

BXUV.J503 - 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. J503

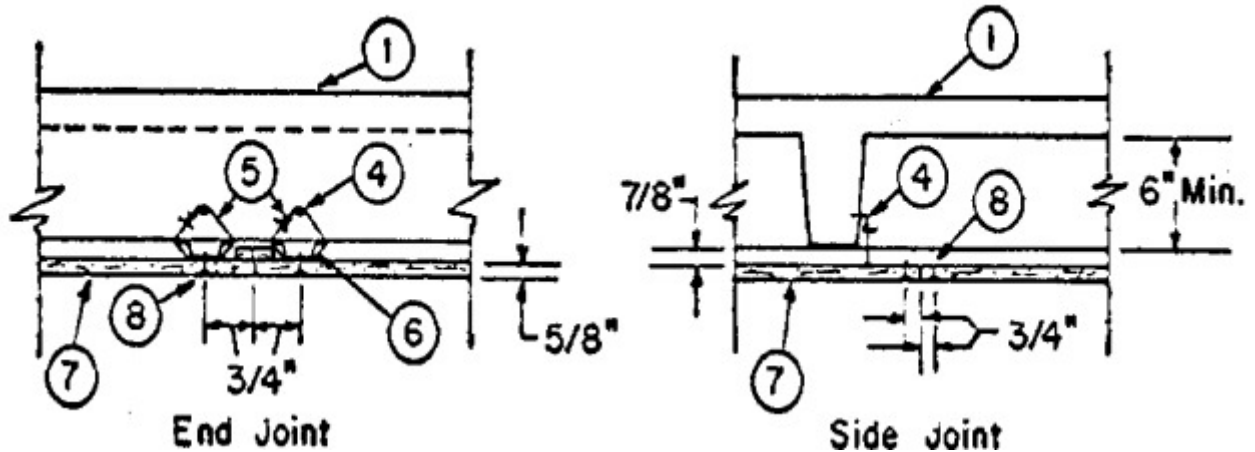
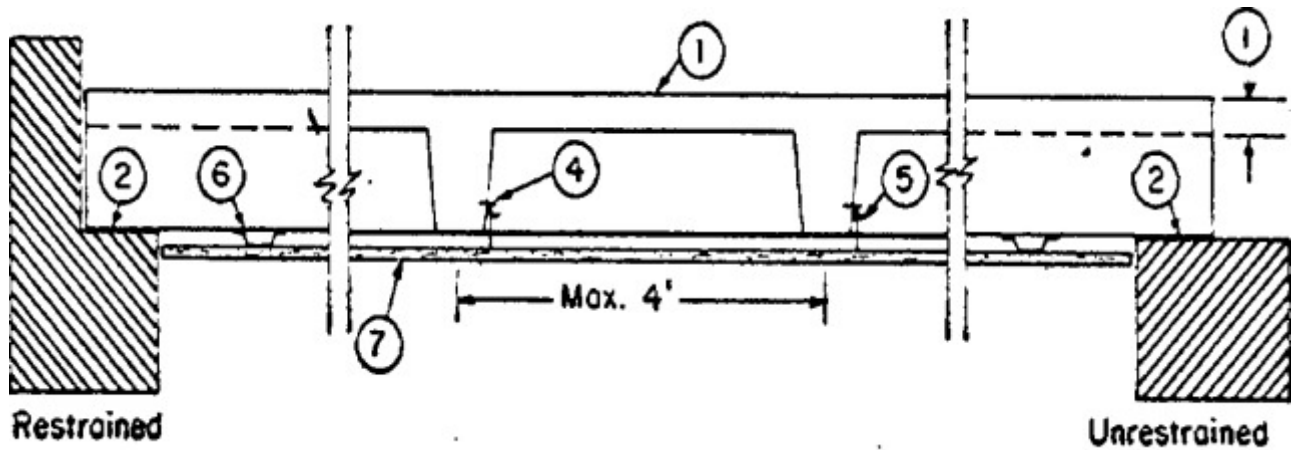
February 12, 2021

Restrained Assembly Ratings — 2 and 3 Hr. (See Item 7A)

Unrestrained Assembly 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.**



1. **Precast Concrete Units*** — Lightweight concrete units with stems spaced a max 4 ft O.C. For restrained assembly condition, a 3/8 in. clearance per 14 ft of length shall be provided for expansion. Also, a 1/4 in. lateral expansion joint shall be provided for each 8 ft of width.

