

TGKX.286 - 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

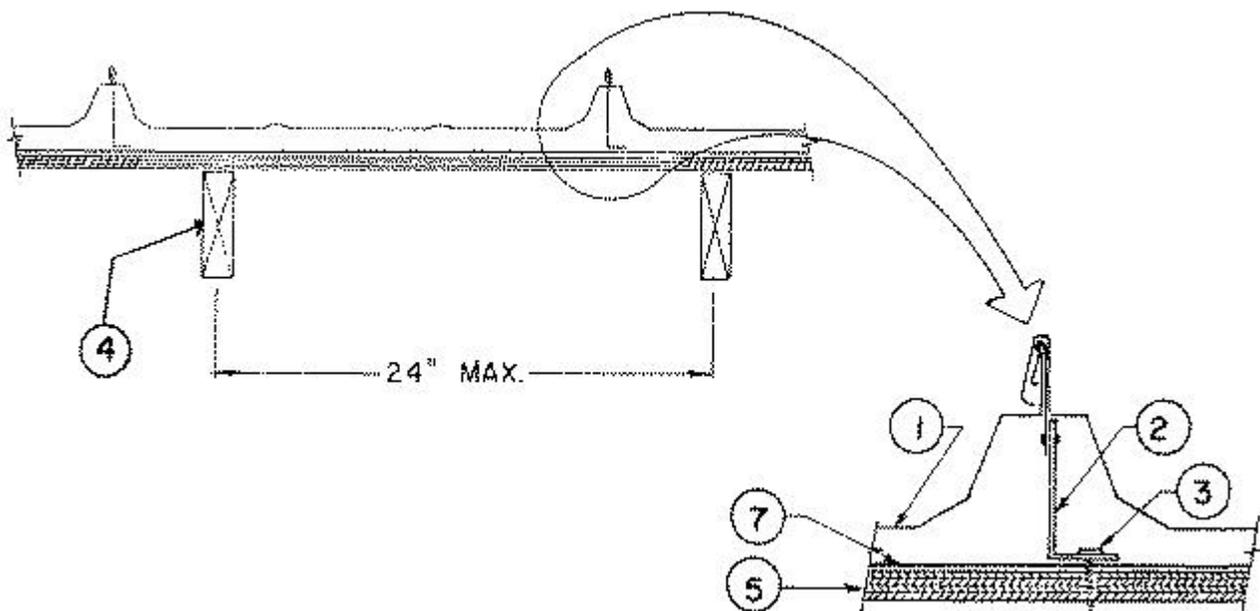
See General Information for Roof Deck Constructions

Construction No. 286

March 19, 2015

Uplift — Class 90

Fire Not Investigated



1. **Metal Roof Deck Panels*** — No. 26 MSG min coated steel. Panels continuous over two or more spans. End laps to occur adjacent to wood joist with panels overlapped 3 in. A line of sealant may be used at panel ends and side laps. Adjacent panels may be seamed with electric seamer with seaming operation to include roof deck fasteners (Item 2). Male/female side laps shall remain interlocked and fully engaged after seaming.

A & S BUILDING SYSTEMS L P (View Classification) — "Ultra-Dek"

B C STEEL BUILDINGS INC (View Classification) — "BCL-SD"

CENTRAL STATES MFG INC (View Classification) — "Central-Loc"

CENTRAL TEXAS METAL ROLLFORMING INC (View Classification) — "Shurloc 300"

CHIEF INDUSTRIES INC (View Classification) — "STC"

CORLE BUILDING SYSTEMS INC (View Classification) — "Corle Snap Seal"

KIRBY BUILDING SYSTEMS INC (View Classification) — "KLS 2100"

MBCI (View Classification) — "Ultra-Dek"

MESCO METAL BUILDINGS (View Classification) — "Ultra-Dek"

NCI BUILDING SYSTEMS L P (View Classification) — "Ultra-Dek"

PINNACLE STRUCTURES INC (View Classification) — "PINNACLE U-DEK"

TEXAS BUILDING AND ROOFING SUPPLIES INC — "Standing Seam" Panel

UNITED STRUCTURES OF AMERICA INC (View Classification) — "Guardian I", "Guardian II" (seamed only).

WHIRLWIND STEEL BUILDINGS INC (View Classification) — "Super-Seam II"

2. **Roof Deck Fasteners*** — (Panel Clips) — Clip used with an upper tab clip formed to engage the metal roof deck panel rib (Item 1). Height of the clip to be 3-3/8 in. or "Utility Clip", one piece assembly fabricated from No. 22 MSG min. coated steel, 3 in. wide and nominal 2 11/16 in. height, when no thermal spacer (Item 5) is used, and 4-3/8 in. when a thermal spacer is used. Clips are spaced 60 in. OC, located at the panel sides with guide holes in bottom to accommodate one screw fastener (Item 4).

