

TGKX.487 - 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.
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Roof Deck Constructions

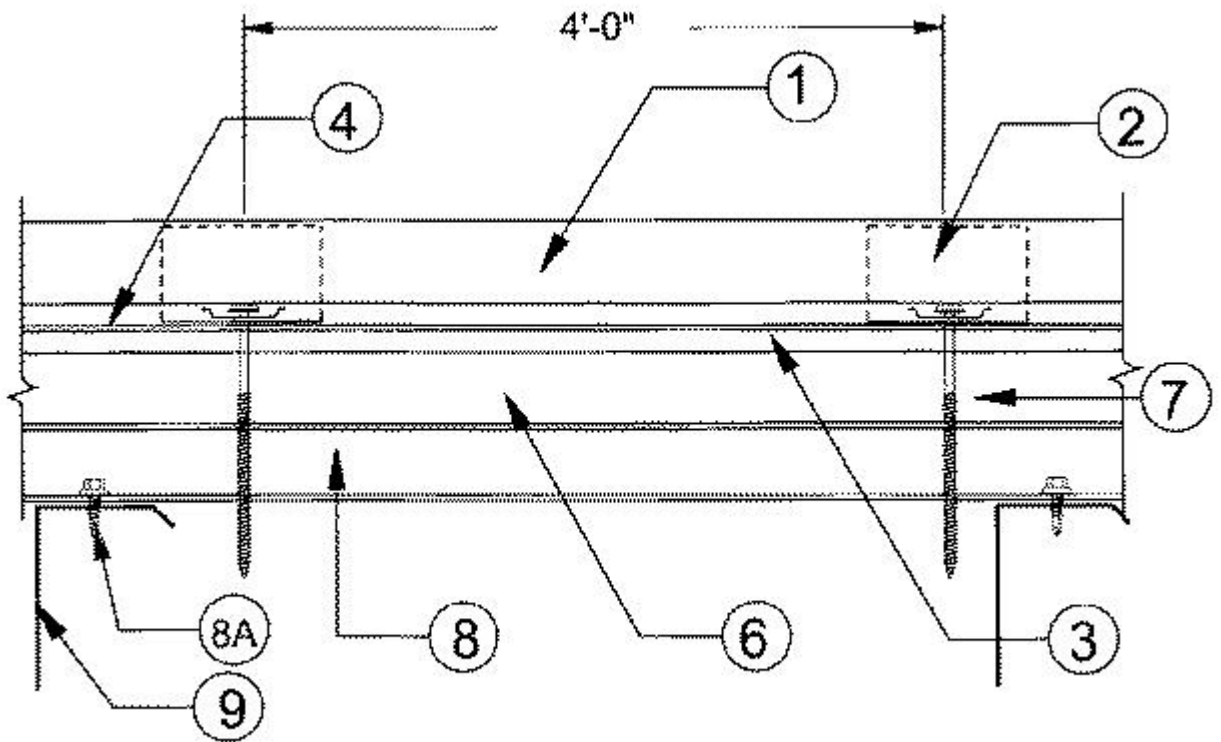
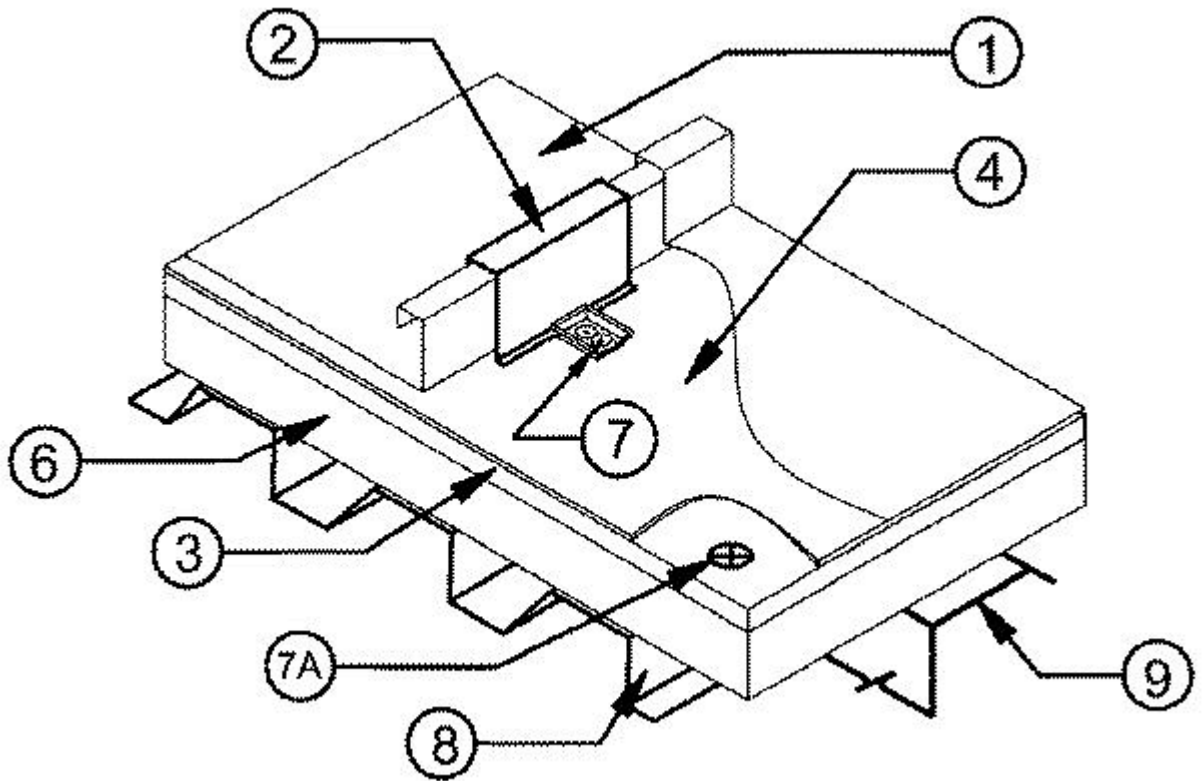
See General Information for Roof Deck Constructions

