

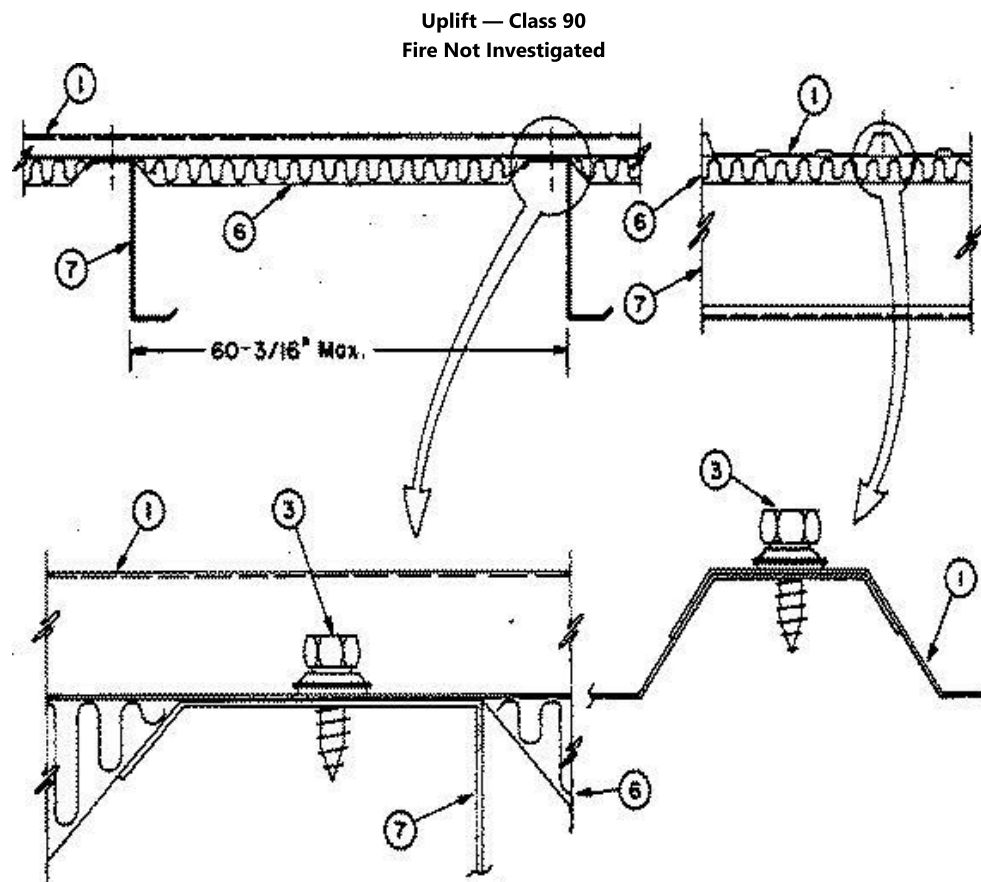
Design/System/Construction/Assembly Usage Disclaimer