BUILDING PRODUCTS DEVELOPMENT INC (View Classification) — "NC34503", "NC34504"

CHIEF INDUSTRIES INC (View Classification) — "STC Sliding Clip"

KIRBY BUILDING SYSTEMS INC (View Classification) — "Kirbylok 2000 Clip" or "Kirbylok 2000 Clip II"

NCI BUILDING SYSTEMS L P (View Classification) — "Ultra-Dek Articulating Clip" or " Ultra-Dek Utility Clip" or "Ultra-Dek Fixed Clip" or "Ultra-Dek Floating Clip" or "Ultra-Dek Sliding Clip"

3. **Fasteners** — (Screws) — Screws used to attach each panel clip to plywood to be one (1) No. 10 by 1-1/2 in. long with 1/4 in. hex-head washer and a separate 1/2 in. neoprene and steel washer. As an alternate fastener, the screw used to attach a panel clip to plywood may be one (1) No. 14 by 1-1/2 in. Type A long with 3/8 in. hex-head and a separate 5/8 in. neoprene and steel washer. When Items 9 (foamed plastic, rigid insulation) and Item 10 (bearing plate) are used, #12 Dekfast fastener to be used and installed through clip (Item 2), bearing plate (Item 10), foamed plastic, rigid insulation (Item 9) and deck (Item 5). Length of fastener to be equal to total thickness plus 7/8 in.

Screws used at the end lap to be 1/4-14 by 1 in. long with 3/8 in. hex-head washer and a separate 5/8 in. neoprene and steel washer. Five (5) fasteners are to be used in the flat section of the end lap panel with the first fastener located 3 in. from either rib, and then spaced in a 3-6-6-3 in. pattern. An additional fastener is to be located at the second slanted segment of the rib on both

sides of the end lap panel, and one additional fastener located at the first slanted segment on both sides of one rib. Fasteners used with alternate 16 MSG min thick coated steel upper section to be No. 14 by 1 in long self-tapping fastener. First fastener located 3/8 in. from first slanted segment in a 4-5-1/2-5-1/2-4 in. pattern. One additional fastener located 1/2 in. from first slanted segment on opposite side of same rib where first fastener is located.

Screws used to attach plywood to wood joists to be No. 8 by 2 in. long bugle-head screws spaced at 12 in. O.C. Spacing at the butted ends of the plywood sections to be 6 in. O.C. 8d nails may be used, as an option, for the attachment of plywood to wood joist.

4. **Wood Joists** — No. 2 Southern Yellow Pine or equivalent, spaced 24 in. O.C. max.

5. **Deck** — Deck to be min 5/8 in. thick, Exposure 1, Sheathing Span "C-D", 40/20 plywood. (All butt joints to be sealed against leakage by using tape and/or caulk).

6. **Thermal Spacer** — (Optional) — (Not Shown) - Polystyrene, 1 in. nom thickness, 3 in. wide, cut to fit between panel clips.

7. **Waterproof Membrane** — (Not Shown)- Waterproof Membrane (Optional)—(Not Shown)—Used to protect plywood (Item 5). Installed under panels (Item 1)..

8. **Splice Plate Assembly** — (Not shown) — Used at panel end laps consisting of a lower section, 5-5/8 in. wide, with a 1/8 in. leg and formed to the general profile of the panel and having four 1 in. wide by 3/4 in. long tabs for sliding over the end panel. Upper section to be 2 in. wide and also formed to the general profile of the panel. Both parts 18 MSG in. min thick coated steel. Alternate 16 MSG min thick coated steel upper section 1-1/2 in. wide formed to the general profile of the panel with one end formed to fit over 2 side rib. Six 5/16 in. diam guide holes located in the flat area only.

9. **Foamed Plastic (Rigid Insulation)** — (Optional, not shown) - Maximum thickness 1-1/2 in. Any rigid type having a minimum compressive strength of 25 psi or minimum density of 2 pcf. Supplied in 4 ft. wide sheets.

10. **Bearing plates** — (Optional, not shown) - To be used with Item 9. Bearing plates to be minimum 16 MSG coated steel. Located under each clip (Item 2) for support.

Refer to General Information, Roof Deck Construction, (Roofing Materials and Systems Directory) 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 2015-03-19

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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