SECTION 09 21 16

GYPSUM BOARD ASSEMBLIES

PART 1 – GENERAL

1.1 PURPOSE

This guideline is intended to provide useful information to the Professional Service Provider (PSP) to establish a basis of design. PSP is to apply the principles of this section such that the University of Texas at Arlington (UTA) may achieve a level of quality and consistency in the design and construction of their facilities. Deviations from these guidelines must be approved by UTA and may require justification through Life Cycle Cost (LCC) analysis and submitted to UTA for approval.

1.2 LESSONS LEARNED AND DESIGN CONSIDERATIONS

A. Provide 20 ga. metal studs for interior wall framing.
B. Extend interior wall construction 6" above finished ceiling typically, unless the wall must go to the underside of deck.
C. Level 3 finish is typical on textured walls; however, Level 5 is required on un-textured walls.
D. Ensure ceiling mounted feature is securely fastened to structure above.

1.3 SECTION INCLUDES

A. Performance criteria for gypsum board assemblies.
B. Metal stud wall framing.
C. Metal channel ceiling framing.
D. Acoustic insulation.
E. Gypsum sheathing.
F. Gypsum wallboard.
G. Joint treatment and accessories.
H. Textured finish system.

1.4 RELATED REQUIREMENTS

A. Volatile Organic Compound (VOC) Content Restrictions section in Division 01.
B. Section 05 40 00 – Cold-Formed Metal Framing: Exterior wind-load-bearing metal stud framing.
C. Section 06 10 00 – Rough Carpentry: Wood blocking product and execution requirements.
D. Section 07 25 00 – Weather Barriers: Water-resistive barrier over sheathing.
E. Section 07 90 05 – Joint Sealers: Acoustic sealant.

1.5 REFERENCE STANDARDS

A. AISI S100-12 - North American Specification for the Design of Cold-Formed Steel Structural Members; American Iron and Steel Institute; current edition.
B. AISI SG02-1 - North American Specification for the Design of Cold-Formed Steel Structural Members; American Iron and Steel Institute; current edition. (replaced SG-971)
C. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; current edition.
D. ASTM C475/C475M - Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board; current edition.
E. ASTM C645 - Standard Specification for Nonstructural Steel Framing Members; current edition.
F. ASTM C665 - Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing; current edition.
G. ASTM C754 - Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products; current edition.
H. ASTM C840 - Standard Specification for Application and Finishing of Gypsum Board; current edition.
I. ASTM C954 - Standard Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs From 0.033 in. (0.84 mm) to 0.112 in. (2.84 mm) in Thickness; current edition.
J. ASTM C1002 - Standard Specification for Steel Self-Piercing Tapping Screws for Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs; current edition.

K. ASTM C1177/C1177M - Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing; current edition.
L. ASTM C1280 - Standard Specification for Application of Gypsum Sheathing Board; current edition.
M. ASTM C1396/C1396M - Standard Specification for Gypsum Board; current edition.
N. ASTM C1658/C1658M - Standard Specification for Glass Mat Gypsum Panels; current edition.
O. ASTM D3273 - Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber; 2012.ASTM E90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements; current edition.
P. ASTM E413 - Classification for Rating Sound Insulation; current edition.
Q. GA-216 - Application and Finishing of Gypsum Board; current edition.
R. GA-226 - Application of Gypsum Board to Form Curved Surfaces; Gypsum Association; current edition.

1.6 SUBMITTALS
A. See Division 01 for submittal procedures.
B. Product Data: Provide data on metal framing, gypsum board, glass mat faced gypsum board, accessories, and joint finishing system.
C. Product Data: Provide manufacturer's data on partition head to structure connectors, showing compliance with requirements.
D. Samples: Submit two samples of gypsum board finished with proposed texture application, 12 by 12 inches in size, illustrating finish color and texture.
E. LEED Submittals:
1. For gypsum wallboard, submit documentation of recycled content and location of manufacture.
2. For steel products, submit documentation of steel mill process, location of mill, and location of manufacture.

1.7 QUALITY ASSURANCE
A. Installer Qualifications: Company specializing in performing gypsum board application and finishing, with minimum ten years of documented experience.

PART 2 –PRODUCTS

2.1 GYPSUM BOARD ASSEMBLIES
A. Provide completed assemblies complying with ASTM C840 and GA-216.
B. Shaft Walls at HVAC Shafts: Provide completed assemblies with the following characteristics:
1. Air Pressure within Shaft: Sustained loads of 7.5 lbf/sq ft with maximum mid-span deflection of L/360.
2. Acoustic Attenuation: STC of 50-54 calculated in accordance with ASTM E413, based on tests conducted in accordance with ASTM E90.
C. Shaft Walls at Elevator Shafts: Provide completed assemblies with the following characteristics:
1. Air Pressure Within Shaft: Intermittent loads of 10 lbf/sq ft with maximum mid-span deflection of L/360.
2. Acoustic Attenuation: STC of 50-54 calculated in accordance with ASTM E413, based on tests conducted in accordance with ASTM E90.

2.2 METAL FRAMING MATERIALS
A. Manufacturers - Metal Framing, Connectors, and Accessories:
1. Clarkwestern Dietrich Building Systems LLC; www.clarkdietrich.com.
2. Phillips Manufacturing Company; www.phillipsmfg.com.
3. Substitutions: See Division 01.
B. Non-Loadbearing Framing System Components: ASTM C 645; galvanized sheet steel, of size and properties necessary to comply with ASTM C 754 for the spacing indicated, with maximum deflection of wall framing of L/240 at 5 psf. Minimum 20 gage.
1. Studs: "C" shaped with flat or formed webs with knurled faces.
2. Runners: U shaped, sized to match studs.
3. Ceiling Channels: C-shaped.
4. Furring: Hat-shaped sections, minimum depth of 7/8 inch.
C. Shaft Wall Studs and Accessories: ASTM C645; galvanized sheet steel, of size and properties necessary to comply with ASTM C754 and specified performance requirements.
D. Ceiling Hangers: Type and size as specified in ASTM C754 for spacing required.
E. Partition Head to Structure Connections: Provide mechanical anchorage devices that accommodate deflection

using slotted holes, screws and anti-friction bushings, preventing rotation of studs while maintaining structural performance of partition.

1. Structural Performance: Maintain lateral load resistance and vertical movement capacity required by applicable code, when evaluated in accordance with AISI S100-12.
2. Material: ASTM A653/A653M steel sheet, SS Grade 50/340, with G60/Z180 hot dipped galvanized coating.
3. Provide components UL-listed for use in UL-listed fire-rated head of partition joint systems indicated on drawings.
4. Deflection and Firestop Track:
    a. Provide mechanical anchorage devices as described above that accommodate deflection while maintaining the fire-rating of the wall assembly.
    b. Products:
        1) FireTrak Corporation; Posi Klip.
        2) Metal-Lite, Inc.; The System.
5. Provide top track preassembled with connection devices spaced to fit stud spacing indicated on drawings; minimum track length of 12 feet.

2.3 BOARD MATERIALS

A. Gypsum Wallboard: Paper-faced gypsum panels as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
    1. Application: Use for vertical surfaces, unless otherwise indicated.
    2. Glass mat faced gypsum panels as defined in ASTM C1658/C1658M, suitable for paint finish, of the same core type and thickness may be substituted for paper-faced board.
    3. Thickness:
        a. Vertical Surfaces: 5/8 inch.
        b. Ceilings: 1/2 inch.
        c. Multi-Layer Assemblies: Thicknesses as indicated on drawings.
    4. Paper-Faced Products:
        a. American Gypsum; ClassicRoc Regular Gypsum Wallboard and FireBloc Type X Gypsum Wallboard.
        b. Georgia-Pacific Gypsum; ToughRock.
        c. National Gypsum Company; Gold Bond Brand Gypsum Wallboard.
        d. Temple-Inland Building Product by Georgia-Pacific, LLC; Gypsumboard and Gypsum Board Fire Resistant Panels Type X and Type TGC.
        e. USG Corporation; Sheetrock Brand Gypsum Panels.
    5. Glass Mat Faced Products:
        a. Georgia-Pacific Gypsum; DensArmor Plus.
        b. Temple-Inland Building Product by Georgia-Pacific, LLC; GreenGlass Interior Gypsum Board.
        c. National Gypsum Company; Gold Bond eXP Fire-Shield Interior Extreme Gypsum Panel.
        d. Substitutions: See Division 01.

B. Backing Board For Non-Wet Areas: Water-resistant gypsum backing board as defined in ASTM C1396/C1396M; sizes to minimum joints in place; ends square cut.
    1. Application: Vertical surfaces behind thinset tile, except in wet areas.
    2. Mold Resistance: Score of 10, when tested in accordance with ASTM D3273.
    3. Type: Regular and Type X, in locations indicated.
    4. Type X Thickness: 5/8 inch.
    5. Regular Board Thickness: 1/2 inch.
    6. Edges: Tapered.
    7. Products:
        a. American Gypsum Company; M-Bloc.
        b. Georgia-Pacific Gypsum; DensShield Tile Backer.
        c. National Gypsum Company; Gold Bond Brand XP Gypsum Board.
        d. Temple-Inland Building Product by Georgia-Pacific, LLC; ComfortGuard WR.
        e. USG Corporation; Sheetrock Brand Mold Tough Gypsum Panels.

C. Ceiling Board: Special sag resistant gypsum ceiling board as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
    1. Application: Ceilings, unless otherwise indicated.
    2. Thickness: 1/2 inch.

3. Edges: Tapered.
4. Products:
    a. American Gypsum; Interior Ceiling Board.
    b. Georgia-Pacific Gypsum; ToughRock Span 24 Ceiling Board.
    c. National Gypsum Company; High Strength Brand Ceiling Board.
    d. Temple-Inland Building Products by Georgia-Pacific, LLC; Span24 Ceiling Board.
    e. USG Corporation; Sheetrock Brand Sag-Resistant Interior Gypsum Ceiling Board.

D. Exterior Sheathing Board: Sizes to minimize joints in place; ends square cut.
1. Application: Exterior sheathing, unless otherwise indicated.
2. Glass Mat Faced Sheathing: Glass mat faced gypsum substrate as defined in ASTM C1177/C1177M.
3. Edges: Square.
4. Glass Mat Faced Products:
    a. Georgia-Pacific Gypsum; DensGlass Sheathing.
    b. National Gypsum Company; Gold Bond eXP Sheathing.
    c. Temple-Inland Building Products by Georgia-Pacific, LLC; GreenGlass Exterior Sheathing.
    d. Substitutions: See Division 01.

E. Exterior Soffit Board: Exterior gypsum soffit board as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
1. Application: Ceilings and soffits in protected exterior areas, unless otherwise indicated.
2. Types: Regular and Type X, in locations indicated.
3. Type X Thickness: 5/8 inch.
4. Regular Type Thickness: 5/8 inch.
5. Edges: Tapered.
6. Products:
    a. American Gypsum; Exterior Soffit Wallboard.
    b. Georgia-Pacific Gypsum; ToughRock Fireguard C Soffit Board.
    c. National Gypsum Company; Gold Bond Brand Exterior Soffit Board.
    d. Temple-Inland Building Products by Georgia-Pacific, LLC; Exterior Gypsum Soffit Board.
    e. USG Corporation; Sheetrock Exterior Gypsum Ceiling Board.
    f. Substitutions: See Division 01.

F. Shaftwall and Coreboard: Type X; 1 inch thick by 24 inches wide, beveled long edges, ends square cut.
1. Paper Faced Type: Gypsum shaftliner board or gypsum coreboard as defined ASTM C1396/C1396M; water-resistant faces.
2. Products:
    a. American Gypsum; Shaft Liner.
    b. CertainTeed Corporation; ProRoc Brand Shaftliner Type X.
    c. National Gypsum Company; Gold Bond Brand 1" Fire-Shield Shaftliner.
    d. National Gypsum Company; Gold Bond Brand 1" Fire-Shield Shaftliner XP (mold-resistant).
    e. Temple-Inland Building Products by Georgia-Pacific, LLC; SilentGuard Gypsum Shaftliner.
    f. USG Corporation; Sheetrock Gypsum Liner Panels.
    g. USG Corporation; Sheetrock Gypsum Liner Panels--Enhanced (mold-resistant).
    h. Substitutions: See Division 01.