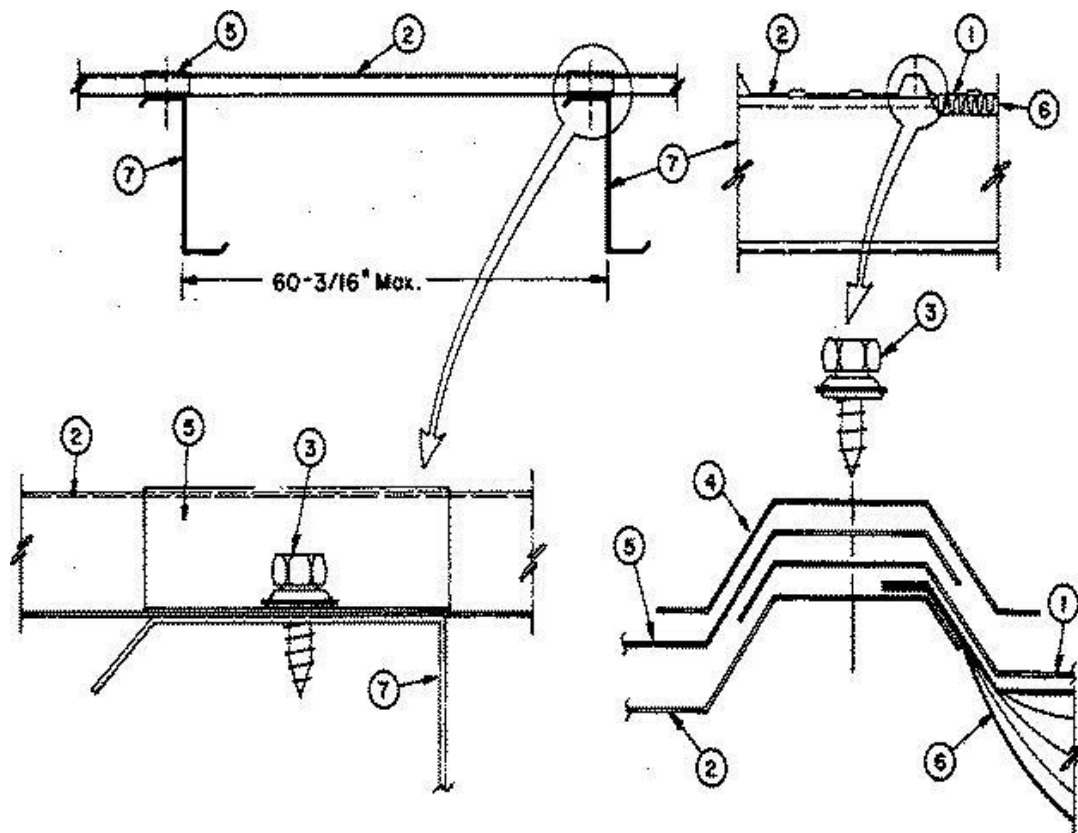
- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies 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.

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

Construction No. 167

April 24, 2023





1. **Metal Roof Deck Panels*** — No. 26 MSG minimum gauge coated steel. Panels continuous over two or more spans. End laps to occur over purlins with panels overlapped 3 in. minimum, 6 in. maximum with laps beginning even with purlin web and extending across purlin flange. A bead of sealant may be used at panel side and end laps.

ACI BUILDING SYSTEMS INC ([View Classification](#)) — "R" or "PBR Panel"

ALL STEEL BUILDINGS & COMPONENTS TUBULAR DIVISION INC ([View Classification](#)) — "R or PBR panel"

ALLIANCE STEEL INC ([View Classification](#)) — "Alliance PBR"

ALLSOUTH PRE-ENGINEERED COMPONENTS L L C ([View Classification](#)) — "R" or "PBR" Panel

AMERICAN BUILDING COMPONENTS ([View Classification](#)) — "R or PBR Panel"

AMERICAN BUILDINGS CO ([View Classification](#)) — Long Span III or R-Panel

B C STEEL BUILDINGS INC ([View Classification](#)) — "R/PBR"

BIGBEE STEEL BUILDINGS INC ([View Classification](#)) — "Bigbee-RibII"

BORGA STEEL INC ([View Classification](#)) — "BSP"

BRIDGER STEEL ([View Classification](#)) — "PBR Panel"

BUILDING COMPONENTS INC ([View Classification](#)) — "R-PANEL" or "PBR-PANEL"

BURROW CONSTRUCTION INC ([View Classification](#)) — "R Panel"

BBM STEEL BUILDINGS INC ([View Classification](#)) — "R-Panel"

CENTRAL STATES MFG INC ([View Classification](#)) — "R-Loc"

CENTRAL TEXAS METAL ROLLFORMING INC ([View Classification](#)) — "R-Panel"

CO BUILDING SYSTEMS ([View Classification](#)) — "R" or "PBR"

COMPONENTS USA ([View Classification](#)) — "PBR Panel"

CORLE BUILDING SYSTEMS INC ([View Classification](#)) — "R Panel"

CREGO METAL SYSTEMS ([View Classification](#)) — "CMR"

DAKOTA STEEL & TRIM INC ([View Classification](#)) — "R Panel"

EAST TEXAS ARCHITECTURAL SHEETMETAL L L C, DBA ETAS INC ([View Classification](#)) — "R Panel"

