

TGKX.448 - ROOF DECK CONSTRUCTIONS

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.

Roof Deck Constructions

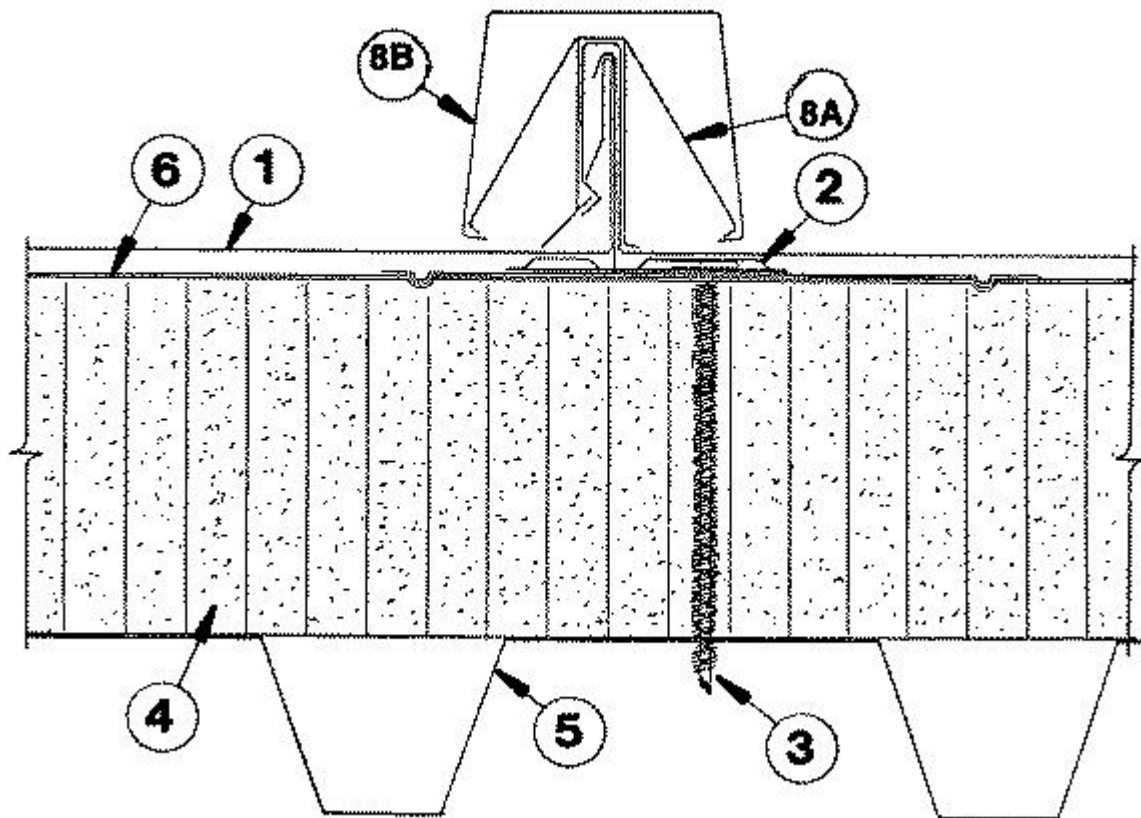
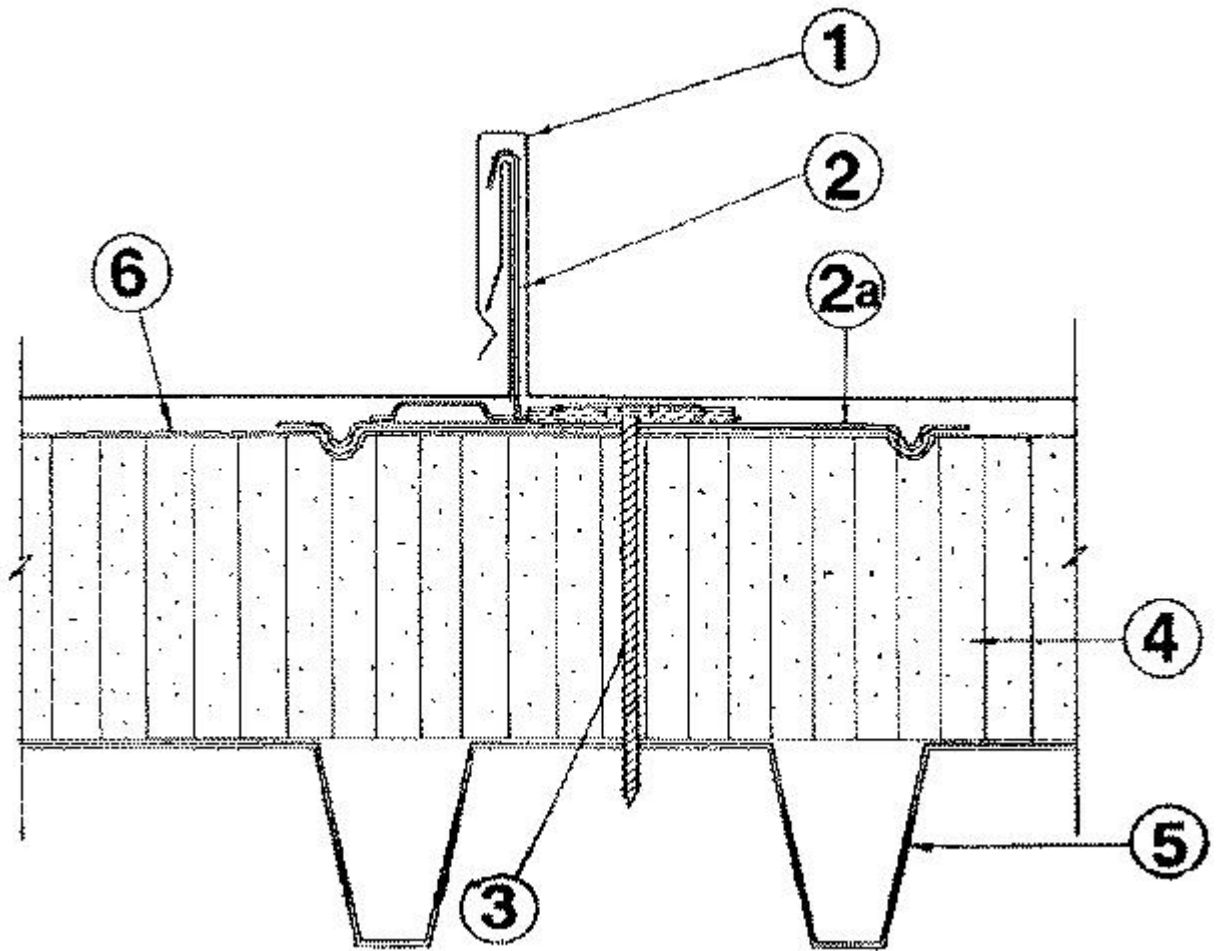
See General Information for Roof Deck Constructions