2.4 ACCESSORIES

A. Acoustic Insulation: ASTM C665; preformed glass fiber, friction fit type, unfaced. Thickness:___ inch.
B. Acoustic Insulation: 1; preformed glass fiber, friction fit type, unfaced. Thickness: 3 inch.
C. Acoustic Sealant: Acrylic emulsion latex or water-based elastomeric sealant; do not use solvent-based non-curing butyl sealant.
D. Acoustic Sealant: Non-hardening, non-skinning, for use in conjunction with gypsum board.
E. Water-Resistive Barrier: As specified in Section 07 25 00.
F. Joint Materials: ASTM C475 and as recommended by gypsum board manufacturer for project conditions.
1. Tape: 2 inch wide, coated glass fiber tape for joints and corners, except as otherwise indicated.
2. Tape: 2 inch wide, creased paper tape for joints and corners, except as otherwise indicated.
3. Ready-mixed vinyl-based joint compound.
4. Chemical hardening type compound.

G. High Build Drywall Surfacer: Vinyl acrylic latex-based coating for spray application, designed to take the place of skim coating and separate paint primer in achieving Level 5 finish.

H. Textured Finish Materials: Latex-based compound; plain.
I. Screws for Fastening of Gypsum Panel Products to Cold-Formed Steel Studs Less than 0.033 inch in Thickness and Wood Members: ASTM C1002; self-piercing tapping screws, corrosion resistant.
J. Screws for Fastening of Gypsum Panel Products to Steel Members from 0.033 to 0.112 inch in Thickness: ASTM C954; steel drill screws, corrosion resistant.

PART 3 – EXECUTION

3.1 EXAMINATION
A. Verify that project conditions are appropriate for work of this section to commence.

3.2 SHAFT WALL INSTALLATION
A. Shaft Wall Framing: Install in accordance with manufacturer's installation instructions.
   1. Fasten runners to structure with short leg to finished side, using appropriate power-driven fasteners at not more than 24 inches on center.
   2. Install studs at spacing required to meet performance requirements.
B. Shaft Wall Liner: Cut panels to accurate dimension and install sequentially between special friction studs.
   1. On walls over sixteen feet high, screw-attach studs to runners top and bottom.
   2. Seal perimeter of shaft wall and penetrations with acoustical sealant.

3.3 FRAMING INSTALLATION
A. Metal Framing: Install in accordance with ASTM C754 and manufacturer's instructions.
B. Suspended Ceilings and Soffits: Space framing and furring members as indicated.
   1. Level ceiling system to a tolerance of 1/1200.
   2. Laterally brace entire suspension system.
   3. Install bracing as required at exterior locations to resist wind uplift.
C. Studs: Space studs as permitted by standard. 16 inches o.c. maximum.
   1. Extend partition framing to structure where indicated and to ceiling in other locations.
   2. Partitions Terminating at Ceiling: Attach ceiling runner securely to ceiling track in accordance with manufacturer's instructions.
   3. Partitions Terminating at Structure: Attach top runner to structure, maintain clearance between top of studs and structure, and connect studs to track using specified mechanical devices in accordance with manufacturer's instructions; verify free movement of top of stud connections; do not leave studs unattached to track.
D. Openings: Reinforce openings as required for weight of doors or operable panels, using not less than double studs at jambs.
   1. Double stud all door, window, sidelights, and other openings in wall with minimum 20 gauge studs.
   2. Place studs in direct contact with all door frame jambs, abutting partitions, partition corners and existing construction elements.
   3. Strap multiple studs together with metal straps of the same gauge as the stud. Install straps at 24 inches o.c. maximum, each side, vertically.
   4. Screw attach studs at openings to top and bottom track.
E. Standard Wall Furring: Install at concrete walls scheduled to receive gypsum board, not more than 4 inches from floor and ceiling lines and abutting walls. Secure in place on alternate channel flanges at maximum 24 inches on center.
   1. Orientation: Horizontal.
   2. Spacing: At 16 inches on center.
F. Blocking: Install wood blocking for support of:
   1. Wall mounted cabinets.
   2. Toilet partitions.
   3. Toilet accessories.
   4. Wall mounted door hardware.

3.4 ACOUSTIC ACCESSORIES INSTALLATION
A. Acoustic Insulation: Place tightly within spaces, around cut openings, behind and around electrical and mechanical items within partitions, and tight to items passing through partitions.
B. Acoustic Sealant: Install in accordance with manufacturer's instructions.

1. Place one bead continuously on substrate before installation of perimeter framing members.
2. Place continuous bead at perimeter of each layer of gypsum board.
3. Seal around all penetrations by conduit, pipe, ducts, and rough-in boxes, except where firestopping is provided.

3.5 BOARD INSTALLATION

A. Comply with ASTM C 840, GA-216, and manufacturer's instructions. Install to minimize butt end joints, especially in highly visible locations.
B. Single-Layer Non-Rated: Install gypsum board in most economical direction, with ends and edges occurring over firm bearing.
   1. Exception: Tapered edges to receive joint treatment at right angles to framing.
C. Double-Layer Non-Rated: Use gypsum board for first layer, placed parallel to framing or furring members, with ends and edges occurring over firm bearing. Use glass mat faced gypsum board at exterior walls and at other locations as indicated. Place second layer perpendicular to framing or furring members. Offset joints of second layer from joints of first layer.
D. Fire-Rated Construction: Install gypsum board in strict compliance with requirements of assembly listing.
E. Exterior Sheathing: Comply with ASTM C1280. Install sheathing vertically, with edges butted tight and ends occurring over firm bearing.
   1. Paper-Faced Sheathing: Immediately after installation, protect from weather by application of water-resistive barrier.
F. Exterior Soffits: Install exterior soffit board perpendicular to framing, with staggered end joints over framing members or other solid backing.
G. Glass Mat Faced Gypsum Board: Install at all interior faces of exterior walls, first four feet of interior walls perpendicular to an exterior wall and locations subject to wet conditions during construction. Install in strict accordance with manufacturer's instructions.
H. Installation on Metal Framing: Use screws for attachment of gypsum board except face layer of non-rated double-layer assemblies, which may be installed by means of adhesive lamination.
I. Curved Surfaces: Apply gypsum board to curved substrates in accordance with GA-226.

3.6 INSTALLATION OF TRIM AND ACCESSORIES

A. Control Joints: Place control joints consistent with lines of building spaces and as indicated.
   1. Not more than 30 feet apart on walls and ceilings over 50 feet long.
B. Corner Beads: Install at external corners, using longest practical lengths.
C. Edge Trim: Install at locations where gypsum board abuts dissimilar materials.

3.7 JOINT TREATMENT

A. Glass Mat Faced Gypsum Board and Exterior Glass Mat Faced Sheathing: Use fiberglass joint tape, bedded and finished with chemical hardening type joint compound.
B. Paper Faced Gypsum Board: Use paper joint tape, bedded with ready-mixed vinyl-based joint compound and finished with ready-mixed vinyl-based joint compound.
C. Finish gypsum board in accordance with levels defined in ASTM C840, as follows:
   1. Level 5: Walls and ceilings not receiving texture, unless otherwise indicated.
   2. Level 4: Walls and ceilings to receive wall coverings.
   3. Level 3: Walls to receive textured wall finish.
   4. Level 2: Areas above finished ceilings, whether or not accessible in the completed construction, fire rated wall areas above finished ceilings, whether or not accessible in the completed construction, in utility areas, behind cabinetry, and on backing board to receive tile finish.
D. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
   1. Feather coats of joint compound so that camber is maximum 1/32 inch.
   2. Taping, filling and sanding is not required at base layer of double layer applications.
E. Where Level 5 finish is indicated, spray apply high build drywall surfacer over entire surface after joints have been properly treated; achieve a flat and tool mark-free finish.

3.8 TEXTURE FINISH

A. Apply finish texture coating by means of spraying apparatus in accordance with manufacturer's instructions and to match approved sample.

PART 4 – APPENDIX

4.1 PRODUCT DATA / CUT SHEETS

A. Clarke-Dietrich, ProSTUD Drywall Framing System
B. American Gypsum, ClassicRoc Gypsum Wallboard
C. American Gypsum, FireBloc Type X Gypsum Wallboard
D. American Gypsum, MBloc Gypsum Wallboard
E. American Gypsum, Interior Ceiling Board
F. American Gypsum, 1” Shaft Liner Gypsum Wallboard
G. American Gypsum, Exterior Soffit Gypsum Wallboard

END OF SECTION

ProSTUD® PRODUCT CATALOG

ClarkDietrich
BUILDING SYSTEMS

DRYWALL FRAMING SYSTEM

ProSTUD® 25 DRYWALL STUD

ClarkDietrich ProSTUD 25 (15mil) physical and structural properties

Member	Design thickness (in)	Fy (ksi)	Gross Section Properties						Effective Section Properties at Fy						Torsional Properties					Lu (in)
			Area (in^2)	Weight (lb/ft)	Ix (in^4)	Rx (in)	Iy (in^4)	Ry (in)	Ae (in^2)	Ix (in^4)	Sx (in^3)	Ma (in-lbs)	Vag (lb)	Vanet (lb)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	β Beta	
162PDS125-15	0.0158	50	0.071	0.24	0.033	0.688	0.015	0.466	0.033	0.030	0.024	719	232	104	0.00589	0.009	-1.088	1.369	0.368	24.8
250PDS125-15	0.0158	50	0.085	0.29	0.088	1.020	0.018	0.459	0.033	0.080	0.044	1198	147	141	0.00704	0.023	-0.959	1.473	0.576	24.5
362PDS125-15[1]	0.0158	50	0.102	0.35	0.206	1.420	0.020	0.442	0.034	0.190	0.056	1689	100	100	0.00852	0.051	-0.837	1.706	0.760	24.3
400PDS125-15[1]	0.0158	50	0.108	0.37	0.260	1.549	0.021	0.436	0.034	0.233	0.062	1870	90	90	0.00901	0.064	-0.803	1.798	0.800	24.2
600PDS125-15[2]	0.0158	50	0.140	0.48	0.683	2.209	0.023	0.404	0.034	0.537	0.105	2781	60	60	0.01164	0.161	-0.666	2.343	0.919	23.6

