



BXUV.E903

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

BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

[See General Information for Fire-resistance Ratings - ANSI/UL 263](#)

[See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada Design Criteria and Allowable Variances](#)

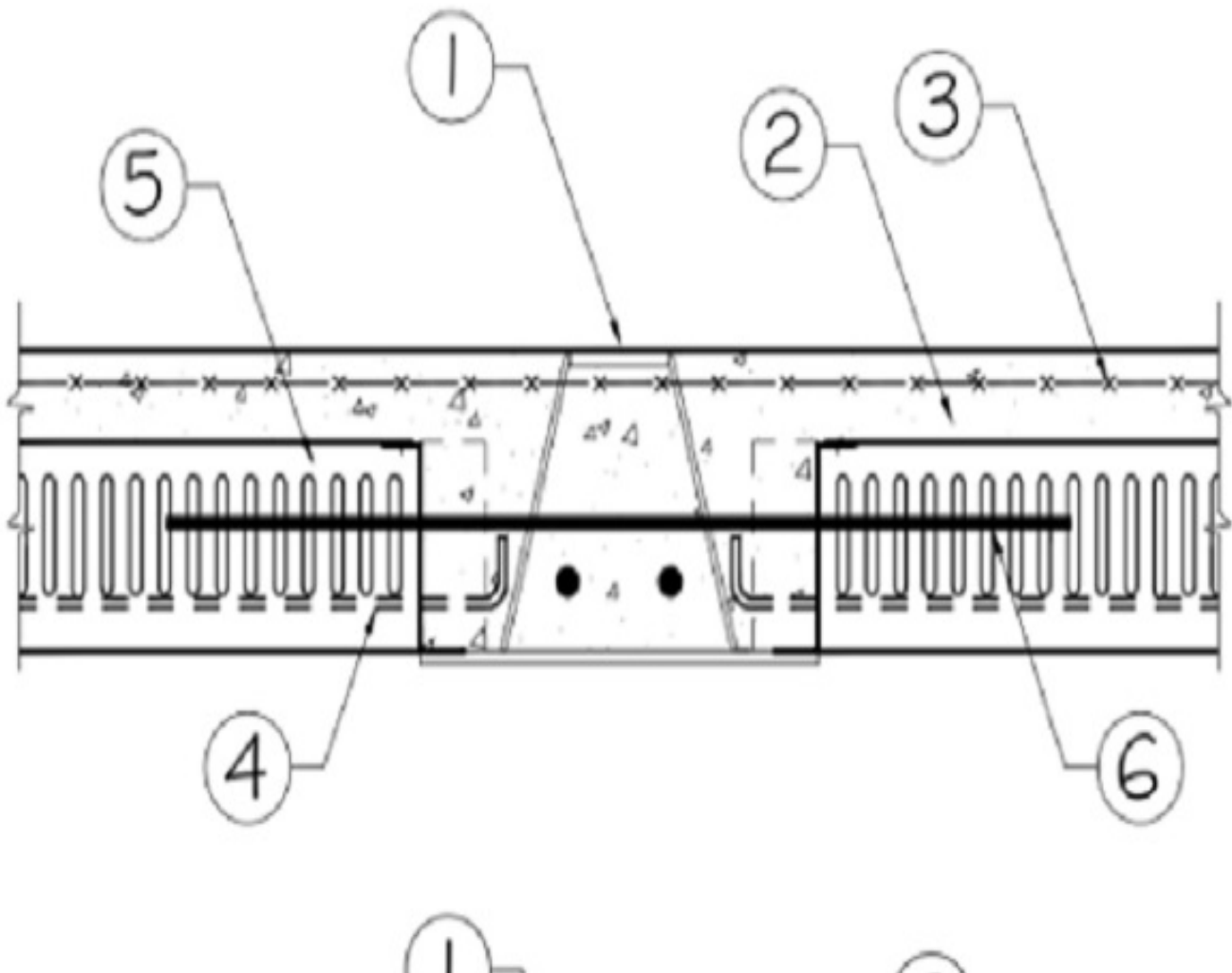
Design No. E903

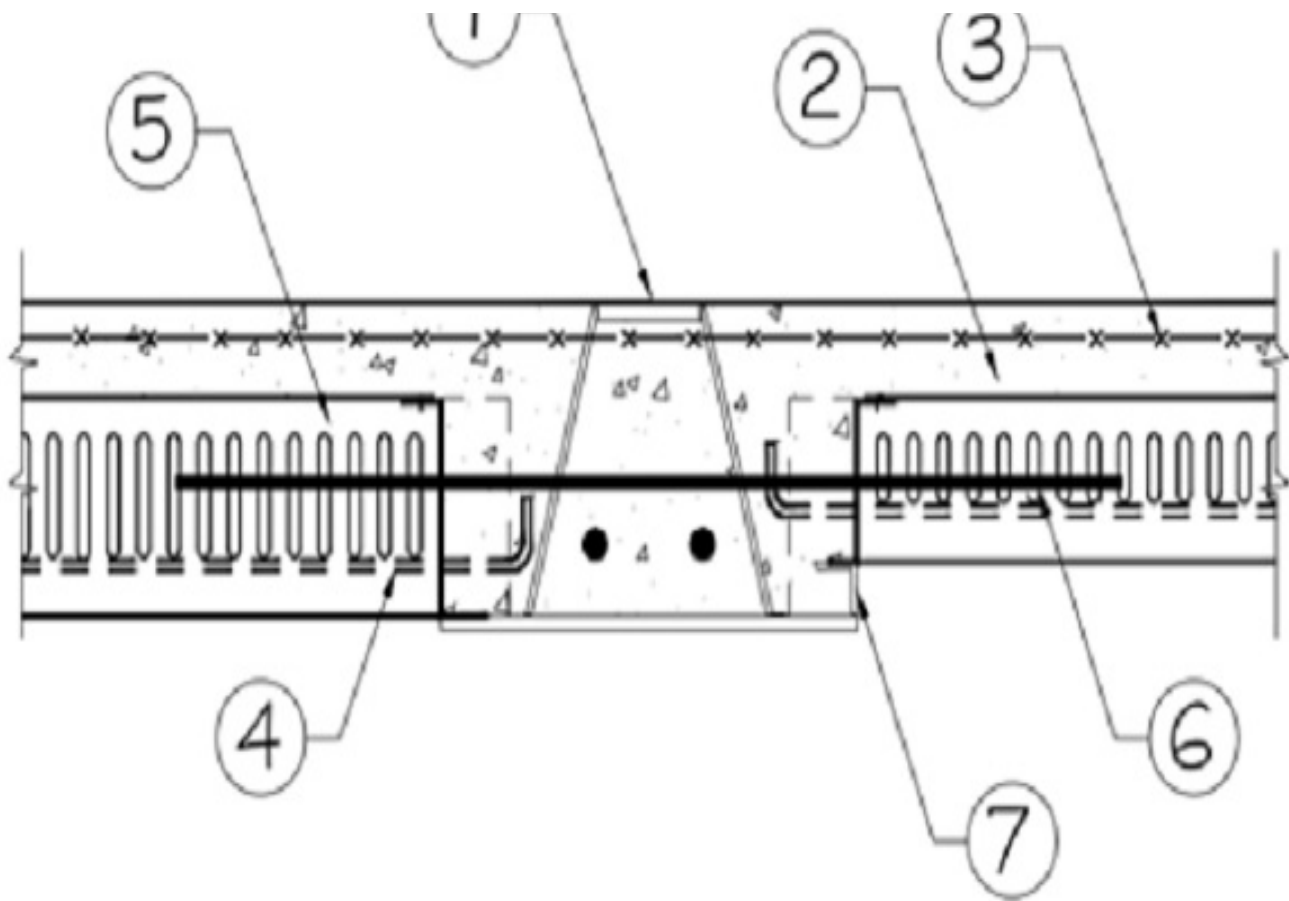
August 25, 2021

Unrestrained Assembly Rating - 1 and 2 Hr. (See Item 5)

Loading determined by Allowable Stress Design Method or Load and Resistance Factor Design Method published by the American Institute of Steel Construction, or in accordance with the relevant Limit States Design provisions of Part 4 of the National Building Code of Canada — 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 Member*** — Composite beam system. Min. bearing 2 in.

PEIKKO GROUP OY — Deltabeam

PEIKKO KOREA CO LTD — Deltabeam

2. **Normal Weight or Lightweight Concrete** — Normal weight concrete, carbonate or siliceous aggregate, 147 (+ or - 3) pcf unit weight. Lightweight concrete - expanded shale or slate aggregate by rotary-kiln method or expanded clay aggregate by rotary-kiln or sintered-grade method, 110 (+ or - 3) pcf unit weight. Concrete vibrated with 4 to 7 per cent entrained air,. Concrete shall be vibrated to fill all voids within the structural steel members. Min. concrete compressive strength 4000 psi. See Item 5 for thicknesses.

3. **Welded Wire Fabric** — 6 X 6 - Min wire thickness W2.9 X W2.9.

3A. **Re-bars** — As an alternate to Item 3, max # 4 bars spaced 12-in. OC in both directions shall be used. When re-bars are used, the concrete slab thickness shall be increased a minimum 5/16 in.

4. **Rib Reinforcement** — Min. #3 rebar. Min concrete cover below the steel reinforcement shall be 1-9/16 in. Reinforcement support chairs spaced at max 42 inches OC.

