UL Product iQ™

BXUV.G526 - Fire-resistance Ratings - ANSI/UL 263

PANEL REY®
Drywall Solutions

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.

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States

BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States
Design Criteria and Allowable Variances

See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada
Design Criteria and Allowable Variances

Design No. G526

February 04, 2021

Restrained Assembly Rating — 2 Hr.

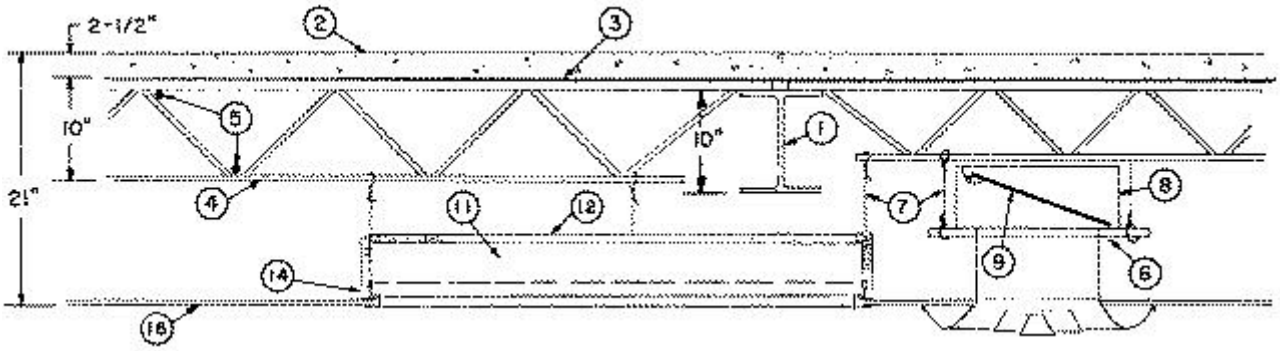
Unrestrained Assembly Ratings — 1-1/2 and 2 Hr.

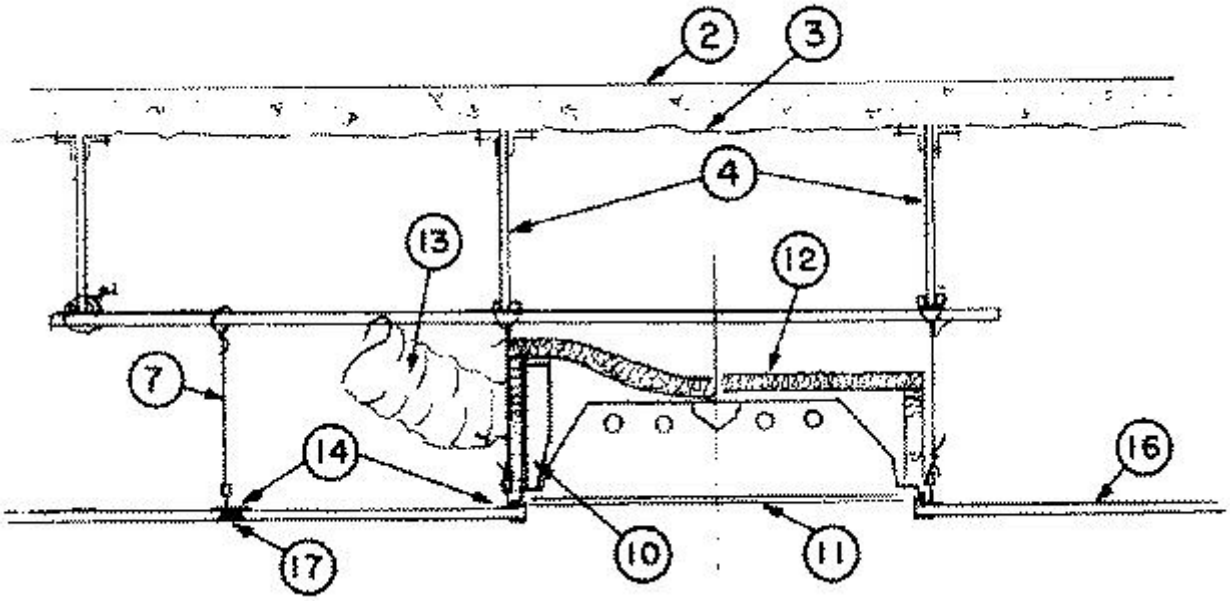
(See Item 14B)