ProTRAK® 25 DRYWALL TRACK

ClarkDietrich ProTRAK 25 (15mil) physical and structural properties

Member	Design thickness (in)	Fy (ksi)	Gross Section Properties						Effective Section Properties at Fy					Torsional Properties				
			Area (in^2)	Weight (lb/ft)	Ix (in^4)	Rx (in)	Iy (in^4)	Ry (in)	Ae (in^2)	Ix (in^4)	Sx (in^3)	Ma (in-lbs)	Vag (lb)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	β Beta
162PDT125-15	0.0158	50	0.065	0.22	0.034	0.717	0.011	0.412	0.020	0.021	0.016	464	222	0.00542	0.006	-0.881	1.208	0.468
250PDT125-15	0.0158	50	0.079	0.27	0.085	1.038	0.013	0.400	0.020	0.059	0.024	724	143	0.00657	0.015	-0.771	1.353	0.675
362PDT125-15[1]	0.0158	50	0.097	0.33	0.196	1.425	0.014	0.381	0.021	0.125	0.035	1059	98	0.00805	0.034	-0.668	1.619	0.830
400PDT125-15[1]	0.0158	50	0.103	0.35	0.247	1.550	0.014	0.374	0.021	0.153	0.039	1171	89	0.00854	0.043	-0.640	1.718	0.861
600PDT125-15[2]	0.0158	50	0.134	0.46	0.646	2.194	0.016	0.343	0.021	0.350	0.059	1762	59	0.01117	0.108	-0.524	2.282	0.947
162PDT200-15	0.0158	50	0.089	0.30	0.050	0.752	0.039	0.663	0.020	0.025	0.015	455	222	0.00739	0.020	-1.579	1.870	0.287
250PDT200-15	0.0158	50	0.103	0.35	0.124	1.098	0.045	0.662	0.021	0.064	0.024	720	143	0.00854	0.052	-1.431	1.921	0.445
362PDT200-15[1]	0.0158	50	0.120	0.41	0.277	1.516	0.051	0.648	0.021	0.137	0.036	1063	98	0.01002	0.120	-1.282	2.088	0.623
400PDT200-15[1]	0.0158	50	0.126	0.43	0.344	1.650	0.052	0.642	0.021	0.168	0.039	1178	89	0.01052	0.151	-1.240	2.162	0.671
600PDT200-15[2]	0.0158	50	0.158	0.54	0.864	2.338	0.058	0.608	0.021	0.389	0.060	1789	59	0.01315	0.383	-1.058	2.638	0.839
162PDT250-15	0.0158	50	0.105	0.36	0.061	0.766	0.071	0.824	0.020	0.027	0.015	455	222	0.00871	0.038	-2.058	2.345	0.230
250PDT250-15	0.0158	50	0.118	0.40	0.150	1.123	0.082	0.831	0.021	0.066	0.024	725	143	0.00986	0.096	-1.892	2.352	0.353
362PDT250-15[1]	0.0158	50	0.136	0.46	0.330	1.557	0.092	0.823	0.021	0.142	0.036	1073	98	0.01134	0.220	-1.720	2.462	0.512
400PDT250-15[1]	0.0158	50	0.142	0.48	0.409	1.696	0.095	0.819	0.021	0.174	0.040	1189	89	0.01183	0.275	-1.670	2.517	0.560
600PDT250-15[2]	0.0158	50	0.174	0.59	1.009	2.409	0.108	0.787	0.021	0.404	0.060	1809	59	0.01446	0.697	-1.452	2.921	0.753

Notes:

- Calculated properties are based on AISI S100-07, North American Specification for Design of Cold-Formed Steel Structural Members and AISI S220-11, North American Standard for Cold-Formed Steel Framing—Nonstructural Members.
- Effective properties incorporate the strength increase from the cold work of forming as applicable per AISI A7.2.
- Tabulated gross properties, including torsional properties, are based on full-unreduced cross section of the studs, away from punchouts.
- Tabulated gross properties, including torsional properties, are based on full-unreduced cross section of the tracks.
- For deflection calculations, use the effective moment of inertia.
- Allowable moment includes cold work of forming.
- Allowable moment is taken as the lowest value based on local or distortional buckling. Distortional buckling strength is based on a k-phi = 0.
- Web depth for track sections is equal to the nominal height plus two times the design thickness plus the bend radius. Hems on nonstructural track sections are ignored.

1 Web-height to thickness ratio exceeds 200. Web stiffeners are required at bearing points.

2 Web-height to thickness ratio exceeds 260. Web stiffeners are required at bearing and intermediate points.

ProSTUD® 20 DRYWALL STUD

ClarkDietrich ProSTUD 20 (19mil) physical and structural properties

Member	Design thickness (in)	Fy (ksi)	Gross Section Properties						Effective Section Properties at Fy						Torsional Properties					Lu (in)
			Area (in^2)	Weight (lb/ft)	Ix (in^4)	Rx (in)	Iy (in^4)	Ry (in)	Ae (in^2)	Ix (in^4)	Sx (in^3)	Ma (in-lbs)	Vag (lb)	Vanet (lb)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	β Beta	
162PDS125-19	0.0200	65	0.090	0.31	0.042	0.685	0.020	0.466	0.042	0.037	0.031	1193	473	165	0.01197	0.012	-1.096	1.374	0.364	22.0
250PDS125-19	0.0200	65	0.109	0.37	0.112	1.017	0.024	0.467	0.046	0.104	0.061	2110	299	226	0.01449	0.032	-0.992	1.495	0.560	22.2
362PDS125-19	0.0200	65	0.132	0.45	0.266	1.420	0.027	0.454	0.048	0.254	0.080	3103	203	189	0.01757	0.072	-0.876	1.729	0.743	22.1
400PDS125-19	0.0200	65	0.140	0.48	0.336	1.550	0.028	0.451	0.050	0.316	0.091	3537	184	184	0.01865	0.092	-0.851	1.825	0.783	22.2
600PDS125-19[2]	0.0200	65	0.181	0.62	0.892	2.220	0.033	0.425	0.051	0.727	0.158	5421	121	121	0.02414	0.236	-0.723	2.373	0.907	21.9

ProTRAK® 20 DRYWALL TRACK

ClarkDietrich ProTRAK 20 (19mil) physical and structural properties

Member	Design thickness (in)	Fy (ksi)	Gross Section Properties						Effective Section Properties at Fy					Torsional Properties				
			Area (in^2)	Weight (lb/ft)	Ix (in^4)	Rx (in)	Iy (in^4)	Ry (in)	Ae (in^2)	Ix (in^4)	Sx (in^3)	Ma (in-lbs)	Vag (lb)	Jx1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	β Beta
162PDT125-19	0.0200	50	0.082	0.28	0.043	0.719	0.014	0.411	0.031	0.028	0.024	718	421	0.01099	0.007	-0.879	1.207	0.470
250PDT125-19	0.0200	50	0.100	0.34	0.108	1.039	0.016	0.400	0.032	0.078	0.038	1136	289	0.01333	0.018	-0.769	1.353	0.677
362PDT125-19	0.0200	50	0.122	0.42	0.249	1.426	0.018	0.380	0.032	0.191	0.055	1650	199	0.01633	0.043	-0.666	1.619	0.831
400PDT125-19	0.0200	50	0.130	0.44	0.312	1.551	0.018	0.374	0.032	0.232	0.061	1822	180	0.01733	0.054	-0.638	1.718	0.862
600PDT125-19[2]	0.0200	50	0.170	0.58	0.819	2.195	0.020	0.342	0.032	0.508	0.091	2717	119	0.02266	0.137	-0.523	2.282	0.948
162PDT200-19	0.0200	50	0.112	0.38	0.064	0.754	0.049	0.662	0.031	0.034	0.024	707	421	0.01499	0.026	-1.576	1.868	0.288
250PDT200-19	0.0200	50	0.130	0.44	0.157	1.099	0.057	0.661	0.032	0.094	0.037	1119	289	0.01733	0.066	-1.429	1.920	0.446
362PDT200-19	0.0200	50	0.152	0.52	0.351	1.517	0.064	0.647	0.032	0.205	0.055	1651	199	0.02033	0.152	-1.280	2.088	0.624
400PDT200-19	0.0200	50	0.160	0.54	0.436	1.651	0.066	0.642	0.032	0.251	0.061	1829	180	0.02133	0.191	-1.238	2.161	0.672
600PDT200-19[2]	0.0200	50	0.200	0.68	1.094	2.339	0.074	0.607	0.033	0.580	0.093	2780	119	0.02666	0.485	-1.056	2.637	0.840
162PDT250-19	0.0200	50	0.132	0.45	0.078	0.768	0.090	0.823	0.031	0.037	0.023	698	421	0.01766	0.048	-2.055	2.343	0.231
250PDT250-19	0.0200	50	0.150	0.51	0.190	1.125	0.103	0.830	0.032	0.099	0.037	1113	289	0.01999	0.121	-1.890	2.351	0.354
362PDT250-19	0.0200	50	0.172	0.59	0.419	1.558	0.117	0.822	0.032	0.213	0.055	1649	199	0.02299	0.278	-1.718	2.461	0.513
400PDT250-19	0.0200	50	0.180	0.61	0.518	1.697	0.120	0.818	0.032	0.261	0.061	1829	180	0.02399	0.348	-1.668	2.517	0.561
600PDT250-19[2]	0.0200	50	0.220	0.75	1.278	2.410	0.136	0.786	0.033	0.605	0.093	2788	119	0.02933	0.881	-1.450	2.920	0.754

Notes:

- Calculated properties are based on AISI S100-07, North American Specification for Design of Cold-Formed Steel Structural Members and AISI S220-11, North American Standard for Cold-Formed Steel Framing—Nonstructural Members.
- Effective properties incorporate the strength increase from the cold work of forming as applicable per AISI A7.2.
- Tabulated gross properties, including torsional properties, are based on full-unreduced cross section of the studs, away from punchouts.
- Tabulated gross properties, including torsional properties, are based on full-unreduced cross section of the tracks.
- For deflection calculations, use the effective moment of inertia.
- Allowable moment includes cold work of forming.
- Allowable moment is taken as the lowest value based on local or distortional buckling. Distortional buckling strength is based on a k-phi = 0.
- Web depth for track sections is equal to the nominal height plus two times the design thickness plus the bend radius. Hems on nonstructural track sections are ignored.

1 Web-height to thickness ratio exceeds 200. Web stiffeners are required at bearing points.

2 Web-height to thickness ratio exceeds 260. Web stiffeners are required at bearing and intermediate points.

The technical content of this literature is effective 9/13/16 and supersedes all previous information.

Pub. No. CD-ProSTUD 9/16

ProSTUD® 30MIL DRYWALL STUD (AVAILABLE IN SELECT MARKETS)

ClarkDietrich ProSTUD 30MIL physical and structural properties

Member	Design thickness (in)	Fy (ksi)	Gross Section Properties						Effective Section Properties at Fy						Torsional Properties					Lu (in)
			Area (in^2)	Weight (lb/ft)	Ix (in^4)	Rx (in)	Iy (in^4)	Ry (in)	Ae (in^2)	Ix (in^4)	Sx (in^3)	Ma (in-lbs)	Vag (lb)	Vanet (lb)	J*1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	β Beta	
162PDS125-30	0.0312	33	0.137	0.47	0.064	0.681	0.029	0.458	0.098	0.064	0.067	1332	572	124	0.04459	0.017	-1.070	1.348	0.371	30.8
250PDS125-30	0.0312	33	0.165	0.56	0.169	1.012	0.034	0.451	0.106	0.168	0.121	2356	832	397	0.05345	0.042	-0.941	1.454	0.581	30.1
362PDS125-30	0.0312	33	0.200	0.68	0.398	1.411	0.038	0.434	0.107	0.396	0.170	3358	776	457	0.06484	0.096	-0.820	1.689	0.764	29.7
400PDS125-30	0.0312	33	0.212	0.72	0.501	1.540	0.039	0.428	0.108	0.499	0.189	3737	701	490	0.06864	0.120	-0.787	1.781	0.805	29.5
600PDS125-30	0.0312	33	0.274	0.93	1.324	2.199	0.043	0.396	0.109	1.281	0.338	6031	461	461	0.08888	0.303	-0.651	2.327	0.922	28.7