5. **Steel Floor and Form Units*** — Nom 4-3/4, 8 or 9 in. deep composite, galv steel units. Min thickness 0.0375 inch (20 MSG). Side joints of adjacent units fully overlapping, fastened together by using 1-1/4 in. long self-drilling, self-tapping steel screws driven through Shear-Bond Clips (not

shown) at 14 in. OC. Steel end closures flashings (not shown) made of min 0.056 inch thick (16 MSG) galv steel, fixed to the steel work before decking is placed. Consult the deck manufacturer for comprehensive load tables and design parameters.

BAILEY METAL PRODUCTS LTD — Types COMSLAB™ 120, COMSLAB™ 210, or COMSLAB™ 225

Unrestrained Rating, Hr	2	2	1
Concrete Topping, from Deck Crests, in.	3-1/2	2-3/4	2-1/2
Concrete Type	NW	LW	NW or LW

6. **Torsional Rebars** — Spaced 2 ft OC. Supported on the bottom of web openings in the structural steel member and extend into valleys of the steel floor and form units. Diameter and length of the bars determined by calculations in conformance with local building code.

7. **Downstand** — When decks of different depths are installed, downstands will be provided from the factory on one side of the beam as part of the structural steel member (Item 1).

8. **Crack control Rebar** — (Not shown) Spaced 1 ft OC. Supported on the bottom of 1 in. diameter holes located near top of structural steel member and extended into the concrete topping over the steel floor and form units. Alternately, when the structural steel member is not the same depth as the overall assembly, the rebars may be supported by chairs. Diameter and length of the bars determined by calculations in conformance with local building code.

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Last Updated on 2021-08-25

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