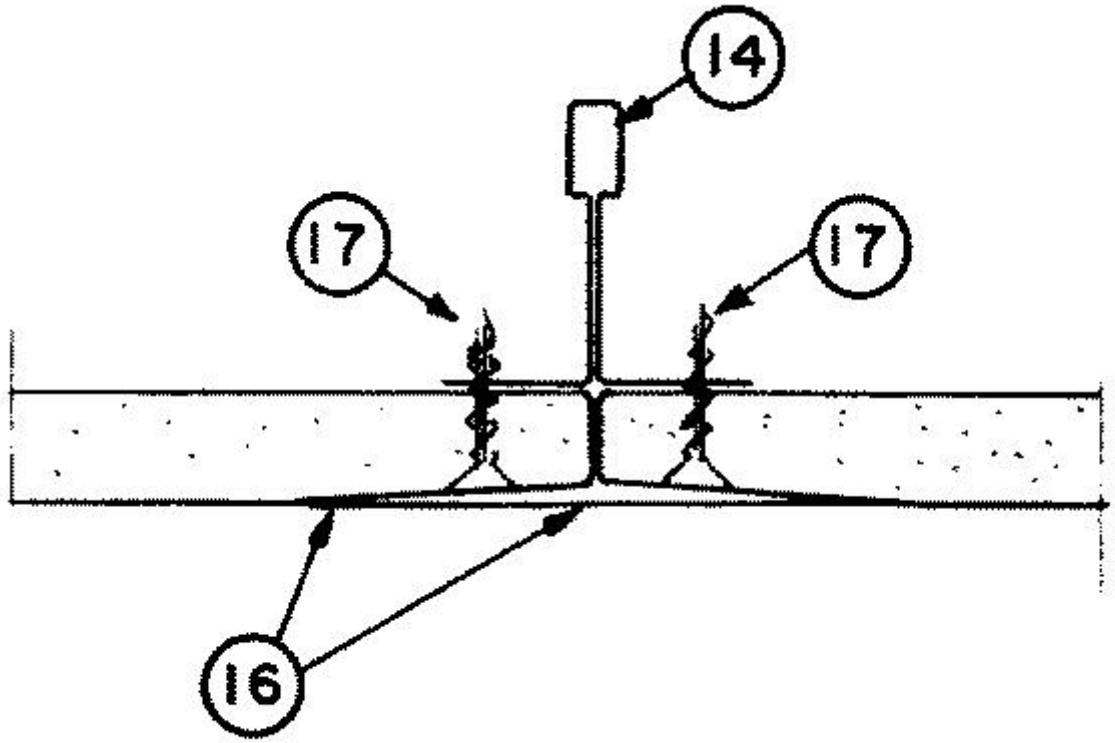
Unrestrained Beam Rating — 2 Hr.

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**







1. **Beam —** W10X21 min size.

2. **Normal Weight Concrete —** Carbonate or siliceous aggregate, 151 pcf unit weight. 3700 psi min compressive strength.

3. **Metal Lath —** 3/8 in. rib, 3.4 lb per sq yd expanded steel. Tied to each joist at every other rib and midway between joists at side lap with No. 18 SWG galv steel wire.

4. **Steel Joists —** Type 8J2 min size, spaced 24 in. O.C. welded to end supports.

5. **Bridging —** 1/2 in. diam steel bars welded to top and bottom chord of each joist.

6. **Cold Rolled Channels —** No. 16 MSG cold-rolled steel, 1-1/2 in. deep with 1/2 in. legs, fastened to bar joists with No. 18 SWG galv steel wire and positioned as necessary for hanger wire attachment.

7. **Hanger Wire —** No. 12 SWG galv steel wire tied to cold-rolled channels or bar joists. Located a max of 48 in. O.C. with a hanger wire located at the corner of each light fixture. A wire is to be located at the center of each cross tee at light fixtures. Also used to hold duct support as needed.

8. **Air Duct —** No. 20 gauge galv steel. Total area of duct opening not to exceed 56.5 sq in. per each 100 sq ft of ceiling area. Area of individual duct opening not to exceed 113 sq in. Max dimension of opening 12 in. Duct supported by cold-rolled channels spaced not more than 60 in. O.C. suspended from joists in trapeze fashion.

9. **Damper —** No. 14 MSG galv steel. Protected on both surfaces with 1/16 in. thick ceramic fiber paper and held open with a 160 F fusible link (Bearing the UL Listing Mark). Damper to overlap duct outlet min 1 in.

10. **Air Boots —** No. 21 MSG galv steel, 40 by 6 by 3-1/2 in. high. Installed on both sides of light fixtures, attached to fixtures with tabs at ends of air boots.

11. **Light Fixtures Recessed —** Recessed light fixture with No. 22 MSG steel housing 24 by 48 in. size. Spaced so that their area does not exceed 24 sq ft per 100 sq ft of ceiling area. Fixtures fitted with flexible steel conduit, conduit fittings, and junction boxes. No. 27 MSG electro-zinc coated steel, 5/8 in. deep with a 9/16 in. leg and a 7/8 in. leg. attached to light fixture support tees with drywall screw (see Item 17) spaced 8 in. OC Wired in conformance with the National Electrical Code. Fixtures and ballasts must be considered for these ambient temperature conditions before installation.

