



Construction No. 308
TGKX.308
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

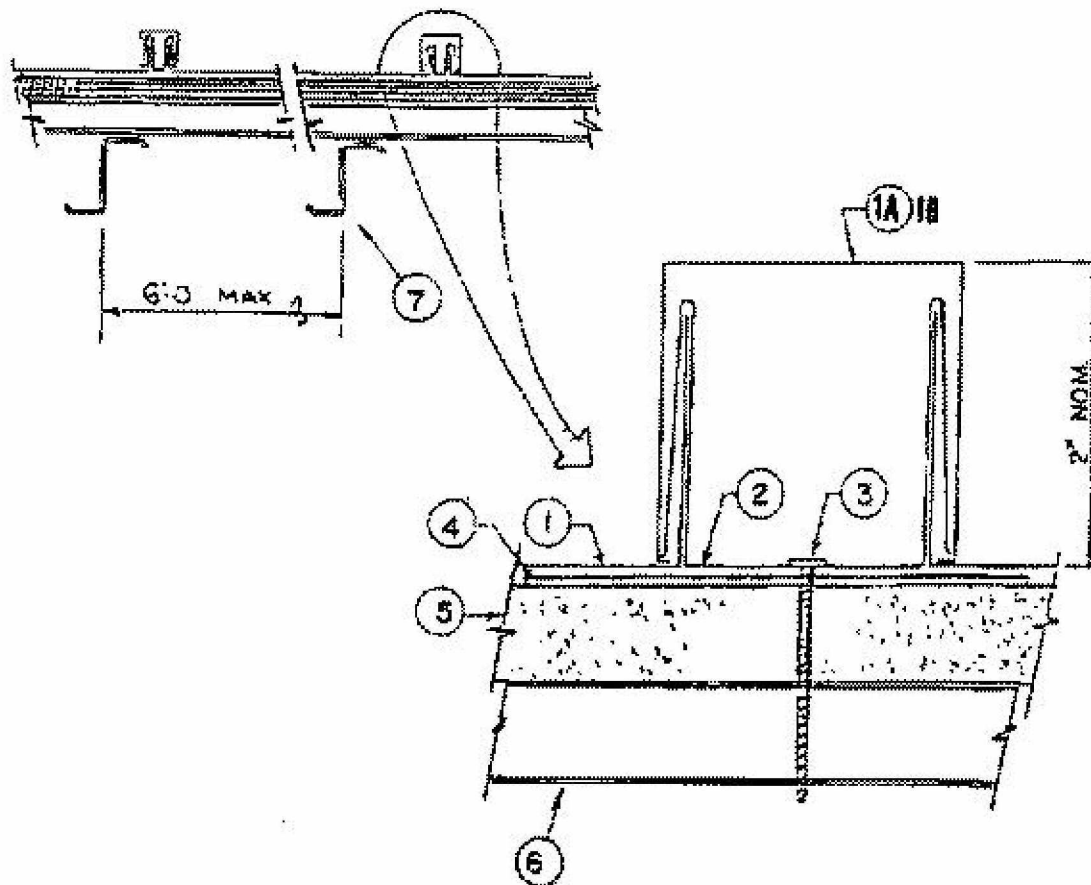
[See General Information for Roof Deck Constructions](#)

Construction No. 308

June 29, 2011

Uplift — Class 90

Fire Not Investigated



1. **Metal Roof Deck Panels*** — 24 MSG min coated steel. Max panel width 16-1/2 in. and rib height 1-1/2 in. End laps to occur adjacent to supports with panels overlapped 4 in. min.

ATAS INTERNATIONAL INC ([View Classification](#)) — "KB Panel"

CENTRIA ([View Classification](#)) — "ADP 100B".

BEACON SALES ACQUISITION INC, DBA

COASTAL METAL SERVICE ([View Classification](#)) — "HT-150".

MBCI ([View Classification](#)) — "Craftsman Series LB".

MCELROY METAL MILL INC ([View Classification](#)) — "Medallion"

NCI BUILDING SYSTEMS L P ([View Classification](#)) — "Craftsman Series LB".

1A. **Metal Roof Deck Panels* (Battens)** — Battens covering "KB" Panel ribs and clips to be 1-11/16 in. wide at top segment, 2 in. high, formed from same type and thickness material as that used to fabricate "KB" Panels.

ATAS INTERNATIONAL INC ([View Classification](#)) — "KB Batten".

