# Fire And Sound Selector



## Fire and Sound Ratings

### FIRE RATINGS

Fire resistance is the ability of an assembly constructed in a laboratory to contain a fire in a carefully controlled test setting for a specified period of time. ASTM E119, *Standard Test Methods for Fire Tests of Building Construction and Materials*, is the test standard for determining the fire-resistance rating of partitions, floor-ceiling assemblies, roof-ceiling assemblies, beams and columns. Fire tests may be conducted at any one of several recognized facilities.

Fire-resistance ratings represent the results of tests on assemblies made up of specific materials in a specific configuration. When selecting construction designs to meet certain fire-resistance requirements, caution must be used to ensure that each component of the assembly is the one specified in the test. Further, precaution should be taken that assembly procedures are in accordance with those of the tested assembly. **For copies of specific tests, call 1-800-NATIONAL.**

### SOUND RATINGS

Gypsum board assemblies are laboratory tested to establish their sound insulation characteristics. Airborne sound insulation is reported as the Sound Transmission Class (STC). Impact noise, tested on floor-ceiling systems only, is reported as the Impact Insulation Class (IIC). ASTM E90, *Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements*, is the test standard for airborne sound reduction. The test measures the sound transmission loss at 16 one-third octave frequencies to generate a single-number acoustical rating.

When selecting systems based on laboratory performance ratings, it should be understood that field conditions such as flanking paths or air leaks caused by design or workmanship can reduce acoustical performance. For this reason, National Gypsum Company cannot guarantee the performance ratings of specific assemblies in the field.

To achieve maximum sound isolation from an assembly, follow published construction details completely. Use non-hardening acoustical sealant at penetrations and floor, ceiling and wall intersections to prevent flanking paths for sound.

**General Notes Regarding Fire-Rated Assemblies**

**1.** Unless otherwise specified, the face layers of all assemblies, except those with predecorated surfaces or exterior gypsum sheathing, shall have joints taped and fastener heads treated (minimum Level 1 as specified in GA-214, *Recommended Levels of Finish for Gypsum Board, Glass Mat and Fiber-Reinforced Gypsum Panels*). Base layers in multi-layer assemblies shall not be required to have joints or fasteners taped or covered with joint compound.

**2.** When not specified as a component of a fire-tested wall or partition assembly, mineral fiber, glass fiber, or cellulose fiber insulation of a thickness not exceeding that of the stud depth shall be permitted to be added within the stud cavity.

**3.** In floor-ceiling or roof-ceiling assemblies, the addition or deletion of mineral wool or glass fiber insulation in the concealed space between the ceiling membrane and the floor or roof structure could possibly reduce the fire-resistance rating. The addition of insulation to any one- or two-hour fire-resistance rated floor-ceiling or roof-ceiling assembly is permitted provided that one additional layer of gypsum board of the same type specified in the design is added to the ceiling.

**4.** Additional layers of gypsum board are permitted to be added to any assembly.

**5.** Stud sizes specified in wood- or steel-stud assemblies are minimums.

**6.** Stud spacings specified in wood- or steel-stud assemblies are maximums.

**7.** Beam, joist and truss dimensions specified in floor-ceiling or roof-ceiling assemblies are minimums.

**8.** Beam, joist and truss spacings specified in floor-ceiling or roof-ceiling assemblies are maximums.

**9.** The distance between parallel rows of studs in wood- or steel-stud assemblies are minimums.

**10.** Ceilings supported directly from structural members are permitted to be suspended provided the in place stiffness is equivalent to the tested assembly.

The following gypsum board system details are intended solely as technical support incident to the sale and use of National Gypsum Company products. They may be used as a reference by architects, engineers, other design professionals, contractors, building code officials, or other competent construction industry trade personnel considering the selection, specification and use of National Gypsum Company products in these systems.

Architects, engineers, designers or contractors involved should review these details with the governing code or inspection official at the time of the job submittal to determine if there are any discrepancies with local code or regulatory requirements. In any event, they must NOT be used without a complete evaluation by the owner's design professional to verify the suitability of the system for a given application.

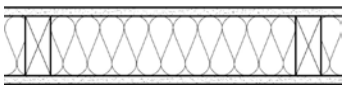
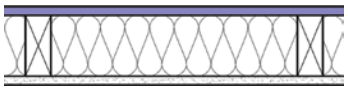
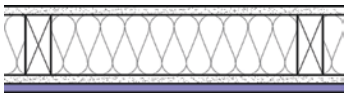
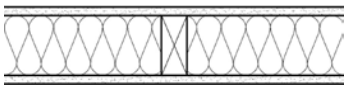
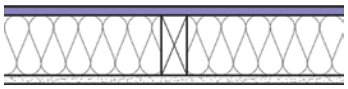
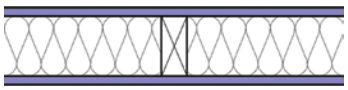
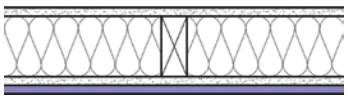
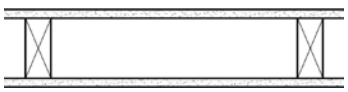
These system details may be printed and/or transferred electronically as needed by the user, subject to terms and limitations of any applicable license agreement. Any unauthorized duplication or reuse of the material contained herein is a violation of law.

For fire-safety information relating to certain systems described in this guide, please refer to the information on National Gypsum Company's website at: **http://nationalgypsum.com/ng/resources/fire-safety.htm**.

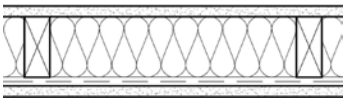
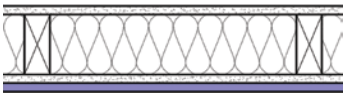
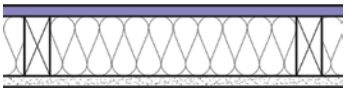
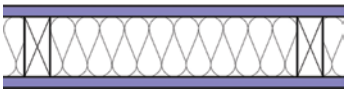
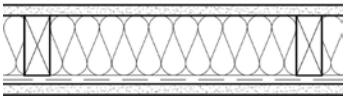
# Fire And Sound Selector



## GYPSUM BOARD PARTITIONS – WOOD FRAMING (LOAD BEARING)

| Item No. | Fire Rating | UL/GA Design | Description | STC | Test No. |
|---|---|---|---|---|---|
| **1**  | Not Rated | N/A | 1/2 in. (12.7 mm) Gold Bond Gypsum Board applied vertically to each side of 2x4 (38.1 mm x 88.9 mm) wood studs 16 in. (406 mm) o.c. with 1-1/4 in. (31.8 mm) Type W screws 12 in. (305 mm) o.c. Joints staggered on opposite sides. 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 36 | NGC 2012051 |
| **2**  | Not Rated | N/A | 1/2 in. (12.7 mm) SoundBreak XP Gypsum Board applied vertically to one side of 2x4 (38.1 mm x 88.9 mm) wood studs 16 in. (406 mm) o.c. with 1-1/4 in. (31.8 mm) Type W screws 12 in. (305 mm) o.c. 1/2 in. (12.7 mm) Gold Bond Gypsum Board applied vertically to opposite side of studs with 1-1/4 in. (31.8 mm) Type W screws 12 in. (305 mm) o.c. Joints staggered on opposite sides. 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 39 | NGC 2009047 |
| **3**  | Not Rated | N/A | 1/2 in. (12.7 mm) Gold Bond Gypsum Board applied vertically to each side of 2x4 (38.1 mm x 88.9 mm) wood studs 16 in. (406 mm) o.c. with 1-1/4 in. (31.8 mm) Type W screws 12 in. (305 mm) o.c. 1/2 in. (12.7 mm) SoundBreak XP Gypsum Board applied vertically to one side of studs with 1-5/8 in. (41.3 mm) Type W screws 12 in. (305 mm) o.c. Joints staggered on opposite sides. 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 43 | NGC 2009040 |
| **4**  | Not Rated | N/A | 1/2 in. (12.7 mm) Gold Bond Gypsum Board applied vertically to each side of 2x4 (38. 1 mm x 88.9 mm) wood studs 24 in. (610 mm) o.c. with 1-1/4 in. (31.8 mm) Type W screws 12 in. (305 mm) o.c. Joints staggered on opposite sides. 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 42 | NGC 2012065 |
| **5**  | Not Rated | N/A | 1/2 in. (12.7 mm) SoundBreak XP Gypsum Board applied vertically to one side of 2x4 (38.1 mm x 88.9 mm) wood studs 24 in. (610 mm) o.c. with 1-1/4 in. (31.8 mm) Type W screws 12 in. (305 mm) o.c. 1/2 in. (12.7 mm) Gold Bond Gypsum Board applied vertically to opposite side of studs with 1-1/4 in. (31.8 mm) Type W screws 12 in. (305 mm) o.c. Joints staggered on opposite sides. 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 49 | NGC 2009027 |
| **6**  | Not Rated | N/A | 1/2 in. (12.7 mm) SoundBreak XP Gypsum Board applied vertically to each side of 2x4 (38.1 mm x 88.9 mm) wood studs 24 in. (610 mm) o.c. with 1-1/4 in. (31.8 mm) Type W screws 12 in. (305 mm) o.c. Joints staggered on opposite sides. 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 51 | NGC 2009029 |
| **7**  | Not Rated | N/A | 1/2 in. (12.7 mm) Gold Bond Gypsum Board applied vertically to each side of 2x4 (38.1 mm x 88.9 mm) wood studs 24 in. (610 mm) o.c. with 1-1/4 in. (31.8 mm) Type W screws 12 in. (305 mm) o.c. 1/2 in. (12.7 mm) SoundBreak XP Gypsum Board applied vertically to one side of studs with 1-5/8 in. (41.3 mm) Type W screws 12 in. (305 mm) o.c. Joints staggered on opposite sides. 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 51 | NGC 2009028 |
| **8**  | 30 Min. | W411 | 5/8 in. (15.9 mm) High Strength Fire-Shield LITE 30 Gypsum Board applied vertically or horizontally to each side of 2x4 (38.1 mm x 88.9 mm) wood studs 16 in. (406 mm) o.c. with 1-5/8 in. (41.3 mm) Type S screws 12 in. (305 mm) o.c. | 33 | NGC 2014046 |
| | | | Sound rating with 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 34 | NGC 2014045 |

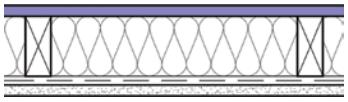
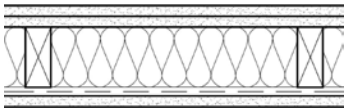
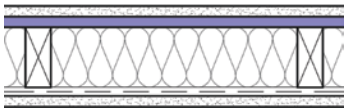
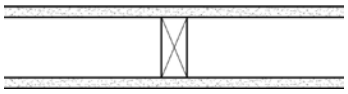
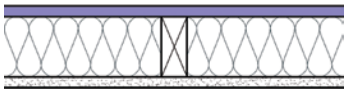
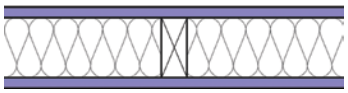
## GYPSUM BOARD PARTITIONS – WOOD FRAMING (LOAD BEARING) – CONTINUED

| Item No. | | Fire Rating | UL/GA Design | Description | STC | Test No. |
|---|---|---|---|---|---|---|
| **9** |  | 30 Min. | W411 | 5/8 in. (15.9 mm) High Strength Fire-Shield LITE 30 Gypsum Board applied vertically or horizontally to one side of 2x4 (38.1 mm x 88.9 mm) wood studs 16 in. (406 mm) o.c. with 1-5/8 in. (41.3 mm) Type S screws 12 in. (305 mm) o.c. Resilient channels 24 in. (610 mm) o.c. applied horizontally to opposite side of studs with 1 in. (25.4 mm) Type S screws. 5/8 in. (15.9 mm) High Strength Fire-Shield LITE 30 Gypsum Board applied vertically or horizontally to channels with 1 in. (25.4 mm) Type S screws 8 in. (203 mm) o.c. 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 45 | NGC 2014044 |
| **10** |  | 45 Min. | U317 | 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically to each side of 2x4 (38.1 mm x 88.9 mm) wood studs 16 in. (406 mm) o.c. with 1-5/8 in. (41.3 mm) long, 5d coated nails 7 in. (178 mm) o.c. Joints staggered on opposite sides. | 34 | NGC 2161 |
| | | | | Sound rating with 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 36 | NGC 2012051 |
| **11** |  | 45 Min. | U317 | 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically to each side of 2x4 (38.1 mm x 88.9 mm) wood studs 16 in. (406 mm) o.c. with 1-5/8 in. (41.3 mm) long, 5d coated nails 7 in. (178 mm) o.c. 1/2 in. (12.7 mm) SoundBreak XP Gypsum Board applied vertically to one side with 1-1/4 in. (31.8 mm) Type S screws 16 in. (406 mm) o.c. Joints staggered on opposite sides. 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 43 | NGC 2009040 |
| **12** |  | 1 Hr. | U305<br>WP 3605 | 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically or horizontally to each side of 2x4 (38.1 mm x 88.9 mm) wood studs 16 in. (406 mm) o.c. with 1-7/8 in. (47.6 mm) long, 6d coated nails 7 in. (178 mm) o.c. Joints staggered on opposite sides. | 35 | NGC 2403 |
| | | | | Sound rating with 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 36 | NGC 2008029 |
| **13** |  | 1 Hr. | U305<br>WP 3605 | 5/8 in. (15.9 mm) SoundBreak XP Gypsum Board applied vertically to one side of 2x4 (38.1 mm x 88.9 mm) wood studs 16 in. (406 mm) o.c. with 1-7/8 in. (47.6 mm) long, 6d coated nails 7 in. (178 mm) o.c. 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to opposite side of studs with 1-7/8 in. (47.6 mm) long, 6d coated nails 7 in. (178 mm) o.c. Joints staggered on opposite sides. 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 42 | NGC 2009020 |
| **14** |  | 1 Hr. | U305<br>WP 3605 | 5/8 in. (15.9 mm) SoundBreak XP Gypsum Board applied vertically to each side of 2x4 (38.1 mm x 88.9 mm) wood studs 16 in. (406 mm) o.c. with 1-7/8 in. (47.6 mm) long, 6d coated nails 7 in. (178 mm) o.c. Joints staggered on opposite sides. 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 45 | NGC 2009019 |
| **15** |  | 1 Hr. | U305 | 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to one side of 2x4 (38.1 mm x 88.9 mm) wood studs 16 in. (406 mm) o.c. with 1-1/4 in. (31.8 mm) Type W screws 8 in. (203 mm) o.c. Resilient channels 24 in. (610 mm) o.c. applied horizontally to opposite side of studs with 1-1/4 in. (31.8 mm) Type W screws. 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to channel with 1 in. (25.4 mm) Type S screws 8 in. (203 mm) o.c. Joints staggered on opposite sides. 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 51 | NGC 2011071 |

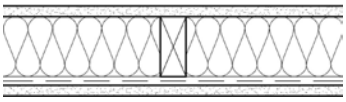
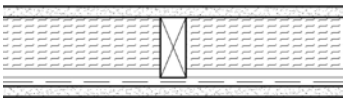
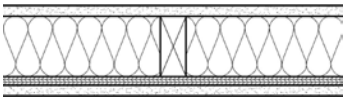
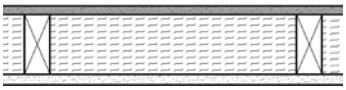
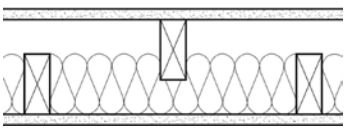
# Fire And Sound Selector