11A. **Alternate Fixtures, Recessed Light —** For Use with Steel Framing Members, Item 14A, 14C, 14D, 14E, or 14F - (Bearing the UL Listing Mark). Recessed light fixture with NEMA Type F steel housing, 1 by 2 ft, 1 by 4 ft, 2 by 2 ft or 2 by 4 ft size. Fixtures provided with swing-out steel support hooks near each corner designed to engage the bulb of the steel framing member cross tees. Size of steel framing member module to be nominally 2 in. wider and longer than the nominal fixture size. Fixtures to be additionally screw-attached to the web of the cross tees near the center of each long side and at both ends using No. 6 by 2-5/8 in. long (sides) and No. 6 by 1-5/8 in. long (ends) steel drywall screws. Fixtures spaced so their area does not exceed 24 sq ft per each 100 sq ft of ceiling area. Wired in conformance with the National Electrical Code.

11B. **Alternate Fixtures, Recessed Light —** For Use with Steel Framing Members, Item 14- (Bearing the UL Listing Mark). Recessed light fixture with NEMA Type F steel housing, 1 by 2 ft, 1 by 4 ft, 2 by 2 ft or 2 by 4 ft size. Fixtures provided with swing-out steel support hooks near each corner designed to engage the bulb of the steel framing member cross tees. Fixtures to be additionally screw-attached to the cross tees near the center of each long side and at both ends using 2 in. long Type S-12 (sides) and 3 in. long Type S-12 (ends) steel screws. Fixtures spaced so their area does not exceed 24 sq ft per each 100 sq ft of ceiling area. Wired in conformance with the National Electrical Code.

12. **Light Fixture Protection — Batts and Blankets* —** Nom 1-1/4 in. thick, cut into pieces to totally enclose the air boots and light fixtures with sufficient depth to provide at least 1-1/2 in. clearance between the fixture and the enclosure. The pieces are held together with No. 18 SWG tie wire at each corner.
THERMAFIBER INC — Type FR.

12A. **Fixture Protection - Luminaires, Luminaire Assemblies and Luminaire Enclosures Classified for Fire Resistance* —** (Not Shown) - As an alternate to Item 12, luminaire enclosure kits consisting of pre-cut pieces of faced batts and assembly hardware may be used to form a five-sided rectangular enclosure over NEMA G recessed light fixtures. Luminaire enclosure kit to be installed in accordance with the accompanying installation instructions. When air supply light fixtures with air boots are used, fixtures and air boots shall be fully enclosed except for the nom 28 sq in. opening needed to accommodate connection to air supply duct.

SPI LLC — SafeLite®

THERMAFIBER INC — FixtureShield

12B. **Fixture Protection — Gypsum Board* —** For Use with Steel Framing Members, Item 14A, 14C, 14D, 14E, or 14F - 1/2 or 5/8 in. thick, same as Item 16 or 16B. Cut to form a five sided enclosure, rectangular in cross-section, at least 1-1/4 in. higher than the NEMA Type F light fixture housing (Item 11A). The fixture protection enclosure is to be installed in the grid module prior to installation of the NEMA Type F light fixture. The fixture protection side pieces are to be provided with nominal 1-1/4 in. wide by 3-1/2 in. long cutouts to accommodate the swing-out steel support hooks near each corner of the fixture. The fixture protection side and end pieces rest on the flanges of the primary cross tees and are screw-attached to the web of the cross tee with No. 6 by 1-5/8 in. long steel drywall screws. The top piece rests on the top edges of the side and end pieces without mechanical attachment. The dimensions of the fixture protection pieces for the various sizes of NEMA Type F fixtures are tabulated below:

NEMA Type F Fixture Size	1 by 2 ft	1 by 4 ft	2 by 2 ft	2 by 4 ft
Top Piece, in.	13-1/2 x 25-1/2	13-1/2 x 49-1/2	25-1/2 x 25-1/2	25-1/2 x 49-1/2
Side Piece, in.	7 x 25-1/2	7 x 49-1/2	7 x 25-1/2	7 x 49-1/2
End Piece, in.	7 x 12-1/4	7 x 12-1/4	7 x 24-1/4	7 x 24-1/4

