self-drilling and self-tapping Phillips head made of case-hardened steel.

AMERICAN GYPSUM CO — Types AG-C, AGX-1, LightRoc.

BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO — Type DBX-1.

CABOT MANUFACTURING ULC — Type X, Type Blueglass Exterior Sheathing

CERTAINTEED GYPSUM INC — Types EGRG, GlasRoc, GlasRoc-2, Type C, Type X or Type X-1.

CGC INC — Type C, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRX, ULIX.

CERTAINTEED GYPSUM INC — Types LGFC6A, LGFC-C/A.

GEORGIA-PACIFIC GYPSUM L L C — Types 5, 9, C, DGG, DAP, DAPC, DD, DA, DS, GPFS6, TG-C, GreenGlass Type X, Type X, Veneer Plaster Base - Type X, Water Rated - Type X, Sheathing - Type X, Soffit - Type X, Type LWX, Veneer Plaster Base-Type LWX, Water Rated-Type LWX, Sheathing Type-LWX, Soffit-Type LWX, Type LW2X, Veneer Plaster Base - Type LW2X, Water Rated - Type LW2X, Sheathing - Type LW2X, Soffit - Type LW2X.

NATIONAL GYPSUM CO — Types FSK, FSK-C, FSL, FSMR-C, FSW, FSW-C, FSW-G, FSW-3, FSW-6, FSW-8.

NATIONAL GYPSUM CO — Riyadh, Saudi Arabia — Type FR, or WR.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type C, PG-9, PG-11, PG-C, PGS-WRS or PGI.

PANEL REY S A — Type PRC

SIAM GYPSUM INDUSTRY (SARABURI) CO LTD — Type EX-1

THAI GYPSUM PRODUCTS PCL — Type C or Type X

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Types C and SCX

UNITED STATES GYPSUM CO — Type C, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRX, ULIX.

USG BORAL DRYWALL SFZ LLC — Types C, SCX

USG MEXICO S A DE C V — Type C, IP-X1, IP-X2, IPC-AR, SCX, SHX or WRX.

8. Wire Netting — No. 20 SWG hexagonal mesh with 20 SWG longitudinal stiffener at third points of 3-ft wide roll. Installed on bottom, bent up approx 1-1/2 in. on each side, and secured to sides with same screws used to hold middle layer or wallboard.

9. Corner Bead — Fabricated from 20 MSG galv steel to form an angle with 1-1/4 in. legs. Legs perforated with 1/4 in. diam holes approx 1 in. OC. Attached to wallboard with 4d nails approx 12 in. OC in both legs.

10. Joint Compound — 1/32 in. thick on bottom and sides of wallboard from corner beads and feathered out. Paper tape embedded in joint compound over joints with edges of compound feathered out. Nom 3/32 in. thick gypsum veneer plastic may be applied to the entire surface of Classified veneer baseboard. Joints reinforced.

11. Protective Material — Spray-Applied Fire Resistive Materials* — Spray applied contour of the units to a thickness of 7/8 in.

See Spray-Applied Fire Resistive Materials (CHPX) category for names of manufacturers.

12. Alternate Construction - Steel Framing Members-* — As an alternate to Items 3, 4, 5, 6 and 8 steel clips attached to both sides of beam flanges 2 ft OC and at ends of beam. Inner layer of gypsum board fastened to steel clips with 1-1/4 in. long Type S drywall screws. Middle layer fastened to steel clips with 2 in. long Type S drywall screws. 2 in. by 2 in. 25 MSG angle fastened to clips on bottom portion of assembly with 2 in. long Type S drywall screws. Outer layer of gypsum board fastened to angle and clips with 2-1/4 in. long Type S drywall screws, spaced 2 ft OC. Screws are self-drilling and self-tapping Phillips head made of case-hardened steel.

JOHN WAGNER ASSOCIATES INC, DBA GRABBER — Type CB Clip.

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