ENCORE STEEL BUILDING COMPANY ([View Classification](#)) — "PBR"

ECONOMY METALS INC ([View Classification](#)) — "R Panel"

FLATIRON STEEL ([View Classification](#)) — "PBR"

FLEXOSPAN STEEL BUILDINGS INC ([View Classification](#)) — "R" Panel

H&H METAL PRODUCTS INC ([View Classification](#)) — "PBR Panel"

HPM BUILDING SUPPLY ([View Classification](#)) — "Custom 4-Rib"

GIDEON STEEL PANEL CO L L C ([View Classification](#)) — "Gideon R-Panel" or "Gideon PBR"

HORIZON STRUCTURAL SYSTEMS ([View Classification](#)) — "R" or "PBR"

IDEAL STEEL L L C ([View Classification](#)) — "PBR Panel"

INDACO METALS L L C ([View Classification](#)) — "Indaco R" or "Indaco PBR"

JAG METALS LLC ([View Classification](#)) — "PBR Panel"

JNL STEEL COMPONENTS INC ([View Classification](#)) — "R-PANEL" or "PBR-PANEL"

JOHN FLANERY DBA METAL COUNTRY ([View Classification](#)) — "R-Panel"

KIRBY BUILDING SYSTEMS INC ([View Classification](#)) — "Kirby-Rib II"

MARLYN METALS INC ([View Classification](#)) — "R" or "PBR"

MBCI ([View Classification](#)) — "R" or "PBR" Panel

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

MESCO METAL BUILDINGS ([View Classification](#)) — "R" or "PBR" Panel

METALLION INDUSTRIES INC ([View Classification](#)) — "PBR"

NCI BUILDING SYSTEMS L P ([View Classification](#)) — "R" or "PBR" Panel

NORTHLAND STEEL AND TRIM ([View Classification](#)) — "R-Panel"

NUCOR CORP. (NUCOR BUILDINGS GROUP) ([View Classification](#)) — "Classic" or "R-panel"

OAKLAND METAL BUILDINGS INC ([View Classification](#)) — "PBR"

PRIME BUILDING COMPONENTS L L C ([View Classification](#)) — "R Panel" or "PBR Panel"

RAMCO BUILDER AND SUPPLY LLC — "R-Panel"

RIGID GLOBAL BUILDINGS L L C ([View Classification](#)) — "R" or "PBR"

ROYAL METAL BUILDING COMPONENTS ([View Classification](#)) — "Royal Span" or "Royal Span X"

MUELLER INC ([View Classification](#)) — "R" or "PBR"

SAN ANTONIO QUALITY METALS ([View Classification](#)) — "PBR-Panel"

SBC BUILDING SYSTEMS L L C ([View Classification](#)) — "SBC PBR Panel"

SCHULTE BUILDING SYSTEMS INC ([View Classification](#)) — "R" or "PBR" Panel

SOUTHWEST METAL COMPONENTS AND SUPPLY LP ([View Classification](#)) — "R-Panel" or "PBR"

STANDARD STRUCTURES INC ([View Classification](#)) — "PBR Panel" or "R Panel"

STEEL BUILDING SUPPLY INC ([View Classification](#)) — "R" or "PBR" Panel

TAYLOR & SONS PIPE & STEEL INC ([View Classification](#)) — "R-Panel"

TAYLOR METAL INC, DBA TAYLOR METAL PRODUCTS ([View Classification](#)) — "PBR"

TERRY BUILDING CO INC ([View Classification](#)) — "R" Panel

TEXAS BUILDING AND ROOFING SUPPLIES INC — "R" or "PBR" Panel

TREMCO CPG INC. — "TremLock "R" Panel"

TSB INDUSTRIAL INC ([View Classification](#)) — "R" Panel.

UNION CORRUGATING CO ([View Classification](#)) — "R-Panel" or "PBR-Panel"

WEST TEXAS STEEL & SUPPLY ([View Classification](#)) — "R" or "PBR"

WHIRLWIND STEEL BUILDINGS INC ([View Classification](#)) — "Superspan"

1A. **Metal Roof Deck Panels*** — (not shown) No. 26 MSG minimum gauge coated steel. Panels continuous over two or more spans. End laps to occur over purlins with panels overlapped minimum 4 in. to maximum 6 in. with laps beginning even with purlin web and extending across purlin flange. A bead of sealant may be used at panel side and end laps.