## GYPSUM BOARD PARTITIONS – WOOD FRAMING (LOAD BEARING) – CONTINUED

| Item No. | | Fire Rating | UL/GA Design | Description | STC | Test No. |
|---|---|---|---|---|---|---|
| 16 |  | 1 Hr. | U305 | 5/8 in. (15.9 mm) SoundBreak XP Gypsum Board applied vertically to one side of 2x4 (38.1 mm x 88.9 mm) wood studs 16 in. (406 mm) o.c. with 1-1/4 in. (31.8 mm) Type W screws 8 in. (203 mm) o.c. Resilient channels 24 in. (610 mm) o.c. applied horizontally to opposite side of studs with 1-1/4 in. (31.8 mm) Type W screws. 5/8 in. (15.9 mm) SoundBreak XP Gypsum Board applied vertically to channel with 1 in. (25.4 mm) Type S screws 8 in. (203 mm) o.c. Joints staggered on opposite sides. 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 54 | NGC 2011066 |
| 17 |  | 1 Hr. | U305 | Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to one side of 2x4 (38.1 mm x 88.9 mm) wood studs 16 in. (406 mm) o.c. with 1-1/4 in. (31.8 mm) Type W screws 8 in. (203 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically with 1-7/8 in. (47.6 mm) Type W screws 12 in. (305 mm) o.c. Resilient channels 24 in. (610 mm) o.c. applied horizontally to opposite side of studs with 1-1/4 in. (31.8 mm) Type W screws. 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to channel with 1 in. (25.4 mm) Type S screws 8 in. (203 mm) o.c. Joints staggered on opposite sides. 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 55 | NGC 2011070 |
| 18 |  | 1 Hr. | U305 | 5/8 in. (15.9 mm) SoundBreak XP Gypsum Board applied vertically to one side of 2x4 (38.1 mm x 88.9 mm) wood studs 16 in. (406 mm) o.c. with 1-1/4 in. (31.8 mm) Type W screws 8 in. (203 mm) o.c. 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically with 1-7/8 in. (47.6 mm) Type W screws 12 in. (305 mm) o.c. Resilient channels 24 in. (610 mm) o.c. applied horizontally to opposite side of studs with 1-1/4 in. (31.8 mm) Type W screws. 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to channel with 1 in. (25.4 mm) Type S screws 8 in. (203 mm) o.c. Joints staggered on opposite sides. 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 58 | NGC 2011067 |
| 19 |  | 1 Hr. | WP 3341 | Base layer 1/4 in. (6.4 mm) Gold Bond Gypsum Board applied vertically to each side of 2x4 (38.1 mm x 88.9 mm) wood studs 16 in. (406 mm) o.c. with 1-1/2 in. (38.1 mm) long, 4d coated nails 12 in. (305 mm) o.c. Face layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically to each side with 1/4 in. (6.4 mm) beads of laminating compound 2 in. (50.8 mm) o.c. and with 1-7/8 in. (47.6 mm) long, 6d coated nails 6 in. (152 mm) o.c. at top and bottom plates. Joints staggered each layer and side. | 45 | NGC 2321 |
| 20 |  | 1 Hr. | U309<br>WP 3510 | 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically or horizontally to each side of 2x4 (38.1 mm x 88.9 mm) wood studs 24 in. (610 mm) o.c. with 1-7/8 in. (47.6 mm) long, 6d coated nails 7 in. (178 mm) o.c. Joints staggered on opposite sides. | 38 | NGC 2404 |
| 21 |  | 1 Hr. | U309<br>WP 3510 | 5/8 in. (15.9 mm) SoundBreak XP Gypsum Board applied vertically to one side of 2x4 (38.1 mm x 88.9 mm) wood studs 24 in. (610 mm) o.c. with 1-7/8 in. (47.6 mm) long, 6d coated nails 7 in. (178 mm) o.c. 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to opposite side of studs with 1-7/8 in. (47.6 mm) long, 6d coated nails 7 in. (178 mm) o.c. Joints staggered on opposite sides. 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 50 | NGC 2009015 |
| 22 |  | 1 Hr. | U309<br>WP 3510 | 5/8 in. (15.9 mm) SoundBreak XP Gypsum Board applied vertically to each side of 2x4 (38.1 mm x 88.9 mm) wood studs 24 in. (610 mm) o.c. with 1-7/8 in. (47.6 mm) long, 6d coated nails 7 in. (178 mm) o.c. Joints staggered on opposite sides. 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 53 | NGC 2009016 |

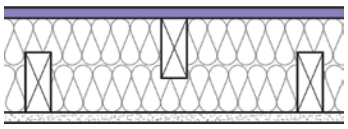
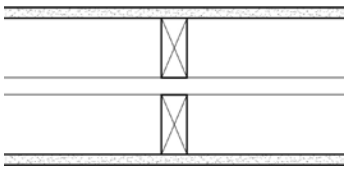
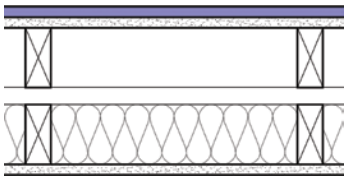
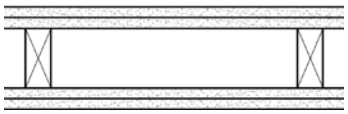
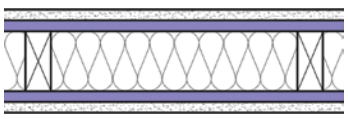
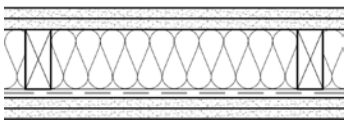
## GYPSUM BOARD PARTITIONS – WOOD FRAMING (LOAD BEARING) – CONTINUED

| Item No. | | Fire Rating | UL/GA Design | Description | STC | Test No. |
|---|---|---|---|---|---|---|
| 23 |  | 1 Hr. | U309 | 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to one side of 2x4 (38.1 mm x 88.9 mm) wood studs 24 in. (610 mm) o.c. with 1-7/8 in. (47.6 mm) long, 6d coated nails 7 in. (178 mm) o.c. Resilient channels 24 in. (610 mm) o.c. applied horizontally to opposite side of studs with 1-1/4 in. (31.8 mm) Type W screws. 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to channel with 1 in. (25.4 mm) Type S screws 8 in. (203 mm) o.c. 3 in. (76.2 mm) glass fiber insulation between studs fastened with staples 24 in. (610 mm) o.c. Joints staggered on opposite sides. | 50 | NRCC TL-93-196 |
| 24 |  | 1 Hr. | U311<br>WP 3241 | 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied horizontally to one side of 2x4 (38.1 mm x 88.9 mm) wood studs 24 in. (610 mm) o.c. with 1-1/4 in. (31.8 mm) Type W screws 12 in. (305 mm) o.c. Resilient channels 24 in. (610 mm) o.c. applied horizontally to opposite side of studs with 1-1/4 in. (31.8 mm) Type W screws. 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied horizontally to channel with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. Vertical joints located between studs and back-blocked with 20 in. (508 mm) long resilient channel. Horizontal joints not required to be staggered. Vertical joints staggered on opposite sides. 3 in. (76.2 mm) mineral wool insulation between studs fastened with staples 24 in. (610 mm) o.c. | | |
| 25 |  | 1 Hr. | U344 | 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically or horizontally to one side of 2x4 (38.1 mm x 88.9 mm) wood studs 24 in. (610 mm) o.c. with 1-7/8 in. (47.6 mm) long, 6d coated nails 7 in. (178 mm) o.c. 15/32 in. (11.9 mm) wood structural panels applied vertically to opposite side with 1-7/8 in. (47.6 mm) long, 6d coated nails 6 in. (152 mm) o.c. at vertical joints and 12 in. (305 mm) o.c. at intermediate studs with vertical joints staggered and horizontal joints backed by wood blocking. 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically or horizontally and fastened to studs through wood structural panels with 2-3/8 in. (60.3 mm) long, 8d coated nails 7 in. (178 mm) o.c. 3-1/2 in. (88.9 mm) foil-faced glass fiber insulation friction fit between studs. | | |
| 26 |  | 1 Hr. | U392 | 1/2 in. (12.7 mm) PermaBase Cement Board applied vertically or horizontally to one side of 2x4 (38.1 mm x 88.9 mm) wood studs 16 in. (406 mm) o.c. with 1-1/4 in. (31.8 mm) cement board screws at 8 in. (203 mm) o.c. 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically or horizontally to opposite side with 1-7/8 in. (47.6 mm) long, 6d coated nails 7 in. (178 mm) o.c. 3 1/2 in. (88.9 mm) mineral fiber insulation friction fit in stud cavity. | | |
| 27 |  | 1 Hr. | U340 | 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied vertically or horizontally to each side of 2x4 (38.1 mm x 88.9 mm) wood studs 24 in. (610 mm) o.c. staggered 12 in. (305 mm) on each side of 2x6 (38.1 mm x 140 mm) wood plate with 1-7/8 in. (47.6 mm) long, 6d coated nails 7 in. (178 mm) o.c. Joints staggered on opposite sides. | | |
| 28 |  | 1 Hr. | U340<br>WP 5513 | 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically or horizontally to each side of 2x4 (38.1 mm x 88.9 mm) wood studs 16 in. (406 mm) o.c. staggered 8 in. (203 mm) on each side of 2x6 (38.1 mm x 140 mm) wood plate with 1-7/8 in. (47.6 mm) long, 6d coated nails 7 in. (178 mm) o.c. Joints staggered on opposite sides. 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 45 | NGC 2375 |

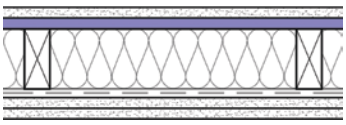
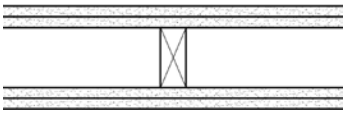
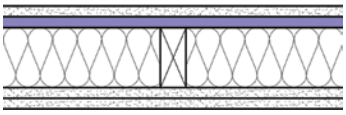
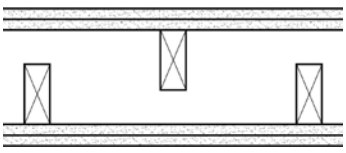
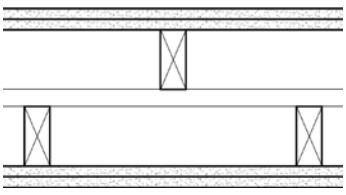
# Fire And Sound Selector



## GYPSUM BOARD PARTITIONS – WOOD FRAMING (LOAD BEARING) – CONTINUED

| Item No. | | Fire Rating | UL/GA Design | Description | STC | Test No. |
|---|---|---|---|---|---|---|
| 29 |  | 1 Hr. | WP 5513 | 5/8 in. (15.9 mm) SoundBreak XP Gypsum Board applied vertically to one side of 2x4 (38.1 mm x 88.9 mm) wood studs 16 in. (406 mm) o.c. staggered 8 in. (203 mm) on each side of 2x6 (38.1 mm x 140 mm) wood plate with 1-7/8 in. (47.6 mm) long, 6d coated nails 7 in. (178 mm) o.c. 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to opposite side of studs with 1-7/8 in. (47.6 mm) long, 6d coated nails 7 in. (178 mm) o.c. Joints staggered on opposite sides. 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 53 | NGC 2011003 |
| 30 |  | 1 Hr. | U341 | 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically or horizontally to each side of double row of 2x4 (38.1 mm x 88.9 mm) wood studs 24 in. (610 mm) o.c. with 1-7/8 in. (47.6 mm) long, 6d coated nails 7 in. (178 mm) o.c. Joints staggered on opposite sides. | | |
| | | | | Sound rating with studs 16 in. (406 mm) o.c. and 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity in one row only. | 51 | NGC 2191 |
| | | | | Sound rating with studs 16 in. (406 mm) o.c. and 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity in each row. | 54 | NGC 2198 |
| 31 |  | 1 Hr. | U341 | 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to each side of double row of 2x4 (38.1 mm x 88.9 mm) wood studs 16 in. (406 mm) o.c. with 1-7/8 in. (47.6 mm) long, 6d coated nails 7 in. (178 mm) o.c. Joints staggered on opposite sides. Face layer of SoundBreak XP Gypsum Board applied vertically to one side with 2 in. (50.8 mm) Type S screws 16 in. (406 mm) o.c. 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity in one row only. | 64 | RAL TL07-147 |
| 32 |  | 2 Hr. | U301 | Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically or horizontally to each side of 2x4 (38.1 mm x 88.9 mm) wood studs 16 in. (406 mm) o.c. with 1-7/8 in. (47.6 mm) long, 6d coated nails 6 in. (152 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically or horizontally with 2-3/8 in. (60.3 mm) long, 8d coated nails 8 in. (203 mm) o.c. Vertical joints located over studs. Joints staggered each layer and side. | 40 | NGC 2363 |
| | | | | Sound rating with 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 41 | NGC 2364 |
| 33 |  | 2 Hr. | U301 | Base layer 5/8 in. (15.9 mm) SoundBreak XP Gypsum Board applied vertically to each side of 2x4 (38.1 mm x 88.9 mm) wood studs 16 in. (406 mm) o.c. with 1-1/4 in. (31.8 mm) Type W screws 8 in. (203 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to each side with 2-3/8 in. (60.3 mm) Type W screws 8 in. (203 mm) o.c. Vertical joints located over studs. Joints staggered each layer and side. 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 45 | NGC 2009017 |
| 34 |  | 2 Hr. | U301 | Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to one side of 2x4 (38.1 mm x 88.9 mm) wood studs 16 in. (406 mm) o.c. with 1-1/4 in. (31.8 mm) Type W screws 8 in. (203 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied with 2 in. (50.8 mm) Type W screws 8 in. (203 mm) o.c. Resilient channels 24 in. (610 mm) o.c. applied horizontally to opposite side with 1-1/4 in. (31.8 mm) Type W screws. Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to channels with 1 in. (25.4 mm) Type S screws 24 in. (610 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied with 1-5/8 in. (41.3 mm) Type S screws 12 in. (305 mm) o.c. Vertical joints located over studs. Joints staggered each layer and side. 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 58 | NGC 2011069 |

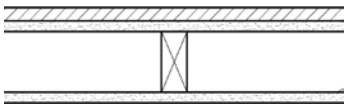
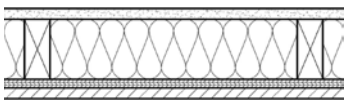
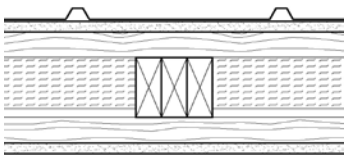
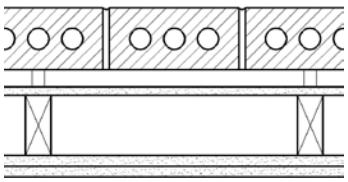
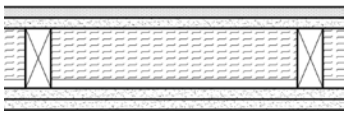
## GYPSUM BOARD PARTITIONS – WOOD FRAMING (LOAD BEARING) – CONTINUED

| Item No. | | Fire Rating | UL/GA Design | Description | STC | Test No. |
|---|---|---|---|---|---|---|
| **35** |  | 2 Hr. | U301 | Base layer 5/8 in. (15.9 mm) SoundBreak XP Gypsum Board applied vertically to one side of 2x4 (38.1 mm x 88.9 mm) wood studs 16 in. (406 mm) o.c. with 1-1/4 in. (31.8 mm) Type W screws 8 in. (203 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied with 2 in. (50.8 mm) Type W screws 8 in. (203 mm) o.c. Resilient channels 24 in. (610 mm) o.c. applied horizontally to opposite side with 1-1/4 in. (31.8 mm) Type W screws. Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to channels with 1 in. (25.4 mm) Type S screws 24 in. (610 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied with 1-5/8 in. (41.3 mm) Type S screws 12 in. (305 mm) o.c. Vertical joints located over studs. Joints staggered each layer and side. 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 61 | NGC 2011068 |
| **36** |  | 2 Hr. | WP 4135 | Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied horizontally to each side of 2x4 (38.1 mm x 88.9 mm) wood studs 24 in. (610 mm) o.c with 1-7/8 in. (47.6 mm) long, 6d coated nails 24 in. (610 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied horizontally with 2-3/8 in. (60.3 mm) long, 8d coated nails 8 in. (203 mm) o.c. Joints staggered each layer and side. | | |
| | | | | Sound rating with 16 in. (406 mm) o.c. framing. | 40 | NGC 2363 |
| **37** |  | 2 Hr. | WP 4135 | Base layer 5/8 in. (15.9 mm) SoundBreak XP Gypsum Board applied horizontally to one side of 2x4 (38.1 mm x 88.9 mm) wood studs 24 in. (610 mm) o.c with 1-7/8 in. (47.6 mm) long, 6d coated nails 24 in. (610 mm) o.c. Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied horizontally to opposite side with 1-7/8 in. (47.6 mm) long, 6d coated nails 24 in. (610 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied horizontally to each side with 2-3/8 in. (60.3 mm) long, 8d coated nails 8 in. (203 mm) o.c. Joints staggered each layer and side. 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 54 | NGC 2009016 |
| **38** |  | 2 Hr. | WP 3910 | Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied horizontally to each side of 2x4 (38.1 mm x 88.9 mm) wood studs 16 in. (406 mm) o.c. staggered 8 in. (203 mm) on each side of 2x6 (38.1 mm x 140 mm) wood plate with 1-7/8 in. (47.6 mm) long, 6d coated nails 24 in. (610 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied horizontally to each side with 2-3/8 in. (60.3 mm) long, 8d coated nails 8 in. (203 mm) o.c. Joints staggered each layer and side. | 51 | NGC 2377 |
| **39** |  | 2 Hr. | WP 3820 | Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied horizontally to each side of double row of 2x4 (38.1 mm x 88.9 mm) wood studs 16 in. (406 mm) o.c. on separate plates 1 in. (25.4 mm) apart with 1-7/8 in. (47.6 mm) long, 6d coated nails 24 in. (610 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied horizontally with 2-3/8 in. (60.3 mm) long, 8d coated nails 8 in. (203 mm) o.c. Joints staggered each layer and side. | | |
| | | | | Sound rating with 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 58 | NGC 3056 |