12C. **Fixture Protection — Gypsum Board* —** For Use with Steel Framing Members, Item 14 - 1/2 or 5/8 in. thick, same as Item 16 or 16A. Cut to form a five sided enclosure, rectangular in cross section, for the NEMA Type F light fixture (Item 11B). The fixture protection enclosure is installed around the grid module prior to installation of the NEMA Type F light fixture. The end pieces of the light fixture protection rest upon the flanges additional nom 4 ft long cross tees placed at each end of light fixture opening. The pieces of gypsum board are secured to both cross tees with three 1 in. long Type S screws, one at the center of the cross tee and the remaining two screws spaced 12 in. O.C. in both directions. The end clips of the two additional cross tees are removed and the cross tee/gypsum board combinations are placed at each end of the module facing the light fixture opening with the ends of the cross tees resting on the flanges of the main runner. Two side pieces of the gypsum board protection are notched at the bottom with three 1/4 in. wide by 1-9/16 in. long notches to accommodate the cross tee bulbs. On each side the pieces are installed vertically, resting on the three cross tees intersecting the 50 in. long cross tees and placed 1-1/4 in from the edge of the 50 in. cross tees. The four side pieces of the light fixture protection box are secured together with 6d nails, one at mid-height, and one at each of the four corners. The top piece of gypsum board is loosely-laid on top of the four sided box and secured at each of the four corners with 6d nails. Holes are drilled through the top piece of gypsum board for the attachment of the hanger wires specified in Item 7. Two 4 ft long cross tees are placed on top of the fixture protection box, equally spaced and secured from the underside of the fixture protection box with three 1 in. long Type S screws equally spaced. The dimensions of the fixture protection pieces for the various sizes of NEMA Type F fixtures are listed below:

NEMA Type F Fixture Size	1 by 2 ft	1 by 4 ft	2 by 2 ft	2 by 4 ft
Top piece, in.	19 x 31	19 x 55	31 x 31	31 x 55
Side pieces, in	6 x 30	6 x 54	6 x 30	6 x 54
End pieces, in	6 x 19	6 x 19	6 x 31	6 x 31

13. **Flexible Air Duct* —** Class I, Flexible Air Duct Material. Max inside diam 6 in. attached to air boot by a collar and screw. Any Class I Air Duct Material bearing the UL Listing Mark (Gas And Oil Equipment Directory).

14. **Steel Framing Members* —** Main runners, cross tees, cross channels and wall angle as listed below:

a. **Main Runners —** Nom 10 or 12 ft. long, 15/16 in. or 1-1/2 in. wide face, spaced 4 ft. OC.

b. **Cross Tees —** Nom 4 ft. long, 1-1/2 in. wide face or 15/16 in. wide face installed at sides of light fixtures (Item 11), installed perpendicular to the main runners, spaced 24 in. OC. When Batts and Blankets* (Item 18) are used, cross tees spaced 16 in. OC. Additional cross tees or cross channels used at 8 in. from each side of butted gypsum board end joints. The cross tees or cross channels may be riveted or screw attached to the wall angle or channel to facilitate the ceiling installation. When NEMA Type F (Item 11B) light fixtures are used, nom 4ft long cross tees, 1-1/2 in wide face, installed perpendicular to main runners and spaced nom 50 in. O.C. Two nom 50 in. long cross tees, 1-1/2 inch wide face, spaced nom 14 in. O.C. to accommodate nom 1 by 2 ft or 1 by 4 ft NEMA Type F fixture or spaced 26 in. O.C. to accommodate nom 2 by 2 ft NEMA or 2 by 4 ft NEMA Type F fixture. When nom 2 by 2 ft NEMA Type F fixture is used, nom 26 in. long cross tees to be used to form nom 26 in. module at the center of the nom 50 in. long cross tees. Two additional nom 4 ft cross tees, 1-1/2 in. wide face are installed perpendicular to the main runners outside each end of fixture opening to support the end pieces of drywall fixture protection. Small cutoff pieces of cross tees were installed at the center of the nom 50 in. long cross tees and main runners by inserting the dip end into a cross tee slot on the main runner and securing the other end with a pop rivet to the nom 50 in. long cross tee.

c. **Cross Channels —** Nom 4 ft. long, installed perpendicular to main runners, spaced 24 in. OC. When Batts and Blankets* (Item 18) are used, cross channels spaced 16 in. OC.

d. **Wall Angle or Channel —** Painted or galv steel angle with 1 in. legs or 1-9/16 in. deep painted or galv steel channel with 1 in. legs attached to walls at perimeter of ceiling with fasteners 16 in. OC. to support steel framing member ends and for screw-attachment of the gypsum board.
CGC INC — Type DGL or RX, ULIX.

USG INTERIORS LLC — Type DGL or RX.