WHIRLWIND STEEL BUILDINGS INC ([View Classification](#)) — "Superspan"

2. **Building Units*** — Translucent, reinforced plastic panels. Thickness 1/16 in. formed to the same configuration as the metal roof deck panels. Also, 1/32- in thick translucent polycarbonate plastic panels as noted below, formed to the same configuration as the metal roof deck panels. Panels continuous over two spans.

ACI BUILDING SYSTEMS INC ([View Classification](#)) — "R Skylight"

ALLIANCE STEEL INC ([View Classification](#)) — "Type Skylight"

ALL STEEL BUILDINGS & COMPONENTS TUBULAR DIVISION INC ([View Classification](#)) — "R or PBR panel"

AMERICAN BUILDINGS CO ([View Classification](#)) — Long Span III Skylight

B C STEEL BUILDINGS INC ([View Classification](#)) — "B Panel Skylight"

HORIZON STRUCTURAL SYSTEMS ([View Classification](#)) — "PBR Skylight"

KIRBY BUILDING SYSTEMS INC ([View Classification](#)) — "Kirby-Rib II Skylite Panels"

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

NCI BUILDING SYSTEMS L P ([View Classification](#)) — "R" Light Transmitting Panel

NUCOR BUILDING SYSTEMS, DIV OF NUCOR CORP ([View Classification](#)) — "Classic" or "R-panel"

METAL ROOFING SUPPLY & MFG ([View Classification](#)) — "PBR Panel"

MUELLER INC ([View Classification](#)) — "R Skylight"

SCHULTE BUILDING SYSTEMS INC ([View Classification](#)) — "ACRYLIT"

WHIRLWIND STEEL BUILDINGS INC ([View Classification](#)) — "Superspan Skylight"

3. **Panel Fasteners** — For steel panel to purlin and for translucent panel to purlin connections to be No. 12-14 by 1 in. self-drilling, self-tapping, hex head, plated steel screws with a separate or integral 9/16 in. to 5/8 in. O.D. formed steel or combination zinc and steel washer and a neoprene/EPDM sealing washer or 1/4-14 x 1 1/4" Min. Self-Drilling, Self-Tapping Plated Steel Screw with a EPDM Sealing Washer. Panel to panel sidelap fastener; 1/4-14 x 7/8" Min SDST with a EPDM Sealing Washer. Fasteners for panel connections to be same type and length.

Fastener for panel to purlin connection to be 1-1/4 or 1-1/2 in. long when insulation (Item 6) is greater than 4-1/2 in.

Spacing — For steel panel to purlin fasteners, spacing to be 12 in. on center beginning 2-1/2 in. from the center line on one side of each major rib.

Spacing at end lap to be in a 5-7-5-7 in. pattern beginning 2 1/2 in. from the center line on both sides of each major rib.

For translucent panel — to — purlin fasteners, spacing to be in a 5, 3 1/2, 3 1/2, 5 in. pattern beginning 2 1/2 in. from the center line on both sides of each major rib.

For steel panel — to — panel fasteners, spacing to be 20 in. on center. For translucent panel — to — steel panel fasteners, spacing to be 12 in. on center driven into rib reinforcement (Item 4).

4. **Translucent Panel Rib Reinforcement** — For side support — hat — shaped section fabricated from No. 26 MSG steel to the configuration of the steel panel major rib.

5. **Translucent Panel Purlin Reinforcement** — For translucent panel reinforcement over purlins, 3 in. wide by No. 26 MSG thick steel strips fabricated in the shape of the metal panel.

6. **Insulation** — (Optional) — Any compressible blanket insulation 6 in. maximum thickness before compression.

7. **Purlins** — No. 16 MSG minimum gauge steel (50,000 psi minimum yield strength).

8. **Lateral Bracing** — Not shown. As required.

Refer to general information, Roof Deck Constructions, (On-Line Certification 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.

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