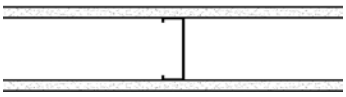
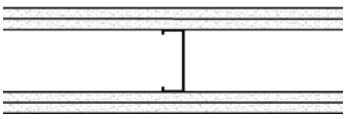
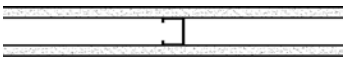
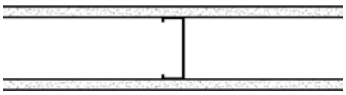
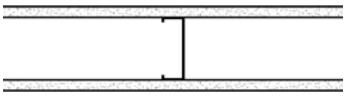
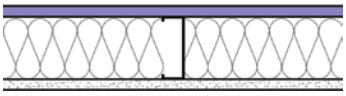
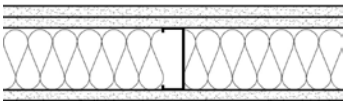
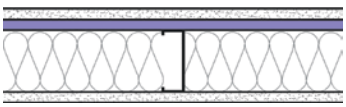
# Fire And Sound Selector



## GYPSUM BOARD PARTITIONS – WOOD FRAMING (LOAD BEARING) – EXTERIOR WALLS

| Item No. | | Fire Rating | UL/GA Design | Description | STC | Test No. |
|---|---|---|---|---|---|---|
| 40 |  | 1 Hr. | U309<br>WP 8105 | 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically or horizontally to interior side of 2x4 (38.1 mm x 88.9 mm) wood studs 24 in. (610 mm) o.c. with 1-7/8 in. (47.6 mm) long, 6d coated nails 7 in. (178 mm) o.c. 5/8 in. (15.9 mm) Gold Bond Gypsum Sheathing applied horizontally to exterior side with 1-3/4 in. (44.5 mm) galvanized roofing nails 4 in. (102 mm) o.c. at vertical joints and 7 in. (178 mm) o.c. at intermediate studs and top and bottom plates. Exterior cladding to be fastened through sheathing to studs. | | |
| 41 |  | 1 Hr. | U356 | 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to one side of 2x4 (38.1 mm x 88.9 mm) wood studs 16 in. (406 mm) o.c. with 1-7/8 in. (47.6 mm) long, 6d coated nails 7 in. (178 mm) o.c. 7/16 in. (11.1 mm) wood structural panels applied vertically or horizontally to opposite side with 1-7/8 in. (47.6 mm) long, 6d coated nails 6 in. (152 mm) o.c. at vertical joints and 12 in. (305 mm) o.c. at intermediate studs. Vertical joints staggered and horizontal joints backed by wood blocking. 3-1/2 in. (88.9 mm) glass fiber or mineral wool insulation friction fit between studs. Vinyl, particle board, wood, aluminum or fiber-cement siding, stucco, EIFS, or brick veneer applied over wood structural panels. Fire rating from interior side only unless brick veneer is used. | | |
| 42 |  | 1 Hr. | WHI<br>651-0319 | 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied horizontally to 2x4 (38.1 mm x 88.9 mm) wood girts 24 in. (610 mm) o.c. with 1-7/8 in. (47.6 mm) long, 6d cement-coated nails on 6x6 (140 mm x 140 mm) wood columns 8 ft. (2.44 m) o.c. Metal cladding applied vertically with 1-1/2 in. (38.1 mm) long hex-head screws to girts. 3 in. (76.2 mm) mineral fiber insulation nailed to interior of exterior girts. | | |
| 43 |  | 2 Hr. | U302<br>WP 8410 | Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically or horizontally to interior side of 2x4 (38.1 mm x 88.9 mm) wood studs 16 in. (406 mm) o.c. with 1-7/8 in. (47.6 mm) long, 6d coated nails 8 in. (203 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically or horizontally with 2-3/8 in. (60.3 mm) long, 8d coated nails 8 in. (203 mm) o.c. Vertical joints located over studs. Joints staggered each layer. 1/2 in. (12.7 mm) Gold Bond Gypsum Sheathing applied horizontally to exterior side of wood studs with 1-3/4 in. (44.5 mm) galvanized roofing nails 6 in. (152 mm) o.c. Vertical joints located over studs and staggered between adjacent rows. Exterior clay brick veneer with 1 in. (25.4 mm) air space between brick and exterior sheathing and 20-gauge corrugated wall ties fastened to each stud with 2-3/8 in. (60.3 mm) long, 8d coated nails every 6th course. | | |
| 44 |  | 2 Hr. | U371 | Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically or horizontally to interior side of 2x4 (38.1 mm x 88.9 mm) wood studs 16 in. (406 mm) o.c. with 1-1/4 in. (31.8 mm) type S screws 12 in. (305 mm) o.c. Face layer applied horizontally with 2 in. (50.8 mm) Type S screws 12 in. (305 mm) o.c. 5/8 in. (15.9 mm) Gold Bond Gypsum Sheathing applied vertically or horizontally to exterior side with 1-3/4 in. (44.5 mm) galvanized roofing nails or 2 in. (50.8 mm) Type S screws, 8 in. (203 mm) o.c. Joints staggered each layer and side. Pre-furred wire stucco netting applied with 1 in. (25.4 mm) long steel staples 7 in. (178 mm) o.c. 3/4 in. (19.1 mm) Portland cement stucco applied over stucco net. 3 in. (76.2 mm) mineral wool insulation in stud cavity. | | |

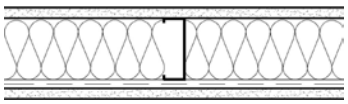
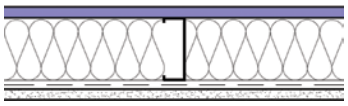
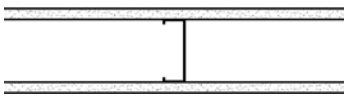
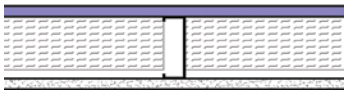
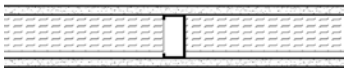
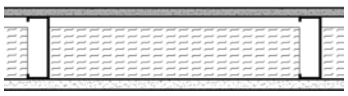
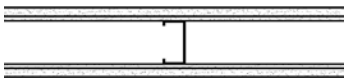
## GYPSUM BOARD PARTITIONS – STEEL FRAMING (NON-LOAD BEARING)

| Item No. | | Fire Rating | UL/GA Design | Description | STC | Test No. |
|---|---|---|---|---|---|---|
| 1 |  | 30 Min. | W411<br>WP 0703 | 5/8 in. (15.9 mm) High Strength Fire-Shield LITE 30 Gypsum Board applied vertically or horizontally to each side of 3-5/8 in. (92.1 mm) steel studs 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S screws 8 in. (203 mm) o.c. | 36 | NGC 2014006 |
| | | | | Sound rating with 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 46 | NGC 2015005 |
| 2 |  | 1 Hr. | W411 | Base layer 5/8 in. (15.9 mm) High Strength Fire-Shield LITE 30 Gypsum Board applied vertically or horizontally to each side of 3-5/8 in. (92.1 mm) steel studs 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S screws 16 in. (406 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield LITE 30 Gypsum Board applied vertically or horizontally with 1-5/8 in. (41.3 mm) Type S screws 16 in. (406 mm) o.c. | | |
| | | | | Sound rating with 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 54 | NGC 2014008 |
| 3 |  | 1 Hr. | WP 1340 | 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to each side of 1-5/8 in. (41.3 mm) steel studs 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S screws 8 in. (203 mm) o.c. at vertical joints and 12 in. (305 mm) o.c. at intermediate studs. | 38 | NGC 2384 |
| | | | | Sound rating with 2-1/2 in. (63.6 mm) steel studs. | 40 | NGC 2438 |
| 4 |  | 1 Hr. | V438<br>U465<br>WP 1081 | 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to each side of 3-5/8 in. (92.1 mm) steel studs 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S screws 8 in. (203 mm) o.c. at vertical joints and 12 in. (305 mm) o.c. at intermediate studs. | | |
| | | | | Sound rating with 2-1/2 in. (63.6 mm) glass fiber insulation in stud cavity. | 47 | NGC 2386 |
| 5 |  | 1 Hr. | V438<br>U465 | 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied horizontally to each side of 3-5/8 in. (92.1 mm) steel studs 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S screws 8 in. (203 mm) o.c. | | |
| 6 |  | 1 Hr. | V438<br>U465 | 5/8 in. (15.9 mm) SoundBreak XP Gypsum Board applied vertically to one side of 3-5/8 in. (92.1 mm) steel studs 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S screws 8 in. (203 mm) o.c. at vertical joints and 12 in. (305 mm) o.c. at intermediate studs. 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to opposite side of studs with 1 in. (25.4 mm) Type S screws 8 in. (203 mm) o.c. at vertical joints and 12 in. (305 mm) o.c. at intermediate studs. 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 55 | OL14-0404 |
| 7 |  | 1 Hr. | V438<br>U465<br>WP 1081 | 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to each side of 3-5/8 in. (92.1 mm) steel studs 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S screws 8 in. (203 mm) o.c. at vertical joints and 12 in. (305 mm) o.c. at intermediate studs. 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to one side with 1-5/8 in. (41.3 mm) Type S screws 8 in. (203 mm) o.c. at vertical joints and 12 in. (305 mm) o.c. at intermediate studs. 2-1/2 in. (63.6 mm) glass fiber insulation in stud cavity. | 49 | NGC 2392 |
| 8 |  | 1 Hr. | V438<br>U465<br>WP 1081 | 5/8 in. (15.9 mm) SoundBreak XP Gypsum Board applied vertically to one side of 3-5/8 in. (92.1 mm) steel studs 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S screws 8 in. (203 mm) o.c. at vertical joints and 12 in. (305 mm) o.c. at intermediate studs. 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to opposite side of studs with 1 in. (25.4 mm) Type S screws 8 in. (203 mm) o.c. at vertical joints and 12 in. (305 mm) o.c. at intermediate studs. 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to studs through the SoundBreak XP with 1-5/8 in. (41.3 mm) Type S screws 12 in. (305 mm) o.c. 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 57 | RAL-TL06-334 |

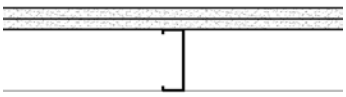
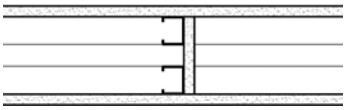
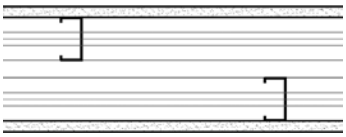
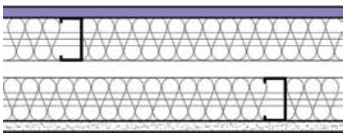
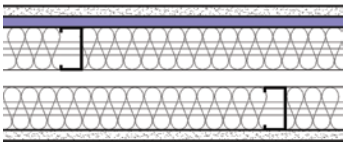
# Fire And Sound Selector



## GYPSUM BOARD PARTITIONS – STEEL FRAMING (NON-LOAD BEARING) – CONTINUED

| Item No. | | Fire Rating | UL/GA Design | Description | STC | Test No. |
|---|---|---|---|---|---|---|
| 9 |  | 1 Hr. | V438<br>U465 | 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to one side of 3-5/8 in. (92.1 mm) steel studs 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S screws 8 in. (203 mm) o.c. at vertical joints and 12 in. (305 mm) o.c. at intermediate studs. Resilient channels 24 in. (610 mm) o.c. applied horizontally to opposite side with 1/2 in. (12.7 mm) Type S-12 screws. 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to channels with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 50 | NGC 2013019 |
| 10 |  | 1 Hr. | V438<br>U465 | 5/8 in. (15.9 mm) SoundBreak XP Gypsum Board applied vertically to one side of 3-5/8 in. (92.1 mm) steel studs 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S screws 8 in. (203 mm) o.c. at vertical joints and 12 in. (305 mm) o.c. at intermediate studs. Resilient channels 24 in. (610 mm) o.c. applied horizontally to opposite side with 1/2 in. (12.7 mm) Type S-12 screws. 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to channels with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 54 | NGC 2013020 |
| 11 |  | 1 Hr. | V450<br>V438<br>U465 | 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to both sides of 3-5/8 in. (92.1 mm) steel studs 24 in. (610 mm) o.c. with 1-1/4 in. (31.8 mm) Type S screws 8 in. (203 mm) o.c. at vertical joints and 12 in. (305 mm) o.c. at intermediate studs. | 39 | RAL TL05-078 |
| 12 |  | 1 Hr. | V483 | 5/8 in. (15.9 mm) SoundBreak XP Gypsum Board applied vertically to one side of 3-5/8 in. (92.1 mm) steel studs 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S screws 8 in. (203 mm) o.c. at vertical joints and 12 in. (305 mm) o.c. at intermediate studs. 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to opposite side of studs with 1 in. (25.4 mm) Type S screws 8 in. (203 mm) o.c. at vertical joints and 12 in. (305 mm) o.c. at intermediate studs. 3 in. (76.2 mm) mineral fiber insulation friction fit in stud cavity. | 54 | RAL TL07-389 |
| 13 |  | 1 Hr. | V401<br>V438<br>WP 1070<br>WP 1071 | 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically or horizontally to each side of 2-1/2 in. (63.6 mm) steel studs 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S screws 8 in. (203 mm) o.c. at vertical joints and 12 in. (305 mm) o.c. at intermediate studs. 2 in. (50.8 mm) mineral fiber insulation, 2.5 pcf (40 kg/m$^3$), friction fit in stud cavity. | 45 | NGC 2179 |
| 14 |  | 1 Hr. | V452<br>WP 1082 | 1/2 in. (12.7 mm) PermaBase Cement Board applied vertically or horizontally to one side of 3-5/8 in. (92.1 mm) steel studs 16 in. (406 mm) o.c. with 1-1/8 in. (28.6 mm) cement board screws at 8 in. (203 mm) o.c. 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to opposite side with 1-1/4 in. (31.8 mm) Type S screws 8 in. (203 mm) o.c. at vertical joints and 12 in. (305 mm) o.c. at intermediate studs. 3 in. (76.2 mm) mineral fiber insulation friction fit in stud cavity. | | |
| 15 |  | 1 Hr. | WP 1051 | Base layer 1/4 in. (6.4 mm) Gypsum Board applied vertically to each side of 2-1/2 in. (63.6 mm) steel studs 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. Face layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically to each side with 1/4 in. (6.4 mm) beads of laminating compound 2 in. (50.8 mm) o.c. to full field of face layer and 1-5/8 in. (41.3 mm) Type S screws 8 in. (203 mm) o.c. at floor and ceiling runners. Joints staggered 24 in. (610 mm) each layer and side. | 45 | NGC 2328 |
| | | | | Sound rating with 2 in. (50.8 mm) glass fiber insulation in stud cavity. | 53 | NGC 2318 |

