

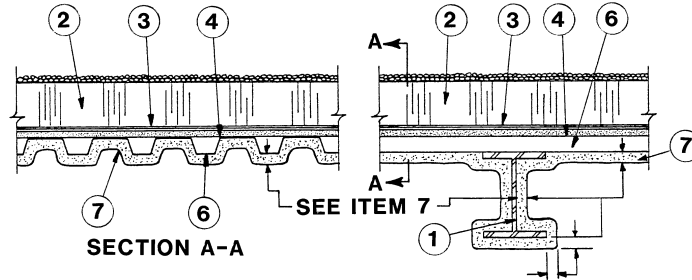
Design No. P714

Restrained Assembly Ratings - 1, 1-1/2 and 2 Hr.

Unrestrained Assembly Ratings - 1, 1-1/2 and 2 Hr.

Unrestrained Beam Ratings - 1, 1-1/2 and 2 Hr.

Load Restricted for Canadian Applications — See Guide BXUV7



1. **Steel Beam** — W6x16, min size.
2. **Foamed Plastic*** — Rigid foamed plastic insulation, extruded polystyrene 2 by 4 ft boards, 1 to 8 in. thick. May be bonded to the membrane or installed without adhesion after final asphalt glaze coat has cooled. When applying more than one layer, successive layers shall be installed over preceding layer without attachment. The boards shall be covered with crushed stone or concrete pavers, at a rate of 10 psf, min.
 OWENS CORNING SPECIALTY & FOAM PRODUCTS
 THE DOW CHEMICAL CO —Type Styrofoam
 T CLEAR CORP —4-3/8 in. thick, concrete mortar faced extruded polystyrene Lightguard Boards.
3. **Roof Covering*** — Consists of hot mopped or cold application bituminous materials compatible with insulation(s) described herein which provide Class A, B or C coverings. See Roofing Materials and Systems Directory-Roof Covering Materials.
 A) In lieu of Item 3, roof covering consisting of single-ply **Roofing Membrane*** that is either ballasted, adhered or mechanically attached as permitted under the respective manufacturer's Classification. See Fire Resistance Directory - Roofing Membranes (CHCI).
4. **Gypsum Board*** — Any 5/8 in. thick UL Classified Gypsum Board that is eligible for use in Design Nos. L501, G512 or U305. Nom. 5/8 in. thick, supplied in 4 ft wide sheets. Min weight 2.0 psf. Installed perpendicular to steel roof deck with end joints staggered and offset from steel roof deck side lap joints. Secured to crests of steel roof deck with steel fasteners (Item 5) in a 24 in. grid.
 ACADIA DRYWALL SUPPLIES LTD —CKNX.R25370
 AMERICAN GYPSUM CO —CKNX.R14196
 BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO —CKNX.R19374
 CERTAINTEED GYPSUM CANADA INC —CKNX.R15187
 CERTAINTEED GYPSUM INC —CKNX.R3660
 CGC INC —CKNX.R19751
 CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C —CKNX.R18482
 GEORGIA-PACIFIC GYPSUM L L C —CKNX.R2717
 LOADMASTER SYSTEMS INC —CKNX.R11809
 NATIONAL GYPSUM CO —CKNX.R3501
 PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM —CKNX.R7094
 PANEL REY S A —CKNX.R21796
 SIAM GYPSUM INDUSTRY (SARABURI) CO LTD —CKNX.R19262
 THAI GYPSUM PRODUCTS PCL —CKNX.R27517
 UNITED STATES GYPSUM CO —CKNX.R1319
 USG MEXICO S A DE C V —CKNX.R16089
5. **Fasteners** — (Not Shown) — For attaching gypsum wallboard to steel deck.
Steel Nails — 2-1/8 in. long and 0.162 in. diam with a 19/64 in. diam flat head to be fabricated from case hardened steel with the shaft containing two types of serrations. The upper serration, approx 1/8 in. long, begins 1/4 in. from the nail head and the second serration begins 5/8 in. from the head with a spiral pattern 11/16 in. wide. A steel disc 0.020 in. thick and 2-1/8 in. min diam with a 7/32 in. prepunched center hole is to be used with each nail. Nails are to be installed with an automatic nailer.
Steel Insulation Clips — Fabricated from a single piece of steel 0.033 in. thick and 5/8 in. max width. Length of stem to be 2-3/8 in. with stem curved and end pointed and having five barbs 5/16 in. long. A steel disc 0.011 in. thick and 2-11/16 in. min diam is to be used with each clip. Spacing of fasteners to be 24 in. O.C. across the width of the panel beginning 12 in. from the side edges and 24 in. along the length of the panel beginning 12 in. from the end.
6. **Steel Roof Deck** — Unclassified — Min 24 in. wide, 1-1/2 to 3 in. deep, galv fluted steel deck. Min gauge is 22 MSG. Flutes approx 6 in. O.C., crests approx 3-1/2 in. wide, valleys approx 1-3/4 in. wide. Welded to supports 12 in. O.C. Adjacent units welded 36 in. O.C. along side lap joints. Or, Classified Steel Floor and Form Units* — Noncomposite 1-1/2 to 3 in. deep, 24 to 36 in. wide, min 22 MSG galv steel fluted units. Welded to supports 12 in. O.C. Adjacent units button-punched or welded together 36 in. OC along side joints.
 CANAM STEEL CORP — Type P-3606, P-3615, P-2436, and P-2404 noncomposite.
 CONSOLIDATED SYSTEMS INC —Types B, BI, F, N, NI. Units may be ptd/ptd.
 MARLYN STEEL DECKS INC —Types B, F, N, NV.
 NEW MILLENNIUM BUILDING SYSTEMS L L C —24 to 36 in. wide Types B, BI, F; 24 in. wide Type N. Units may be phos/painted or galvanized.
 VULCRAFT, DIV OF NUCOR CORP —Types BW, B High Strength, BW High Strength, N. Units may be panited/painted.
7. **Spray-Applied Fire Resistive Materials*** — Applied by mixing with water and spraying in more than one coat to a final thickness as shown above and on the table below, to steel surfaces which must be clean and free of dirt, loose scale and oil. Min avg and min ind density of 15/14 pcf respectively. Min avg and min ind density of 19/18 pcf respectively for Types 7GP and 7HD. For method of density determination, refer to Design Information Section.