14A. **Alternate Steel Framing Members* —** (Not shown) — As an alternate to Item 14. Main runners nom 12 ft long, spaced 48 in. OC. Primary cross tees (1-1/2 in. wide across flange) or cross channels, nom 4 ft long, installed perpendicular to main runners and spaced 24 in. OC. Additional primary cross tees or cross channels required at each gypsum board end joint, 8 in. from and on each side of gypsum board end joint, and 8 in. from each side of NEMA Type G (Item 11) light fixtures. Secondary cross tees (15/16 in. wide across flange), nom 4 ft long, installed at sides of NEMA Type G light fixtures. When NEMA Type F (Item 11A) light fixtures are used, nom 4 ft long primary cross tees installed perpendicular to main runners and spaced nom 50 in. OC. Two nom 50 in. long primary cross tees installed perpendicular to nom 4 ft long primary cross tees and spaced nom 14 in. OC to accommodate nom 1 by 2 ft or 1 by 4 ft NEMA Type F fixture or spaced 26 in. OC to accommodate nom 2 by 2 ft or 2 by 4 ft NEMA Type F fixture. When nom 1 by 2 ft or 2 by 2 ft NEMA Type F fixtures are used, nom 14 in. or 26 in. long primary cross tees to be used to form nom 26 in. long modules at the center of the nom 50 in. long primary cross tees. Additional lengths of primary cross tee to be installed at each end of each nominal 50 in. long primary cross tee to create a nominal 14 or 26 in. by 22 or 24 in. module at each end of light fixture module. Ends of these additional lengths of primary cross tee are to engage cross tee routs at end of fixture and are to be riveted to nom 4 ft long cross tee at opposite end. Additional short lengths of primary cross tee to be installed perpendicular to main runners near center of nom 50 in. long cross tee on each side of light fixture. Ends of these additional short lengths of cross tee are to engage rout of main runner at one end and are to be riveted to nom 50 in. long primary cross tee at opposite end. The main runners, cross tees or cross channels may be riveted or screw-attached to the wall angle or channel to facilitate the ceiling installation.
ARMSTRONG WORLD INDUSTRIES INC — Type DFR-8000.

14B. **Alternate Steel Framing Members* —** As an alternate to Items 14 and 14A. Main runners nom 12 ft long, spaced 48 in. OC. Cross tees, nom 4 ft long installed perpendicular to main runners and spaced 24 in. OC. Additional cross tees located 8 in. from and on each side of gypsum board end joints and 8 in. from each side of light fixtures.

ROXUL USA INC. D/B/A ROCKFON — Types 650, 670, 650C, 670C

14C. **Alternate Steel Framing Members* —** (Not Shown) — As an alternate to Items 14, 14A and 14B. For use in corridors or rooms having a maximum width dimension of 14 ft. Steel framing members consist of grid runners, locking angle wall molding and hanger bars. Locking angle wall molding secured to walls with steel nails or screws spaced max 24 in. OC. Slots of locking angle wall molding parallel with hanger bars to be aligned with tabbed cutouts in bottom edge of hanger bars. Hanger bars spaced max 50 in. OC and suspended with No. 12 AWG steel hanger wires spaced max 48 in. OC. Adjoining lengths of hanger bar to overlap 12 in. and to be secured together and suspended by a shared hanger wire. A min clearance of 1/4 in. shall be maintained between the ends of the hanger bars and the walls. Grid runners cut-to-length and installed perpendicular to hanger bars and spaced max 24 in. OC with additional grid runners installed 8 in. OC at gypsum board end joints and adjacent to each side of nom 2 by 2 ft or nom 2 by 4 ft NEMA Type F light fixtures (Item 11A). Grid runners parallel with walls to be spaced max 16 in. from wall. Ends of grid runners to rest on and engage slots of locking angle wall molding with a clearance of 3/8 in. to 1/2 in. maintained between each end of the grid runner and the wall. Bulb of grid runner to be captured by tabbed cutouts in bottom edge of hanger bars. When NEMA Type F light fixtures are used, flange of grid runner on each side of fixture module is to be slit and bent upward 90 deg along the length dimension of the fixture. Nom 24 in. long cross tees with tabbed ends bent 90 deg are to be formed from lengths of grid runner and are to be secured to the grid runner at each end of the fixture module using steel screws or rivets. Additional cross tees, nom 8 in. long with tabbed ends bent 90 deg, are to be formed from lengths of grid runner and are to be secured to the grid runners at the corners and center of each side of the fixture module using steel screws or rivets.
ARMSTRONG WORLD INDUSTRIES INC — Type DFR-8000-SS

14D. **Alternate Steel Framing Members* —** (Not Shown) — As an alternate to Items 14, 14A, 14B and 14C. Main runners nom 12 ft long, spaced 72 in. OC. Cross tees, nom 6 ft long, installed perpendicular to main runners and spaced 24 in. OC. Additional 6 ft long cross tees required at each gypsum board end joint with butted gypsum board end joints centered between cross tees spaced 8 in. OC. When NEMA Type F (Item 11A) light fixtures are used, nom 6 ft long cross tees installed perpendicular to main runners and spaced nom 14 in., 26 in. or 50 in. OC, dependent upon fixture size and orientation. Nominal 14 in., 26 in. and/or 50 in. cross tees used in combination with the 6 ft long cross tees to create modules to accommodate nom 1 by 2 ft, 1 by 4 ft, 2 by 2 ft and 2 by 4 ft NEMA Type F fixtures. Additional lengths of cross tee to be installed between the 6 ft long cross tees at each end of each nominal 14 in., 26 in. or 50 in. long cross tee forming a light fixture module. Ends of these additional lengths of cross tee are to engage cross tee routs at end of fixture and are to be riveted to nom 6 ft long cross tee at opposite end. Additional short lengths of cross tee to be installed perpendicular to main runners near center of nom 50 in. long cross tee on each side of 1 by 4 ft or 2 by 4 ft light fixture which is installed with its long dimension parallel with the main runners. Ends of these additional short lengths of cross tee are to engage rout of main runner at one end and are to be riveted to nom 50 in. long cross tee at opposite end. The main runners and cross tees may be riveted or screw-attached to the wall angle or channel to facilitate the ceiling installation.
ARMSTRONG WORLD INDUSTRIES INC — Type DFR-8000

