TGKX.205 - 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

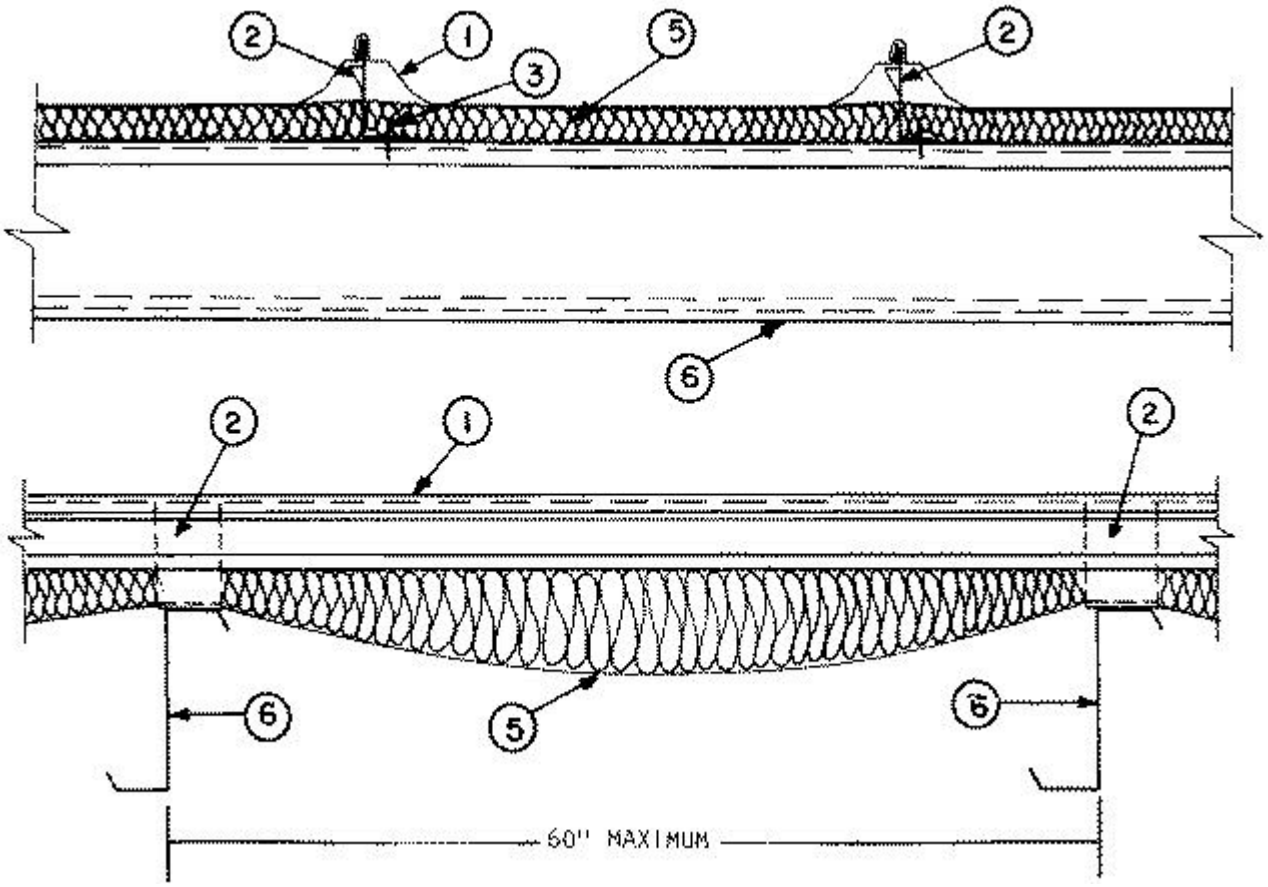
See General Information for Roof Deck Constructions

Construction No. 205

March 19, 2015

Uplift — Class 90 or 30 (See item No. 1)

Fire Not Investigated



1. **Metal Roof Deck Panels* —** Maximum width 24 in., height at female rib 2-13/16 in. For Class 90 - No. 24 MSG min coated steel, for Class 30 No. 26 MSG min coated steel. Panels continuous over two or more spans. End laps to occur adjacent to purlins with panels overlapped 3 in. max. A line of sealant may be used at panel end laps and side joints, 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) — "Centra Loc"

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

CHIEF INDUSTRIES INC (View Classification) — "STC".