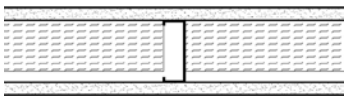
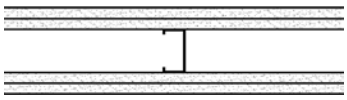
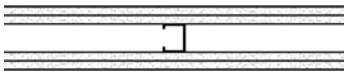
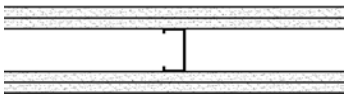
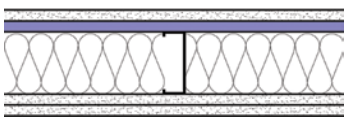
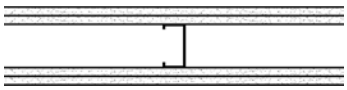
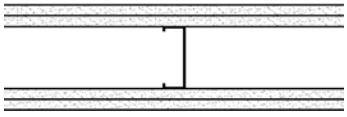
## GYPSUM BOARD PARTITIONS – STEEL FRAMING (NON-LOAD BEARING) – CONTINUED

| Item No. | | Fire Rating | UL/GA Design | Description | STC | Test No. |
|---|---|---|---|---|---|---|
| **16** |  | 1 Hr. | V497 | Base layer 5/8 in. (15.9 mm) Fire Shield Gypsum Board applied vertically to one side of 3-5/8 in. (92.1 mm) steel studs 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S screws 24 in. (610 mm) o.c. ProForm Quick Set Joint Compound applied to base layer with 1/4 in. x 1/4 in. (6.4 mm x 6.4 mm) notched trowel producing continuous beads. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to studs with 1-5/8 in. (41.3 mm) Type S screws 12 in. (305 mm) o.c. starting 6 in. (152 mm) from the bottom of the gypsum board. | | |
| | | | | Sound rating with studs 16 in. (406 mm) o.c. and 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 38 | NGC 2013013 |
| **17** |  | 1 Hr. | U420<br>WP 5015 | 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to double row of 1-5/8 in. (41.3 mm) steel studs 24 in. (610 mm) o.c. and minimum 1 in. (25.4 mm) apart with 1 in. (25.4 mm) Type S screws 8 in. (203 mm) o.c. at vertical joints 12 in. (305 mm) o.c. at intermediate studs. 5/8 in. (15.9 mm) gypsum board gussets 12 in. (305 mm) long and minimum 4-1/2 in. (114 mm) wide located at 1/3 points used as cross braces fastened to stud pairs with three 1 in. (25.4 mm) Type S screws at each stud. Optionally, 25-gauge minimum 4-1/2 in. (114 mm) long stud or runner pieces may be used as cross braces and applied with two 1/2 in. (12.7 mm) self-drilling screws at each end. Joints staggered on opposite sides. | | |
| | | | | Sound rating with 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 52 | TL 76-155 |
| **18** |  | 1 Hr. | V488 | 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically or horizontally to each side of a double row of 2-1/2 in. (63.6 mm) steel studs 24 in. (610 mm) o.c. evenly staggered between the two rows and a minimum 1 in. (25.4 mm) apart. Horizontally applied gypsum board fastened with 1 in. (25.4 mm) Type S or S-12 screws 8 in. (203 mm) o.c. in the field and 12 in. (305 mm) o.c. at floor and ceiling runners. Vertically applied gypsum board fastened with 1 in. (25.4 mm) Type S or S-12 screws 8 in. (203 mm) o.c. at vertical joints and 12 in. (305 mm) o.c. at intermediate studs and floor and ceiling runners. Lateral bracing provided at each row of studs. Joints staggered on opposite sides. | | |
| | | | | Sound rating with 2-1/2 in. (63.6 mm) glass fiber insulation in each stud cavity. | 56 | NGC 2015108 |
| **19** |  | 1 Hr. | V488 | 5/8 in. (15.9 mm) SoundBreak XP Gypsum Board applied vertically to one side of a double row of 2-1/2 in. (63.6 mm) steel studs 24 in. (610 mm) o.c. evenly staggered between the two rows and a minimum 1 in. (25.4 mm) apart. 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to opposite side with 1 in. (25.4 mm) Type S or S-12 screws 8 in. (203 mm) o.c. at vertical joints and 12 in. (305 mm) o.c. at intermediate studs and floor and ceiling runners. Lateral bracing provided at each row of studs. Joints staggered on opposite sides. 2-1/2 in. (63.6 mm) glass fiber insulation in each stud cavity. | 60 | NGC 2015107 |
| **20** |  | 1 Hr. | V488 | 5/8 in. (15.9 mm) SoundBreak XP Gypsum Board applied vertically to one side of a double row of 2-1/2 in. (63.6 mm) steel studs 24 in. (610 mm) o.c. evenly staggered between the two rows and a minimum 1 in. (25.4 mm) apart. 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to opposite side with 1 in. (25.4 mm) Type S or S-12 screws 8 in. (203 mm) o.c. at vertical joints and 12 in. (305 mm) o.c. at intermediate studs and floor and ceiling runners. Fire-Shield Gypsum Board applied vertically to studs through the SoundBreak XP with 1-5/8 in. (41.3 mm) Type S screws 12 in. (305 mm) o.c. Lateral bracing provided at each row of studs. Joints staggered on opposite sides. 2-1/2 in. (63.6 mm) glass fiber insulation in each stud cavity. | 62 | NGC 2015110 |

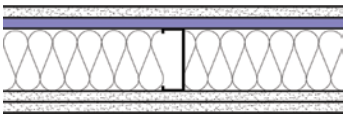
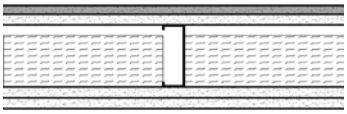
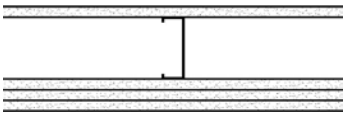
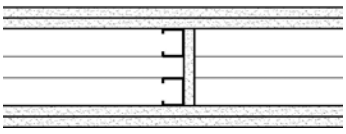
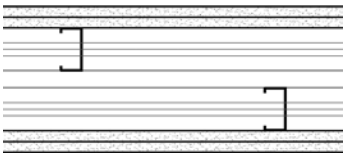
# Fire And Sound Selector



## GYPSUM BOARD PARTITIONS – STEEL FRAMING (NON-LOAD BEARING) – CONTINUED

| Item No. | | Fire Rating | UL/GA Design | Description | STC | Test No. |
|---|---|---|---|---|---|---|
| 21 |  | 2 Hr. | W432 | 3/4 in. (19.1 mm) Ultra-Shield FS Gypsum Board applied vertically or horizontally to each side of 3-5/8 in. (92.1 mm) steel studs 24 in. (610 mm) o.c. with 1-1/4 in. (31.8 mm) Type S screws 8 in. (203 mm) o.c. 3 in. (76.2 mm) mineral fiber insulation, 2.5 pcf (40 kg/m$^3$), friction fit in stud cavity. | 50 | NGC 2015062 |
| 22 |  | 2 Hr. | V438 | Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically or horizontally to each side of 2-1/2 in. (63.6 mm) steel studs 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S screws 16 in. (406 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to each side with 1-5/8 in. (41.3 mm) Type S screws 16 in. (406 mm) o.c. at vertical joints and intermediate studs and 12 in. (305 mm) o.c. at floor and ceiling runners. Joints staggered each layer and side. | | |
| 23 |  | 2 Hr. | V438 | Base layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically to each side of 1-5/8 in. (41.3 mm) steel studs 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S screws 16 in. (406 mm) o.c. Face layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically or horizontally with 1-5/8 in. (41.3 mm) Type S screws 16 in. (406 mm) o.c. Screws offset 8 in. (203 mm) from base layer. Joints staggered each layer and side. | | |
| 24 |  | 2 Hr. | V438<br>U411<br>WP 1548 | Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to each side of 2-1/2 in. (63.5 mm) steel studs 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S screws 16 in. (406 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to each side with 1-5/8 in. (41.3 mm) Type S screws 16 in. (406 mm) o.c. at vertical joints and intermediate studs and 12 in. (305 mm) o.c. at floor and ceiling runners. Joints staggered each layer and side. | | |
| | | | | Sound rating with 3-5/8 in. (92.1 mm) steel studs and 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 56 | NGC 3022 |
| 25 |  | 2 Hr. | V484 | Base layer 5/8 in. (15.9 mm) SoundBreak XP Gypsum Board applied vertically to one side of 3-5/8 in. (92.1 mm) steel studs 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S screws 16 in. (406 mm) o.c. Base layer of 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to opposite side with 1 in. (25.4 mm) Type S screws 16 in. (406 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum board applied vertically to each side with 1-5/8 in. (41.3 mm) Type S screws 16 in. (406 mm) o.c. Joints staggered each layer and side. 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 60 | RAL TL07-168 |
| 26 |  | 2 Hr. | V438<br>U412<br>WP 1615 | Base layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically to each side of 2-1/2 in. (63.5 mm) steel studs 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S screws 24 in. (610 mm) o.c. Face layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically with 1-5/8 in. (41.3 mm) Type S screws 12 in. (305 mm) o.c. Joints staggered each layer and side. | | |
| | | | | Sound rating with 3-5/8 in. (92.1 mm) steel studs. | 48 | NGC 2282 |
| | | | | Sound rating with 3-5/8 in. (92.1 mm) steel studs and 3 in. (76.2 mm) glass fiber insulation in stud cavity. | 53 | NGC 2288 |
| 27 |  | 2 Hr. | V450 | Base layer 5/8 in. (15.9 mm) Fire-Shield or eXP Gypsum Sheathing applied vertically to both sides of 3-5/8 in. (92.1 mm) steel studs at 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S screws 16 in. (406 mm) o.c. at vertical joints and intermediate studs and 12 in. (305 mm) o.c. at floor and ceiling runners. Face layer 5/8 in. (15.9 mm) Fire-Shield or eXP Gypsum Sheathing applied vertically with 1-5/8 in. (41.3 mm) Type S screws 16 in. (406 mm) o.c. at vertical joints and intermediate studs and 12 in. (305 mm) o.c. at floor and ceiling runners. Joints staggered each layer and side. | | |
| | | | | Sound rating with 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 56 | NGC 3022 |

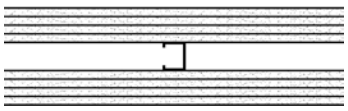
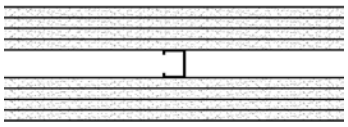
## GYPSUM BOARD PARTITIONS – STEEL FRAMING (NON-LOAD BEARING) – CONTINUED

| Item No. | | Fire Rating | UL/GA Design | Description | STC | Test No. |
|---|---|---|---|---|---|---|
| **28** |  | 2 Hr. | V484 | Base layer 5/8 in. (15.9 mm) SoundBreak XP Gypsum Board applied vertically to one side of 3-5/8 in. (92.1 mm) steel studs 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S screws 24 in. (610 mm) o.c. Base layer of 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to opposite side with 1 in. (25.4 mm) Type S screws 24 in. (610 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to each side with 1-5/8 in. (41.3 mm) Type S screws 12 in. (305 mm) o.c. Joints staggered each layer and side. 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 60 | RAL TL07-168 |
| **29** |  | 2 Hr. | V452<br>WP 1565 | Base layer 5/8 in. (15.9 mm) Fire-Shield or 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically to each side of 3-5/8 in. (92.1 mm) steel studs 16 in. (406 mm) o.c. with 1 in. (25.4 mm) Type S screws 24 in. (610 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield or 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically to one side with 1-5/8 in. (41.3 mm) Type S screws 16 in. (406 mm) o.c. 1/2 in. (12.7 mm) PermaBase Cement Board applied vertically to opposite side with 1-5/8 in. (41.3 mm) cement board screws 8 in. (203 mm) o.c. 3 in. (76.2 mm) mineral fiber insulation friction fit in stud cavity. Joints staggered each layer and side. | | |
| **30** |  | 2 Hr. | WP 1943<br>V449 | Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to each side of 3-1/2 in. (88.9 mm) steel studs 24 in. (610 mm) o.c. with 1-1/8 in. (28.6 mm) Type S screws 8 in. (203 mm) o.c. at vertical joints and 12 in. (305 mm) o.c. at intermediate studs. Second layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to one side with 1-5/8 in. (41.3 mm) Type S screws 12 in. (305 mm) o.c. Face layer Fire-Shield Gypsum Board applied vertically to one side with 2-1/4 in. (57.2 mm) Type S screws 8 in. (203 mm) o.c. at vertical joints and 12 in. (305 mm) o.c. at intermediate studs. Joints staggered each layer and side. | | |
| **31** |  | 2 Hr. | U420<br>WP 5105 | Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to each side of a double row of 1-5/8 in. (41.3 mm) steel studs 24 in. (610 mm) o.c. and not less than 1 in. (25.4 mm) apart with 1 in. (25.4 mm) Type S screws 8 in. (203 mm) o.c. at vertical joints and 12 in. (305 mm) o.c. at intermediate studs. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically with 1-5/8 in. (41.3 mm) Type S screws 8 in. (203 mm) o.c. at vertical joints and 12 in. (305 mm) o.c. at intermediate studs. Gypsum board pieces 12 in. (305 mm) long by not less than 4-1/2 in. (114 mm) wide located at 1/3 points used as cross braces fastened to stud pairs with three 1 in. (25.4 mm) Type S screws at each end of brace. Optionally, 25-gauge studs or runner pieces not less than 4-1/2 in. (114 mm) long may be used as cross braces and fastened with two No. 8 x 1/2 in. (12.7 mm) self-drilling steel screws at each end. Joints staggered each layer and side. | | |
| | | | | Sound rating with 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 57 | TL 76-156 |
| **32** |  | 2 Hr. | V488 | Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically or horizontally to each side of a double row of 2-1/2 in. (63.6 mm) steel studs 24 in. (610 mm) o.c. evenly staggered between the two rows with 1 in. (25.4 mm) Type S or S-12 screws 16 in. (406 mm) o.c. Face layer Fire-Shield Gypsum Board applied vertically or horizontally to each side with 1-5/8 in. (41.3 mm) Type S or S-12 screws 16 in. (406 mm) o.c. Screws offset 8 in. (203 mm) from screws in base layer. Joints staggered each layer and side. | | |
| | | | | Sound rating with 2-1/2 in. (63.6 mm) glass fiber insulation in stud cavity on each side. | 64 | NGC 2015112 |

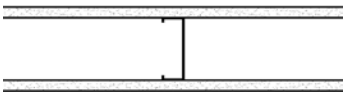
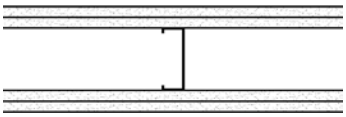
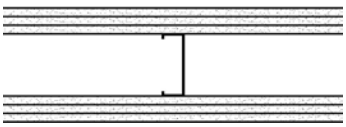
# Fire And Sound Selector



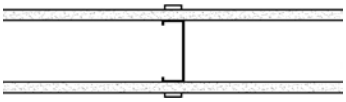
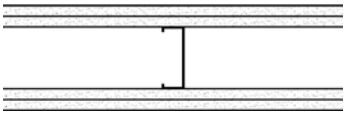
## GYPSUM BOARD PARTITIONS – STEEL FRAMING (NON-LOAD BEARING) – CONTINUED

| Item No. | Fire Rating | UL/GA Design | Description | STC | Test No. |
|---|---|---|---|---|---|
| **33**  | 3 Hr. | V438 | Base layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically to each side of 1-5/8 in. (41.3 mm) steel studs 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S screws 24 in. (610 mm) o.c. Second layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically to each side with 1-5/8 in. (41.3 mm) Type S screws 24 in. (610 mm) o.c. Face layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically or horizontally to each side with 2-1/4 in. (57.2 mm) Type S screws 12 in. (305 mm) o.c. Screws offset 6 in. (152 mm) from layer below. Joints staggered each layer and side. | 48 | NGC 2631 |
| | | | Sound rating with 1-1/2 in. (38.1 mm) glass fiber insulation in stud cavity. | 53 | NGC 2636 |
| **34**  | 3 Hr. | V438 | Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to each side of 1-5/8 in. (41.3 mm) steel studs 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S screws 24 in. (610 mm) o.c. Second layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to each side with 1-5/8 in. (41.3 mm) Type S screws 24 in. (610 mm) o.c. 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically or horizontally to each side with 2-1/4 in. (57.2 mm) Type S screws 12 in. (305 mm) o.c. Screws offset 6 in. (152 mm) from layer below. Joints staggered each layer and side. | | |
| **35**  | 4 Hr. | V438 | Base layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically to each side of 1-5/8 in. (41.3 mm) steel studs 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S screws 24 in. (610 mm) o.c. Second layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically to each side with 1-5/8 in. (41.3 mm) Type S screws 24 in. (610 mm) o.c. Third layer: 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically to each side with 2-1/4 in. (57.2 mm) Type S screws 24 in. (610 mm) o.c. Face layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically or horizontally to each side with 2-5/8 in. (66.7 mm) Type S screws, 12 in. (305 mm) o.c. Screws offset 6 in. (152 mm) from layer below. Joints staggered each layer and side. | 51 | NGC 2633 |
| | | | Sound rating with 1-1/2 in. (38.1 mm) glass fiber insulation in stud cavity. | 55 | NGC 2634 |
| **36**  | 4 Hr. | V438 | Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to each side of 1-5/8 in. (41.3 mm) steel studs 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S screws 24 in. (610 mm) o.c. Second layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to each side with 1-5/8 in. (41.3 mm) Type S screws 24 in. (610 mm) o.c. Third layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to each side with 2-5/8 in. (66.7 mm) Type S screws 24 in. (610 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically or horizontally to each side with 3 in. (76.2 mm) Type S screws 12 in. (305 mm) o.c. Screws offset 6 in. (152 mm) from layer below. Joints staggered each layer and side. | | |