14E. **Alternate Steel Framing Members* —** — (Not Shown) - As an alternate to Items 14 through 14D - Main runners nom 12 ft long, spaced 72 in. OC. Cross tees, nom 6 ft long, installed perpendicular to main runners and spaced 24 in. OC. Additional 6 ft long cross tees required at each gypsum board end joint with butted gypsum board end joints centered between cross tees spaced 8 in. OC. When NEMA Type F (Item 11A) light fixtures are used, nom 6 ft long cross tees installed perpendicular to main runners and spaced nom 14 in., 26 in. or 50 in. OC, dependent upon fixture size and orientation. Nominal 14 in., 26 in. and/or 50 in. cross tees used in combination with the 6 ft long cross tees to create modules to accommodate nom 1 by 2 ft, 1 by 4 ft, 2 by 2 ft and 2 by 4 ft NEMA Type F fixtures. Additional lengths of cross tee to be installed between the 6 ft long cross tees at each end of each nominal 14 in., 26 in. or 50 in. long cross tee forming a light fixture module. Ends of these additional lengths of cross tee are to engage cross tee routs at end of fixture and are to be riveted to nom 6 ft long cross tee at opposite end. Additional short lengths of cross tee to be installed perpendicular to main runners near center of nom 50 in. long cross tee on each side of 1 by 4 ft or 2 by 4 ft light fixture which is installed with its long dimension parallel with the main runners. Ends of these additional short lengths of cross tee are to engage rout of main runner at one end and are to be riveted to nom 50 in. long cross tee at opposite end. The main runners and cross tees may be riveted or screw-attached to the wall angle or channel to facilitate the ceiling installation.
USG INTERIORS LLC — Type DGL or RX

14F. **Alternate Steel Framing Members* —** (Not Shown) - As an alternate to Items 14 through 14E - Main runners nom 12 ft long, spaced 48 in. OC. Cross tees, nom 4 ft. long, installed perpendicular to main runners and spaced 24 in. OC. Additional 4 ft. long cross tees required at 6 in. from each side of butted gypsum board end joints. When **Batts and Blankets*** (Item 18A) are used, cross tees spaced 16 in. OC with additional cross tees 8 in. away from each side of butted gypsum board end joints. The cross tees shall be riveted with 1/8 in. dia. rivets to the wall angle and to the main tee where the cross tee does not align with slot in the main tee. When NEMA Type F (Item 11A) light fixtures are used, nom 4ft long cross tees, 1-1/2 in wide face, installed perpendicular to main runners and spaced nom 50 in. O.C. Two nom 50 in. long cross tees, 1-1/2 inch wide face, spaced nom 14 in. O.C. to accommodate nom 1 by 2 ft. or 1 by 4 ft. NEMA Type F fixture or spaced 26 in. O.C. to accommodate nom 2 by 2 ft. NEMA or 2 by 4 ft. NEMA Type F fixture. When nom 2 by 2 ft. NEMA Type F fixture is used, nom 26 in. long cross tees to be used to form nom 26 in. module at the center of the nom 50 in. long cross tees. Two additional nom 4 ft. cross tees, 1-1/2 in. wide face are installed perpendicular to the main runners outside each end of fixture opening to support the end pieces of drywall fixture protection. Small cutoff pieces of cross tees are installed at the center of the nom 50 in. long cross tees and main runners by inserting the dip end into a cross tee slot on the main runner and securing the other end with a pop rivet to the nom 50 in. long cross tee. Galvanized steel wall angle with 1-1/2 in. legs attached to walls at perimeter of ceiling with fasteners at 16 in. OC. to support steel framing member ends and for screw-attachment of the gypsum board.
CERTAINTEED CORP — Types DWS12-13-20, DWS4.16-13-20, DWS4-13-20, DWS2-13-20, DWS2.16-13-20 and DWA1.5-1.5

14G. **Alternate Framing Members* —** (Not Shown) — As an alternate to Items 14 through 14F. Main runners nom 12 ft long, spaced 72 in. OC. Main runners suspended by min 12 SWG galv steel hanger wires spaced 48 in. OC. Cross tees, nom 6 ft long, installed perpendicular to main runners and spaced 24 in. OC. Additional 6 ft long cross tees required at each gypsum board end joint with butted gypsum board end joints centered between cross tees spaced 8 in. OC. The main runners and cross tees may be riveted or screw attached to the wall angle or channel to facilitate the ceiling installation.
ROXUL USA INC. D/B/A ROCKFON — Type 670C

15. **Wall Molding —** (Not shown) Min 0.020 in. thick electrogalvanized steel, channel shaped, 1-13/16 in. deep with 1 in. legs. Nom 12 ft long.

