



BXUV.J705

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. J705

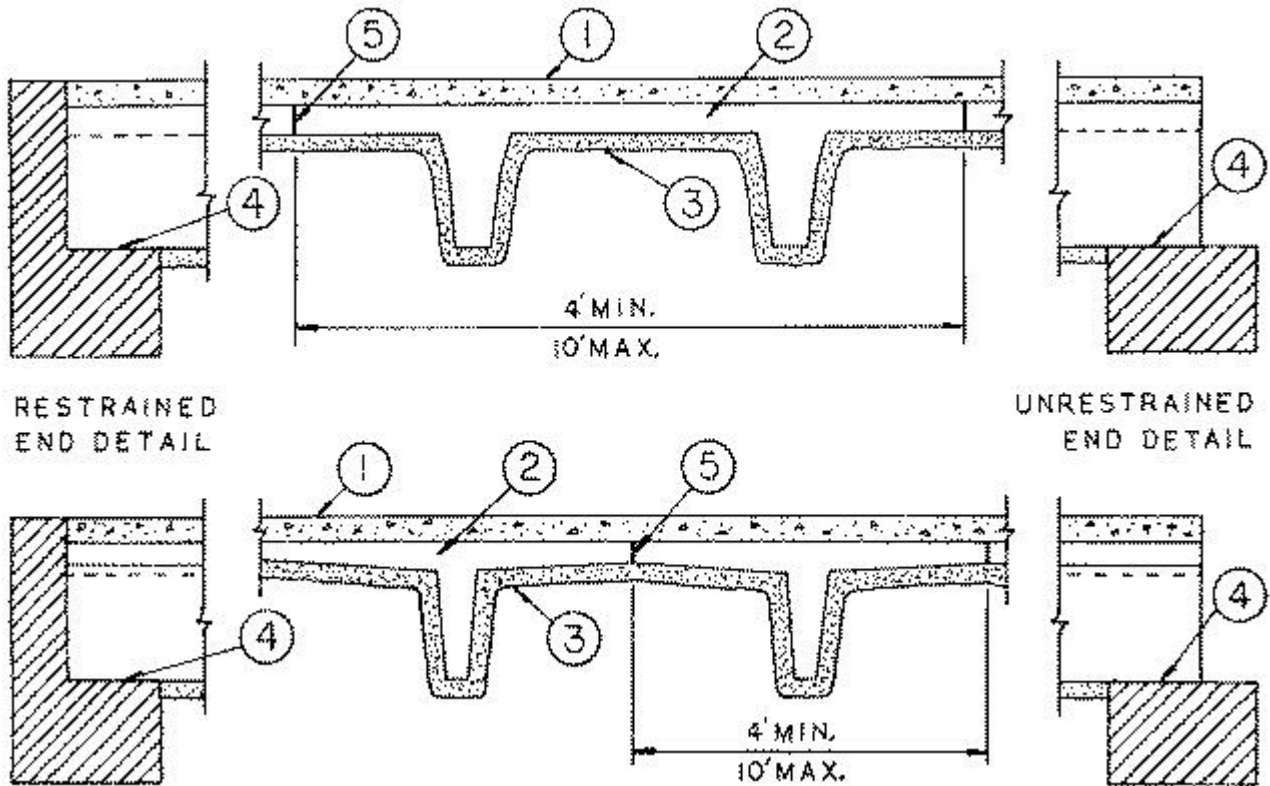
October 17, 2017

Restrained Assembly Ratings — 2, 3, and 4 Hr.

Unrestrained Assembly Ratings — 2, 3, and 4 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. **Concrete Topping** — 3000 psi compressive strength. Min topping thickness, 1 in.
 Thickness of Spray-Applied Fire Resistive Materials Required On Flanges

For Restrained and Unrestrained Assembly Ratings

Min Total Thkns of Lightweight Concrete Unit Weight 110 to 120 pcf	Rating		
	2 Hr	3 Hr	4 Hr
1-1/2 in.	1 in.	1-9/16 in.	2 in.
2 in.	3/4 in.	1-1/4 in.	13/4 in.
2-1/2 in.	1/2 in.	1 in.	1-1/2 in.
3 in.	5/16 in.	3/4 in.	1-3/16 in.
3-1/2 in.	1/4 in.	1/2 in.	15/16 in.
4 in.	—	5/16 in.	11/16 in.

Min Thkns of Normal Weight Concrete Topping on a Min 2 In. Thk Lightweight Concrete Base Unit Weight of Topping 147 to 153 pcf	Rating		
	2 Hr	3 Hr	4 Hr
1 in.	7/16 in.	7/8 in.	1-1/4 in.
1-1/2 in.	5/16 in.	3/4 in.	1-1/16 in.
2 in.	1/4 in.	9/16 in.	7/8 in.

2. **Precast Concrete Units*** — Lightweight concrete. Single or double stemmed units bearing the UL Classification Marking containing Design Nos. J945 or J948 and having a min slab thickness of 1-1/2 in.; or bearing the UL Classification Marking

J705. See Precast Concrete Units Category for names of manufacturers.

3. **Spray-Applied Fire Resistive Materials*** — Applied by mixing with water and spraying in one or more coats, to a final thickness as shown in the above illustration and in the tables described in Items 1 and 3, to concrete surfaces which must be clean and free of dirt and oil. Min avg and min ind density of 15/14 pcf respectively. Min avg and min ind density of 19/18 pcf respectively for Type 7GP and 7HD. For method of density determination, see Design Information Section.

Thickness of Spray-Applied Fire Resistive Materials Required on Stems

For Restrained and Unrestrained Assembly Ratings

UL Classification Marking on Precast Concrete Unit	Rating		
	2 Hr	3 Hr	4 Hr
J945	5/8 in.	1 in.	1-3/8 in.
J705-A	11/16 in.	1-1/16 in.	1-7/16 in.
J705-B	5/8 in.	7/8 in.	1-3/8 in.
J705-C	1/2 in.	11/16 in.	1-1/4 in.
J705-D	5/16 in.	1/2 in.	1-1/16 in.
J705-E	5/16 in.	5/16 in.	7/8 in.
J705-F	5/16 in.	5/16 in.	9/16 in.
J948	—	3/8 in.	3/4 in.

ARABIAN Vermiculite Industries — Types MK-6/CBF, MK-6/ED, MK-6/HY, MK-6s, Sonophone 1.

GCP Korea Inc — Types MK-6/CBF, MK-6/ED, MK-6/HY, MK-6s, Monokote Acoustic 1.

Pyrok Inc — Type LD.

Southwest Fireproofing Products Co — Types 4, 5, 5EF, 5GP, 5MD, 7GP, 8EF, 8GP, 8MD, 9EF, 9GP, 9MD.

GCP Applied Technologies Inc — Types MK-6/HY, MK-6s, Monokote Acoustic 1, RG.

4. **Minimum Bearing** — 3 in.

5. **Weld Plates** — Optional.

6. **Metal Lath** — (Not Shown) — Required when Type 7HD is applied - Metal lath shall be 3/8 in. expanded diamond mesh, weighing 3.4 lb per sq yd. Secured to underside through steel washers with an outside diam of 1/2 in. with fasteners spaced 12 in. OC in both directions with lath edges overlapped approx 3 in.

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The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Certified and covered under UL's Follow-Up Service. Always look for the Mark on the product.

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