ProTRAK® 30MIL DRYWALL TRACK

ClarkDietrich ProTRAK 30MIL physical and structural properties

Member	Design thickness (in)	Fy (ksi)	Gross Section Properties						Effective Section Properties at Fy					Torsional Properties				
			Area (in^2)	Weight (lb/ft)	Ix (in^4)	Rx (in)	Iy (in^4)	Ry (in)	Ae (in^2)	Ix (in^4)	Sx (in^3)	Ma (in-lbs)	Vag (lb)	J*1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	β Beta
162PDT125-30	0.0312	33	0.128	0.44	0.067	0.722	0.022	0.409	0.080	0.054	0.048	951	610	0.04168	0.011	-0.872	1.204	0.475
250PDT125-30	0.0312	33	0.156	0.53	0.169	1.042	0.025	0.397	0.084	0.140	0.087	1713	832	0.05054	0.029	-0.763	1.351	0.681
362PDT125-30	0.0312	33	0.191	0.65	0.389	1.428	0.027	0.378	0.087	0.330	0.149	2938	755	0.06193	0.067	-0.661	1.619	0.833
400PDT125-30	0.0312	33	0.203	0.69	0.489	1.553	0.028	0.371	0.088	0.417	0.172	3407	683	0.06573	0.084	-0.633	1.718	0.864
600PDT125-30	0.0312	33	0.265	0.90	1.278	2.196	0.031	0.340	0.090	1.074	0.240	4737	454	0.08597	0.212	-0.519	2.282	0.948
162PDT200-30	0.0312	33	0.175	0.60	0.101	0.758	0.076	0.660	0.081	0.067	0.052	1028	610	0.05687	0.040	-1.570	1.864	0.291
250PDT200-30	0.0312	33	0.203	0.69	0.246	1.103	0.088	0.659	0.086	0.170	0.094	1862	832	0.06573	0.103	-1.423	1.917	0.449
362PDT200-30	0.0312	33	0.238	0.81	0.549	1.520	0.099	0.645	0.089	0.397	0.160	3159	755	0.07712	0.237	-1.274	2.086	0.627
400PDT200-30	0.0312	33	0.249	0.85	0.682	1.654	0.102	0.639	0.089	0.502	0.176	3480	683	0.08091	0.297	-1.232	2.160	0.674
600PDT200-30	0.0312	33	0.312	1.06	1.710	2.342	0.114	0.605	0.091	1.353	0.262	5170	454	0.10116	0.754	-1.051	2.637	0.841
162PDT250-30	0.0312	33	0.206	0.70	0.123	0.772	0.139	0.821	0.082	0.073	0.054	1059	610	0.06699	0.075	-2.048	2.338	0.233
250PDT250-30	0.0312	33	0.234	0.80	0.298	1.129	0.160	0.828	0.086	0.186	0.097	1926	832	0.07585	0.190	-1.883	2.347	0.356
362PDT250-30	0.0312	33	0.269	0.92	0.656	1.562	0.181	0.820	0.089	0.436	0.157	3097	755	0.08724	0.435	-1.712	2.458	0.515
400PDT250-30	0.0312	33	0.281	0.96	0.812	1.701	0.187	0.816	0.090	0.551	0.173	3425	683	0.09104	0.543	-1.662	2.514	0.563
600PDT250-30	0.0312	33	0.343	1.17	1.997	2.413	0.211	0.784	0.092	1.473	0.261	5162	454	0.11128	1.373	-1.444	2.919	0.755

Notes:

- Calculated properties are based on AISI S100-07, North American Specification for Design of Cold-Formed Steel Structural Members and AISI S220-11, North American Standard for Cold-Formed Steel Framing—Nonstructural Members.
- Effective properties incorporate the strength increase from the cold work of forming as applicable per AISI A7.2.
- Tabulated gross properties, including torsional properties, are based on full-unreduced cross section of the studs, away from punchouts.
- Tabulated gross properties, including torsional properties, are based on full-unreduced cross section of the tracks.
- For deflection calculations, use the effective moment of inertia.
- Allowable moment includes cold work of forming.
- Allowable moment is taken as the lowest value based on local or distortional buckling. Distortional buckling strength is based on a k-phi = 0.
- Web depth for track sections is equal to the nominal height plus two times the design thickness plus the bend radius. Hems on nonstructural track sections are ignored.

1 Web-height to thickness ratio exceeds 200. Web stiffeners are required at bearing points.

2 Web-height to thickness ratio exceeds 260. Web stiffeners are required at bearing and intermediate points.

ProSTUD® 33MIL DRYWALL STUD (AVAILABLE IN SELECT MARKETS)

ClarkDietrich ProSTUD 33MIL physical and structural properties

Member	Design thickness (in)	Fy (ksi)	Gross Section Properties						Effective Section Properties at Fy						Torsional Properties					Lu (in)
			Area (in^2)	Weight (lb/ft)	Ix (in^4)	Rx (in)	Iy (in^4)	Ry (in)	Ae (in^2)	Ix (in^4)	Sx (in^3)	Ma (in-lbs)	Vag (lb)	Vanet (lb)	J*1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	β Beta	
162PDS125-33	0.0346	33	0.152	0.52	0.070	0.679	0.032	0.456	0.114	0.070	0.078	1541	632	123	0.06059	0.019	-1.065	1.344	0.371	30.8
250PDS125-33	0.0346	33	0.182	0.62	0.186	1.010	0.037	0.449	0.125	0.186	0.138	2697	1007	431	0.07267	0.046	-0.937	1.449	0.582	30.1
362PDS125-33	0.0346	33	0.221	0.75	0.439	1.409	0.041	0.433	0.127	0.439	0.200	3943	1024	541	0.08820	0.106	-0.816	1.685	0.766	29.6
400PDS125-33	0.0346	33	0.234	0.80	0.553	1.538	0.043	0.426	0.128	0.553	0.222	4394	957	602	0.09338	0.132	-0.783	1.777	0.806	29.5
600PDS125-33	0.0346	33	0.303	1.03	1.463	2.196	0.047	0.394	0.130	1.428	0.399	7021	630	630	0.12100	0.332	-0.647	2.323	0.922	28.6

ProTRAK® 33MIL DRYWALL TRACK

ClarkDietrich ProTRAK 33MIL physical and structural properties

Member	Design thickness (in)	Fy (ksi)	Gross Section Properties						Effective Section Properties at Fy					Torsional Properties				
			Area (in^2)	Weight (lb/ft)	Ix (in^4)	Rx (in)	Iy (in^4)	Ry (in)	Ae (in^2)	Ix (in^4)	Sx (in^3)	Ma (in-lbs)	Vag (lb)	J*1000 (in^4)	Cw (in^6)	Xo (in)	Ro (in)	β Beta
162PDT125-33	0.0346	33	0.142	0.48	0.075	0.723	0.024	0.409	0.095	0.063	0.056	1104	677	0.05683	0.012	-0.870	1.203	0.477
250PDT125-33	0.0346	33	0.173	0.59	0.188	1.043	0.027	0.397	0.102	0.160	0.100	1972	1024	0.06891	0.032	-0.762	1.351	0.682
362PDT125-33	0.0346	33	0.212	0.72	0.432	1.429	0.030	0.377	0.105	0.375	0.170	3358	1024	0.08444	0.074	-0.659	1.618	0.834
400PDT125-33	0.0346	33	0.225	0.77	0.542	1.554	0.031	0.371	0.106	0.473	0.197	3887	931	0.08962	0.093	-0.632	1.718	0.865
600PDT125-33	0.0346	33	0.294	1.00	1.418	2.197	0.034	0.339	0.109	1.237	0.287	5681	619	0.11723	0.234	-0.517	2.282	0.949
162PDT200-33	0.0346	33	0.194	0.66	0.112	0.759	0.085	0.660	0.097	0.077	0.061	1198	677	0.07754	0.045	-1.568	1.862	0.292
250PDT200-33	0.0346	33	0.225	0.77	0.274	1.104	0.097	0.658	0.104	0.196	0.109	2150	1024	0.08962	0.114	-1.421	1.916	0.450
362PDT200-33	0.0346	33	0.264	0.90	0.610	1.521	0.110	0.645	0.107	0.452	0.186	3669	1024	0.10515	0.263	-1.272	2.085	0.628
400PDT200-33	0.0346	33	0.276	0.94	0.758	1.655	0.113	0.639	0.108	0.567	0.215	4246	931	0.11033	0.329	-1.230	2.159	0.675
600PDT200-33	0.0346	33	0.346	1.18	1.897	2.342	0.126	0.604	0.111	1.520	0.322	6355	619	0.13795	0.835	-1.050	2.637	0.842
162PDT250-33	0.0346	33	0.229	0.78	0.137	0.774	0.154	0.821	0.098	0.085	0.063	1235	677	0.09135	0.083	-2.046	2.336	0.233
250PDT250-33	0.0346	33	0.259	0.88	0.331	1.130	0.177	0.827	0.104	0.214	0.113	2225	1024	0.10343	0.211	-1.881	2.346	0.357
362PDT250-33	0.0346	33	0.298	1.01	0.728	1.563	0.200	0.820	0.108	0.493	0.193	3808	1024	0.11896	0.482	-1.710	2.457	0.516
400PDT250-33	0.0346	33	0.311	1.06	0.901	1.702	0.207	0.815	0.109	0.622	0.214	4221	931	0.12414	0.602	-1.660	2.514	0.564
600PDT250-33	0.0346	33	0.380	1.29	2.216	2.414	0.233	0.783	0.111	1.657	0.320	6327	619	0.15175	1.522	-1.443	2.919	0.756

Notes:

- Calculated properties are based on AISI S100-07, North American Specification for Design of Cold-Formed Steel Structural Members and AISI S220-11, North American Standard for Cold-Formed Steel Framing—Nonstructural Members.
- Effective properties incorporate the strength increase from the cold work of forming as applicable per AISI A7.2.
- Tabulated gross properties, including torsional properties, are based on full-unreduced cross section of the studs, away from punchouts.
- Tabulated gross properties, including torsional properties, are based on full-unreduced cross section of the tracks.
- For deflection calculations, use the effective moment of inertia.
- Allowable moment includes cold work of forming.
- Allowable moment is taken as the lowest value based on local or distortional buckling. Distortional buckling strength is based on a k-phi = 0.
- Web depth for track sections is equal to the nominal height plus two times the design thickness plus the bend radius. Hems on nonstructural track sections are ignored.

1 Web-height to thickness ratio exceeds 200. Web stiffeners are required at bearing points.

2 Web-height to thickness ratio exceeds 260. Web stiffeners are required at bearing and intermediate points.

The technical content of this literature is effective 9/13/16 and supersedes all previous information.

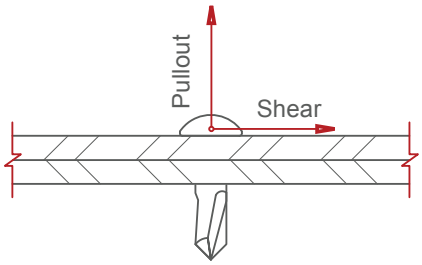
Pub. No. CD-ProSTUD 9/16

ALLOWABLE SCREW DESIGN VALUES (LBS)

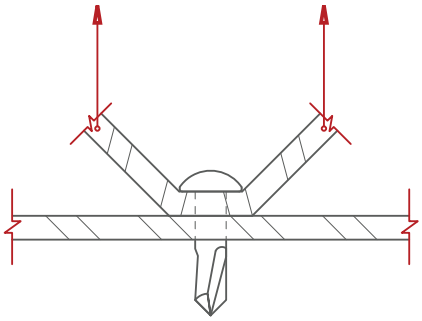
Member designation	Thickness (mils)	Design thickness (in)	Yield (ksi)	Ultimate	#6 Screw (0.138" Dia., 5/16" Head)				#8 Screw (0.164" Dia., 5/16" Head)				#10 Screw (0.190" Dia., 0.34" Head)			
					Shear, lbs	1-Side	2-Side	Pullout, lbs	Shear, lbs	1-Side	2-Side	Pullout, lbs	Shear, lbs	1-Side	2-Side	Pullout, lbs
PDS125-15	15	0.0158	50	50	52	62	123	31	56	62	123	37	61	67	134	43
PDS125-19	19	0.0200	65	65	96	102	203	51	104	102	203	60	112	111	221	70
PDS125-30	30	0.0312	33	33	95	80	161	40	103	80	161	48	111	88	175	55
PDS125-33	33	0.0346	33	45	151	122	243	61	164	122	243	72	177	132	265	84

Notes:

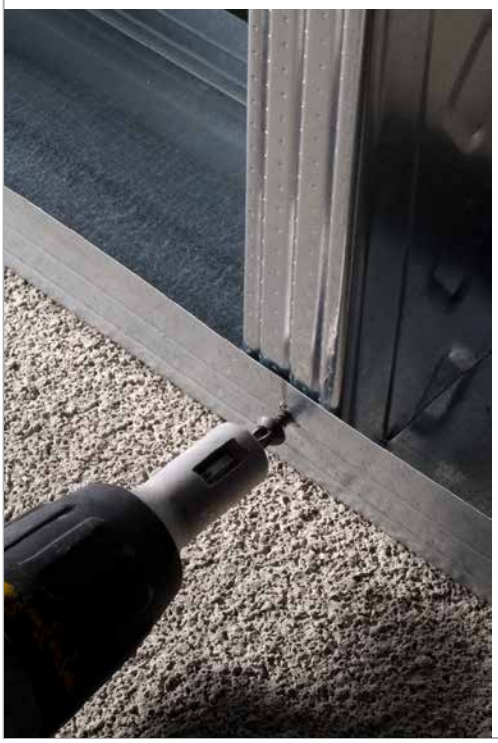
- Allowable screw connection capacities are based on Section E4 of the AISI S100-07 Specification.
- When connecting materials of different steel thicknesses or tensile strengths, use the lowest values. Tabulated values assume two sheets of equal thickness are connected.
- Screw shear and tension capacities were developed using published screw manufacturer data and evaluation reports available at the time of publication.
- Screw capacities are based on Allowable Strength Design (ASD) and include a safety factor of 3.0.
- When multiple fasteners are used, screws are assumed to have a center-to-center spacing of at least three times the nominal diameter (d).
- Screws are assumed to have a center-of-screw to edge-of-steel dimension of at least 1-1/2 times the nominal diameter (d) of the screw.
- Tension capacity is based on the lesser of pullout capacity in sheet closest to screw tip, or pullover capacity for sheet closest to screw head (using head diameter).
- Screw capacities are governed by a conservative estimate of screw capacity, not by sheet steel failure.
- For higher screw capacities, especially for screw strength, use specific screws from specific manufacturer. See manufacturer's data for specific allowable values and installation instructions.



