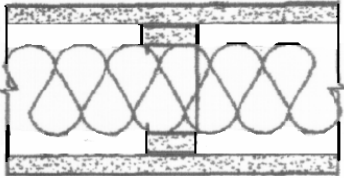


## ***DragonBoard 2 Hour Fire Designs***

### ***Interior Wall / Partitions with 3-5/8" Steel Stud***

#### ***DB Design No. WP 1202 (Sound Deadening)***

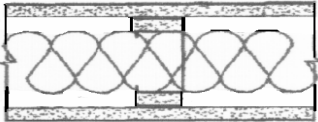


***One layer 14 mm (9/16") DragonBoard applied to each side of 3-5/8" 20 GA steel studs 16" o.c. on top of the 2" wide DragonBoard furring strips using 1-3/4" self-drilling self-countersinking corrosion protected cement board screws spaced 12" o.c. at edges and 18" o.c. in field. Minimum edge space 3/4" to screw centers. Joints located over studs. Joints staggered.***

***Joints finished using fiberglass tape. Screw heads covered. 4" 4pcf mineral wool insulation for fire and noise. Use 3M CP25WB+ or equal for Caulking. (As tested at Omega Point Laboratories)***

### ***Interior Wall / Partitions with 2-5/8" Steel Stud***

#### ***DB Design No. WP 1204 (Sound Deadening)***

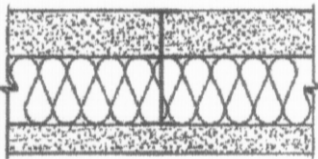


***One layer 10 mm (7/16") DragonBoard applied to each side of 2-5/8" 20 GA steel studs 16" o.c. on top of the 2" wide DragonBoard furring strips using 1-3/4" self-drilling self-countersinking corrosion protected cement board screws spaced 12" o.c. at edges***

***and 18" o.c. in field. Minimum edge space 3/4" to screw centers. Joints located over studs. Joints staggered. Joints finished using fiberglass tape. Screw heads covered. Use 3" 8pcf mineral wool insulation for fire and noise. Use 3M CP25WB+ or equal for Caulking. (Suggested Design)***

### ***Shaft Wall with 2-1/2" Steel C-T Stud***

#### ***DB Design No. WP 2201***



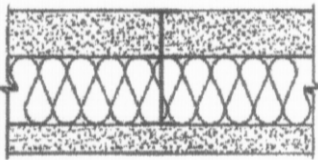
***One layer 1" x 24" type X gypsum panels inserted between T sections of 2-1/2" steel C-T studs attached to 2-1/2" floor and ceiling runners.***

***Opposite side: One layer of 14 mm (9/16") DragonBoard applied parallel to studs using 1-3/4" self-drilling self-countersinking corrosion protected cement board screws spaced 12" o.c. at edges***

***and 18" o.c. in field. Minimum edge space 3/4" to screw centers. Joints located over studs. Joints staggered. Joints finished using fiberglass tape. Screw heads covered. Use 3M CP25WB+ or equal for Caulking. Use 2-1/2" 4pcf mineral wool insulation for fire. (Suggested Design)***

### ***Shaft Wall with 2-1/2" Steel C-T Stud***

#### ***DB Design No. WP 2202 (Sound Deadening)***



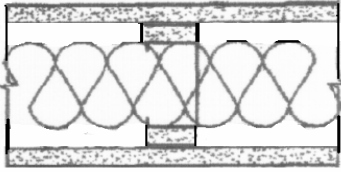
***One layer 1" x 24" type X gypsum panels inserted between T sections of 2-1/2" steel C-T studs attached to 2-1/2" floor and ceiling runners.***

***Opposite side: One layer of 14 mm (9/16") DragonBoard applied parallel to studs using 1-3/4" self-drilling self-countersinking corrosion protected cement board screws spaced 12" o.c. at edges***

***and 18" o.c. in field. Minimum edge space 3/4" to screw centers. Joints located over studs. Joints staggered. Joints finished using fiberglass tape. Screw heads covered. 2-1/2" 8pcf mineral wool insulation for fire and noise. Use 3M CP25WB+ or equal for Caulking. (Suggested Design)***

**Exterior Wall with 3-5/8" Steel Stud**

**DB Design No. WP 3202 (Non Load Bearing)**

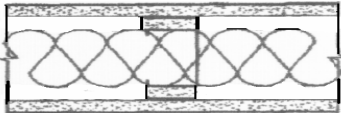


*One layer 10 mm (7/16") DragonBoard applied to each side of 3-5/8" 20 GA steel studs 24" o.c. on top of the 2" wide DragonBoard furring strips using 1-3/4" self-drilling self-countersinking corrosion protected cement board screws spaced 12" o.c. at edges and 18" o.c. in field. Minimum edge space 3/4" to screw centers. Joints located over studs. Joints staggered.*