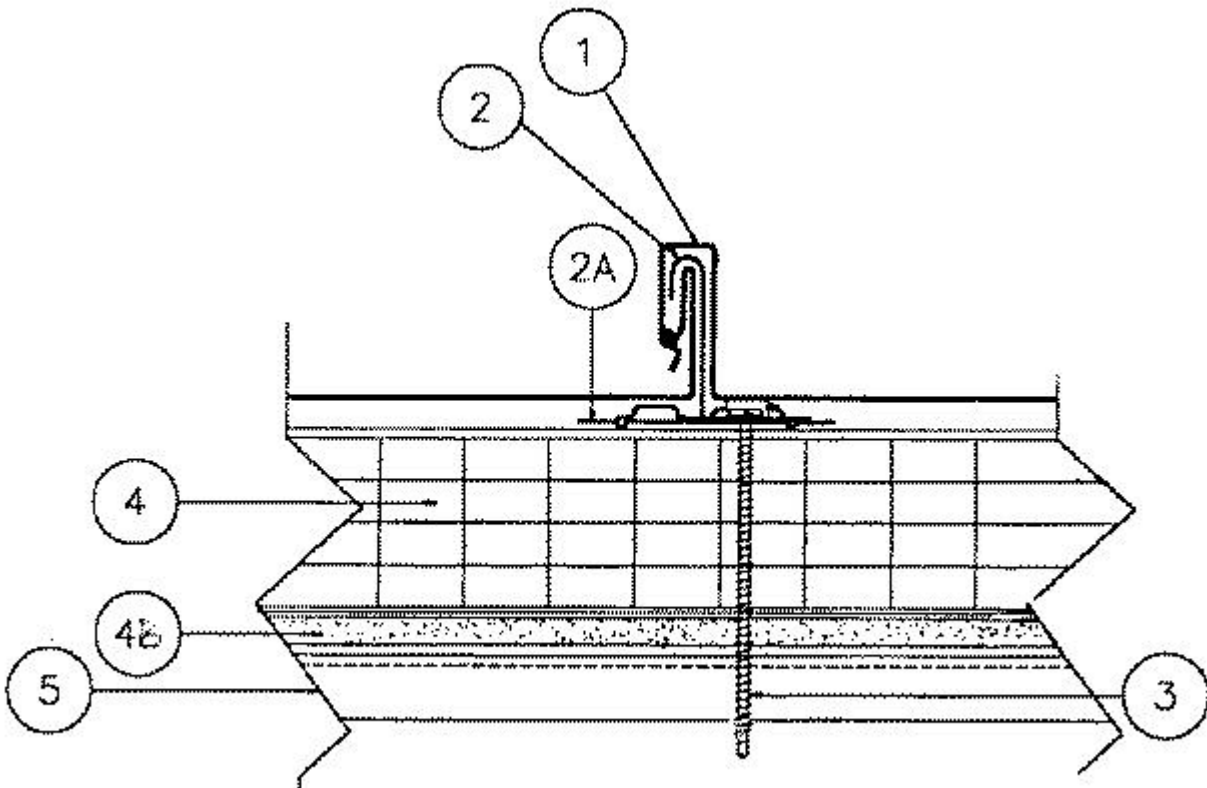
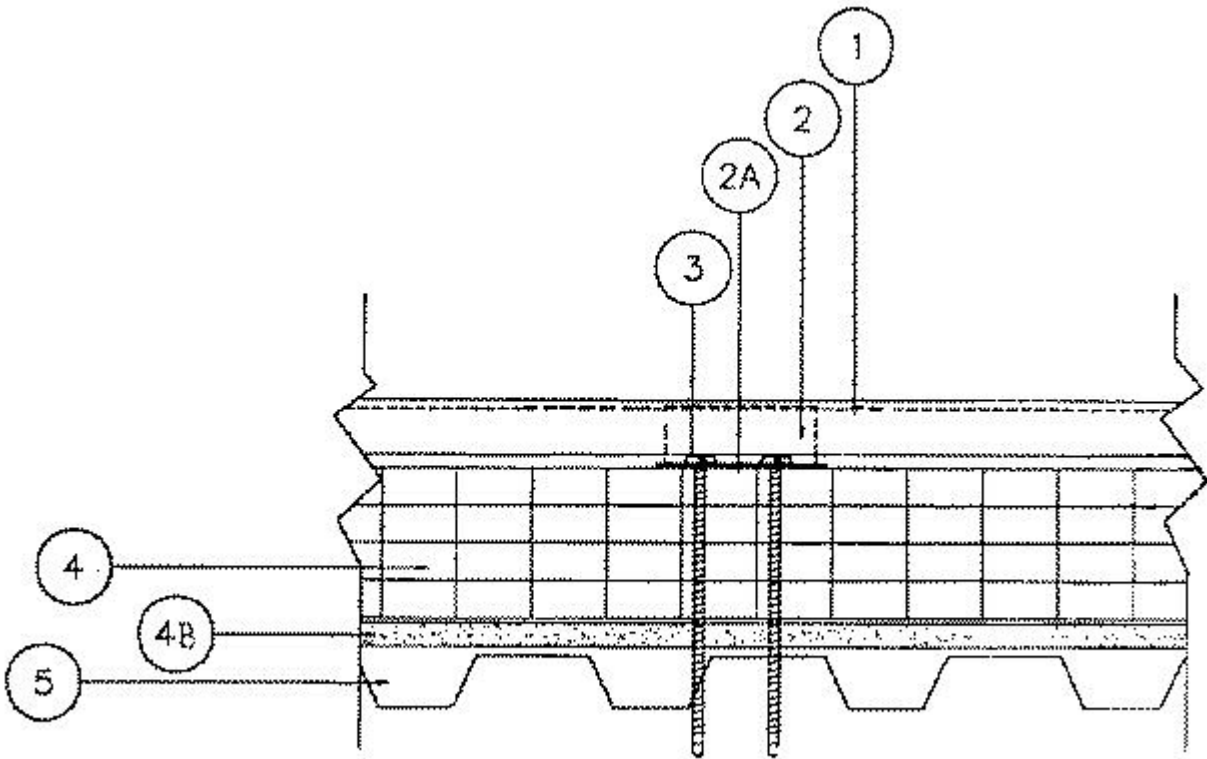
Construction No. 448

