

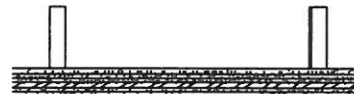
**One-Hour Ceiling**  
(Based on GA File Nos. FC 5406 and RC 2601)

The ceiling membrane consists of two layers of 5/8" (15.9 mm) type X gypsum board directly applied to framing or furring. The base layer of gypsum board is applied at right angles to ceiling framing 24" (610 mm) o.c. and attached with 1" (25 mm) Type S or S-12 drywall screws (for steel framing) or 1-1/4" (32 mm) Type W or S drywall screws (for wood framing) spaced 24" (610 mm) o.c. The face layer of gypsum board is applied at right angles to the framing and attached with 1-5/8" (41 mm) Type S or S-12 drywall screws (for steel framing) or 1-7/8" (48 mm) Type W or S drywall screws (for wood framing) 12" (305 mm) o.c. at end joints and intermediate joints and 1-1/2" (38 mm) Type G drywall screws 12" (305 mm) o.c. placed 2" (50 mm) back on either side of end joints. Joints of the face layer are offset 24" (610 mm) from the joints in the base layer. Face layer joints and fasteners are finished to Level 1 as specified in GA-214, *Levels of Gypsum Board Finish*.



**Two-Hour Ceiling**  
(Based on UL Design L556)

The ceiling membrane consists of four layers of 5/8" (15.9 mm) type X gypsum board applied to ceiling framing spaced 24" (610 mm) o.c. with a 7/8" (22 mm) hat-shaped steel furring channel located between the third and face layer. The base layer of gypsum board is applied at right angles to the ceiling framing and attached with 1-1/4" (32 mm) type S or W drywall screws spaced 12" (305 mm) o.c. The second layer of gypsum board is applied at right angles to the ceiling framing and attached with 2" (51 mm) type S or W drywall screws spaced 12" (305 mm) o.c. The third layer of gypsum board is applied at right angles to ceiling framing and attached with 2-1/2" (64 mm) type S or W drywall screws spaced 12" (305 mm) o.c. The joints in each layer are offset a minimum of 10" (250 mm) from the previous layer. The steel hat-shaped rigid furring channels are applied at right angles to the ceiling framing and spaced 24" (610 mm) o.c. The channels are attached to the ceiling framing at each framing member/furring channel intersection with two 2-1/2" (64 mm) Type S or W drywall screws. The face layer of gypsum board is applied at right angles to the furring channels and attached with 1-1/8" (28 mm) type S drywall screws spaced 12" (305 mm) o.c. Face layer joints and fasteners are finished to Level 1 as specified in GA-214, *Levels of Gypsum Board Finish*.



**One-Hour Wall Membrane**  
(Based on UL Design U 301)

The membrane consists of two layers of 5/8" (15.9 mm) type X gypsum board directly applied to framing or furring. The base layer of gypsum board is applied either parallel or at right angles to wall or partition framing 16" (406 mm) o.c. and attached with 1" (25 mm) Type S or S-12 drywall screws (for steel framing) or 1-7/8" (48 mm) nails or 1-1/4" (32 mm) Type W or S drywall screws (for wood framing) spaced 6" (150 mm) o.c. The face layer of gypsum board is applied either parallel or at right angles to the framing and attached with 1-5/8" (41 mm) Type S or S-12 drywall screws (for steel framing) or 2-3/8" (60 mm) nails or 1-7/8" (48 mm) Type W or S drywall screws (for wood framing) spaced 8" (203 mm) o.c. Joints of the face layer are offset 24" (610 mm) from the joints in the base layer. Face layer joints and fasteners are finished to Level 1 as specified in GA-214, *Levels of Gypsum Board Finish*.