1B. **Metal Roof Deck Panels* (Battens)** — Battens covering panel ribs and clips to be 2 in. wide and 2 in. high, formed from same type and thickness material as that used to fabricate metal panels (Item 1).

ATAS INTERNATIONAL INC ([View Classification](#)) — "KB Clip".

CENTRIA ([View Classification](#)) — "ADP 100B Batten".

MBCI ([View Classification](#)) — "LB Batten".

MCELROY METAL MILL INC ([View Classification](#)) — "Medallion II Batten"

NCI BUILDING SYSTEMS L P ([View Classification](#)) — "LB Batten".

2. Roof Deck Fasteners* (Panel Clips) — One piece clip, 1-3/4 in. high, 1 in. wide by 2 in. long. Clips are spaced max 24 in. OC and located at panel sides. Guide holes in bottom of clip to accommodate screw fasteners (Item 3).

CENTRIA ([View Classification](#)) — "ADP 100B Clip".

BEACON SALES ACQUISITION INC, DBA

COASTAL METAL SERVICE ([View Classification](#)) — "HT-150".

MCELROY METAL MILL INC ([View Classification](#)) — "Medallion II".

NCI BUILDING SYSTEMS L P ([View Classification](#)) — "LB Clip".

3. Fasteners (Screws) — Screws used to attach plywood or OSB substructure (Item 4) to metal deck to be No. 14 dia. with Phillips or square drive head. Fastener length to penetrate metal deck (Item 6) min of 1/2 in. Spacing to be 6 in. OC at plywood or OSB ends and 12 in. OC at 2 ft 0 in. pattern down length of plywood or OSB. (Total of 33 fasteners per 4 by 8 ft sheet). Screws used to attach panel clips (Item 2) to plywood or OSB to be No. 10 by 1 in. long pancake head wood screw with No. 2 Phillips head size, or No. 10 by 1 in. long hex head wood screw. One screw per clip.

(Alternate — When bearing plates replace Item 4A). Screws used to attach panel clips (Item 2) through bearing plate (Item 4) into metal deck to be No. 14 type with Phillips head. Fastener length to penetrate metal deck (Item 6) min of 1/2 in. One screw per clip. An optional No. 10 by 1 in. self-drilling fastener may be used to attach clip (Item 2) to the bearing plate (Item 4) when installer chooses to install rigid board insulation and use bearing plate to hold it in place until clips and panels are installed.

4. Substructure — Bearing plates — (Optional) — To be used in lieu of plywood or OSB (Item 4, 4A) with rigid insulation (Item 5) up to a max thickness of 6 in. Bearing plates to be 16 MSG min coated steel. Located under each clip (Item 2) for support.

4A. Plywood or OSB — (Optional) — Min APA Rated plywood, exposure sheathing span C-D 40/20, nom 1/2 in. thick or oriented strand board (OSB), nom 7/16 in. thick, 4 x 8 ft. Sheets to be installed on top of Rigid Insulation (Item 5) in lieu of bearing plates (Item 4A). To be used with Rigid Insulation (Item 5), max thickness 4 in.

5. Rigid Insulation — (Optional) — Foamed plastic, max thickness 4 in. when plywood or OSB (Item 4, 4A) is used and 6 in. when bearing plates (Item 4) are used. Density to be a min of 2 PCF or see products Classified under TJBX.

5A. Gypsum Board — (Optional) — (Not Shown) Any 5/8 in. thick gypsum wallboard supplied in sheets 2 x 4 to 4 x 12 ft. Applied perpendicular to steel deck direction with adhesive. End joints to occur over crests of steel roof deck and be staggered 2 ft. in adjacent rows. The total cumulative thickness of the rigid board (Item 5) and gypsum board may not exceed total thicknesses shown under Item 5.

5B. Waterproof Membrane — (Optional) — (Not Shown) — Used to protect plywood or OSB (Item 4A). Installed under panels (Item 1).

5C. Vapor Barrier — (Optional) — (Not Shown) — Installed on top of metal deck (Item 6) or on top of gypsum wallboard (Item 5A) if used. Min 6 mil plastic sheet.

6. Metal Deck — 22 MSG min coated steel. Min depth 1-1/2 in. with ribs at 6 in. OC. End lap to be 4 in. min and occur over purlin. Metal deck to be welded to purlin in every other low flute, except for end laps which are welded in every low flute.

7. Purlin — No. 14 MSG min steel (55,000 psi min yield strength).

*Bearing the UL Classification Mark

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