ONLINE CERTIFICATIONS DIRECTORY

Design No. U475
BXUV.U475
Fire Resistance Ratings - ANSI/UL 263

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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.

Fire Resistance Ratings - ANSI/UL 263

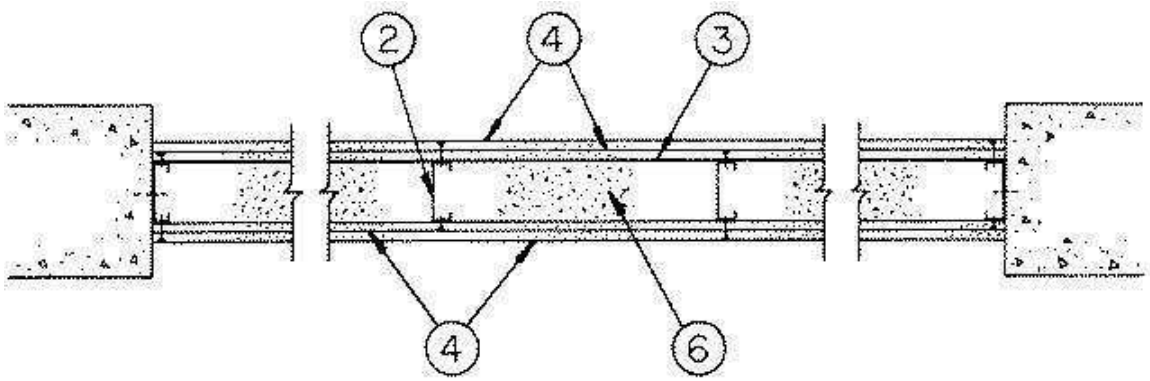
See General Information for Fire Resistance Ratings - ANSI/UL 263

Design No. U475

December 09, 2011

Nonbearing Wall Rating — 1, 2, 3 or 4 HR.

(See Items 4 and 6)



1. **Floor and Ceiling Runners —** Channel shaped 1/2 in. deep by min 2-1/2 in. wide, No. 25 gauge painted or galv steel. Min. No. 18 MSG for the 4 hour rating. Secured with 3/4 in. long concrete fasteners spaced max 18 in. OC.

1A. **Framing Members* - Floor and Ceiling Runner —** Not shown - In lieu of Item 1 — For use with Item 2A, proprietary channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.020 in. thick galv steel, attached to floor and ceiling with fasteners spaced 18 in. OC max.

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™ Track

MARINO/WARE, DIV OF WARE INDUSTRIES

INC — Viper20™ Track

TELLING INDUSTRIES L L C — Viper20™ Track

1B. **Framing Members*— Floor and Ceiling Runners —** Not shown - In lieu of Item 1 — For use with Item 2B, channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 18 in. OC max.

CLARKDIETRICH BUILDING SYSTEMS — CD ProTRAK

DMFCWBS L L C — ProTRAK

MBA BUILDING SUPPLIES — ProTRAK

SOUTHEASTERN STUD & COMPONENTS INC — ProTRAK

TELLING INDUSTRIES L L C — TRUE-TRACK™

2. **Steel Studs —** Channel shaped, min 2-1/2 in. wide with 1-1/4 in. legs, 1/4 in. folded back return flange in legs, spaced not more than 16 in. OC. Stud length 3/8 in. less than assembly height. Minimum gauge based on hourly rating. See below.

For 1, 2 and 3 h Rating — No. 25 MSG galv steel, min.

For 4 h Rating — No. 18 MSG galv steel, min.

2A. **Framing Members* - Steel Studs —** Not shown - In lieu of Item 2 — For use with Item 1A, proprietary channel shaped steel studs, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.020 in. thick galv steel. Studs cut 3/8 in. less in length than assembly height. Spaced max 16 in. OC. **For 4 h Rating** — No. 18 MSG galv steel, min.

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2B. **Framing Members*— Steel Studs —** Not shown - In lieu of Item 2 — For use with Item 1B, channel shaped steel studs, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. less in length than assembly height. Spaced max 16 in. OC. **For 4 h Rating** — No. 18 MSG galv steel, min.

CLARKDIETRICH BUILDING SYSTEMS — CD ProSTUD

DMFCWBS L L C — ProSTUD

MBA BUILDING SUPPLIES — ProSTUD

SOUTHEASTERN STUD & COMPONENTS INC — ProSTUD

TELLING INDUSTRIES L L C — TRUE-STUD™

3. **Metal Lath —** Diamond mesh, expanded steel 3.4 lb per sq yd, 27 by 96 in. sheets tied to iron bands and at laps 6 in. OC with No. 18 SWG wire.

4. **Gypsum Board* —** Nom 5/8 in. thick gypsum board with beveled, square or tapered edges.

For 1, 2 and 3 h Ratings — Two layers of gypsum board on each side. The inner layer to be applied vertically with joints centered over studs. Fastened to studs with 1 in. long, Type S, self-tapping, self-drilling, gypsum board screws spaced 8 in. OC at the joints located 3/8 in. from the edges and 12 in. OC in the field. The outer layer also applied vertically to be fastened to the studs (through the inner layer) using 1-5/8 in. long, Type S, self-drilling, self-tapping, gypsum board screws spaced 8 in. OC at the joints located 3/8 in. from the edges and 12 in. OC in the field. Fasteners to be spaced 8 in. OC at the runners. Joints to be staggered from the inner layer.

