



**Construction No. 534**  
**TGKX.534**  
**Roof Deck Constructions**

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**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 Listed or Classified 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 as Classified, Listed, or Recognized.
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**Roof Deck Constructions**

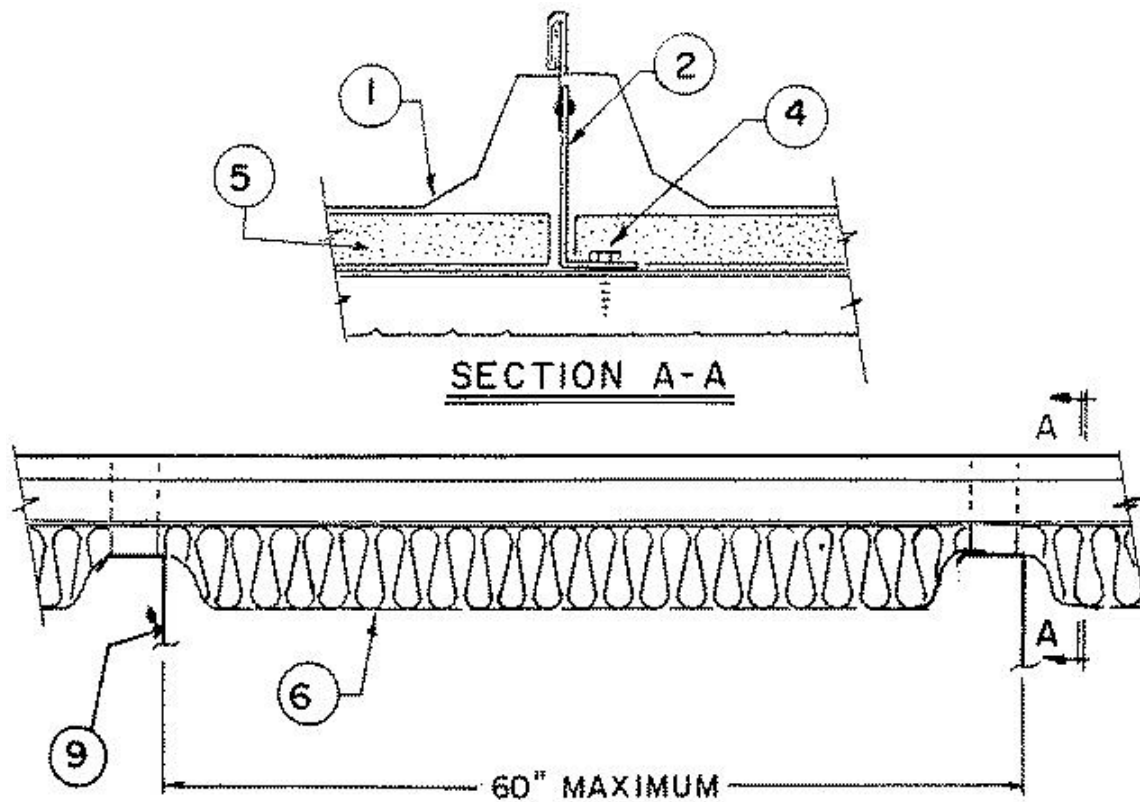
[See General Information for Roof Deck Constructions](#)

**Construction No. 534**

February 22, 2012

**Uplift — Class 90**

**Fire Not Investigated**



1. **Metal Roof Deck Panels\*** — For class 90-No. 24 MSG coated steel, for class 30-No. 26 MSG min. Coated steel, steel. Panels continuous over two or more spans. End laps to occur adjacent to purlins with panels overlapped 3 inch max. A line of sealant may be used at panel end and side laps.

**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"

**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" or "Guardian II"

**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). The height of the clip to be 3-3/8 in. when no thermal spacer is used, and 4-3/8 in. when a thermal spacer is used (Item 5). Clips are spaced 5 ft. OC max along length of panels, located at the panel sides with guide holes in bottom to accommodate two screw fasteners (Item 4).

**BUILDING PRODUCTS DEVELOPMENT INC** ([View Classification](#)) — "NC34503", "NC34504"

**UNITED STRUCTURES OF AMERICA INC** ([View Classification](#)) — "Guardian I"

**NCI BUILDING SYSTEMS L P** ([View Classification](#)) — "Ultra-Dek Articulating Clip " or "Ultra-Dek Floating Clip" or "Ultra-Dek Sliding Clip".

3. **Building Units\*** — (optional)-(not shown)-Translucent reinforced plastic panels. Nominal thickness 1/16 inch, formed to the same configuration as the metal roof deck panels, with metal reinforcement cut from a classified metal roof deck panel (Item No. 1). Metal reinforcement attached to translucent reinforced plastic side segments with aluminum pop rivets. Panels continuous over two or more spans.

**NCI BUILDING SYSTEMS L P** ([View Classification](#)) — "Ultra-Dek Light Transmitting Panel"

4. **Fasteners—(Screws)** — Fasteners for panel clip to purlin to be 1/4-14 by 1-1/4 inch long self-drilling, self-tapping, 3/8 inch hex-head, plated steel screw with separate 5/8 inch O.D. neoprene washer. Two (2) screws used per clip. At the endlap, Fasteners are to be ¼-14 by 1-1/4 inch long, self-drilling, self-tapping, plated steel screws with a 5/8 inch OD washer. Six (6) fasteners are to be used in the flat section of the end lap panel with the first fastener located 3-1/4 inches from either rib and then spaced in a 3-1/2, 3-1/2, 3-1/2, 3-1/2, 3-1/2 inch pattern. An additional fastener is to be located at the second slanted segment of the rib on both sides of the endlap panel .

5. **Thermal Spacer** — (optional)-Polystyrene, 1 inch max thickness, 3 inches wide, cut to fit between panel clips.

6. **Insulation** — (optional)-Any compressible blanket insulation, 6 inches max. thickness when located between panel (Item No. 1) and purlin (Item No. 9) before compression.

7. **End-Lap Plate Assembly** — (not shown)-Used at panel end laps; Consisting of a lower section, 5-5/8 inches wide, with a 1/8 inch vertical leg, formed to the general profile of the panel and having four 1 inch wide by 3/4 inch long tabs for sliding over the panel end. Upper section (optional) to be 1-1/2 inches wide 24 inches long and also formed to the general profile of the panel with one end formed to fit over the side rib. Five 5/16 inch diameter guide holes located in the flat with 3 holes located at rib location. Both parts to have ribs formed for reinforcement. Both parts fabricated from No. 16 MSG thick coated steel.

8. **Light Transmitting Panel Backing Plate** — (optional)-(not shown)-When skylight panel is used, backing plate is required. Minimum 18 MSG galv. Steel, 6 inches wide two vertical legs on both sides and formed to the configuration of the metal roof deck panel (Item No. 1). Located over the middle purlin and offers support to the continuous segment building unit (Item No. 3).

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

\*Bearing the UL Classification Mark

Last Updated on 2012-02-22

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