Pullout / Shear



2-Sided Pullover



Submittal 09 29 00

American Gypsum
3811 Turtle Creek Blvd., #1200
Dallas, TX 75219
214-530-5500
www.americangypsum.com

Technical Information
1-800-545-6302 ext. 5607

ClassicRoc®

Gypsum Wallboard

DESCRIPTION

ClassicRoc® gypsum wallboard is the preferred product in the industry due to its consistently high quality standards. The wallboard panels consist of a fire-resistant gypsum core that is encased in 100% recycled natural-finish paper on the face side and sturdy liner paper on the back side. The face paper is folded around the long edges to reinforce and protect the core, with the ends being square-cut and finished smooth. Long edges of the panels are tapered, allowing joints to be reinforced and concealed with a joint compound system.

ClassicRoc regular gypsum wallboard is available in a variety of thicknesses and lengths for standard construction uses.

American Gypsum products contain no asbestos and no detectable levels of formaldehyde.

GREENGUARD CERTIFIED FROM UL ENVIRONMENT

ClassicRoc gypsum wallboard has achieved UL Environment's GREENGUARD GOLD Certification. GREENGUARD Certified products are scientifically proven to meet some of the world's most rigorous, third-party chemical emissions standards, helping reduce indoor air pollution and the risk of chemical exposure while aiding in the creation of healthier indoor environments.

For more information, visit www.ul.com/gg.

BASIC USES

ClassicRoc gypsum wallboard is used as a covering material for walls or ceilings in new building construction or renovation work. It is designed for direct attachment by screws, nails or adhesive to wood or metal framing and even existing surfaces.

1/2" - Recommended for single-layer application in residential construction.

3/8" - A lightweight gypsum panel, principally used in double-layered wall systems over wood framing, and for repair and remodeling projects.

1/4" - A lightweight and low-cost gypsum panel for use as a base layer to improve sound control in double-layer steel and wood stud walls. Also used over old walls and ceiling surfaces, and is an ideal product for forming curved surfaces with short radii.

LIMITATIONS

ClassicRoc gypsum wallboard is intended for interior applications only.

Avoid exposure to temperatures exceeding 125°F (52°C), e.g., located adjacent to wood burning stoves and or heating appliances.

Avoid exposure to excessive or continuous moisture before, during and after installation, e.g., swimming pools, saunas or steam rooms. Eliminate any sources of moisture immediately.

ClassicRoc gypsum wallboard panels are a nonstructural product and should not be used as a nailing base.

Spacing of wall or ceiling framing should not exceed the recommendations below:

MAXIMUM SPACING OF FRAMING (WOOD OR METAL)

	SINGLE PLY THICKNESS	APPLICATION	MAXIMUM FRAMING O/C SPACING
CEILINGS*	3/8"	Perpendicular to Framing	16" o/c
	1/2"	Parallel to Framing	16" o/c
	1/2"	Perpendicular to Framing	24" o/c
WALLS	3/8"	Parallel or Perpendicular	16" o/c
	1/2"	Parallel or Perpendicular	24" o/c

*For Ceiling Applications - When using a hand or water-based texture for decoration, 1/2" ClassicRoc gypsum wallboard is to be installed perpendicular to framing spaced no more then 16"o/c. For framing spaced more then 16"o/c, American Gypsum's 1/2" LightRoc® or Interior Ceiling Board shall be specified.

To prevent noticeable sag in ceilings, the weight of overlaid unsupported insulation should not exceed the following recommendations:

FRAMING	PRODUCT	PSF (LBS. PER S/F) OF INSULATION
24" o/c	1/2"	1.3 (6.3 kg/M^2)
16" o/c	1/2"	2.2 (10.7 kg/M^2)

Insulation blankets or batts shall be recessed, with flanges attached or friction fitted to the sides of the studs or joists.

STORAGE AND HANDLING

Gypsum board does not generate or support the growth of mold when it is properly transported, stored, handled, installed, and maintained. However, mold spores are present everywhere and when conditions are favorable; mold can grow on practically any surface. GYPSUM BOARD MUST BE KEPT DRY to prevent the growth of mold.

Gypsum board must be stored in an area that protects it from adverse weather conditions, condensation, and other forms of moisture. Job site conditions that can expose gypsum board to water or moisture must be avoided.

Gypsum board must be protected during transit with a weather-tight cover in good condition. Plastic shipping bags are intended to provide protection during transit only and must be promptly removed upon arrival of the load. Failure to remove the shipping bag can increase the likelihood of developing conditions favorable to the growth of mold.

STORAGE AND HANDLING "continued"

Gypsum board that has visible mold growth must not be used. For additional information refer to Gypsum Association publication, "Guidelines for the Prevention of Mold Growth on Gypsum Wallboard" (GA-238).

Gypsum board must be stored off the ground and under protective cover. Sufficient risers must be used to assure support for the entire length of the wallboard to prevent sagging.

Gypsum board must be delivered to the job site as near to the time it will be used as possible. Individuals delivering gypsum board to jobsites should ensure that it is carried, not dragged, to place of storage/installation to prevent damage to finished edges.

Gypsum board shall always be stacked flat - NEVER on edge or end. Gypsum board stacked on edge or end is unstable and presents a serious hazard should it accidentally topple. Gypsum board should be placed so weight is evenly distributed and the floor is not overloaded.

GOOD BUILDING PRACTICES

Installation - The building temperature shall be maintained at not less than 50ºF (10ºC) for adhesive application of gypsum board during joint treatment, texturing, and decoration. When a temporary heat source is used the temperature shall not be more than 95°F (35°C) in any given room or area. Adequate and continuous ventilation shall be provided in the working area during the installation and the drying or curing period.

The design professional has the ultimate responsibility for location of control joints.

Decoration - The design professional, contractor and or owner shall review Gypsum Association's bulletin, "Recommended Levels of Gypsum Board Finish" (GA-214), in order to specify the proper level of drywall finishing needed to assure the desired results.

For best painting results, all surfaces, including joint compound, should be clean, dust-free and not glossy. To equalize the porosities between the face paper and joint compound and improve fastener and joint concealment, the surface shall be primed and sealed with a full-bodied drywall primer before texturing or final decoration. The selection of the proper paint to give the specified or desired finished characteristics is the responsibility of the design professional, contractor and or owner.

Gypsum board that is to have a wall covering applied to it should be prepared and primed as described for painting.

APPLICABLE STANDARDS

Manufacturing	ASTM C 1396 section 5 (C 36) Federal Specification SS-L-30D Type III
Installation	ASTM C 840 Gypsum Association GA-216 Gypsum Association GA-214
Surface Burning Characteristics	ASTM E 84 Flame Spread 0 Smoke Developed 0

PRODUCT DATA

Thickness	Widths	Lengths	Edge Type
1/4" (6.4mm)	4' (1219mm)	8' - 12' (2438mm - 3658mm)	Tapered
3/8" (9.5mm)	4' (1219mm)	8' (2438mm)	Tapered
1/2" (12.7mm)	4' (1219mm)	8' - 14' (2438mm - 4267mm)	Tapered or square
1/2" (12.7mm)	54" (1372mm)	12' - 14' (3658mm - 4267mm)	Tapered

Special lengths or edges may be available on special order. Consult your American Gypsum sales representative for details.

Thermal Resistance "R" Value 1/2" = 0.50

FIRE RESISTANCE RATINGS

Desired fire rated assemblies are specified from tests performed by independent laboratories. These designs are made up of specific materials in a precise configuration. When choosing construction designs to meet certain fire resistance requirements, vigilance must be taken to insure that each component of the selected assembly is the one specified in the test and are assembled in accordance with the requirements of the assembly.

SUBMITTAL APPROVALS

Job Name:

Contractor: **Date:**

Submittal 09 29 00

AMERICAN GYPSUM

American Gypsum
3811 Turtle Creek Blvd., #1200
Dallas, TX 75219
214-530-5500
www.americangypsum.com

Technical Information
1-800-545-6302 ext. 5607

FireBloc® Type X Gypsum Wallboard

FIREBLOC® TYPE X

AMERICAN GYPSUM Made in the USA AMERICAN GYPSUM

Panel tipo X para interiores

DESCRIPTION

FireBloc® Type X gypsum wallboard is the preferred product in the industry due to its consistently high quality standards. The core has been reinforced with the addition of fibers, increasing its strength and providing fire resistance ratings when used in tested assemblies. The fire-resistant gypsum core is encased in 100% recycled natural-finish paper on the face side and sturdy liner paper on the back side. The face paper is folded around the long edges to reinforce and protect the core, with the ends being square-cut and finished smooth. Long edges of the panels are tapered, allowing joints to be reinforced and concealed with a joint compound system.

FireBloc Type X wallboard is 5/8" thick, and comes in a variety of lengths for standard construction uses.

American Gypsum products contain no asbestos and no detectable levels of formaldehyde.

GREENGUARD CERTIFICATION
FROM UL ENVIRONMENT

FireBloc Type X gypsum wallboard has achieved UL Environment's GREENGUARD GOLD Certification. GREENGUARD Certified products are scientifically proven to meet some of the world's most rigorous, third-party chemical emissions standards, helping reduce indoor air pollution and the risk of chemical exposure while aiding in the creation of healthier indoor environments. For more information, visit www.ul.com/gg.

BASIC USES

FireBloc Type X wallboard is used as a covering material for interior walls and ceilings in residential and commercial applications that often require specific fire rated assemblies. It is designed for direct attachment by screws, nails or adhesive to wood or metal framing and even existing surfaces.

With joints covered, FireBloc Type X gypsum wallboard will resist the passage of smoke. For additional information on smoke barriers, refer to Gypsum Association publication, "Building and Inspecting Smoke Barriers" (GA-618).

LIMITATIONS

FireBloc Type X gypsum wallboard is intended for interior applications only.

Avoid exposure to temperatures exceeding 125°F (52°C), e.g., located adjacent to wood burning stoves and or heating appliances.

Avoid exposure to excessive or continuous moisture before, during and after installation, e.g., swimming pools, saunas or steam rooms. Eliminate any sources of moisture immediately.

FireBloc Type X gypsum wallboard is a nonstructural product and should not be used as a nailing base.

Spacing of wall and ceiling framing should not exceed 24"o/c.

MAXIMUM SPACING OF FRAMING (WOOD OR METAL)			
	Single Ply Thickness	Application	Maximum Framing O/C Spacing
Ceilings	5/8" 5/8"	Parallel to Framing Perpendicular to Framing	16"o/c 24"o/c
Walls	5/8" 5/8"	Parallel to Framing Perpendicular to Framing	24"o/c 24"o/c

To prevent noticeable sag in ceilings, the weight of overlaid unsupported insulation should not exceed the following recommendations:

FRAMING	PRODUCT	PSF (LBS. PER S/F) OF INSULATION
24"o/c	5/8" FireBloc Type X	2.2 (10.7 kg/M²)

Insulation blankets or batts should be recessed, with flanges attached or friction fitted to the sides of the studs or joists.