*Joints caulked with 3M CP25WB+ or equal and covered with weather exposed cladding or finish system. 4" 4pcf mineral wool insulation in stud space for fire. (Suggested Design)*

**Exterior Wall with 2-5/8" Steel Stud**

**DB Design No. WP 3204 (Non Load Bearing)**

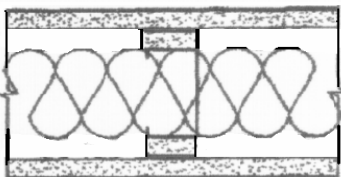


*One layer 10 mm (7/16") DragonBoard applied to each side of 2-5/8" 20 GA steel studs 24" o.c. on top of the 2" wide DragonBoard furring strips using 1-3/4" self-drilling self-countersinking corrosion protected cement board screws spaced*

*12" o.c. at edges and 18" o.c. in field. Minimum edge space 3/4" to screw centers. Joints located over studs. Joints staggered. Joints caulked with 3M CP25WB+ or equal and covered with weather exposed cladding or finish system. 3" 4psf mineral wool insulation in stud space for fire. (Suggested Design)*

**Area Separation Wall with 3-5/8" Steel Stud**

**DB Design No. WP 4202 (Sound Deadening)**

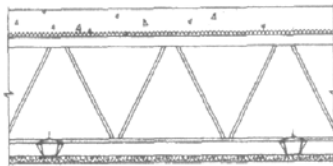


*One layer 14 mm (9/16") DragonBoard applied to each side of 3-5/8" 20 GA steel studs 24" o.c. on top of the 2" wide DragonBoard furring strips using 1-3/4" self-drilling self-countersinking corrosion protected cement board screws spaced 12" o.c. at edges and 18" o.c. in field. Minimum edge space 3/4" to screw centers. Joints located over studs. Joints staggered.*

*Joints finished using fiberglass tape. Screw heads covered. 4" 4psf mineral wool insulation in stud space for fire and noise. Use 3M CP25WB+ or equal for Caulking. (Suggested Design)*

**Floor-Ceiling with Steel Joists & Concrete Slab**

**DB Design No. FC 5201**

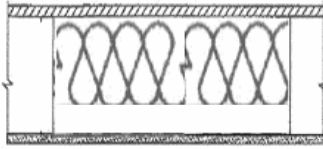


*One layer 14 mm (9/16") DragonBoard applied to rigid furring channels 24" o.c. using 1-3/4" self-drilling self-countersinking corrosion protected cement board screws spaced 12" o.c. at edges and 18" o.c. in field. Minimum edge space 3/4" to screw centers. Joints staggered. Joints finished using fiberglass tape. Use 3M CP25WB+ or equal for Caulking. Screw heads covered.*

*DragonBoard end joints located midway between continuous channels and attached to additional pieces of channel 52" long with screws 8" o.c. Furring channels wire tied to open web steel joists 24" o.c. supporting 3/8" rib metal lath or 9/16" deep 25 gage minimum corrugated steel and 2" concrete slab measured from top of flute. (Suggested Design)*

**Floor-Ceiling with Steel Channel Joists & Plywood Floor**

**DB Design No. FC 5203**

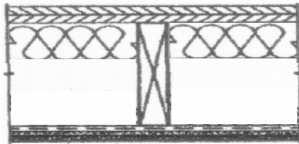


*One layer 14 mm (9/16") DragonBoard applied to channel shaped, minimum 6" deep 16 gage (or minimum 7" deep, 18 gage) galvanized steel joists 24" o.c. using 1-3/4" self-drilling self-countersinking corrosion protected cement board screws spaced 12" o.c. at edges and 18" o.c. in field. Minimum edge space 3/4" to screw centers. Joints staggered. Joints finished using fiberglass tape.*

*Screw heads covered. Use 3M CP25WB+ or equal for Caulking. 4" 4pcf mineral wool friction fit between joists pushed to top under flooring. (Suggested Design)*

**Floor-Ceiling with Resilient Channels & Wood Joists**

**DB Design No. FC 5206 (Sound Deadening)**

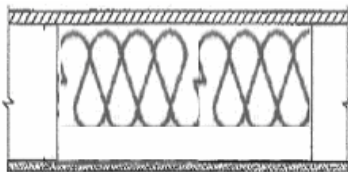


*One layer 14 mm (9/16") DragonBoard applied to resilient furring channels 24" o.c. using 1-3/4" self-drilling self-countersinking corrosion protected cement board screws spaced 12" o.c. at edges and 18" o.c. in field. Minimum edge space 3/4" to screw centers. Joints staggered. Joints finished using fiberglass tape. Use 3M CP25WB+*