April 02, 2019

Uplift — Class 90

Fire Not Investigated





1. **Metal Roof Deck Panels*** — No. 24 MSG min coated steel. Max panel width 18 in., rib height 1-3/4 in. Panels continuous over three or more spans. Endlaps for panels to be overlapped 6 in. and to include back up plate (Item 2B). A bead of sealant may be used at panel ends and side joints.

A & S BUILDING SYSTEMS L P (View Classification) — "LokSeam"

ACI BUILDING SYSTEMS INC (View Classification) — "SnapLok"

ALLIANCE STEEL INC (View Classification) — "NFS16"

AMERICAN BUILDINGS CO (View Classification) — "Seam-Loc -12, -16, -18"

AMERICAN BUILDING COMPONENTS (View Classification) — "LokSeam"

BEACON SALES ACQUISITION INC, DBA COASTAL METAL SERVICE (View Classification) — "EZ Loc"

BERRIDGE MFG CO (View Classification) — "Snaplock Panel"

BORGA STEEL INC (View Classification) — "Vertical Lock"

CENTRAL STATES MFG INC (View Classification) — "Central Snap"

CENTRAL TEXAS METAL ROLLFORMING INC (View Classification) — "Shurloc 175"

FIRESTONE METAL PRODUCTS, A DIV OF FIRESTONE BUILDING PRODUCTS CO LLC (View Classification) — "UC-14"

INTEGRIS METALS INC (View Classification) — "Integris System 4"

MBCI (View Classification) — "LokSeam"

MCELROY METAL MILL INC (View Classification) — "ABC Permaseam Panel"

METAL FORMING INC (View Classification) — "1.75 Snap Lock Steel Panel"

METAL ROOFING SYSTEMS INC (View Classification) — "MRS System 2000"

METAL SALES MANUFACTURING CORPORATION (View Classification) — Vertical Seam

MID-SOUTH METAL PRODUCTS (View Classification) — "MSMP Structural Snap Lock"

NCI BUILDING SYSTEMS L P (View Classification) — "LokSeam"

NORTHWEST ROOF TILE & METAL L L C (View Classification) — "LT175"

P S M L V INC DOING BUSINESS AS PENN SHEET METAL (View Classification) — "PSM175SL"

ROLLFAB METAL BUILDING PRODUCTS (View Classification) — "SL-175" or "1.75 Snap Lock Steel Panel"

SHEET METAL WORKS OF ARIZONA (View Classification) — "SL175"

STANDARD STRUCTURES INC (View Classification) — "SnapSeam"

TAYLOR METAL INC, DBA TAYLOR METAL PRODUCTS (View Classification) — "Versa Span"

WESTAR ROOFING CORP (View Classification) — "SL175"

WHIRLWIND STEEL BUILDINGS INC (View Classification) — "Weather Snap-12" or "Weather Snap-16"

2. **Roof Deck Fasteners* — (Panel Clips)** — One piece assembly, 3-1/2 in. wide by 1-7/8 in. high. Clip spacing to be 48 in. OC.
AMERICAN BUILDING COMPONENTS (View Classification) — "LokSeam UL 90 Clip"

BEACON SALES ACQUISITION INC, DBA COASTAL METAL SERVICE (View Classification) — "EZ Loc Panel Clip"

EXCEL STAMPING & MFG INC (View Classification) — "LS-178-18 Clip"

FIRESTONE METAL PRODUCTS, A DIV OF FIRESTONE BUILDING PRODUCTS CO LLC (View Classification) — "UC-14 Clip"

LOGAN STAMPINGS INC — "Snap Lock Clip No. 675"

METAL SALES MANUFACTURING CORPORATION (View Classification) — Vertical Seam Clip

NCI BUILDING SYSTEMS L P (View Classification) — "LokSeam UL 90 Clip"

2A. **Bearing Plate** — (Optional) — To be used in lieu of plywood or OSB (Item 4A) with rigid insulation (Item 4). Bearing plates to be 16 MSG min coated steel or No. 24 MSG minimum thickness, 5 in. wide, 3-7/8 in. long. Located under each clip (Item 2) for support.