STORAGE AND HANDLING

Gypsum board does not generate or support the growth of mold when it is properly transported, stored, handled, installed, and maintained. However, mold spores are present everywhere and when conditions are favorable; mold can grow on practically any surface. GYPSUM BOARD MUST BE KEPT DRY to prevent the growth of mold.

Gypsum board must be stored in an area that protects it from adverse weather conditions, condensation, and other forms of moisture. Job site conditions that can expose gypsum board to water or moisture must be avoided.

Gypsum board must be protected during transit with a weather-tight cover in good condition. Plastic shipping bags are intended to provide protection during transit only and must be promptly removed upon arrival of the load. Failure to remove the shipping bag can increase the likelihood of developing conditions favorable to the growth of mold.

Gypsum board that has visible mold growth must not be used. For additional information refer to Gypsum Association publication, "Guidelines for the Prevention of Mold Growth on Gypsum Wallboard" (GA-238).

Gypsum board must be stored off the ground and under protective cover. Sufficient risers must be used to assure support for the entire length of the wallboard to prevent sagging.

FIRECODE® TYPE X

AMERICAN GYPSUM

Made in the USA

AMERICAN GYPSUM

Panel tipo X para interiores

STORAGE & HANDLING

Gypsum board must be delivered to the job site as near to the time it will be used as possible. Individuals delivering gypsum board to jobsites should ensure that it is carried, not dragged, to place of storage/installation to prevent damage to finished edges.

Gypsum board shall always be stacked flat - NEVER on edge or end. Gypsum board stacked on edge or end is unstable and presents a serious hazard should it accidentally topple. Gypsum board should be placed so weight is evenly distributed and the floor is not overloaded.

GOOD BUILDING PRACTICES

Installation - The building temperature shall be maintained at not less than 50ºF (10ºC) for adhesive application of gypsum board, during joint treatment, texturing, and decoration. When a temporary heat source is used the temperature shall not be more than 95°F (35°C) in any given room or area. Adequate and continuous ventilation shall be provided in the working area during the installation and the drying or curing period.

The design professional has the ultimate responsibility for location of control joints.

Decoration - The design professional, contractor and or owner shall review Gypsum Association's bulletin, "Recommended Levels of Gypsum Board Finish" (GA-214), in order to specify the proper level of drywall finishing needed to assure the desired results.

For best painting results, all surfaces, including joint compound, should be clean, dust-free and not glossy. To equalize the porosities between the face paper and joint compound and improve fastener and joint concealment, the surface shall be primed and sealed with a full-bodied drywall primer before texturing or final decoration. The selection of the proper paint to give the specified or desired finished characteristics is the responsibility of the design professional, contractor and or owner.

Gypsum board that is to have a wall covering applied to it should be prepared and primed as described for painting.

APPLICABLE STANDARDS

Manufacturing	ASTM C 1396 section 5 (C 36) Federal Specification SS-L-30D Type III, Grade X
Installation	ASTM C 840 Gypsum Association GA-216 Gypsum Association GA-214
Nail Pull, Humidified, Deflection, Flexural Strength, Core Hardness	ASTM C 473
Surface Burning Characteristics	ASTM E 84 Flame Spread 0 Smoke Developed 0

PRODUCT DATA

SIZES

Thickness	Widths	Lengths	Edge Type	UL Type
5/8" (15.9mm)	4' (1219mm)	8' – 14' (2438mm – 4267mm)	Tapered	AGX-1, AGX-11
5/8" (15.9mm)	54" (1372mm)	12' (3658mm)	Tapered	AGX-1, AGX-11

Special lengths or edges may be available on special order. Consult your American Gypsum sales representative for details.

Thermal Resistance "R" Value 5/8" = 0.61

*(Represents approximate weight for design and shipping purposes. For specific product weight in your area consult the local American Gypsum sales representative.)

FIRE RESISTANCE RATINGS

Fire rated assemblies are specified from tests performed by independent laboratories. These designs are made up of specific materials in a precise configuration. When choosing construction details to meet certain fire resistance requirements, care must be taken to insure that each component of the selected assembly is the one specified in the test and are assembled in accordance with the requirements of the design.

SUBMITTAL APPROVALS

Job Name:

_____

Contractor: **Date:**

_____

Submittal 09 29 00

AMERICAN GYPSUM

American Gypsum
3811 Turtle Creek Blvd., #1200
Dallas, TX 75219
214-530-5500
www.americangypsum.com

Technical Information
1-800-545-6302 ext. 5607

M Bloc®

With Mold & Moisture Resistance

DESCRIPTION

M-Bloc® gypsum panels were developed as an improved mold and moisture resistant wallboard with a fire resistant core encased in a mold and moisture resistant blue face paper and brown back paper manufactured from 100% recycled paper. At an independent laboratory accredited in accordance with ISO 17025-2005, M-Bloc panels have been tested to the industry's most rigorous standard achieving the best possible results per ASTM D 3273 scoring a perfect 10, thus minimizing the risk of mold and mildew growth.

American Gypsum products contain no asbestos and no detectable levels of formaldehyde.

GREENGUARD CERTIFIED FROM UL ENVIRONMENT

M-Bloc gypsum panels have achieved UL Environment's GREENGUARD GOLD Certification. GREENGUARD Certified products are scientifically proven to meet some of the world's most rigorous, third-party chemical emissions standards, helping reduce indoor air pollution and the risk of chemical exposure while aiding in the creation of healthier indoor environments. For more information, visit www.ul.com/gg.

BASIC USES

M-Bloc gypsum panels are a lightweight cost efficient interior wall or ceiling panel for use throughout a project as well as the adhesive application of ceramic or plastic tile in limited wet areas, e.g., bathrooms, kitchens, laundry, and utility rooms. M-Bloc gypsum panels are also approved for exterior soffits and/or sidewalls in protected corridors/breezeways with indirect exposure to the weather. With joints covered, M-Bloc interior gypsum panels will resist the passage of smoke. For additional information on smoke barriers, refer to Gypsum Association publication, "Building and Inspecting Smoke Barriers" (GA-618).

LIMITATIONS

The use of M-Bloc panels in actual jobsite conditions may not produce the same mold resistant results as were achieved in a controlled laboratory setting. While no material can or should be considered mold proof, the use of good design and construction practices is the most effective strategy to manage the growth of mold and mildew.

- M-Bloc gypsum wallboard is a nonstructural panel and should not be used as a nailing base.
- Avoid exposure to temperatures exceeding 125°F (52°C) for extended periods of time.
- Resilient channels are not recommended where tile or similar finish is to be applied to the panel.
- Not to be used in areas with direct exposure to water or continuous high humidity, e.g., tiled tub and shower surrounds, saunas, steam rooms, gang showers or indoor swimming pools.
- M-Bloc gypsum wallboard that is to receive tile or other surfacing which may act as a vapor retarder shall not have a vapor retarder placed behind the panel. A single layer of asphalt impregnated felt, #15 or less, applied as part of the wall system, shall not be considered a vapor retarder.
- On wall applications, maintain a gap of 1/4" between the bottom edges or ends of the panels and floors, or any other horizontal surface where water could accumulate.
- A fast setting joint compound is recommended for filling, taping and finishing of M-Bloc gypsum wallboard used for exterior soffits and/or sidewalls in protected corridors/breezeways with indirect exposure to the weather.
- When used in exterior ceiling applications, install fascia so that its drip line is at least 1/4'' below the face of the panel.

MAXIMUM SPACING OF FRAMING (WOOD OR METAL)

	SINGLE PLY THICKNESS	APPLICATION	MAXIMUM FRAMING O/C SPACING
*CEILINGS	1/2"	Parallel to Framing	16" o/c
	1/2"	Perpendicular to Framing	24" o/c
WALLS	1/2"	Parallel or Perpendicular to Framing	24" o/c

*For Ceiling Applications - When using a hand or water-based texture for decoration, 1/2" M-Bloc gypsum wallboard is to be installed perpendicular to framing spaced no more then 16"o/c. For framing spaced more then 16"o/c, American Gypsum's 1/2" Ceiling Board shall be specified.

FRAMING	PRODUCT	PSF (LBS. PER S/F) OF INSULATION
24" o/c	1/2" M-Bloc Interior Gypsum Panel	1.3 (6.3 kg/M^2)
16" o/c	1/2" M-Bloc Interior Gypsum Panel	2.2 (10.7 kg/M^2)

Insulation blankets or batts should be recessed, with flanges attached or friction fitted to the sides of the studs or joists.

STORAGE AND HANDLING

Gypsum board does not generate or support the growth of mold when it is properly transported, stored, handled, installed, and maintained. However, mold spores are present everywhere and when conditions are favorable; mold can grow on practically any surface. GYPSUM BOARD MUST BE KEPT DRY to prevent the growth of mold. Gypsum board must be stored in an area that protects it from adverse weather conditions, condensation, and other forms of moisture. Job site conditions that can expose gypsum board to water or moisture must be avoided.

M Bloc® MOLD & MOISTURE RESISTANT AMERICAN GYPSUM Made in the USA AMERICAN GYPSUM Panel resistente al moho la humedad

M Bloc®

MOLD & MOISTURE RESISTANT

AMERICAN GYPSUM

Made in the USA

AMERICAN GYPSUM

Panel resistente al moho la humedad

STORAGE AND HANDLING "continued"

Gypsum board should not be exposed to elevated levels of moisture for extended periods. Examples of elevated levels of moisture include, but are not limited to, exposure to rain, condensation, water leakage, and standing water. Some board exposed to these conditions may not need to be replaced, depending upon the source of the moisture and the condition of the gypsum board being considered for replacement.

When gypsum board is exposed to elevated levels of moisture, an assessment of the potential damage to the gypsum board must be made by the contractor/design professional/owner as to whether board exposed to these conditions must be replaced. Gypsum wallboard may experience limited intermittent exposure to moisture from a variety of sources, such as improper storage, construction or design defects, water leaks, etc. Gypsum board exposed to water should be replaced unless all of the following conditions are met.

1. The source of the water or moisture is identified and eliminated.
2. The water or moisture to which the gypsum board was exposed was uncontaminated.
3. The gypsum board can be dried thoroughly before mold growth begins (typically 24 to 48 hours depending on environmental conditions).
4. The gypsum board is structurally sound and there is no evidence of rusting fasteners or physical damage that would diminish the physical properties of the gypsum board or system.

Below are the general recommendations for drying out gypsum wallboard once exposed to moisture:

- The source of water or moisture must be eliminated.
- Adequate ventilation, air circulation, and drying are essential to minimize the potential for mold or other fungal growth. Fans should be used to increase air movement.
- The interior of the building must be thoroughly dried immediately.
- The indoor humidity can be lowered by using fans and portable dehumidification equipment and by opening up the building when the outside air is drier than the air inside the structure.
- Damaged gypsum board and other wet materials that are to be replaced must be removed from the building to facilitate drying.
- Closets, cabinets, and doors between rooms should be opened to enhance circulation of air.
- For more detailed information, a water damage restoration specialist should be contacted.

IMPORTANT - IF THERE IS EVER A DOUBT ABOUT WHETHER TO KEEP OR REPLACE GYPSUM BOARD THAT HAS BEEN EXPOSED TO MOISTURE - REPLACE IT.

CAUTION: When replacing gypsum board in a fire resistance or sound rated systems, care must be taken to ensure that all repairs are consistent with the specific fire or sound rated design initially constructed (gypsum board type, fasteners and their spacing, and staggered joints).

Gypsum board must be protected during transit with a weather-tight cover in good condition. Plastic Shipping bags are intended to provide protection during transit only and must be promptly removed upon arrival of the load. Failure to remove the shipping bag can increase the likeihood of developing conditions favorable to the growth of mold. Gypsum board must be stored off the ground and under protective cover. Sufficient risers must be used to assure support for the entire length of the wallboard to prevent sagging. Gypsum board must be delivered to the job site as near to the time it will be used as possible. Individuals delivering gypsum board to the jobsites should ensure that it is carried, not dragged, to place of storage/installation to prevent damage to finished edges.