16. **Gypsum Board* —** 1/2 and 5/8 in. thick, 4 ft wide by 10 ft long with the long dimension parallel to the main runners. Sheets fastened to cross tees with drywall screws spaced 8 in. OC adjacent to end joints, 12 in. OC along each cross tee in the field and 1-1/2 in. from side joints. End joints to be staggered and to occur over cross tees. An additional cross tee to be located 4 in. from and on each side of the end joints. Joints to be covered with joint tape and joint compound.
When the alternate **Steel Framing Members*** (Item 14B) are used, gypsum board fastened to each cross tee with five drywall screws with one screw located at the midspan of the cross tee, one screw located 12 in. from and on each side of the cross tee mid span, and one screw located 1-1/2 in. from each gypsum board side joint. Except at gypsum board end joints, drywall screws shall be located on alternating sides of cross tee flange. At gypsum board end joints, drywall screws shall be located 1/2 in. from the joint. Gypsum board fastened to main runners with drywall screws 1/2 in. from side joists, midway between intersections with cross tees (24 in. OC). End joints of adjacent gypsum board sheets shall be staggered not less than 4 ft OC. Gypsum board sheets screw attached to leg of wall angle with drywall screws spaced 12 in. OC.

When alternate **Steel Framing Members*** (Item 14C) are used, gypsum board sheets installed with long dimension (side joints) perpendicular to the grid runners with the end joints staggered min 4 ft and centered between grid runners which are spaced 8 in. OC. Prior to installation of the gypsum board sheets, backer strips consisting of nom 7-3/4 in. wide by 48 in. long pieces of gypsum board are to be laid atop the grid runner flanges and centered over each butted end joint location. The backer strips are to be secured to the flanges of the grid runners at opposite corners of the backer strip to prevent the backer strips from being uplifted during screw-attachment of the gypsum board sheets. Gypsum board fastened to grid runners with drywall screws spaced 1 in. and 4 in. from the side joints and max 8 in. OC in the field of the board. The butted end joints are to be secured to the backer strip with No. 10 by 1-1/2 in. long Type G laminating screws located 1 in. from each side of the butted end joint and spaced 1 in. and 4 in. from the side joints and max 8 in. OC in the field of the board. Joints to be covered with paper tape and joint compound.

When alternate **Steel Framing Members*** (Item 14D) are used, gypsum board sheets installed with long dimension (side joints) perpendicular to the 6 ft long cross tees with the end joints staggered min 4 ft and centered between cross tees which are spaced 8 in. OC. Gypsum board side joints may occur beneath or between main runners. Prior to installation of the gypsum board sheets, backer strips consisting of nom 7-3/4 in. wide pieces of gypsum board are to be laid atop the cross tee flanges and centered over each butted

end joint location. The backer strips are to be secured to the flanges of the cross tees at opposite corners of the backer strip to prevent the backer strips from being uplifted during screw-attachment of the gypsum board sheets. Gypsum board fastened to cross tees with drywall screws spaced 1 in. and 4 in. from the side joints and max 8 in. OC in the field of the board. The butted end joints are to be secured to the backer strip with No. 10 by 1-1/2 in. long Type G laminating screws located 1 in. from each side of the butted end joint and spaced 1 in. and 4 in. from the side joints and max 8 in. OC in the field of the board. Joints to be covered with paper tape and joint compound.

When alternate **Steel Framing Members*** (Item 14E and 14G) are used, gypsum board sheets installed with long dimension (side joints) perpendicular to the 6 ft long cross tees with the end joints staggered min 4 ft and centered between cross tees which are spaced 8 in. OC. Gypsum board side joints may occur beneath or between main runners. Prior to installation of the gypsum board sheets, backer strips consisting of nom 7-3/4 in. wide pieces of gypsum board are to be laid atop the cross tee flanges and centered over each butted end joint location. The backer strips are to be secured to the flanges of the cross tees at opposite corners of the backer strip with hold down clips to prevent the backer strips from being uplifted during screw-attachment of the gypsum board sheets. Gypsum board fastened to cross tees with 1 in. drywall screws spaced 1 in. and 4 in. from the side joints and max 8 in. OC in the field of the board. The butted end joints are to be secured to the backer strip with No. 10 by 1-1/2 in. long Type G laminating screws located 1 in. from each side of the butted end joint and spaced 1 in. and 4 in. from the side joints and max 8 in. OC in the field of the board. Joints to be covered with paper tape and joint compound.