CLEBURNE SHEET METAL (View Classification) — "Dominator 24"

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

DEAN STEEL BUILDINGS INC (View Classification) — Pro Seam Panel

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

MBCI (View Classification) — "Ultra-Dek"

MCELROY METAL MILL INC (View Classification) — Master-Lok 90

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) —** Fixed or sliding type fabricated from 0.032 in. thick steel. Width to be 3 in., height to be 3 3/8 in. when no thermal spacer (Item No. 4) is used and 4-3/8 in. when thermal spacer is used. Clips spaced 5 ft. on center, located at panel sides and over purlins.
BUILDING PRODUCTS DEVELOPMENT INC (View Classification) — "NC34503", "NC34504"

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

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

NCI BUILDING SYSTEMS L P (View Classification) — "Ultra-Dek fixed clip" or "Ultra-Dek sliding clips".

2A. **Roof Deck Fasteners* — (Panel Clips) —** (Not shown) — Fixed or sliding type. Fixed clips fabricated from 0.031 in. thick spring steel. Width approximately 3-1/4 in., height approximately 4-1/4 in. Sliding clip base approximately 5 in. wide fabricated from 0.060 in. thick steel. Tab 2-1/2 in. wide fabricated from 0.031 in. thick spring steel. Maximum height approximately 4-1/4 in.
MCELROY METAL MILL INC (View Classification) — "ML90RS"

2B. **Roof Deck Fasteners* — (Panel Clips) —** (Not shown) — Two part assembly. Base 4-1/4 in. wide, max height 3.3 in. Fabricated from No. 17 MSG min thick coated steel. Tab 3 in. wide at top, approximately 2 in. high. Parts formed to interlock. Max assembled height approximately 4-1/2 in. Two Fasteners (Item 3) used per clip.
BUILDING RESEARCH SYSTEMS INC (View Classification) — "Challenger 400 Series Clip"

3. **Fasteners (Screws) —** Fasteners for panel clip to purlins to be No. 12-14 by 1-1/4 in. long self-drilling, self-tapping, hex-head screw with a separate 5/8 in. O.D. neoprene washer. Two screws used for fixed type clip and one screw used for sliding type. Fasteners used at end lap are the same type spaced in a 5, 3-1/2, 3-1/2, 3-1/2, 3-1/2, 5 in. pattern with an additional fastener located at the second slanted segment of the rib on both sides of the end lap panel. 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.

3A. **Fasteners (Screws) —** Fasteners, used for "ML90RS" panel clip to purlin connections to be No. 14 by 1-1/4 in. long self-drilling, self-tapping, hex-head, plated steel screws used without separate washers. A minimum of one screw to be used for either fixed or sliding clips.
Fasteners used at end-lap to be same type, spaced in a 5, 3-1/2, 3-1/2, 3-1/2, 3-1/2, 5 in. pattern with an additional fastener located at the second slanted segment of the rib on both sides of the end lap panel.

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

5. **Insulation —** (Optional) — Any compressible blanket insulation, 6 in. max thickness when located between thermal spacer (Item 4) and purlin (Item 6) before compression.

6. **Purlin —** No. 16 MSG min gauge steel (55,000 psi min yield strength).

7. **Splice Plate Assembly —** (Not Shown) — Used at panel end laps; consisting of a lower section, 6 in. wide, with a 1/8 in. vertical leg, formed to the general profile of the panel, and having four 1 in. wide by 3/4 in. long tabs for sliding over the panel end. Upper section to be 2 1/4 in. wide 24 in. long and also formed to the general profile of the panel with one end formed to fit over a side rib. Six 3/16 in. diameter guide holes located in flat areas with 3 holes located at rib location. Both parts to have ribs formed for reinforcement. Both parts fabricated from No. 18 MSG 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 a side rib. Six 5/16 in. diam guide holes located in the flat area only.
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