Rating Hr	Min Total Slab Thkns
2	2 in.
3	2-1/2 in.

If concrete topping is used, min thickness to be 1 in., 3000 psi compressive strength, 110 to 153 pcf unit weight.

2. **Min Bearing** — 3 in.

3. **Grout** — (Not shown) — Sand-cement grout, 3500 psi, along full length of joint. Weld tie plates to be used in conjunction with grout.

4. **Fasteners** — Attached to stems of precast concrete units. Used to provide a means of attaching hanger wire to units. Steel fasteners may be either of the following two types:

A threaded 1/4 in. diam hand driven fastener, 1-7/16 in. long with a 7/16 in. diam pan head. Prior to driving the fasteners, a 3/16 in. diam, 1 in. long pilot hole shall be drilled.

A powdered-actuated fastener, with a 0.163 in. diam, 7/8 in. long pointed shank containing a 0.466 in. diam, 0.054 in. thick washer. Head of fastener to be 7/8 in. long, 7/16 in. wide with an oval opening approx 5/16 in. diam. Powdered charge to be sufficient to fully imbed shank portion without damaging concrete surface.

5. **Hanger Wire** — No. 18 SWG galv steel wire. Hanger wire used to attach wallboard furring channels to precast concrete units. Wire to be located at each intersection of furring channels and concrete stems.

6. Gypsum Board Furring Channels — No. 26 ga galv steel, 7/8 in. high, 2-3/4 in. base width, 1-3/8 in. face width and 12 ft long. Channels to be installed perpendicular to concrete stems and spaced 24 in. OC, except at wallboard butt joints where they are spaced 6-1/2 in. OC. Channels secured to concrete units with double strand of hanger wire looped through fasteners. At furring channel splices, channels to be overlapped 6 in. and tied together with hanger wire at each end of splice.

7. Gypsum Board * — 5/8 in. thick, 4 ft wide, installed with long dimension perpendicular to furring channels. Over butt joints, a 3 in. wide piece of wallboard to be inserted with ends extending a min 6 in. beyond board width.

AMERICAN GYPSUM CO — Type AG-C

CERTAINTEED GYPSUM INC — Type C, Type LGFC-C/A.

CGC INC — Type C, IP-X2.

CERTAINTEED GYPSUM INC —

GEORGIA-PACIFIC GYPSUM L L C — Types 5, DAPC, TG-C.

NATIONAL GYPSUM CO — Types FSK-C, FSW-C, FSW-G.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type C.

PANEL REY S A — Type PRC

THAI GYPSUM PRODUCTS PCL — Type C.

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, rating is limited to 2 Hr) — 5/8 in. thick, 4 ft wide, installed with long dimension perpendicular to furring channels. Over butt joints, a 3 in. wide piece of wallboard to be inserted with ends extending a min 6 in. beyond board width.

CGC INC — Type ULIX

UNITED STATES GYPSUM CO — ULIX

8. Gypsum Board Fasteners — 1 in. long, Type S. bugle head. Fasteners spaced 12 in. on center along each furring channel except at butt joints where fasteners spaced 8 in. on center. At butt joints, fasteners located 3-1/4 in. from board edge. Along side joints, fasteners located 3/4 in. from board edge.

9. Joint System — (Not Shown) — Paper tape imbedded in joint over joints, and covered with two layers of joint compound with edges feathered out. Gypsum board fastener heads covered with two layers of joint compound.

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