## GYPSUM BOARD PARTITIONS – STEEL FRAMING (LOAD BEARING)

| Item No. | | Fire Rating | UL/GA Design | Description | STC | Test No. |
|---|---|---|---|---|---|---|
| 1 |  | 1 Hr. | U425<br>WP 1706 | 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to each side of 3-1/2 in. (88.9 mm) 20-gauge steel studs 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S-12 screws at 12 in. (305 mm) o.c. Studs laterally braced and fastened to tracks. Joints staggered on opposite sides. | | |
| 2 |  | 2 Hr. | U425<br>WP 1716 | Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to each side of 3-1/2 in. (88.9 mm) 20-gauge steel studs 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S-12 screws 12 in. (305 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to each side with 1-5/8 in. (41.3 mm) Type S-12 screws 12 in. (305 mm) o.c. Studs laterally braced and fastened to tracks. Joints staggered each layer and side. | | |
| 3 |  | 3 Hr. | U426 | Base layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically to each side of 3-1/2 in. (88.9 mm) 20-gauge steel studs 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S-12 screws 48 in. (1,219 mm) o.c. Second layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically to each side with 1-5/8 in. (41.3 mm) Type S-12 screws 48 in. (1,219 mm) o.c. Third layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically to each side with 2-1/4 in. (57.2 mm) Type S-12 screws 48 in. (1,219 mm) o.c. Face layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically or horizontally to each side with 2-5/8 in. (66.7 mm) Type S-12 screws 12 in. (305 mm) o.c. Horizontally applied face layer fastened to inner layers with 1-1/2 in. (38.1 mm) Type G screws midway between studs. Studs laterally braced and fastened to tracks. Joints staggered each layer and side. | | |

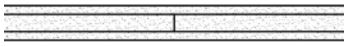
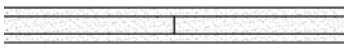
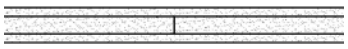
## GYPSUM BOARD PARTITIONS – DURASAN PREFINISHED GYPSUM PANELS

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 |  | 1 Hr. | U405<br>WP 6040 | 5/8 in. (15.9 mm) Durasan applied vertically to each side of 2-1/2 in. (63.6 mm) steel studs 24 in. (610 mm) o.c. with steel batten retainers fastened to each stud with 1-1/4 in. (31.8 mm) Type S screws 9 in. (229 mm) o.c. Joints staggered on opposite sides. | | |
| | | | | Sound rating with 3 in. (76.2 mm) glass fiber insulation in stud cavity. | 41 | G&H NG-145FT |
| 2 |  | 2 Hr. | U411 | Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to 2-1/2 in. (63.6 mm) steel studs 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S screws 8 in. (203 mm) o.c. at vertical joints and 12 in. (305 mm) o.c. at intermediate studs. Face layer 5/8 in. (15.9 mm) Durasan laminated to base layer with joint compound applied with a notched spreader producing continuous 3/8 in. (9.5 mm) beads 2 in. (50.8 mm) o.c. and fastened to floor and ceiling runners with 1-5/8 in. (41.3 mm) Type S screws 12 in. (305 mm) o.c. Joints staggered each layer and side. | | |
| | | | | Sound rating with 3 in. (76.2 mm) glass fiber insulation in stud cavity. | 56 | NGC 3022 |

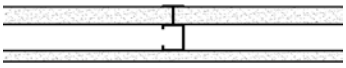
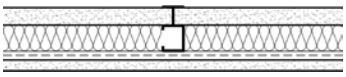
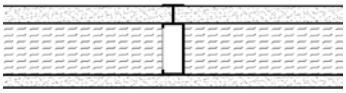
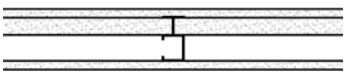
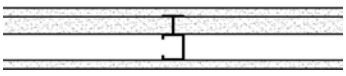
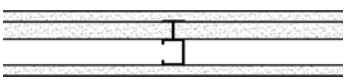
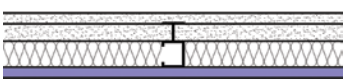
# Fire And Sound Selector



## SOLID GYPSUM BOARD PARTITIONS

| Item No. | Fire Rating | UL/GA Design | Description | STC | Test No. |
|---|---|---|---|---|---|
| **1**  | 1 Hr. | WP 1311 | 1 in. (25.4 mm) Fire-Shield Shaftliner applied to 25-gauge, 1 in. (25.4 mm) x 2-1/4 in. (57.2 mm) high steel angles along floor and ceiling with two 1-5/16 in. (33.3 mm) Type S screws at top and bottom. 1/2 in. (12.7 mm) Gold Bond Gypsum Board applied vertically to each side with ProForm Quick Set Setting Compound combed over entire contact surface and 1-5/16 in. (33.3 mm) Type S screws 24 in. (610 mm) o.c. horizontally and vertically and fastened to angles with 1-7/8 in. (47.6 mm) Type S screws 12 in. (305 mm) o.c. Joints staggered each layer and side. | 34 | NGC 2359 |
| **2**  | 2 Hr. | U525<br>WP 1841 | 1 in. (25.4 mm) Fire-Shield Shaftliner applied to 25-gauge, 1 in. (25.4 mm) x 2-1/4 in. (57.2 mm) high steel angles along floor and ceiling with two 1-5/16 in. (33.3 mm) Type S screws at top and bottom. 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically to each side with ProForm Quick Set Setting Compound combed over entire contact surface and 1-5/16 in. (33.3 mm) Type S screws 24 in. (610 mm) o.c. horizontally and vertically and fastened to angles with 1-7/8 in. (47.6 mm) Type S screws 12 in. (305 mm) o.c. Joints staggered each layer and side. | 34 | NGC 2359 |
| **3**  | 2 Hr. | U505<br>WP 7210 | 22-gauge, 3/4 in. (19.1 mm) x 1-1/4 in. (31.8 mm) high steel angle along floor and 22-gauge, 3/4 in. (19.1 mm) x 1-1/4 in. (31.8 mm) x 30 in. (762 mm) long steel angles fastened to end walls and spaced maximum 5 ft. (1,524 mm) o.c. 25-gauge, 1 in. (25.4 mm) x 1-5/8 in. (41.3 mm) steel channel fastened to ceiling with one leg aligned with wall angles and oriented so the first two layers of gypsum board can be inserted into the channel. 25-gauge, 3/4 in. (19.1 mm) x 1-1/4 in. (31.8 mm) horizontal bracing angles spaced 5 ft. (1,524 mm) o.c. with 1-1/4 in. (31.8 mm) leg fastened to 1-1/4 in. (31.8 mm) leg of wall angles. Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically with top edge inserted into ceiling channel to floor, wall, and bracing angles with 1 in. (25.4 mm) Type S screws 16 in. (406 mm) o.c. Second layer 1 in. (25.4 mm) Fire-Shield Shaftliner applied vertically with top edge inserted into ceiling channel with ProForm Quick Set Setting Compound combed over entire contact surface and to floor, wall and bracing angles with 2-1/4 in. (57.2 mm) Type S-12 screws 12 in. (305 mm) o.c. Additional angles fastened to floor and end walls with 1-1/4 in. (31.8 mm) leg flat against the shaftliner panel. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically with ProForm Quick Set Setting Compound combed over entire contact surface and to ceiling channel and floor and wall angles with 1 in. (25.4 mm) Type S screws 16 in. (406 mm) o.c. Joints staggered each layer and side. | | |
| **4**  | 2 Hr. | U529 | 25-gauge 1 in. (25.4 mm) x 2 in. (50.8 mm) steel angles fastened to floor, ceiling and end walls. Base layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically to angles with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. Second layer 1 in. (25.4 mm) Fire-Shield Shaftliner applied vertically with ProForm Quick Set Setting Compound combed over entire contact surface and 1-1/2 in. (38.1 mm) Type G screws 24 in. (610 mm) o.c. vertically and horizontally. Face layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically with ProForm Quick Set Setting Compound combed over entire contact surface and 1-1/2 in. (38.1 mm) Type G screws 24 in. (610 mm) o.c. vertically and horizontally. Joints staggered each layer and side. | | |

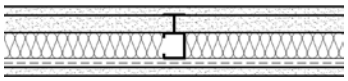
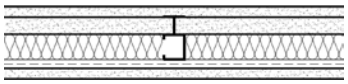
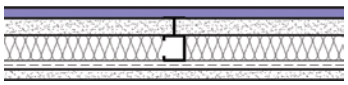
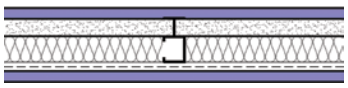
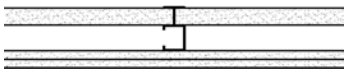
## GYPSUM BOARD PARTITIONS – SHAFTWALL SYSTEMS

| Item No. | | Fire Rating | UL/GA Design | Description | STC | Test No. |
|---|---|---|---|---|---|---|
| 1 |  | 1 Hr. | W419<br>U499<br>WP 6905 | 1 in. (25.4 mm) Fire-Shield Shaftliner inserted between flanges of 2-1/2 in. (63.6 mm) steel C-T, C-H or I studs 24 in. (610 mm) o.c. 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically or horizontally to studs with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. on side opposite shaftliner panel. | 37 | NGC 2001003 |
| | | | | Sound rating with 1-1/2 in. (38.1 mm) glass fiber insulation in stud cavity. | 42 | NGC 2542 |
| 2 |  | 1 Hr. | W419<br>U499 | 1 in. (25.4 mm) Fire-Shield Shaftliner inserted between flanges of 2-1/2 in. (63.6 mm) steel C-T, C-H or I studs 24 in. (610 mm) o.c. 5/8 in. (15.9 mm) SoundBreak XP Gypsum Board applied vertically to studs with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. on side opposite shaftliner panel. 1-1/2 in. (38.1 mm) glass fiber insulation in stud cavity. | 44 | NGC 2015033 |
| 3 |  | 1 Hr. | W419<br>U499 | 1 in. (25.4 mm) Fire-Shield Shaftliner inserted between flanges of 2-1/2 in. (63.6 mm) steel C-T, C-H or I studs 24 in. (610 mm) o.c. Resilient channels applied horizontally to studs 24 in. (610 mm) o.c. with 1/2 in. (12.7 mm) pan-head screws on side opposite shaftliner panel. 5/8 in. (19.1 mm) Fire-Shield Gypsum Board applied vertically to channels with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. 1-1/2 in. (38.1 mm) glass fiber insulation in stud cavity. | 48 | NGC 2541 |
| 4 |  | 2 Hr. | W441 | 1 in. (25.4 mm) eXP Shaftliner inserted between flanges of 4 in. (102 mm) steel C-T or C-H studs 24 in. (610 mm) o.c. 3/4 in. (19.1 mm) Ultra-Shield FS Gypsum Board applied to studs with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. on side opposite shaftliner panel. 3 in. (76.2 mm) mineral wool insulation in stud cavity. | 51 | NGC 2015043 |
| 5 |  | 2 Hr. | U429<br>WP 7084 | 1 in. (25.4 mm) Fire-Shield Shaftliner installed between flanges of 2-1/2 in. (63.6 mm) steel C-T or C-H studs 24 in. (610 mm) o.c. 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically to each side with 1 in. (25.4 mm) Type S screws at 12 in. (305 mm) o.c. | 42 | NGC 2535 |
| | | | | Sound rating with 1-1/2 in. (38.1 mm) glass fiber insulation in stud cavity. | 48 | NGC 2534 |
| 6 |  | 2 Hr. | W419<br>U498<br>WP 7079<br>ASW 1215 | 1 in. (25.4 mm) Fire-Shield Shaftliner inserted between flanges of 2-1/2 in. (63.6 mm) steel C-T, C-H or I studs 24 in. (610 mm) o.c. 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically or horizontally to each side of studs with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. | 42 | NGC 2535 |
| | | | | Sound rating with 1-1/2 in. (38.1 mm) glass fiber insulation in stud cavity. | 48 | NGC 2534 |
| 7 |  | 2 Hr. | W419<br>U498<br>WP 7077 | 1 in. (25.4 mm) Fire-Shield Shaftliner inserted between flanges of 2-1/2 in. (63.6 mm) steel C-T, C-H or I studs 24 in. (610 mm) o.c. 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically or horizontally to each side of studs with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. Joints staggered each side. | 42 | NGC 2535 |
| | | | | Sound rating with 1-1/2 in. (38.1 mm) glass fiber insulation in stud cavity. | 48 | NGC 2534 |
| 8 |  | 2 Hr. | W419<br>U498 | 1 in. (25.4 mm) Fire-Shield Shaftliner inserted between flanges of 2-1/2 in. (63.6 mm) steel C-T, C-H or I studs 24 in. (610 mm) o.c. 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to shaftliner side of studs with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. 5/8 in. (15.9 mm) SoundBreak XP Gypsum Board applied vertically to opposite side with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. Joints staggered each side. 1-1/2 in. (38.1 mm) glass fiber insulation in stud cavity. | 53 | NGC 2015036 |

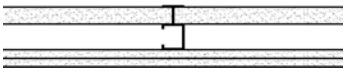
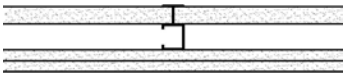
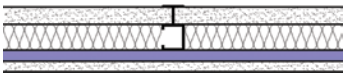
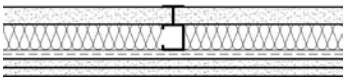
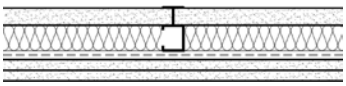
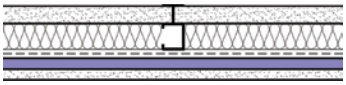
# Fire And Sound Selector



## GYPSUM BOARD PARTITIONS – SHAFTWALL SYSTEMS – CONTINUED

| Item No. | | Fire Rating | UL/GA Design | Description | STC | Test No. |
|---|---|---|---|---|---|---|
| 9 |  | 2 Hr. | W419<br>U498<br>WP 7062 | 1 in. (25.4 mm) Fire-Shield Shaftliner inserted between flanges of 2-1/2 in. (63.6 mm) steel C-T, C-H or I studs 24 in. (610 mm) o.c. 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically or horizontally to shaftliner side of studs with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. Resilient channels applied horizontally to studs 24 in. (610 mm) o.c. with 1/2 in. (12.7 mm) pan-head screws on side opposite shaftliner panel. 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically to channels with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. Joints staggered on opposite sides. 1-1/2 in. (38.1 mm) glass fiber insulation in stud cavity. | 50 | NGC 2610 |
| 10 |  | 2 Hr. | W419<br>U498 | 1 in. (25.4 mm) Fire-Shield Shaftliner inserted between flanges of 2-1/2 in. (63.6 mm) steel C-T, C-H or I studs 24 in. (610 mm) o.c. 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to shaftliner side of studs with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. Resilient channels applied horizontally to studs 24 in. (610 mm) o.c. with 1/2 in. (12.7 mm) pan-head screws on side opposite shaftliner panel. 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to channels with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. Joints staggered on opposite sides. 1-1/2 in. (38.1 mm) glass fiber insulation in stud cavity. | 52 | NGC 2538 |
| 11 |  | 2 Hr. | W419<br>U498 | 1 in. (25.4 mm) Fire-Shield Shaftliner inserted between flanges of 2-1/2 in. (63.6 mm) steel C-T, C-H or I studs 24 in. (610 mm) o.c. 5/8 in. (15.9 mm) SoundBreak XP Gypsum Board applied vertically to shaftliner side of studs with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. Resilient channels applied horizontally to studs 24 in. (610 mm) o.c. with 1/2 in. (12.7 mm) pan-head screws on side opposite shaftliner panel. 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to channels with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. Joints staggered on opposite sides. 1-1/2 in. (38.1 mm) glass fiber insulation in stud cavity. | 55 | NGC 2015041 |
| 12 |  | 2 Hr. | W419<br>U498 | 1 in. (25.4 mm) Fire-Shield Shaftliner inserted between flanges of 2-1/2 in. (63.6 mm) steel C-T, C-H or I studs 24 in. (610 mm) o.c. 5/8 in. (15.9 mm) SoundBreak XP Gypsum Board applied vertically to shaftliner side of studs with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. Resilient channels applied horizontally to studs 24 in. (610 mm) o.c. with 1/2 in. (12.7 mm) pan-head screws on side opposite shaftliner panel. 5/8 in. (15.9 mm) SoundBreak XP Gypsum Board applied vertically to channels with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. Joints staggered on opposite sides. 1-1/2 in. (38.1 mm) glass fiber insulation in stud cavity. | 56 | NGC 2015040 |
| 13 |  | 2 Hr. | U428<br>WP 7051 | 1 in. (25.4 mm) Fire-Shield Shaftliner inserted between flanges of 2-1/2 in. (63.6 mm) steel C-T or C-H studs 24 in. (610 mm) o.c. Base layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied horizontally to studs with 1 in. (25.4 mm) Type S screws 24 in. (610 mm) o.c. on side opposite shaftliner panel. Face layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically with 1-5/8 in. (41.3 mm) Type S screws 12 in. (305 mm) o.c. Joints staggered each layer. | 40 | NGC 2615 |
| | | | | Sound rating with 1-1/2 in. (38.1 mm) glass fiber insulation in stud cavity. | 47 | NGC 2616 |

