

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. H513

June 07, 2018

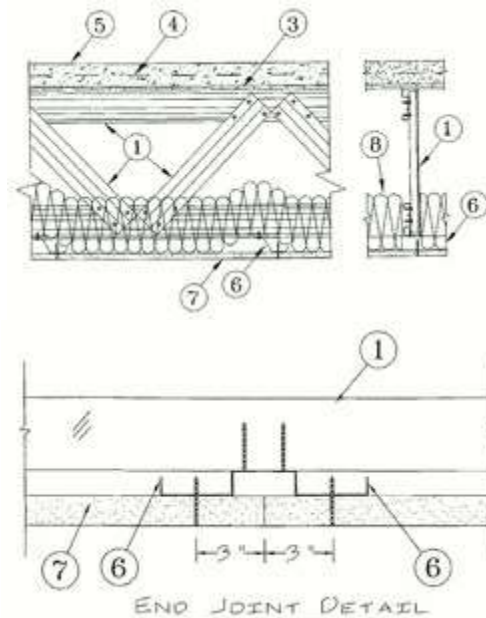
Restrained Assembly Rating - 1

Unrestrained Assembly Rating - 1

Unrestrained Beam Rating - 1

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. **Structural Steel Members*** — Pre-fabricated light gauge steel truss system consisting of cold-formed, galvanized steel chord and web sections. Trusses fabricated in various sizes, depths, and from various steel thickness. Trusses spaced a max of 48 in. OC.

AEGIS METAL FRAMING, DIV OF MITEK — Ultra-Span, Pre-fabricated Light Gauge Steel Truss System

2. **Bridging** — (Not Shown) — Location of lateral bracing for truss chord and web sections to be specified on truss engineering.

3. **Metal Lath** — 3/8 in. rib, 3.4 lb per sq yd expanded steel lath tied to each truss at every other rib and midway between trusses at side laps with 18 SWG galv steel wire. As an alternate, the form material for the concrete may be corrugated steel deck, min 9/16 in. deep, 28 MSG galv steel, mechanically fastened to trusses 15 in. OC. The concrete topping thickness shall be measured to the top plane of the steel deck.

4. **Welded Wire Fabric** — 6 by 6 in., 10/10 SWG.

5. **Normal Weight or Lightweight Concrete** — Carbonate or siliceous aggregate, 150 + or - 3 pcf unit weight, 3000 psi compressive strength. Lightweight concrete, expanded shale, clay or slate aggregate by rotary kiln method, 117 + or - 3 pcf unit weight, 3000 psi compressive strength. Min. thickness is 2 in.

6. **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 trusses (Item 2), spaced a max of 16 in. OC when no insulation is used in the cavity and 12 in. OC when insulation is used in the cavity, except at gypsum board end joints. At end joints, two courses of channel positioned 6 in. OC, 3 in. on each side of gypsum board end joints. Channel splices overlapped 4 in. beneath steel trusses. Channels secured to each truss with No. 18 SWG steel wire double strand saddle ties.

7. **Gypsum Board*** — One layer of nom 5/8 in. thick by 48 in. wide boards, installed with long dimension parallel to trusses. Attached to the furring channels using 1 in. long Type S bugle-head screws spaced 8 in. OC along butted end-joints and 8 in. OC in the field.

UNITED STATES GYPSUM CO — Type C

8. **Batts and Blankets*** — Optional - Any thickness mineral wool or glass fiber insulation bearing the UL Classification Marking for Surface Burning Characteristics, having a flame spread value of 25 or less and a smoke

value of 50 or less. Insulation fitted in the concealed space, draped over the resilient channel/gypsum wallboard ceiling membrane.

8A. Loose Fill Material* — As an alternate to Item 8 — Any thickness of loose fill material bearing the UL Classification Marking for Surface Burning Characteristics, having a flame spread value of 25 or less and a smoke spread value of 50 or less. Loose fill material fitted in the concealed space, draped over the resilient channel/gypsum wallboard ceiling membrane.

9. Finishing System — (Not Shown) — Vinyl, dry or premixed joint compound, applied in two coats to joints and screw-heads; paper tape, 2 in. wide, embedded in first layer of compound over all joints. As an alternate, nom 3/32 in. thick veneer plaster may be applied to the entire surface of gypsum wallboard.

10. Steel Beam — Optional — (Not Shown) — W8x35 min size, used to support structural steel members (Item 1) at ends.

11. Ceiling Damper* — (Optional) - (Not Shown) - Max nom area shall be 224 sq in. with the length not to exceed 16 in. and the width not to exceed 14 in. Max height of damper shall be 14 in. Aggregate damper openings shall not exceed 89 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturers installation instructions provided with the damper. A steel grille (Item 12) shall be installed in accordance with installation instructions.

POTTORFF — Model CFD-521-ST

12. Air Duct* — (Not Shown) - Any UL Class 0 or Class 1 flexible air duct installed in accordance with the instructions provided by the damper manufacturer.

13. Grille — (Not Shown) - Steel grille, installed in accordance with the installation instructions provided with the ceiling damper.

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