Construction No. 487

June 28, 2016

Uplift — Class 90

Fire Not Investigated



1. **Metal Roof Deck Panels*** — No. 24 MSG min coated steel, 16 in. max width. Panels continuous over two or more spans. Endlaps to occur adjacent to purlin with panels overlapped 6 in. and to include endlap back-up plate (Item 2A). A line of sealant may be used at panel ends and sidelaps. Sidelap to be tightened and crimped with an electric seaming machine to an angle of 45 degree maximum unless indicated in the individual panels in this item. Crimping process to include the upper portion of the panel clip (Item 2).

A & S BUILDING SYSTEMS L P (View Classification) — "BattenLok", "BattenLok HS" or "SuperLok"

AMERICAN BUILDINGS CO (View Classification) — "Loc-Seam" (90° Seam), "Loc-Seam 360" (180° Seam)

CENTRAL TEXAS METAL ROLLFORMING INC (View Classification) — "SPANLOC 200"

CHIEF INDUSTRIES INC (View Classification) — "MVf" or "MVP"

MBCI (View Classification) — "BattenLok", "BattenLok HS" or "SuperLok"

MESCO METAL BUILDINGS (View Classification) — "BattenLok", "BattenLok HS" or "SuperLok"

METAL ROOFING SYSTEMS INC (View Classification) — "MRS System 2500"

METAL SALES MANUFACTURING CORPORATION (View Classification) — T-Span or "T-Span 180" (180° Seam)

NCI BUILDING SYSTEMS L P (View Classification) — "BattenLok", "BattenLok HS" or "SuperLok"

NUCOR BUILDING SYSTEMS, DIV OF NUCOR CORP (View Classification) — VR16 II "Vise Lock" or VR16II "Vise Lock 360".

PETERSEN ALUMINUM CORP (View Classification) — "Tite-Loc" and "Tite-Loc Plus"

PINNACLE STRUCTURES INC (View Classification) — "PINNACLE BATTENLOK" and "PINNACLE SUPERLOK"

ROLLFAB METAL BUILDING PRODUCTS (View Classification) — "MS-200HP/90" and "MS-200HP/180"

SAN ANTONIO QUALITY METALS (View Classification) — "ML-200"

TAYLOR METAL INC, DBA TAYLOR METAL PRODUCTS (View Classification) — "MS200"

TREMCO INC (View Classification) — "TremLock VP Series II"

UNITED STRUCTURES OF AMERICA INC (View Classification) — "Sure-Lok" or "Supreme-Lok"

2. **Roof Deck Fasteners*** — To be either of the following: Fixed Clip - one piece assembly fabricated from No. 22 MSG coated steel, 3 in wide. Floating Clips - Two piece assembly with a base fabricated from No. 16 MSG min coated steel, 1-5/8 in. wide, and a top fabricated from No. 22 MSG min coated steel, 4-1/2 in. wide. Utility Clip — one piece assembly fabricated from No. 22 MSG coated steel, 3 in. wide. Clip spacing to be 4 ft, 0 in. O.C. maximum.