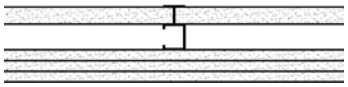
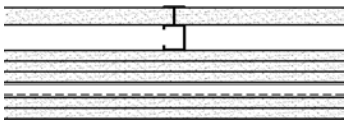
## GYPSUM BOARD PARTITIONS – SHAFTWALL SYSTEMS – CONTINUED

| Item No. | Fire Rating | UL/GA Design | Description | STC | Test No. |
|---|---|---|---|---|---|
| **14**  | 2 Hr. | W419<br>U497 | 1 in. (25.4 mm) Fire-Shield Shaftliner inserted between flanges of 2-1/2 in. (63.6 mm) steel C-T, C-H or I studs 24 in. (610 mm) o.c. Base layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically to studs with 1 in. (25.4 mm) Type S screws 24 in. (610 mm) o.c. on side opposite shaftliner panel. Face layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically with 1-5/8 in. (41.3 mm) Type S screws 12 in. (305 mm) o.c. Joints staggered each layer. | 40 | NGC 2615 |
| | | | Sound rating with 1-1/2 in. (38.1 mm) glass fiber insulation in stud cavity. | 47 | NGC 2616 |
| **15**  | 2 Hr. | W419<br>U497<br>WP 7076 | 1 in. (25.4 mm) Fire-Shield Shaftliner inserted between flanges of 2-1/2 in. (63.6 mm) steel C-T, C-H or I studs 24 in. (610 mm) o.c. Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to studs with 1 in. (25.4 mm) Type S screws 24 in. (610 mm) o.c. on side opposite shaftliner panel. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically with 1-5/8 in. (41.3 mm) Type S screws 12 in. (305 mm) o.c. Joints staggered each layer. | 41 | NGC 2508 |
| | | | Sound rating with 1-1/2 in. (38.1 mm) glass fiber insulation in stud cavity. | 48 | NGC 2507 |
| **16**  | 2 Hr. | W419<br>U497 | 1 in. (25.4 mm) Fire-Shield Shaftliner inserted between flanges of 2-1/2 in. (63.6 mm) steel C-T, C-H or I studs 24 in. (610 mm) o.c. Base layer 5/8 in. (15.9 mm) SoundBreak XP Gypsum Board applied vertically to studs with 1 in. (25.4 mm) Type S screws 24 in. (610 mm) o.c. on side opposite shaftliner panel. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically with 1-5/8 in. (41.3 mm) Type S screws 12 in. (305 mm) o.c. Joints staggered each layer. 1-1/2 in. (38.1 mm) glass fiber insulation in stud cavity. | 51 | NGC 2015037 |
| **17**  | 2 Hr. | W419<br>U497<br>WP 7064 | 1 in. (25.4 mm) Fire-Shield Shaftliner inserted between flanges of 2-1/2 in. (63.6 mm) steel C-T, C-H or I studs 24 in. (610 mm) o.c. Resilient channels applied horizontally to studs 24 in. (610 mm) o.c. with 1/2 in. (12.7 mm) pan-head screws on side opposite shaftliner panel. Base layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically to channels with 1 in. (25.4 mm) Type S screws 24 in. (610 mm) o.c. Face layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically with 1-5/8 in. (41.3 mm) Type S screws 12 in. (305 mm) o.c. Joints staggered each layer. 1-1/2 in. (38.1 mm) glass fiber insulation in stud cavity. | 51 | NGC 2609 |
| **18**  | 2 Hr. | W419<br>U497 | 1 in. (25.4 mm) Fire-Shield Shaftliner inserted between flanges of 2-1/2 in. (63.6 mm) steel C-T, C-H or I studs 24 in. (610 mm) o.c. Resilient channels applied horizontally to studs 24 in. (610 mm) o.c. with 1/2 in. (12.7 mm) pan-head screws on side opposite shaftliner panel. Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to channels with 1 in. (25.4 mm) Type S screws 24 in. (610 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically with 1-5/8 in. (41.3 mm) Type S screws 12 in. (305 mm) o.c. Joints staggered each layer. 1-1/2 in. (38.1 mm) glass fiber insulation in stud cavity. | 51 | NGC 2540 |
| **19**  | 2 Hr. | W419<br>U497 | 1 in. (25.4 mm) Fire-Shield Shaftliner inserted between flanges of 2-1/2 in. (63.6 mm) steel C-T, C-H or I studs 24 in. (610 mm) o.c. Resilient channels applied horizontally to studs 24 in. (610 mm) o.c. with 1/2 in. (12.7 mm) pan-head screws on side opposite shaftliner panel. Base layer 5/8 in. (15.9 mm) SoundBreak XP Gypsum Board applied vertically to channels with 1 in. (25.4 mm) Type S screws 24 in. (610 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically with 1-5/8 in. (41.3 mm) Type S screws 12 in. (305 mm) o.c. Joints staggered each layer. | | |
| | | | Sound rating with 1-1/2 in. (38.1 mm) glass fiber insulation in stud cavity. | 53 | NGC 2015039 |

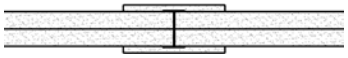
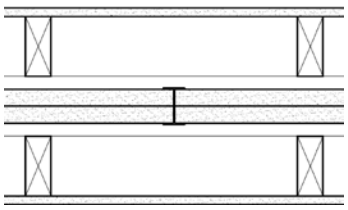
# Fire And Sound Selector



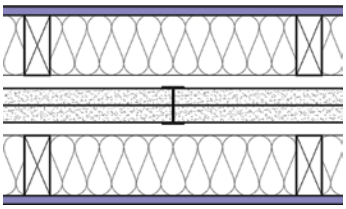
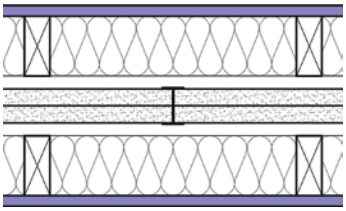
## GYPSUM BOARD PARTITIONS – SHAFTWALL SYSTEMS – CONTINUED

| Item No. | | Fire Rating | UL/GA Design | Description | STC | Test No. |
|---|---|---|---|---|---|---|
| 20 |  | 3 Hr. | W419<br>W414<br>WP 7493 | 1 in. (25.4 mm) Fire-Shield Shaftliner inserted between flanges of 2-1/2 in. (63.6 mm) steel C-T, C-H or I studs 24 in. (610 mm) o.c. Base layer 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied vertically to studs with 1 in. (25.4 mm) Type S screws 24 in. (610 mm) o.c. on side opposite shaftliner panel. Second layer 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied vertically to studs with 1-5/8 in. (41.3 mm) Type S screws 12 in. (305 mm) o.c. Second layer fastened to base layer 2 in. (50.8 mm) from each side of vertical joints with 1-1/2 in. (38.1 mm) Type G screws 12 in. (305 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied vertically to studs with 2-1/4 in. (57.2 mm) Type S screws 12 in. (305 mm) o.c. starting 6 in. (152 mm) from the bottom of the gypsum board. Face layer fastened to inner layers 2 in. (50.8 mm) from each side of vertical joints with 1-1/2 in. (38.1 mm) Type G screws 12 in. (305 mm) o.c. | | |
| 21 |  | 4 Hr. | W419<br>V451<br>WP 7691 | 1 in. (25.4 mm) Fire-Shield Shaftliner inserted between flanges of 2-1/2 in. (63.6 mm) steel C-T, C-H, or I studs 24 in. (610 mm) o.c. Base layer 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied vertically to studs on side opposite shaftliner panel with 1-1/8 in. (28.6 mm) Type S screws 12 in. (305 mm) o.c. Second layer 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied vertically to studs with 1-5/8 in. (41.3 mm) Type S screws 12 in. (305 mm) o.c. Third layer 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied vertically to studs with 2-1/4 in. (57.2 mm) Type S screws 12 in. (305 mm) o.c. and fastened to inner layers of gypsum board with 1-1/2 in. (38.1 mm) Type G screws 12 in. (305 mm) o.c. centered between Type S screws. Hat-shaped furring channels applied horizontally over third layer to studs 16 in. (406 mm) o.c. with 2-1/4 in. (57.2 mm) Type S screws. Fourth layer 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied vertically to furring channels with 1-1/8 in. (28.6 mm) Type S screws 12 in. (305 mm) o.c. and 8 in. (203 mm) o.c. at horizontal joints. Fifth layer 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied vertically to furring channels with 1-5/8 in. (41.3 mm) Type S screws 12 in. (305 mm) o.c. and 8 in. (203 mm) o.c. at horizontal joints and to fourth layer with 1-1/2 in. (38.1 mm) Type G screws 16 in. (406 mm) o.c. centered between the furring channels. Joints staggered each layer. | | |

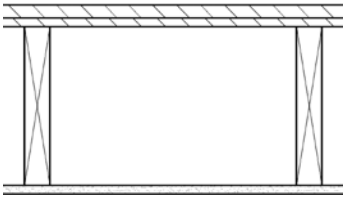
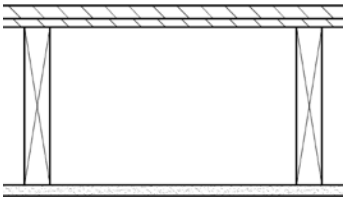
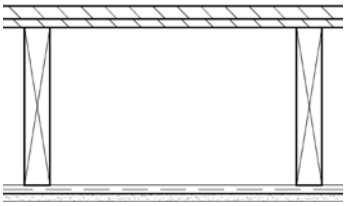
## AREA SEPARATION FIRE WALLS

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 |  | 2 Hr. | WHI 694-0220.6 | Two layers of 1 in. (25.4 mm) Fire-Shield Shaftliner inserted between flanges of 2 in. (50.8 mm) steel H-studs 24 in. (610 mm) o.c. H-studs and tracks covered by 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board in 6 in. (152 mm) wide strips. | 35 | NGC 2827 |
| 2 |  | 2 Hr. | U347<br>ASW 0988 | Two layers of 1 in. (25.4 mm) Fire-Shield Shaftliner inserted between flanges of 2 in. (50.8 mm) steel H-studs 24 in. (610 mm) o.c. 3/4 in. (19.1 mm) air space each side. 2x4 (38.1 mm x 88.9 mm) wood stud partition with one layer of 1/2 in. (12.7 mm) Gold Bond Gypsum Board on each side.<br><br>Sound rating with 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity on each side. | <br><br>61 | <br><br>RAL-TL05-199 |

## AREA SEPARATION FIRE WALLS – CONTINUED

| Item No. | | Fire Rating | UL/GA Design | Description | STC | Test No. |
|---|---|---|---|---|---|---|
| 3 |  | 2 Hr. | U347 | Two layers of 1 in. (25.4 mm) Fire-Shield Shaftliner inserted between flanges of 2 in. (50.8 mm) steel H-studs 24 in. (610 mm) o.c. 3/4 in. (19.1 mm) air space each side. 2x4 (38.1 mm x 88.9 mm) wood stud partition with one layer of 1/2 in. (12.7 mm) SoundBreak XP Gypsum Board on each side and 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity on each side. | 65 | NGC 2012081 |
| 4 |  | 2 Hr. | U347<br>ASW 0800 | Two layers of 1 in. (25.4 mm) Fire-Shield Shaftliner inserted between flanges of 2 in. (50.8 mm) steel H-studs 24 in. (610 mm) o.c. 3/4 in. (19.1 mm) air space and adjacent construction each side. Sound rating with 2x4 (38.1 mm x 88.9 mm) wood stud partition and one layer of 5/8 in. (15.9 mm) SoundBreak XP Gypsum Board each side with 3-1/2 in. (88.9 mm) glass fiber insulation in stud cavity. | 67 | NRCC B-3451.1 |

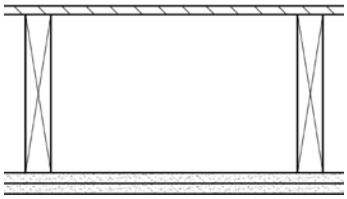
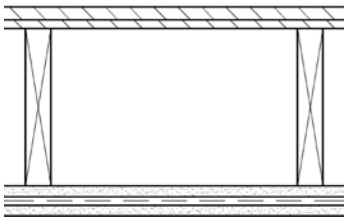
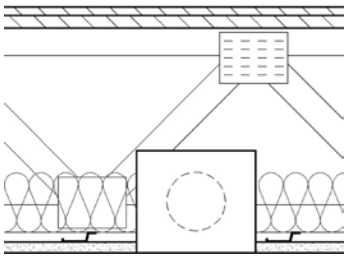
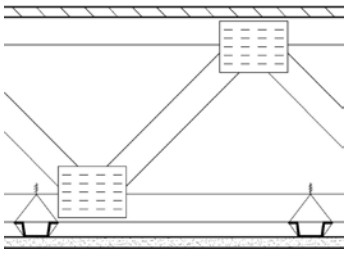
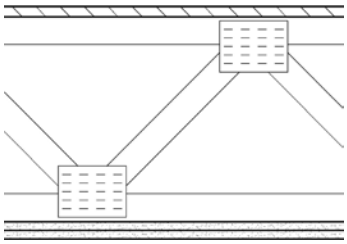
## GYPSUM BOARD FLOOR/CEILING ASSEMBLIES – WOOD FRAMED

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 |  | 1 Hr. | L522<br>FC 5410 | 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied at right angles to 2x10 (38.1 mm x 241 mm) wood joists 16 in. (406 mm) o.c. with 1-3/4 in. (44.5 mm) long, 5d nails 6 in. (152 mm) o.c. Wood joists supporting 15/32 in. (11.9 mm) wood structural panels and nominal 1 in. (25.4 mm) wood finish floor or floor topping mixture.<br>IIC: No carpet – 32<br>IIC: Carpet and pad – 66 | 37 | NGC 4084 |
| 2 |  | 1 Hr. | L501<br>FC 5420 | 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied at right angles to 2x10 (38.1 mm x 241 mm) wood joists 16 in. (406 mm) o.c. with 1-7/8 in. (47.6 mm) long, 6d nails 6 in. (152 mm) o.c. Wood joists supporting 15/32 in. (11.9 mm) wood structural panels and nominal 1 in. (25.4 mm) wood finish floor or floor topping mixture.<br>IIC: No carpet – 32<br>IIC: Carpet and pad – 66 | 37 | NGC 4024 |
| 3 |  | 1 Hr. | L515<br>FC 5300 | 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied at right angles to resilient channels 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S screws 8 in. (203 mm) o.c. at ends and 12 in. (305 mm) o.c. at intermediate channels. Gypsum board end joints located midway between continuous channels and fastened to additional channels 64 in. (1.6 m) long with screws 8 in. (203 mm) o.c. Resilient channels applied at right angles to 2x10 (38.1 mm x 241 mm) wood joists 16 in. (406 mm) o.c. with 1-7/8 in. (47.6 mm) long, 6d coated nails. Wood joists supporting 15/32 in. (11.9 mm) wood structural panels and nominal 1 in. (25.4 mm) wood finish floor or floor topping mixture. | 45 | NCG 4010 |

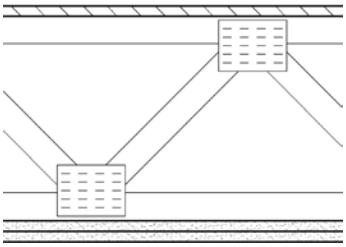
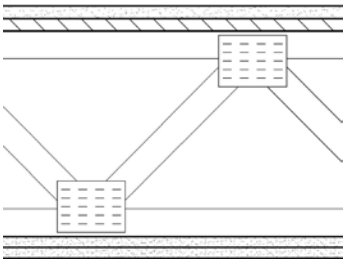
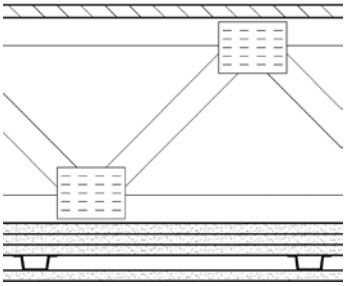
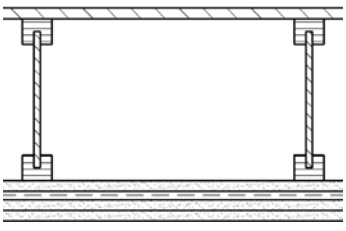
# Fire And Sound Selector