Gypsum board shall always be stacked flat - NEVER on edge or end. Gypsum board stacked on edge or end is unstable and presents a serious hazard should it accidentally topple. Gypsum board should be placed so weight is evenly distributed and the floor is not overloaded.

GOOD BUILDING PRACTICES

Installation – M-Bloc shall be installed in accordance with the recent editions of "Application and Finishing of Gypsum Panel Products" (GA-216) and "Standard Specification for Application and Finishing of Gypsum Board" (ASTM C 840). The building temperature shall be maintained at not less than 50ºF (10ºC) for adhesive application of gypsum board, during joint treatment, texturing, and decoration. When a temporary heat source is used the temperature shall not be more than 95°F (35°C) in any given room or area. Adequate and continuous ventilation shall be provided in the working area during the installation and the drying or curing period.

The design professional has the ultimate responsibility for location of control joints.

Decoration - The design professional, contractor and or owner shall review "Recommended Levels of Gypsum Board Finish" (GA-214), in order to specify the proper level of drywall finishing needed to assure the desired results. For best painting results, all surfaces, including joint compound, should be clean, dust-free and not glossy. To equalize the porosities between the face paper and joint compound and improve fastener and joint concealment, the surface shall be primed and sealed with a full-bodied high solids drywall primer before texturing or final decoration. The selection of the proper paint to give the specified or desired finished characteristics is the responsibility of the design professional, contractor and or owner.

APPLICABLE STANDARDS

Mold Resistance	Score of 10 (ASTM D 3273)
Manufacturing	ASTM C 1396 Federal Specification – SS-L-30D Type III
Installation	ASTM C 840 Gypsum Association GA-216 Gypsum Association GA-214
Surface Burning Characteristics	ASTM E 84 Flame Spread 0 Smoke Developed 0

PRODUCT DATA

Thickness	Widths	Lengths	Edge Type
1/2" (12.7mm)	4' (1219mm)	8' - 12' (2438mm - 3658mm)	Tapered

Special lengths or edges may be available on special order. Consult your American Gypsum sales representative for details.

Thermal Resistance "R" Value 1/2" = 0.50

SUBMITTAL APPROVALS

Job Name:

Contractor: **Date:**

Submittal 09 29 00

American Gypsum
3811 Turtle Creek Blvd., #1200
Dallas, TX 75219
214-530-5500
www.americangypsum.com

Technical Information
1-800-545-6302 ext. 5607

Interior Ceiling Board

INTERIOR CEILING BOARD

Made in the USA

Panel de techo para interiores

DESCRIPTION

1/2" Interior Ceiling Board is specifically formulated to meet the need for a lower weight ceiling panel with increased integrity in its gypsum core, making its sag resistance equivalent to 5/8" Type X wallboard. American Gypsum's 1/2'' Interior Ceiling Board is designed for use in wall and ceiling applications spaced no more than 24'' o/c, and approved to be applied parallel or perpendicular to ceiling framing spaced up to 24'' o/c, even when a hand applied or water-based texture is used for decoration.

American Gypsum products contain no asbestos and no detectable levels of formaldahyde.

GREENGUARD CERTIFICATION FROM UL ENVIRONMENT

1/2" Interior Ceiling Board has achieved UL Environment's GREENGUARD GOLD Certification. GREENGUARD Certified products are scientifically proven to meet some of the world's most rigorous, third-party chemical emissions standards, helping reduce indoor air pollution and the risk of chemical exposure while aiding in the creation of healthier indoor environments. For more information, visit www.ul.com/gg.

BASIC USES

5/8" wallboard panels were once considered the best product for ceiling applications where the framing is spaced up to 24"o/c. However, product weight has always been a hindrance to proficient construction. The lighter weight 1/2" Interior Ceiling Board is specifically designed for interior ceilings in standard residential and commercial applications where framing members are spaced up to 24"o/c and a water-based texture will be used.

The exceptional sag resistance of American Gypsum's Interior Ceiling Board has been independently verified by Progressive Engineering, Inc. when tested in accordance with ICC-ES AC417 (Acceptance Criteria for 1/2 Inch Sag-Resistant Gypsum Ceiling Board), and PEI Standard No. 94-9 - Large Scale Ceiling Board Load Test Procedure.

LIMITATIONS

1/2" Interior Ceiling Board is intended for interior applications only, do not use in exterior soffits or exterior ceiling applications.

Avoid exposure to temperatures exceeding 125°F (52°C), e.g., located adjacent to wood burning stoves and or heating appliances.

Avoid exposure to excessive or continuous moisture before, during and after installation, e.g., swimming pools, saunas or steam rooms. Eliminate any sources of moisture immediately.

Gypsum panels are a nonstructural product and should not be used as a nailing base.

Maximum span between ceiling framing members is 24"o/c.

When 1/2" Interior Ceiling Board panels are used as a base for water-based texture finish, the weight of overlaid insulation shall not exceed 2.2 psf. Insulation blankets or batts should be recessed, with flanges attached or friction fitted to the sides of the studs or joists.

If blown-in cellulose insulation is used, take care to follow insulation manufacturer's specifications on addition of water, as additional moisture in this insulation can cause excessive gypsum wallboard to sag.

When a vapor retarder is installed on ceilings behind these ceiling panels, the ceiling insulation (batts or blankets) shall be installed before or immediately after the ceiling panels are installed. Where loose fill insulation is to be used above the ceiling, it shall be installed immediately after the ceiling panels are installed.

STORAGE AND HANDLING

Gypsum board does not generate or support the growth of mold when it is properly transported, stored, handled, installed, and maintained. However, mold spores are present everywhere and when conditions are favorable; mold can grow on practically any surface. GYPSUM BOARD MUST BE KEPT DRY to prevent the growth of mold.

Gypsum board must be stored in an area that protects it from adverse weather conditions, condensation, and other forms of moisture. Job site conditions that can expose gypsum board to water or moisture must be avoided.

Gypsum board must be protected during transit with a weather-tight cover in good condition. Plastic shipping bags are intended to provide protection during transit only and must be promptly removed upon arrival of the load. Failure to remove the shipping bag can increase the likelihood of developing conditions favorable to the growth of mold.

Gypsum board that has visible mold growth must not be used. For additional information, refer to Gypsum Association publication, "Guidelines for the Prevention of Mold Growth on Gypsum Wallboard" (GA-238-03), which can be found at www.americangypsum.com under "Technical Data" - click on Gypsum Association Literature.

Gypsum board must be stored off the ground and under protective cover. Sufficient risers must be used to assure support for the entire length of the wallboard to prevent sagging.

Gypsum board must be delivered to the job site as near to the time it will be used as possible. Individuals delivering gypsum board to jobsites should ensure that it is carried, not dragged, to place of storage/installation to prevent damage to finished edges.

INTERIOR CEILING BOARD

AMERICAN GYPSUM Made in the USA AMERICAN GYPSUM

Panel de techo para interiores

STORAGE AND HANDLING

Gypsum board shall always be stacked flat - NEVER on edge or end. Gypsum board stacked on edge or end is unstable and presents a serious hazard should it accidentally topple. Gypsum board should be placed so weight is evenly distributed and the floor is not overloaded.

GOOD BUILDING PRACTICES

Installation - The building temperature shall be maintained at not less than 50ºF (10ºC) for adhesive application of gypsum board, during joint treatment, texturing, and decoration. When a temporary heat source is used the temperature shall not be more than 95°F (35°C) in any given room or area. Adequate and continuous ventilation shall be provided in the working area during the installation and the drying or curing period.

The design professional has the ultimate responsibility for location of control joints.

Decoration - The design professional, contractor and or owner shall review Gypsum Association's bulletin GA-214, "Recommended Levels of Gypsum Board Finish", in order to specify the proper level of drywall finishing needed to assure the desired results. (GA-214 can be found at www.americangypsum.com under "Technical Data" - click on Gypsum Association Literature)

For best painting results, all surfaces, including joint compound, should be clean, dust-free and not glossy. To equalize the porosities between the face paper and joint compound and improve fastener and joint concealment, the surface shall be primed and sealed with a full-bodied drywall primer before texturing or final decoration. The selection of the proper paint to give the specified or desired finished characteristics is the responsibility of the design professional, contractor and or owner.

Gypsum board that is to have a wall covering applied to it should be prepared and primed as described for painting.

APPLICABLE STANDARDS

Manufacturing	ASTM C 1396 section 12 (C 1395) Federal Specification SS-L-30D Type III	
Installation	ASTM C 840 Gypsum Association GA-216 Gypsum Association GA-214	
Surface Burning Characteristics	ASTM E 84	
	Flame Spread	0
	Smoke Developed	0

PRODUCT DATA

SIZES

Thickness	Widths	Lengths	Edge Type
1/2" (12.7mm)	4' (1219mm)	8' - 12' (2438mm – 3658mm)	Tapered Edge

Special lengths or edges may be available on special order. Consult your American Gypsum sales representative for details.

Thermal Resistance "R" Value 1/2" = 0.50

SUBMITTAL APPROVALS

Job Name:

_ _

Contractor: **Date:**

_ _

SHAFTLINER

AMERICAN GYPSUM Made in the USA AMERICAN GYPSUM

Panel regular para interiores

Submittal 09 29 00

American Gypsum
3811 Turtle Creek Blvd., #1200
Dallas, TX 75219
214-530-5500
www.americangypsum.com

Technical Information
1-800-545-6302 ext. 5607

1” Shaft Liner

Gypsum Wallboard

DESCRIPTION

Shaft Liner panels consist of a fire-resistant type X gypsum core that is encased in a moisture resistant, 100 percent recycled green face and back paper. The face paper is folded around the long edges to reinforce and protect the core. The panels feature a double beveled edge for ease of installation, with the ends being square-cut and finished smooth. Shaft Liner panels are available: 1" thick x 2' wide, and in a variety of lengths.

Products manufactured by American Gypsum contain no asbestos and no detectable levels of formaldehyde.

GREENGUARD CERTIFIED FROM UL ENVIRONMENT

Shaft Liner panels have achieved UL Environment’s GREENGUARD GOLD Certification. GREENGUARD Certified products are scientifically proven to meet some of the world’s most rigorous, third-party chemical emissions standards, helping reduce indoor air pollution and the risk of chemical exposure while aiding in the creation of healthier indoor environments.

For more information, visit www.ul.com/gg.

BASIC USES

Shaft Liner panels are used in conjunction with other American Gypsum products and metal framing members for Shaftwall and Area Separation Wall systems. Lightweight non-load bearing gypsum Shaftwall systems have replaced traditional masonry for interior vertical enclosures including stairwells, elevator enclosures and mechanical chases.

American Gypsum’s Shaft Liner has been approved for use in the following assemblies:

U 375	2 Hour H-Stud Area Separation Wall System
V 455	1 & 2 Hour Shaftwall Systems using I, C-H and C-T Studs
U 428	2 Hour Shaftwall System using C-H and C-T Studs
U 429	2 Hour Area Separation Wall System using C-H and C-T Studs
V 433	2 Hour Shaftwall System using I-Studs

LIMITATIONS

Exposure to excessive or continuous moisture and extreme temperatures should be avoided during delivery, storage, handling and installation. Eliminate sources of moisture immediately.

Limiting heights and deflection criteria for the system should be based upon the metal stud manufacturer’s recommendations.

Panels should not come in direct contact with concrete, masonry or other surfaces that have high moisture content.

Provide flexible sealant/caulk at partition perimeters and penetrations to avoid air leakage/whistling and dust collection.

Used in non-load bearing systems only.

Not to be used in an unlined air supply duct.

Framing must be spaced no more then 24” o/c.

Not to be used in areas with direct exposure to water or continuous high humidity, e.g., saunas, steam rooms, gang showers or indoor swimming pools.

Avoid exposure to temperatures exceeding 125°F (52°C) for extended periods of time, e.g., located adjacent to wood burning stoves and or heating appliances.