AMERICAN GYPSUM CO — Type AG-C

CABOT MANUFACTURING ULC — Type C

CERTAINTEED GYPSUM INC — Type C, Type LGFC-C/A

CGC INC — Types C, IP-X2, ULIX.

GEORGIA-PACIFIC GYPSUM L L C — Types 5, C, DAP, DA, DAPC, TG-C.

NATIONAL GYPSUM CO — Types FSK-C, FSW-C.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type C, PG-3 or PG-C.

PANEL REY S A — Type PRC

THAI GYPSUM PRODUCTS PCL — Type C

UNITED STATES GYPSUM CO — Types C, IP-X2, ULIX

USG BORAL DRYWALL SFZ LLC — Type C

USG MEXICO S A DE C V — Types C, IP-X2

16A. **Gypsum Board* —** For use when **Batts and Blankets*** (Item 18) and **Steel Framing Members*** (Item 14) are used - 5/8 in. thick, 4 ft wide; installed with long dimension perpendicular to cross tees with side joints centered along main runners and end joints centered along cross tees. Fastened to cross tees with 1 in. long steel drywall screws spaced 8 in. OC in the field and 8 in. OC along end joints. Fastened to main runners with 1 in. long drywall screws spaced midway between cross tees. Screws along sides and ends of boards spaced 3/8 to 1/2 in. from board edge. End joints of the sheets shall be staggered with spacing between joints on adjacent boards not less than 4 ft OC.
CGC INC — Types C, IP-X2

UNITED STATES GYPSUM CO — Types C, IP-X2, ULIX

USG BORAL DRYWALL SFZ LLC — Type C

USG MEXICO S A DE C V — Types C, IP-X2

16B. **Gypsum Board* —** For use when alternate **Steel Framing Members*** (Item 14F) are used - 1/2 in. thick, 4 ft. wide; installed with long dimension parallel to main runners and perpendicular to the 4 ft. long cross tees with the end joints centered between cross tees which are spaced 6 in. OC. Sheets are attached to cross tees with screws spaced 8 in. OC on the ends and 12 in. OC in the field with additional screws located 1-1/2 in, from the side edges. Sheets are attached to the main tees with screws spaced 8 in. OC with additional screws located 4 in. OC from the edges. Screws on the sides are located 1/2 in. from the side edge of the gypsum board. When **Batts and Blankets*** (Item 18A) are used - 5/8 in. thick, 4 ft wide; installed with long dimension parallel to main runners and perpendicular to cross tees and attached with screws spaced 8 in. OC on the ends and 8 in. OC in the field with additional screws located 1-1/2 in. from the side edges. Sheets are attached to main tees with screws spaced 8 in. OC with additional screws located 4 in. OC from the side edges. Screws on the sides located 3/4 in. from the side edge of the gypsum board, and screws at the end of the gypsum board located 1/2 in. from the board ends. Joints to be covered with paper tape and joint compound.
CERTAINTEED GYPSUM INC — Type C

17. **Drywall Screws —** No. 12 Type S Hi-Lo, bugle head, self-drilling, self-tapping steel screws 1-1/4 in. long. Spaced 8 in. OC at periphery of wallboard, located 1/2 in. from edge and 12 in. OC in interior of boards. Heads to be slightly indented in face of wallboard and covered with joint compound.

18. **Batts and Blankets* —** (Optional, Not Shown) - When used Ratings are limited to 1 Hr. - For use with **Steel Framing Members*** (specifically Item 14) and **Gypsum Board*** (specifically Item 16A) - Any thickness mineral wool or glass fiber insulation bearing the UL Classification Marking for Surface Burning Characteristics, having a flame spread value of 25 or less and a smoke spread value of 50 or less. Insulation fitted in the concealed space, draped over steel framing members/gypsum board ceiling membrane.

18A. **Batts and Blankets* —** (Optional, Not Shown) - For use with **Steel Framing Members*** (specifically Item 14F) and **Gypsum Board*** (specifically Item 16B) - min. 3-1/2 in. thick, min. density 0.9 lb/ft^3 unfaced fiberglass batt insulation bearing the UL Classification Marking for Surface Burning Characteristics, having a flame spread value of 25 or less and a smoke spread value of 50 or less. Insulation fitted in the concealed space, draped over steel framing members/gypsum board ceiling membrane and light fixture protection.

19. **Discrete Products Installed in Air-handling Spaces* —** Automatic Balancing Valve/Damper (Not Shown - Optional) — For use with item 9. Valve/Damper to be provided with ducted installation with steel duct per damper manufacturer's instructions. Automatic Balancing Valve/Damper shall be installed within duct such that it is not directly above the ceiling radiation damper.
METAL INDUSTRIES INC — Model ABV-4, ABV-5, ABV-6

* 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 2021-02-04