## GYPSUM BOARD FLOOR/CEILING ASSEMBLIES – WOOD FRAMED – CONTINUED

| Item No. | | Fire Rating | UL/GA Design | Description | STC | Test No. |
|---|---|---|---|---|---|---|
| 4 |  | 1 Hr. | FC 5406 | Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied at right angles to 2x10 (38.1 mm x 241 mm) wood joists 24 in. (610 mm) o.c. with 1-1/4 in. (31.8 mm) Type W or S screws 24 in. (610 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied at right angles to joists with 1-7/8 in. (47.6 mm) Type W or S screws 12 in. (305 mm) o.c. at joints and intermediate joists and 1-1/2 in. (38.1 mm) Type G screws 12 in. (305 mm) o.c. placed 2 in. (50.8 mm) from each side of end joints. Joints staggered each layer. Wood joists supporting 1/2 in. (12.7 mm) plywood. Ceiling provides 1-hour fire-resistance protection for framing, including trusses. | | |
| 5 |  | 2 Hr. | L505<br>FC 5724 | Base layer 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied at right angles to 2x10 (38.1 mm x 241 mm) wood joists 16 in. (406 mm) o.c. with 2-1/2 in. (63.6 mm) long, 8d nails 7 in. (178 mm) o.c. Resilient channels applied at right angles to wood joists through base layer 24 in. (610 mm) o.c. with 2-1/2 in. (63.6 mm) long, 8d nails. Face layer 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied at right angles to channels with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. Wood joists supporting 15/32 in. (11.9 mm) wood structural panels and nominal 1 in. (25.4 mm) wood finish floor or floor topping mixture. | | |
| 6 |  | 1 Hr. | L558<br>FC 5514 | 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied at right angles to resilient channels 12 in. (305 mm) o.c. with 1 in. (25.4 mm) Type S screws 8 in. (203 mm) o.c. Gypsum board end joints fastened with screws 8 in. (203 mm) o.c. to additional channels 60 in. (1.5 m) long located 3 in. (76.2 mm) from end joint. Resilient channels applied at right angles to 18 in. (457 mm) deep parallel chord wood trusses 24 in. (610 mm) o.c. with 1-1/4 in. (31.8 mm) Type S or W screws. Glass fiber or mineral fiber batt or loose fill insulation installed directly over gypsum board. Wood trusses supporting 23/32 in. (18.3 mm) wood structural panels and 15/32 in. (11.9 mm) wood structural panels finish floor or floor topping mixture. | | |
| 7 |  | 1 Hr. | L528<br>FC 5516 | 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied at right angles to 7/8 in. (22.2 mm) rigid furring channels 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. and 1-1/2 in. (38.1 mm) from edges. Gypsum board end joints located midway between continuous channels and fastened to additional channels 60 in. (1.5 m) long with screws 12 in. (305 mm) o.c. Rigid furring channels applied at right angles to 12 in. (305 mm) deep parallel chord wood trusses 24 in. (610 mm) o.c. with double-strand 18-gauge galvanized steel wire ties 48 in. (1,219 mm) o.c. Wood trusses supporting 23/32 in. (18.3 mm) wood structural panels. | | |
| 8 |  | 1 Hr. | FC 5512 | Base layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied at right angles to parallel chord wood trusses 24 in. (610 mm) o.c. with 1-1/4 in. (31.8 mm) Type S screws 24 in. (610 mm) o.c. Face layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied at right angles to trusses with 1-7/8 in. (47.6 mm) Type S screws 12 in. (305 mm) o.c. and 1-1/2 in. (38.1 mm) Type G screws 12 in. (305 mm) o.c. placed 3 in. (76.2 mm) from each side of end joints. Joints staggered each layer. Trusses supporting 19/32 in. (15.1 mm) plywood. | | |

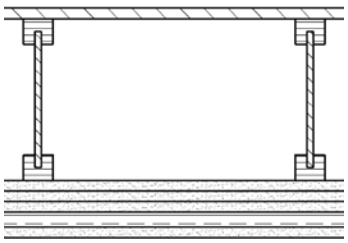
## GYPSUM BOARD FLOOR/CEILING ASSEMBLIES – WOOD FRAMED – CONTINUED

| Item No. | | Fire Rating | UL/GA Design | Description | STC | Test No. |
|---|---|---|---|---|---|---|
| 9 |  | 1 Hr. | FC 5407 | Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied at right angles to wood I-joists 24 in. (610 mm) o.c. with 1-1/4 in. (31.8 mm) Type W or S screws 24 in. (610 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied at right angles to joists with 1-7/8 in. (47.6 mm) Type W or S screws 12 in. (305 mm) o.c. at joints and intermediate joists and 1-1/2 in. (38.1 mm) Type G screws 12 in. (305 mm) o.c. placed 2 in. (50.8 mm) from each side of end joints. Joints staggered each layer. Wood joists supporting 1/2 in. (12.7 mm) plywood applied at right angles to joists with 8d nails. Ceiling provides 1-hour fire-resistance protection for framing, including trusses. | | |
| 10 |  | 2 Hr. | M500 | Base layer 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied at right angles to 12 in. (305 mm) deep parallel chord wood trusses with 1-5/8 in. (41.3 mm) Type S screws 8 in. (203 mm) o.c. Resilient furring channels 12 in. (305 mm) o.c. applied at right angles to wood trusses through base layer with 1-7/8 in. (47.6 mm) Type S screws. Second layer 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied at right angles to resilient channels with 1 in. (25.4 mm) Type S-12 screws 8 in. (203 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied at right angles to resilient channels through second layer with 1-5/8 in. (41.3 mm) Type S-12 screws 8 in. (203 mm) o.c. Joints staggered each layer. Mineral wool or glass fiber insulation draped over gypsum board. Trusses supporting 23/32 in. (18.3 mm) wood structural panels and floor topping mixture. | | |
| 11 |  | 2 Hr. | L556<br>FC 5751 | Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied at right angles to 18 in. (457 mm) deep parallel chord wood trusses 24 in. (610 mm) o.c. with 1-1/4 in. (31.8 mm) Type W screws 12 in. (305 mm) o.c. Second layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied at right angles to trusses with 2 in. (50.8 mm) Type W screws 12 in. (305 mm) o.c. Joints staggered 24 in. (610 mm) from base layer. Third layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied at right angles to trusses with 2-1/2 in. (63.6 mm) Type W screws 12 in. (305 mm) o.c. Joints staggered 12 in. (50.8 mm) from second layer. 7/8 in. (22.2 mm) rigid furring channels 24 in. (610 mm) o.c. applied at right angles to trusses over third layer with two 2-1/2 in. (63.6 mm) Type W screws at each truss. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied at right angles to furring channels with 1-1/8 in. (28.6 mm) Type S screws 12 in. (305 mm) o.c. Trusses supporting 3/4 in. (19.1 mm) plywood. | | |
| 12 |  | 2 Hr. | L538 | Base layer 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied at right angles to 9-1/2 in. (241 mm) wood I-joists 19.2 in. (488 mm) o.c. with 1-5/8 in. (41.3 mm) Type S screws 8 in. (203 mm) o.c. Resilient channels 16 in. (406 mm) o.c. applied at right angles to wood joists through base layer with 1-7/8 in. (47.6 mm) Type S screws at each joist. Second layer 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied at right angles to resilient channels with 1 in. (25.4 mm) Type S-12 screws 8 in. (203 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied at right angles to resilient channels through second layer with 1-5/8 in. (41.3 mm) Type S-12 screws 8 in. (203 mm) o.c. Joints staggered minimum 16 in. (406 mm) from second layer. I-joists supporting 5/8 in. (15.9 mm) wood structural panel floor applied at right angle to joists. | | |

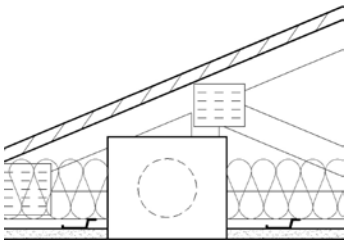
# Fire And Sound Selector



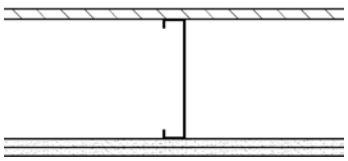
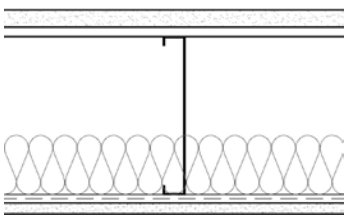
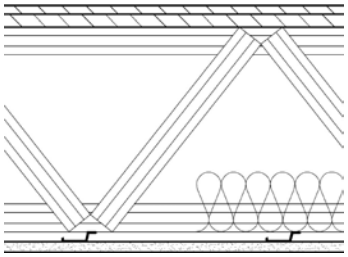
## GYPSUM BOARD FLOOR/CEILING ASSEMBLIES – WOOD FRAMED – CONTINUED

| Item No. | | Fire Rating | UL/GA Design | Description | STC | Test No. |
|---|---|---|---|---|---|---|
| 13 |  | 2 Hr. | L556<br>FC 5750 | Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied at right angles to 9-1/2 in. (241 mm) wood I-joists 24 in. (610 mm) o.c. with 1-1/4 in. (31.8 mm) Type W screws 12 in. (305 mm) o.c. Second layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied at right angles to I-joists with 2 in. (50.8 mm) Type W screws 12 in. (305 mm) o.c. Joints staggered 24 in. (610 mm) from base layer. Third layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied at right angles to I-joists with 2-1/2 in. (63.6 mm) Type W screws 12 in. (305 mm) o.c. Joints staggered 12 in. (305 mm) from second layer. 7/8 in. (22.2 mm) rigid furring channels 24 in. (610 mm) o.c. applied at right angles to I-joists over third layer with two 2-1/2 in. (63.6 mm) Type W screws at each truss. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied at right angles to furring channels with 1-1/8 in. (28.6 mm) Type S screws 12 in. (305 mm) o.c. I-joists supporting 3/4 in. (19.1 mm) plywood. | | |

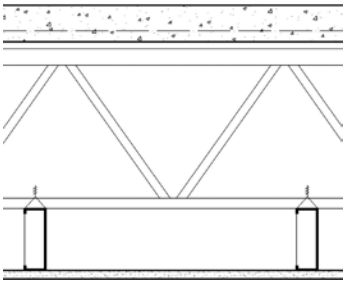
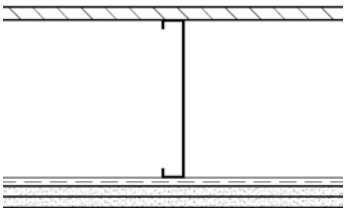
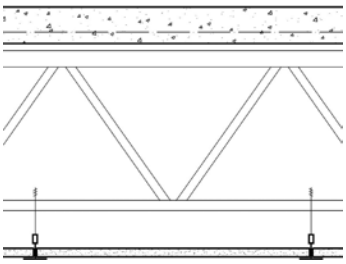
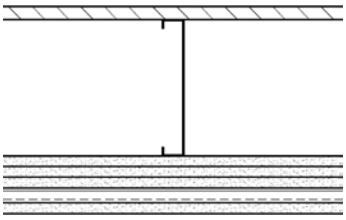
## GYPSUM BOARD ROOF/CEILING ASSEMBLIES – WOOD FRAMED

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 |  | 1 Hr. | P533<br>RC 2603 | 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied at right angles to resilient channels 12 in. (305 mm) o.c. with 1-1/8 in. (28.6 mm) Type S screws 8 in. (203 mm) o.c. Resilient channels applied at right angles to bottom chord of wood trusses 24 in. (610 mm) o.c. with 1-1/4 in. (31.8 mm) Type S screws. Glass fiber insulation draped over the back of the channels. Wood trusses supporting 15/32 in. (11.9 mm) wood structural panels. | | |

## GYPSUM BOARD FLOOR/CEILING ASSEMBLIES – STEEL FRAMED

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 |  | 1 Hr. | L524<br>FC 4502 | Base layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied at right angles to 7 in. (178 mm) deep, 18-gauge steel joists 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S-12 screws 8 in. (203 mm) o.c. at ends and 12 in. (305 mm) o.c. at intermediate joists. Face layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied at right angles to joists with 1-1/2 in. (38.1 mm) Type G screws 8 in. (203 mm) o.c. at ends located between joists and 1-5/8 in. (41.3 mm) Type S-12 screws 12 in. (305 mm) o.c. at joists. Joints offset from base layer joints. Steel joists supporting 19/32 in. (15.1 mm) wood structural panels. | | |
| 2 |  | 1 Hr. | G560 | 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied at right angles to resilient channels 12 in. (305 mm) o.c. with 1 in. (25.4 mm) Type S screws 1-1/2 in. (38.1 mm) and 4 in. (102 mm) from board edges and 8 in. (203 mm) o.c. in the field. Resilient channels fastened to 9-1/4 in. (235 mm) deep, steel joists 24 in. (610 mm) o.c. with 1/2 in. (12.7 mm) Type S screws. Joists supporting 9/16 in. (14.3 mm) steel deck and floor topping mixture. | | |
| 3 |  | 1 Hr. | L565<br>FC 4515 | 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied at right angles to resilient channels 16 in. (406 mm) o.c. with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. Gypsum board end joints fastened to additional channels 60 in. (1,524 mm) long with screws 12 in. (305 mm) o.c. located 3 in. (76.2 mm) from end joint. Resilient channels applied at right angles to light gauge steel trusses 48 in. (1,219 mm) o.c. with 1/2 in. (12.7 mm) Type S-12 screws. Steel trusses supporting 23/32 in. (18.3 mm) wood structural panels and 15/32 in. (11.9 mm) wood structural panel finish floor or floor topping mixture. Optional mineral wool or glass fiber insulation draped over resilient channels. Resilient channels spaced 12 in. (305 mm) o.c. when insulation is used. | | |

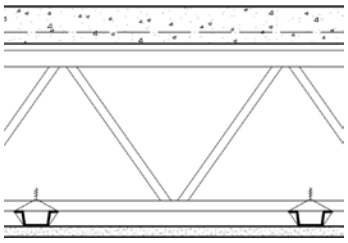
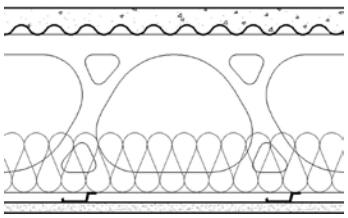
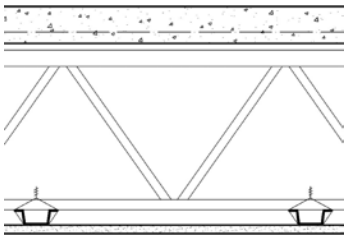
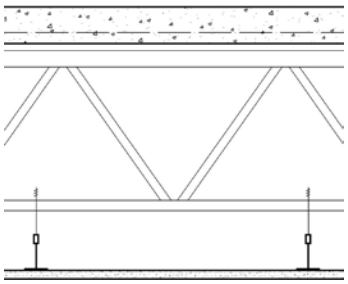
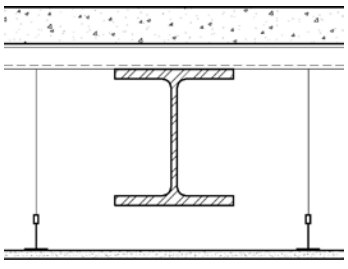
## GYPSUM BOARD FLOOR/CEILING ASSEMBLIES – STEEL FRAMED – CONTINUED

| Item No. | | Fire Rating | UL/GA Design | Description | STC | Test No. |
|---|---|---|---|---|---|---|
| 4 |  | 1 Hr. | FC 1105 | 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied at right angles to 3-5/8 in. (92.1 mm) steel studs 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. Studs fastened to steel bar joists 24 in. (610 mm) o.c. with wire ties 8ft. (2.4 m) o.c. 3/8 in. (9.5 mm) rib lath supporting 2-1/2 in. (63.6 mm) concrete slab. | | |
| 5 |  | 1-1/2 Hr. | L527 | Base layer 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied at right angles to resilient channels with 1 in. (25.4 mm) Type S screws 24 in. (610 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied at right angles to channels through base layer with 1-5/8 in. (41.3 mm) Type S screws 12 in. (305 mm) o.c. Edge joints offset 16 in. (406 mm) from base layer joints. Butt joints of face layer fastened to base layer between resilient channels with 1-1/2 in. (38.1 mm) Type G screws 8 in. (203 mm) o.c. Resilient channels 16 in. (406 mm) o.c. applied at right angles to 9-3/8 in. (238 mm) deep, 16-gauge steel joists with 1/2 in. (12.7 mm) Type S-12 pan-head screws 24 in. (610 mm) o.c. Steel joists supporting 3/4 in. (19.1 mm) plywood. | | |
| 6 |  | 1-1/2 Hr. | G259<br>FC 1290 | 2 ft. x 4 ft. (610 mm x 1,219 mm) Gridstone Gypsum Ceiling Panels laid in fire-rated metal grid system suspended from steel joists supporting 2-1/2 in. (63.6 mm) concrete slab. | | |
| 7 |  | 2 Hr. | L556<br>FC 4750 | Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied at right angles to 8 in. (203 mm) deep, 18-gauge steel joists 24 in. (610 mm) o.c. with 1-1/4 in. (31.8 mm) Type S-12 screws 12 in. (305 mm) o.c. Second layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied at right angles to joists with 2 in. (50.8 mm) Type S-12 screws 12 in. (305 mm) o.c. Joints staggered 24 in. (102 mm) from base layer. Third layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied at right angles to joists with 2-1/2 in. (63.6 mm) Type S-12 screws 12 in. (305 mm) o.c. Joints staggered 12 in. (305 mm) from second layer. 7/8 in. (22.2 mm) rigid furring channels 24 in. (610 mm) o.c. applied at right angles to joists over third layer with two 2-1/2 in. (63.6 mm) Type S-12 screws at each truss. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied at right angles to furring channels with 1-1/8 in. (28.6 mm) Type S screws 12 in. (305 mm) o.c. Steel joists supporting 3/4 in. (19.1 mm) plywood. | | |