For 4 h Rating — (Not shown) — To be applied to Min 18 MSG (0.0428 bare metal thickness) steel framing only. Three layers of gypsum board on each side. Two inner layers to be applied in the same manner as the 3 h rating. The outer layer may be applied vertically or horizontally, unless specified below, and fastened to each stud through the two previous layers with 2-1/4 in. long, Type S, self-drilling, self-tapping steel screws spaced 3/8 in. from the edges, 8 in. OC in the field. Joints in each gypsum board layer to be staggered from the joints in the adjacent layer and on opposite sides of studs.

Any UL Classified Gypsum Board that is eligible for use in Design Nos. L501, G512 or U305. See **Gypsum Board** (CKNX) Category for names of Classified companies.

4A. **Gypsum Board* —** (As an alternate to Item 4) - 5/8 in. thick, 4 ft. wide, paper surfaced applied vertically only and secured as described in Item 4.

TEMPLE-INLAND — Type X ComfortGuard Sound Deadening Gypsum Board.

4B. **Gypsum Board* —** (As an alternate to Items 4 through 4A) - 5/8 in. thick, 4 ft. wide, paper surfaced, applied vertically only and fastened to the studs and plates as described in Item 4.

NATIONAL GYPSUM CO — SoundBreak XP Type X Gypsum Board

4C. **Wall and Partition Facings and Accessories* —** (As an alternate to Items 4 through 4B) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 4.

SERIOUS ENERGY INC — Types QuietRock ES, QuietRock 527.

4D. **Gypsum Board* —** (As an alternate to Items 4 through 4C) - 5/8 in. thick, 4 ft. wide, paper surfaced, applied vertically only and fastened to the studs and plates as described in Item 4.

CERTAINTEED GYPSUM INC — Type SilentFX

5. **Portland Cement Plaster —** (Not shown) — May be used in lieu of the layers of gypsum board (Item 4) on metal lath side, 3/4 in. thick applied in scratch coat consisting of 100 lb cement to 50 lb lime to 5-1/2 per cu ft of sand, coat consisting of 100 lb cement to 50 lb lime to 6 per cu ft of sand. To be applied to Min 18 MSG (0.0428 bare metal thickness) steel framing only.

6. **Cementitious Mixture* —** See table below for appropriate thickness. Prepared by mixing with water according to instructions on each bag of mixture and spray or trowel-applied in one or more coats to lath and stud surfaces. Min avg and individual density 15/14 pcf. For method of density determination, see Design Information Section, preceding these Designs.

Assembly Rating	Stud Size In.	Min Thkns of Matl Applied to Metal Lath
1	2-1/2	2
2	3-1/4	2-3/4
3	3-5/8	3-1/4
4	4	4

ARABIAN VERMICULITE INDUSTRIES — Type MK-5.

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

W R GRACE & CO - CONN — Types MK-4, MK-5, MK-6/HY, MK-6s, Monokote Acoustic 1 , RG.

6A. **Alternate Spray-Applied Fire Resistive Materials* —** See table below for appropriate thickness. Prepared by mixing with water according to instructions on each bag of mixture and spray or trowel-applied in one or more coats to lath and stud surfaces. Min avg and individual density 22/19 pcf. For method of density determination, see Design Information

Section, preceding these Designs.

Assembly Rating	Stud Size In.	Min Thka of Matl Applied to Metal Lath
1	2-1/2	2
2	3-1/4	2-3/4
3	3-5/8	3-1/4
4	4	4

GRACE KOREA INC — Types Monokote Acoustic 5 , Z-106, Z-106/G, Z-106/HY.

W R GRACE & CO - CONN — Types Monokote Acoustic 5 , Z-106, Z-106/G, Z-106/HY.

6B. **Vermiculite Concrete —** In lieu of Spray Applied Fire Resistive Material - 4 cu ft **vermiculite aggregate*** to 94 lb portland cement. Spray applied.

Assembly Rating	Stud Size In.	Min Thka of Matl Applied to Metal Lath
1	2-1/2	2
2	3-1/4	2-3/4
3	3-5/8	3-1/4
4	4	4

W R GRACE & CO - CONN

7. **Iron Bands —** (Not shown) — Hot rolled iron bands, 1/8 in. thick by 3/8 in. wide, with ribs 1 in. high by 1 in. wide spaced 16 in. OC. Welded to metal stud shows and runners at each rib.

8. **Metal Lath —** (Not shown) — In lieu of Items 3 and 7, 3/8 in. rib, 3.4 lb per sq yd expanded metal lath. Fastened to studs with ribbed side placed against studs, with No. 18 SWG wire spaced 6 in. OC. Fastened to runners with 1/2 in. long Type S steel screws spaced 12 in. OC. Laps 6 in. min and tied with No. 18 AWG wire spaced 6 in. OC min.

9. **Joint Tape and Compound —** (Used with Item 4; not shown) — Vinyl or casein, dry or premixed joint compound applied in two coats to joints and screw heads. Paper or fiberglass mesh, 2 in. wide, embedded in first layer of compound over all joints.

9A. **Finishing System —** (Not shown) — **Spray-Applied Fire Resistive Materials*** (Item 6) may be spray or trowel applied to the joints and screw heads.

*Bearing the UL Classification Mark

Last Updated on 2011-12-09

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