Restrained & Unrestrained Assembly Rating Hr	Unrestrained Beam	Spray Applied Resistive Mtl	
	Rating Hr	Thkns on Deck In.	Thkns on Beam In.
1	1	3/4	7/8
1	2	3/4	1-1/4
1-1/2	1-1/2	1-1/8	1
1-1/2	2	1-1/8	1-1/4
2	2	1-9/16	1-1/4

ARABIAN VERMICULITE INDUSTRIES —Types MK-5, MK-6/CBF, MK-6/ED, MK-6/HY, MK-6/HB, MK-6s, MK-10 HB, Sonophone 1.

GRACE KOREA INC —Types MK-6/CBF, MK-6/ED, MK-6/HY, MK-6/HB, MK-6s, MK-10 HB, Monokote Acoustic 1.

PYROK INC —Type LD.

SOUTHWEST FIREPROOFING PRODUCTS CO —Types 4, 5, 5EF, 5GP, 5MD, 7GP, 7HD, 8EF, 8GP, 8MD, 9EF, 9GP, 9MD.

W R GRACE & CO - CONN —Types MK-5, MK-6/HY, MK-6/HB, MK-6s, MK-10 HB, Monokote Acoustic 1, RG.

8. **Metal Lath** — (Not Shown) — Where Type 7HD is applied to steel deck, 3/8 in. metal ribbed lath weighing 3.4 lb/yd² shall be secured to the underside of the steel deck (ribs upward) with S-12 by 3/8 in. long pan head, self-tapping steel screws spaced 12 in. OC in all directions. Steel screws shall be fitted with 1/2 in. diameter steel washers. Adjacent pieces of lath shall be overlapped 1 in. min.

*Bearing the UL Classification Mark