2B. **Endlap Back-Up Plate** — (Not Shown) — No. 16 MSG min coated steel, width of back up plate to correspond to width of panel. Two 1 in. wide by 3/4 in. long tabs are used for sliding over end of panels.

3. **Panel Fasteners — (Screws)** — Screws used to attach the panel clips and bearing plates (Items 2 and 2A) through rigid insulation and into metal deck (Item 5). Screws to be No. 14 Truss head with No. 3 Phillips drive. Length to be a min of 1/2 in. longer than thickness of rigid insulation and metal deck. Two screws per clip. Fasteners used at endlaps to be one of the following: 14x1 in. Type AB self-tapper; 14x1-1/4 in. Hex washer head self-driller; 14x1 in. Type AB Phillips stainless steel self-tapper.

4. **Rigid Insulation** — (Optional) — Foamed plastic, max thickness 10 in. Density to be a min of 1.5 PCF.

4A. **Foamed Plastic*** — (Rigid Insulation — Optional) — In lieu of Item 4, applied flat or tapered to maximum 10 in. thick combination of Item 4B. Bearing plates required under panel attachment points. Optional if Cover Board (Item 4D) is used.
FIRESTONE BUILDING PRODUCTS CO L L C (View Classification) — "ISO 95+ GL" or "Resista"

4B. **Foamed Plastic** — (Rigid Insulation — Optional — Not Shown) — Placed on top of Item 4A. Maximum 10-in thick combination of Item 4A. Bearing plates required under panel attachment points. Optional if Cover Board (Item 4D) is used.
FIRESTONE BUILDING PRODUCTS CO L L C (View Classification) — "ISOGARD HD"

4C. **Roof Deck Fasteners*** — (Bearing Plates) — Plates to be 4 in by 4 in. by No. 26 MSG min galvanized steel. Two 1/4 in. guide holes located in line with panel clip (Item 2) guide holes.
FIRESTONE METAL PRODUCTS, A DIV OF FIRESTONE BUILDING PRODUCTS CO LLC (View Classification) — "UC Bearing Plate"

4D. **Cover Board** — (Optional — Not Shown) — Min 1/2 in. thick (15/32 in. actual) plywood, DOC PS-1 rated (square edged may be used) or min 7/16 in thick OSB, DOC PS-2 rated, 1/2 in. thick gypsum board, 1/2 in. wood fiberboard, 1/4 in. min thickness G-P Gypsum "DensDeck", 1/4 in. min thick USG "SECUROCK Glass Mat Board" or "SECUROCK Roof Board" applied over the liner panel (Item 5) in lieu of Foamed Plastic (Item 4) or over Foamed Plastic (Items 4, 4A and/or 4B). When used or used over Foamed Plastic bearing plate not required.

5. **Metal Deck** — No. 22 MSG min thickness coated steel. Min yield strength 33 KSI. Min depth 1-1/2 in. Max pitch 6 in.

6. **Vapor Barrier** — (Optional) — Installed on top of metal deck (Item 5) or on top of gypsum wallboard (Item 4B) if used. Min 6 mil plastic sheet.

6A. **Waterproof Membrane** — (Optional) — (Not Shown) — Used to protect plywood or OSB (Item 4A). Installed under panels (Item 1).

7. **Supports** — (Not Shown) — Used to support metal deck, spaced per deck manufacturer's specifications.

8. **Batten Clips and Cap*** — The followed items may be used in conjunction with the "Design-Lok" panel (Item 1).

A. **Batten Clips*** — Slipped over ribs formed by roof deck panels. One piece assembly formed to engage ribs of "Design-Lok" panels (Item 1) and "Design-Lok Batten Cap" (Item B) spaced 48 in. OC.

METAL SALES MANUFACTURING CORPORATION (View Classification) — Vertical Seam Batten Clip

B. **Batten Cap*** — Slipped over batten clip (Item A), formed to snap over and engage batten clip.

METAL SALES MANUFACTURING CORPORATION (View Classification) — Vertical Seam Batten Cap

Refer to General Information, Roof Deck Constructions, for Items Not Evaluated.

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2019-04-02

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