BUILDING PRODUCTS DEVELOPMENT INC (View Classification) — "NC3300", "NCF-3300", "NCF-3300-SS" Series Clip

NCI BUILDING SYSTEMS L P (View Classification) — "BattenLok High or Low, Fixed or Floating Clip"; "BattenLok Utility Clip" — "SuperLok High or Low, Fixed or Floating Clip"; "SuperLok Utility Clip".

2A. **Endlap Back-Up Plate** — (Not Shown) — No. 16 MSG min coated steel. 15-1/2 in. wide with two 1 in. wide by 3/4 in. long tabs for sliding over end of panels.

2B. **Roof Deck Fasteners*** — (Panels) — (Not Shown) — Two part assembly; A base fabricated from No. 16 MSG min coated steel and upper tab fabricated from No. 22 MSG min coated steel. Clips fastened to purlins using two fasteners per clip. See Item No. 3 for description of fasteners.

METAL SALES MANUFACTURING CORPORATION (View Classification) — "T-Span"

2C. **Roof Deck Fasteners*** — (Panel Clips) — (Not Shown) Used with "Tite-Loc" or "Tite-Loc Plus" Panels.

One piece assembly; 3 in. wide, approximately 2 in. high with two or three guide holes in base. Fabricated from No. 22 MSG coated steel.

PETERSEN ALUMINUM CORP (View Classification) — "Tite-Loc Utility Clip", "Tite-Loc Plus Utility Clip"

One piece assembly; 3 in. wide, approximately 2-3/8 in. or 3 in. high, with three guide holes in base. Fabricated from No. 22 MSG coated steel.

PETERSEN ALUMINUM CORP (View Classification) — "Tite-Loc Low/High Fixed Clip", "Tite-Loc Plus Low/High Fixed Clip"

Two piece assembly; base approximately 2 in. wide, 1-11/16 in. long formed to engage upper tab. Fabricated from No. 16 MSG coated steel. Tab approximately 4-5/16 in. wide; 2-3/8 in. or 2-7/8 in. high, formed to engage base. Fabricated from No. 22 MSG coated steel. Base to have two guide holes.

PETERSEN ALUMINUM CORP (View Classification) — "Tite-Loc Sliding Clip", "Tite-Loc Plus Sliding Clip", "Tite-Loc AR Fixed Clip" and "Tite-Loc AR Sliding Clip", "Tite-Loc Plus AR Fixed Clip" and "Tite-Loc Plus AR Sliding Clip".

3. **Gypsum Board*(Mineral Board)** — Min thickness 1/2 in. Opposite side edges have a tongue and groove configuration. Butt (end) joints to be staggered and occur over steel deck crests. Wallboard installed perpendicular to steel deck corrugations.

GEORGIA-PACIFIC GYPSUM L L C (View Classification) — "DensDeck®", "DensDeck Prime®"

LOADMASTER SYSTEMS INC (View Classification) — "Duraflex Mineral Board"

4. **Vapor Barrier** — Single ply used between the wallboard (Item 3) and the metal roof deck panels (Item 1).

5. **Joint Tape** — (Not Shown) — 2-1/2 in. wide tape supplied by manufacturer to be used at all wallboard joints.

6. **Foamed Plastic (Rigid Insulation)** — (Optional) — Expanded polystyrene or polyisocyanurate supplied in 4 by 8 ft sheets, min thickness 13/16 in. min density 1.0 pcf. All end joints to be staggered with respect to adjacent rows. All joints to be offset from joints in mineral board (Item 3).

7. **Fasteners** — Screws used to fasten panel clips (Item 2) to steel deck (Item 8) to be No. 14 Truss head with No. 3 Phillips drive. Length to be min 1/2 in. longer than thickness of wallboard, 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 Type AB Phillips stainless steel self-tapper.

7A. **Fasteners** — For attaching in wallboard to steel deck to be min 0.140 in diam threaded shank Phillips, bugle or trumpet head, self-drilling, self-tapping, corrosion resistance coated steel screws supplied by manufacturer. Screws are installed into top corrugations of steel deck through nom 3 by 3 in. corrosion resistant steel roof deck plates, spaced in a pattern as determined by the pitch of the steel deck with a min of 21 fasteners per 4 by 8 ft sheet (Item 3).

8. **Steel Deck** — Fabricated to various profiles, min yield strength 33,000 psi. Steel deck profile, thickness, support spacing and method of positioning (end and side laps) and fastening deck to supports to be per deck manufacturers requirements for uplift loading.

8A. **Deck Fasteners** — Steel deck panels to be fastened to structural supports and at laps using puddle welds with weld washers or screw fasteners per deck manufactures requirements for uplift loading.

9. **Purlins** — 16 MSG min coated steel, min yield strength 50,000 psi or Type H open web joists. 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 2016-06-28

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