*or equal for Caulking. Screw heads covered. DragonBoard end joints located midway between continuous channels and attached to additional pieces of channel 54" long with screws at 12" o.c. Resilient furring channels applied at right angles to 2 x 10 wood joists 16" o.c. with 1-3/4" Type W screws. Wood joists supporting 5/8" plywood subfloor and finish floor. 6" 4pcf mineral wool friction fit between joists pushed to top under flooring. (Suggested Design)*

**Floor-Ceiling with Steel Channel Joists & DragonBoard Floor**

**DB Design No. FC 5207 (Sound Deadening) 106 lb/sf, L/360**

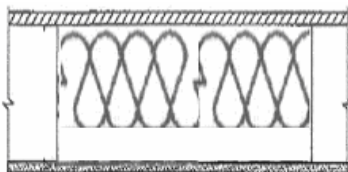


*One layer 14 mm (9/16") DragonBoard applied to the bottom of channel shaped, minimum 6" deep 16 gage (or minimum 7" deep, 18 gage) galvanized steel joists 16" o.c. using 1-3/4" self-drilling self-countersinking corrosion protected cement board screws spaced 12" o.c. at edges and 18" o.c. in field. Minimum edge space 3/4" to screw centers. Joints staggered. Joints finished using fiberglass tape. Use*

*3M CP25WB+ or equal for Caulking. Screw heads covered. Steel channel joists supporting one layer of 14 mm (9/16") DragonBoard subfloor and finish floor over DragonBoard. The screw pattern on the DragonBoard subfloor is the same as on the DragonBoard ceiling. 4" 4pcf mineral wool friction fit between joists pushed to top under flooring. (Under design evaluation)*

**Floor-Ceiling with Steel Channel Joists & DragonBoard Floor**

**DB Design No. FC 5208 (Sound Deadening) 200 lb/sf, L/360**

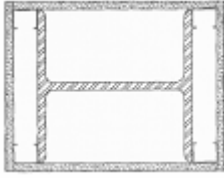


*One layer 14 mm (9/16") DragonBoard applied to the bottom of channel shaped, minimum 6" deep 16 gage (or minimum 7" deep, 18 gage) galvanized steel joists 16" o.c. using 1-3/4" self-drilling self-countersinking corrosion protected cement board screws spaced 12" o.c. at edges and 18" o.c. in field. Minimum edge space 3/4" to screw centers. Joints staggered. Joints finished using fiberglass tape. Use*

*3M CP25WB+ or equal for Caulking. Screw heads covered. Steel channel joists supporting one layer of 18 mm (3/4") DragonBoard subfloor and finish floor over DragonBoard. The screw pattern on the DragonBoard subfloor is the same as on the DragonBoard ceiling. 4" 4pcf mineral wool friction fit between joists pushed to top under flooring. (Under design evaluation)*

**Column W10x49 with Metal Corner Bead**

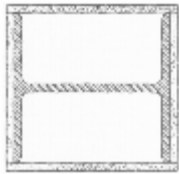
**DB Design No. CM 6201**



*One layer 14 mm (9/16") DragonBoard applied to 1-5/8" steel studs over flanges of W10x49 with 1-3/4" self-drilling self-countersinking corrosion protected cement board screws 12" o.c. to provide a cavity between DragonBoard and flange. One layer of 14 mm (9/16") DragonBoard applied across the web opening and attached to studs with 1-3/4" cement board screws 12" o.c. Metal corner bead applied with 1-5/8" cement board screws 12" o.c. (Under design evaluation)*

**Column W10x49 with Steel Column Cover**

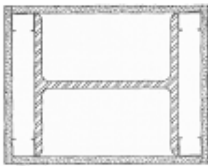
**DB Design No. CM 6202**



*Base layer 14 mm (9/16") DragonBoard applied around W10x49 column and held in place with paper masking tape. Face layer either No. 24 MSG galvanized steel column cover consisting of two L-shaped sections with snap-lock sheet steel joints or No. 22 MSG galvanized steel column covers consisting of two L-shaped sections with lap joints fastened with No. 8x1/2" sheet metal screws 12" o.c. (Under design evaluation)*

**Column W14x228 with Metal Corner Bead**

**DB Design No. CM 6203**



*One layer 14 mm (9/16") DragonBoard applied to 1-5/8" steel studs over flanges of heavy steel W14x228 column with 1-3/4" self-drilling self-countersinking corrosion protected cement board screws 12" o.c. to provide a cavity between DragonBoard and flange. One layer of 14 mm (9/16") DragonBoard applied across the web opening and attached to studs with 1-3/4" cement board screws 12" o.c. Metal corner bead applied with 1-5/8" cement board screws 12" o.c. (Under design evaluation)*