STORAGE AND HANDLING

Gypsum board does not generate or support the growth of mold when it is properly transported, stored, handled, installed, and maintained. However, mold spores are present everywhere and when conditions are favorable; mold can grow on practically any surface. GYPSUM BOARD MUST BE KEPT DRY to prevent the growth of mold. Gypsum board must be stored in an area that protects it from adverse weather conditions, condensation, and other forms of moisture. Job site conditions that can expose gypsum board to water or moisture must be avoided.

Gypsum board should not be exposed to elevated levels of moisture for extended periods. Examples of elevated levels of moisture include, but are not limited to, exposure to rain, condensation, water leakage, and standing water. Some board exposed to these conditions may not need to be replaced, depending upon the source of the moisture and the condition of the gypsum board being considered for replacement.

When gypsum board is exposed to elevated levels of moisture, an assessment of the potential damage to the gypsum board must be made by the contractor/design professional/owner as to whether board exposed to these conditions must be replaced. Gypsum wallboard may experience limited intermittent exposure to moisture from a variety of sources, such as improper storage, construction or design defects, water leaks, etc. Gypsum board exposed to water should be replaced unless all of the following conditions are met.

1. The source of the water or moisture is identified and eliminated.
2. The water or moisture to which the gypsum board was exposed was uncontaminated.
3. The gypsum board can be dried thoroughly before mold growth begins (typically 24 to 48 hours depending on environmental conditions).
4. The gypsum board is structurally sound and there is no evidence of rusting fasteners or physical damage that would diminish the physical properties of the gypsum board or system.

Below are the general recommendations for drying out gypsum wallboard once exposed to moisture:
- The source of water or moisture must be eliminated.
- Adequate ventilation, air circulation, and drying are essential to minimize the potential for mold or other fungal growth. Fans should be used to increase air movement.

SHAFTLINER

AMERICAN GYPSUM

Made in the USA

AMERICAN GYPSUM

Panel regular para interiores

STORAGE AND HANDLING

- The interior of the building must be thoroughly dried immediately.
- The indoor humidity can be lowered by using fans and portable dehumidification equipment and by opening up the building when the outside air is drier than the air inside the structure.
- Damaged gypsum board and other wet materials that are to be replaced must be removed from the building to facilitate drying.
- Closets, cabinets, and doors between rooms should be opened to enhance circulation of air.
- For more detailed information, a water damage restoration specialist should be contacted.

IMPORTANT - IF THERE IS EVER A DOUBT ABOUT WHETHER TO KEEP OR REPLACE GYPSUM BOARD THAT HAS BEEN EXPOSED TO MOISTURE - REPLACE IT.

CAUTION: When replacing gypsum board in a fire resistance or sound rated systems, care must be taken to ensure that all repairs are consistent with the specific fire or sound rated design initially constructed (gypsum board type, fasteners and their spacing, and staggered joints).

Gypsum board must be protected during transit with a weather-tight cover in good condition. Plastic shipping bags are intended to provide protection during transit only and must be promptly removed upon arrival of the load. Failure to remove the shipping bag can increase the likelihood of developing conditions favorable to the growth of mold.

Gypsum board must be delivered to the job site as near to the time it will be used as possible. Individuals delivering gypsum board to jobsites should ensure that it is carried, not dragged, to place of storage/installation to prevent damage to finished edges.

Gypsum board must be stored off the ground and under protective cover. Sufficient risers must be used to assure support for the entire length of the wallboard to prevent sagging. Gypsum board shall always be stacked flat - NEVER on edge or end. Gypsum board stacked on edge or end is unstable and presents a serious hazard should it accidentally topple. Gypsum board should be placed so weight is evenly distributed and the floor is not overloaded.

GOOD BUILDING PRACTICES

Installation – Installation of 1" Shaft Liner panels shall be consistent with specified application details for Shaftwall or Area Separation Wall systems. The assembly must be erected in the proper manner and with all approved components used in a successfully completed fire endurance test. The contractor, design professional and or owner shall ensure that only the components that were a part of the approved test are used; do not substitute components. Handling and application shall be consistent with methods described in the noted standards and references indicated below.

APPLICABLE STANDARDS

Manufacturing	ASTM C 1396 Federal Specification – SS-L-30D Type IV Grade X
Installation	ASTM C 840 Gypsum Association GA-216 Gypsum Association GA-620
Surface Burning Characteristics	ASTM E 84 Flame Spread 0 Smoke Developed 0

FIRE RESISTANCE RATINGS

Desired fire rated assemblies are specified from tests performed by independent laboratories. These designs are made up of specific materials in a precise configuration. When choosing construction designs to meet certain fire resistance requirements, vigilance must be taken to insure that each component of the selected assembly is the one specified in the test and are assembled in accordance with the requirements of the assembly.

PRODUCT DATA

Thickness	Widths	Lengths	Edge Type	UL Types
1" (25.4mm)	2' (610mm)	8' - 12' (2438mm - 3658mm)	Double Beveled	AG-S

Special lengths or edges may be available on special order. Consult your American Gypsum sales representative for details.
Thermal Resistance "R" Value 1" = 0.73

SUBMITTAL APPROVALS

Job Name: _____

Contractor: _____ **Date:** _____

Submittal 09210

American Gypsum
3811 Turtle Creek Blvd., #1200
Dallas, TX 75219
214-530-5500
www.americangypsum.com

Technical Information
1-800-545-6302 ext. 5607

Exterior Soffit Gypsum Wallboard

EXTERIOR SOFFIT

Made in the USA

Panel de techo para exteriores

DESCRIPTION

Exterior Soffit wallboard is the ideal material for exterior soffit applications and sidewalls of protected exterior corridors/breeze-ways with indirect exposure to the weather. The panel contains a non-combustible gypsum core with its long edges being tapered, and ends being square-cut and finished smooth. Exterior Soffit wallboard is available in: 1/2" panels with a non-rated core, 5/8" Type X core for use in fire-rated assemblies, and a 5/8" Type C core (Special Order).

Products manufactured by American Gypsum contain no asbestos and no detectable levels of formaldehyde.

GREENGUARD CERTIFIED FROM UL ENVIRONMENT

Exterior Soffit wallboard has achieved UL Environment's GREENGUARD GOLD Certification. GREENGUARD Certified products are scientifically proven to meet some of the world's most rigorous, third-party chemical emissions standards, helping reduce indoor air pollution and the risk of chemical exposure while aiding in the creation of healthier indoor environments.

For more information, visit www.ul.com/gg.

BASIC USES

Exterior Soffit wallboard is a sag-resistant panel for use in exterior ceiling applications and sidewalls in protected exterior corridors/ breezeways with indirect exposure to the weather. Uses include marquees, large canopies, covered walkways, parking areas, carports, exterior soffits and sidewalls of protected corridors/breezeways. The panels are secured directly to wood framing, cross-furring of wood, metal framing or metal furring channels attached to main supports. With joints covered, Exterior Soffit wallboard will resist the passage of smoke. For additional information on smoke barriers, refer to Gypsum Association publication, "Building and Inspecting Smoke Barriers" (GA-618).

LIMITATIONS

- Exterior Soffit wallboard must be protected from direct exposure to water.
- When used in exterior ceiling applications, install fascia so that its drip line is at least 1/4'' below the Exterior Soffit boards face.
- Not to be used in areas with direct exposure to water or continuous high humidity, e.g., saunas, steam rooms, gang showers or indoor swimming pools.
- Avoid exposure to temperatures exceeding 125°F (52°C) for extended periods of time.
- Exterior Soffit wallboard is a nonstructural panel and should not be used as a nailing base.
- Framing must be spaced no more than 16"o/c when using 1/2" Exterior Soffit wallboard and 24"o/c for 5/8" Exterior Soffit.

STORAGE & HANDLING

Gypsum board does not generate or support the growth of mold when it is properly transported, stored, handled, installed, and maintained. However, mold spores are present everywhere and when conditions are favorable; mold can grow on practically any surface. GYPSUM BOARD MUST BE KEPT DRY to prevent the growth of mold.

Gypsum board must be stored in an area that protects it from adverse weather conditions, condensation, and other forms of moisture. Job site conditions that can expose gypsum board to water or moisture must be avoided.

Gypsum board must be protected during transit with a weather-tight cover in good condition. Plastic shipping bags are intended to provide protection during transit only and must be promptly removed upon arrival of the load. Failure to remove the shipping bag can increase the likelihood of developing conditions favorable to the growth of mold.

Gypsum board that has visible mold growth must not be used. For additional information, refer to Gypsum Association publication, "Guidelines for the Prevention of Mold Growth on Gypsum Wallboard" (GA-238), which can be found at www.americangypsum.com under "Technical Information" - click on Gypsum Association Literature.

Gypsum board must be stored off the ground and under protective cover. Sufficient risers must be used to assure support for the entire length of the wallboard to prevent sagging.

Gypsum board must be delivered to the job site as near to the time it will be used as possible. Individuals delivering gypsum board to jobsites should ensure that it is carried, not dragged, to place of storage/installation to prevent damage to finished edges.

Gypsum board shall always be stacked flat - NEVER on edge or end. Gypsum board stacked on edge or end is unstable and presents a serious hazard should it accidentally topple. Gypsum board should be placed so weight is evenly distributed and the floor is not overloaded.

GOOD BUILDING PRACTICES

Installation - Installation of Exterior Soffit wallboard shall be consistent with methods described in the noted standards and references indicated below.

The design professional has the ultimate responsibility for location of control joints.

Fasten Exterior Soffit wallboard to wood framing members with either Type W 1 1/4" screws spaced 12"o/c or 1 1/2" nails spaced 7"o/c. For metal framing use Type S 1 1/4" screws, spaced 12"o/c.

Suitable fascia and moldings shall be provided around the perimeter to protect Exterior Soffit wallboard from direct exposure to water. Install fascia so that its drip line is at least 1/4" below the Exterior Soffit boards face.

EXTERIOR SOFFIT

Made in the USA

Panel de techo para exteriores

GOOD BUILDING PRACTICES

Ventilation - Where the area above Exterior Soffit wallboard opens to an attic space over habitable rooms, the space should be vented to the outside in accordance with local building codes (typically 1 s/f of venting for every 150 s/f of Exterior Soffit wallboard). Where Exterior Soffit wallboard is applied directly to rafters or to roof-ceiling joists that extend beyond habitable rooms (as in flat roof construction), vents are required at each end of each rafter or joist space.

Joint Treatment – A fast setting joint compound is recommended for filling, taping and finishing of Exterior Soffit wallboard.

Decoration – The design professional, contractor and or owner shall review Gypsum Association's bulletin GA-214, "Recommended Levels of Gypsum Board Finish", in order to specify the proper level of drywall finishing needed to assure the desired results. (GA-214 can be found at www.americangypsum.com under "Technical Data" - click on Gypsum Association Literature)

Exterior Soffit wallboard shall be sealed with a full-bodied exterior primer and then finished with a coat of exterior paint, per paint manufactures instructions.

APPLICABLE STANDARDS

Manufacturing	ASTM C 1396 section 8 (C 931) Federal Specification - None
Installation	ASTM C 840 Gypsum Association GA-216
Surface Burning Characteristics	ASTM E 84 Flame Spread 0 Smoke Developed 0

PRODUCT DATA

SIZES

Thickness	Widths	Lengths	Edge Type	UL Type
1/2" (12.7mm)	4' (1219mm)	8' and 12' (2438mm & 3658mm)	Tapered	
5/8" Type X (15.9mm)	4' (1219mm)	8' - 12' (2438mm - 3658m)	Tapered	AGX-1, AGX-11
5/8" Type C (15.9mm) SPECIAL ORDER	4' (1219mm)	12' (3658mm)	Tapered	AG-C

Special lengths or edges may be available on special order. Consult your American Gypsum sales representative for details.

Thermal Resistance "R" Value 1/2" = 0.50
5/8" = 0.61

FIRE RESISTANCE RATINGS

Fire rated assemblies are specified from tests performed by independent laboratories. These designs are made up of specific materials in a precise configuration. When choosing construction designs to meet certain fire resistance requirements, vigilance must be taken to insure that each component of the selected assembly is the one specified in the test and are assembled in accordance with the requirements of the assembly.

SUBMITTAL APPROVALS

Job Name:

Contractor: **Date:**