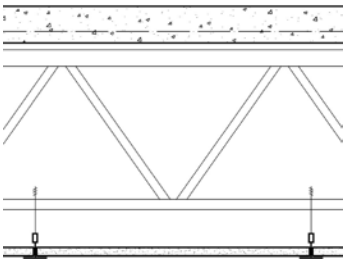
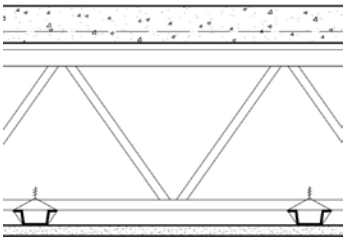
# Fire And Sound Selector



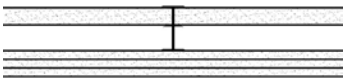
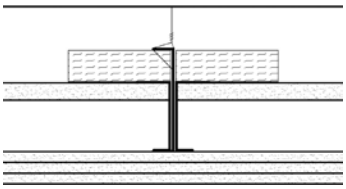
## GYPSUM BOARD FLOOR/CEILING ASSEMBLIES – STEEL FRAMED – CONTINUED

| Item No. | | Fire Rating | UL/GA Design | Description | STC | Test No. |
|---|---|---|---|---|---|---|
| 8 |  | 2 Hr. | G503 | 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied at right angles to rigid furring channels 12 in. o.c. (305 mm) with 1 in. (25.4 mm) Type S screws 8 in. (203 mm) o.c. Furring channels fastened to or suspended from steel bar joists 24 in. (610 mm) o.c. Bar joists supporting 2-1/2 in. (63.6 mm) concrete slab. | | |
| 9 |  | 2 Hr. | G563 | 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied at right angles to resilient channels 12 in. (305 mm) o.c. with 1 in. (25.4 mm) Type S screws 8 in. (203 mm) o.c. Resilient channels fastened to 9-1/4 in. (235 mm) deep proprietary steel joists. Joists supporting steel deck and floor topping mixture. | | |
| 10 |  | 2 Hr. | G514<br>FC 2030 | 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied at right angles to rigid furring channels 24 in. (610 mm) o.c. with 1 in. (25.4 mm) type S screws 12 in. (305 mm) o.c. Furring channels fastened to or suspended from steel bar joists 24 in. (610 mm) o.c. with wire ties 48 in. (1,219 mm) o.c. Bar joists supporting 2-1/2 in. (63.6 mm) concrete slab.<br>IIC: No carpet – 21<br>IIC: Carpet and pad – 67 | 53 | NGC 4075 |
| 11 |  | 2 Hr. | G523 | 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied at right angles to cross tees of metal suspension system with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. Ceiling grid suspended from steel bar joists 24 in. (610 mm) o.c. supporting 2-1/2 in. (63.6 mm) concrete slab. | | |
| 12 |  | 2 Hr. | D502 | 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied at right angles to cross tees of metal suspension system with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. Ceiling grid suspended from 2-1/2 in. (63.6 mm) concrete slab on steel deck. | | |

## GYPSUM BOARD FLOOR/CEILING ASSEMBLIES – STEEL FRAMED – CONTINUED

| Item No. | Fire Rating | UL/GA Design | Description | STC | Test No. |
|---|---|---|---|---|---|
| **13**  | 2 Hr. | G222<br>FC 2190 | 2 ft. x 2 ft. (610 mm x 610 mm) Gridstone Gypsum Ceiling Panels laid in fire-rated metal grid system suspended from steel joists supporting 2-1/2 in. (63.6 mm) concrete slab. | | |
| **14**  | 3 Hr. | G512<br>FC 3012 | 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied at right angles to rigid furring channels 24 in. (610 mm) o.c. with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. Furring channels fastened to bar joists 24 in. (610 mm) o.c. with wire ties. Bar joists supporting 2-1/2 in. (63.6 mm) concrete slab. | | |

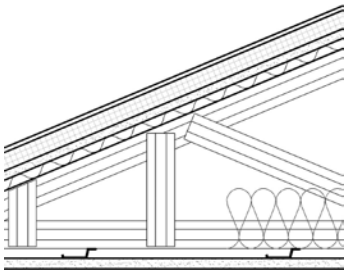
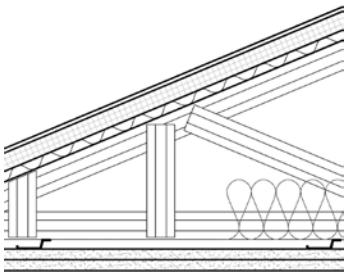
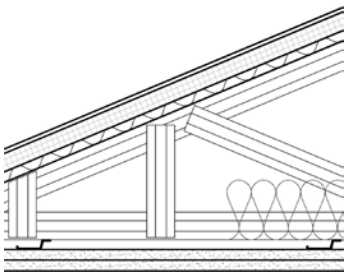
## HORIZONTAL SHAFTWALL MEMBRANES AND DUCT PROTECTION SYSTEMS

| | | | | | |
|---|---|---|---|---|---|
| **1**  | 2 Hr. | WHI<br>694-0300.1 | 1 in. (25.4 mm) Fire-Shield Shaftliner inserted between flanges of 2-1/2 in. (63.6 mm) steel I-studs 24 in. (610 mm) o.c. Base layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied parallel to studs with 1 in. (25.4 mm) Type S screws 24 in. (610 mm) o.c. Second layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied parallel to studs with 1-5/8 in. (41.3 mm) o.c. Face layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied at right angles to studs with 2-1/4 in. (57.2 mm) Type S screws 12 in. (305 mm) o.c. | | |
| **2**  | 2 Hr. | G586 | 1 in. (25.4 mm) Fire-Shield Shaftliner inserted between flanges of 4 in. (102 mm) steel C-T studs 24 in. (610 mm) o.c. C-T studs supported by J-Tracks fastened to each side of 6 in. (152 mm) steel track 8 ft. (2.4 m) o.c. 6 in. (152 mm) steel track suspended from deck with 8-gauge steel wires. 2 in. x 6 in. (50.8 mm x 152 mm) strips of mineral wool insulation draped over J-Tracks on each side of 6 in. (152 mm) track. Base layer 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied at right angles to studs with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. Second layer 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied at right angles to studs with 1-5/8 in. (41.3 mm) Type S screws 12 in. (305 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied with long dimension parallel to studs with 2-1/4 in. (57.2 mm) Type S screws 12 in. (305 mm) o.c. | | |

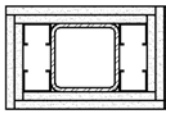
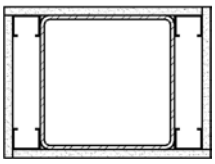
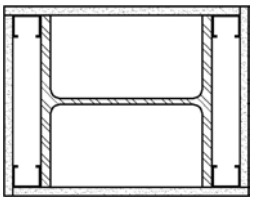
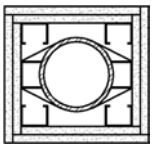
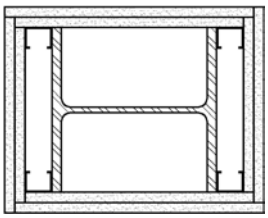
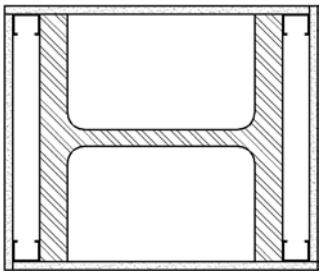
# Fire And Sound Selector



## GYPSUM BOARD ROOF/CEILING ASSEMBLIES – STEEL FRAMED

| Item No. | | Fire Rating | UL/GA Design | Description | STC | Test No. |
|---|---|---|---|---|---|---|
| 1 |  | 1 Hr. | P540<br>RC 2501 | 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied at right angles to resilient channels 16 in. (406 mm) o.c. with 1-1/8 in. (28.6 mm) Type S screws 12 in. (305 mm) o.c. Gypsum board end joints fastened to additional channels 60 in. (1.5 m) long with screws 12 in. (305 mm) o.c. located 3 in. (76.2 mm) from end joint. Resilient channels fastened to steel trusses 48 in. (1,219 mm) o.c. with 1/2 in. (12.7 mm) S-12 screws. Resilient channels spaced 12 in. (305 mm) o.c. when insulation is used. Steel trusses supporting steel roof deck covered by 1/2 in. (12.7 mm) Gold Bond Gypsum Sheathing. Insulation boards laid over gypsum sheathing and covered with a class A, B or C roofing system. Optional mineral wool or glass fiber insulation draped over resilient channels. Resilient channels spaced 12 in. (305 mm) o.c. when insulation is used. | | |
| 2 |  | 1 Hr. | P541 | Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied at right angles to resilient channels 24 in. (610 mm) o.c. with 1-1/8 in. (28.6 mm) Type S screws 8 in. (203 mm) o.c. at ends and 12 in. (305 mm) o.c. at intermediate channels. Gypsum board end joints fastened to additional channels extending 3 in. (76.2 mm) beyond ends of end joints. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied with long dimension perpendicular to channels with 1-3/4 in. (44.5 mm) Type S screws 8 in. (203 mm) o.c. Resilient channels fastened to steel trusses 48 in. (1,219 mm) o.c. with 1/2 in. (12.7 mm) Type S-12 screws. Steel trusses supporting steel roof deck and covered with a class A, B or C roofing system. Optional mineral wool or glass fiber insulation draped over resilient channels. Resilient channels spaced 12 in. (305 mm) o.c. when insulation is used. | | |
| 3 |  | 2 Hr. | P543<br>FC 2752 | Base layer 5/8 in. (15.9 mm) Fire-Shield C Gypsum Board applied at right angles to resilient channels 16 in. (406 mm) o.c. with 1-1/8 in. (28.6 mm) Type S screws 12 in. (305 mm) o.c. Face layer Fire-Shield C Gypsum Board applied at right angles to channels through base layer with 1-5/8 in. (41.3 mm) Type S screws 12 in. (305 mm) o.c. Resilient channels fastened to steel trusses 48 in. (1,219 mm) o.c. with 1/2 in. (12.7 mm) Type S-12 screws. Resilient channels spaced 12 in. (305 mm) o.c. when insulation is used. Steel trusses supporting steel roof deck covered by 1/2 in. (12.7 mm) Gold Bond Gypsum Sheathing. Insulation boards laid over gypsum sheathing and covered with a class A, B or C roofing system. | | |

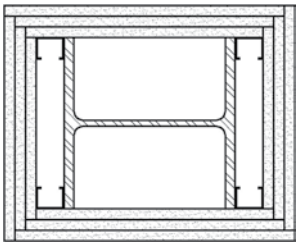
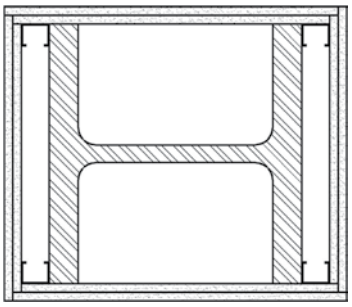
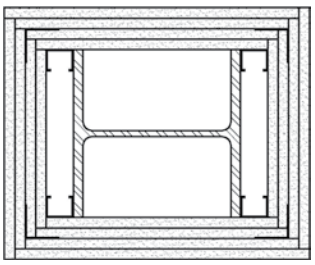
## GYPSUM BOARD FIREPROOFING – STEEL COLUMNS

| Item No. | | Fire Rating | UL/GA Design | Description | STC | Test No. |
|---|---|---|---|---|---|---|
| 1 |  | 1 Hr. | X528<br>CM 1452 | Base layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically to 1-5/8 in. (41.3 mm) steel studs at each corner of TS 4x4x0.188 steel tube column with 1 in. (25.4 mm) Type S screws 24 in. (610 mm) o.c. Face layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically with 1-3/4 in. (44.5 mm) Type S screws 12 in. (305 mm) o.c. | | |
| 2 |  | 1 Hr. | X528<br>CM 1851 | 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to 1-5/8 in. (41.3 mm) steel studs at each corner of TS 8x8x.250 steel tube column with 1 in. (25.4 mm) Type S screws 24 in. (610 mm) o.c. | | |
| 3 |  | 1 Hr. | X528<br>CM 1001 | 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically to 1-5/8 in. (41.3 mm) steel studs at each corner of W10x49 steel column with 1 in. (25.4 mm) Type S screws 24 in. (610 mm) o.c. | | |
| 4 |  | 1-1/2 Hr. | X531 | Base layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically to 1-5/8 in. (41.3 mm) steel studs at each corner of 4-1/2 in. (114 mm) OD steel pipe column with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. Face layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically with 1-5/8 in. (41.3 mm) Type S screws 12 in. (305 mm) o.c. | | |
| 5 |  | 2 Hr. | X528<br>CM 2017 | Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to 1-5/8 in. (41.3 mm) steel studs at each corner of W10x49 steel column with 1 in. (25.4 mm) Type S screws 24 in. (610 mm) o.c. Face layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically with 1-3/4 in. (44.5 mm) Type S screws 12 in. (305 mm) o.c. | | |
| 6 |  | 2 Hr. | X520<br>CM 2110 | 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically to 1-5/8 in. (41.3 mm) steel studs at each corner of W14x228 steel column with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. | | |

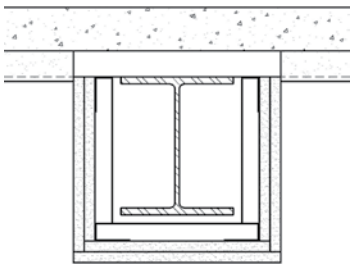
# Fire And Sound Selector



## GYPSUM BOARD FIREPROOFING – STEEL COLUMNS – CONTINUED

| Item No. | | Fire Rating | UL/GA Design | Description | STC | Test No. |
|---|---|---|---|---|---|---|
| 7 |  | 3 Hr. | X510<br>CM 3120 | Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to 1-5/8 in. (41.3 mm) steel studs at each corner of W10x49 steel column with 1 in. (25.4 mm) Type S screws 24 in. (610 mm) o.c. Second layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically with 1-5/8 in. (41.3 mm) Type S screws 12 in. (305 mm) o.c. and wire tied with two strands 18-gauge wire 24 in. (610 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically with 2-1/4 in. (57.2 mm) Type S screws 12 in. (305 mm) o.c. | | |
| 8 |  | 3 Hr. | X513<br>CM 3130 | Base layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically to 1-5/8 in. (41.3 mm) steel studs at each corner of W14x228 steel column with 1 in. (25.4 mm) Type S screws 24 in. (610 mm) o.c. Face layer 1/2 in. (12.7 mm) Fire-Shield C Gypsum Board applied vertically to studs with 1-5/8 in. (41.3 mm) Type S screws 12 in. (305 mm) o.c. | | |
| 9 |  | 4 Hr. | X501 | Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically to 1-5/8 in. (41.3 mm) steel studs at each corner of W10x49 steel column with 1 in. (25.4 mm) Type S screws 24 in. (610 mm) o.c. Second layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically with 1-5/8 in. (41.3 mm) Type S screws 24 in. (610 mm) o.c. 2 in. x 2 in. (50.8 mm x 50.8 mm) 25-gauge steel angles applied to corners with 1-5/8 in. (41.3 mm) Type S screws 24 in. (610 mm) o.c. Third layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically and fastened to angles with 1 in. (25.4 mm) Type S screws 12 in. (305 mm) o.c. and wire tied with two strands 18-gauge wire 24 in. (610 mm) o.c. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied vertically and fastened to angles with 1-5/8 in. (41.3 mm) Type S screws 12 in. (305 mm) o.c. | | |

## GYPSUM BOARD FIREPROOFING – STEEL BEAMS

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 |  | 2 Hr. | N501<br>BM 2120 | Base layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied with 1-1/4 in. (31.8 mm) Type S screws 16 in. (406 mm) o.c. to steel frames 24 in. (610 mm) o.c. fabricated from 25-gauge, 1 in. (25.4 mm) x 2 in. (50.8 mm) steel angles. Face layer 5/8 in. (15.9 mm) Fire-Shield Gypsum Board applied to frames with 1-3/4 in. (44.5 mm) Type S screws 8 in. (203 mm) o.c. | | |