SECTION 09260

GYPSUM BOARD ASSEMBLIES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Performance criteria for gypsum board assemblies.

B. Acoustic insulation.

C. Gypsum sheathing.

D. Gypsum wallboard.

E. Joint treatment and accessories.

F. Textured finish system.

G. Water-resistive barrier over exterior wall sheathing.

1.02 RELATED REQUIREMENTS

A. Section 05400 - Cold Formed Metal Framing: Exterior wind-load-bearing metal stud framing.

B. Section 07212 - Board and Batt Insulation: Building envelope.

C. Section 07900 - Joint Sealers.

D. Section 09111 - Non-Loadbearing Metal Framing.

E. Section 09300 - Tiling.

1.03 REFERENCE STANDARDS

A. ASTM C 475/C 475M - Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board.

B. ASTM C 514 - Standard Specification for Nails for the Application of Gypsum Board.

C. ASTM C 557 - Standard Specification for Adhesives for Fastening Gypsum Wallboard to Wood Framing.

D. ASTM C 754 - Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products.

E. ASTM C 840 - Standard Specification for Application and Finishing of Gypsum Board.

F. ASTM C 954 - 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.

G. ASTM C 1002 - Standard Specification for Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs.

H. ASTM C 1047 - Standard Specification for Accessories for Gypsum Wallboard and Gypsum Veneer Base.

I. ASTM C 1278/C 1278M - Standard Specification for Fiber-Reinforced Gypsum Panel.

J. ASTM C 1280 - Standard Specification for Application of Gypsum Sheathing.

K. ASTM C 1288 - Standard Specification for Discrete Non-Asbestos Fiber-Cement Interior Substrate Sheets.

L. ASTM C 1325 - Standard Specification for Non-Asbestos Fiber-Mat Reinforced Cement Substrate Sheets.

M. ASTM C 1396/C 1396M - Standard Specification for Gypsum Board.

N. ASTM C 1629/C 1629 - Standard Classification for Abuse-Resistant Nondecorated Interior Gypsum Panel Products and Fiber-Reinforced Cement Panels.

O. ASTM D 3273 - Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber.

P. ASTM E 72 - Standard Test Methods of Conducting Strength Tests of Panels for Building Construction.

Q. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials.

R. ASTM E 90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.

S. ASTM E 413 - Classification for Rating Sound Insulation.

T. GA-216 - Application and Finishing of Gypsum Board; Gypsum Association.

U. GA-600 - Fire Resistance Design Manual; Gypsum Association.

V. ICC (IBC) - International Building Code.

W. ICC-ES AC38 - Acceptance Criteria for Water-Resistive Barriers; ICC Evaluation Service, Inc..

X. UL (FRD) - Fire Resistance Directory; Underwriters Laboratories Inc..

1.04 SUBMITTALS

A. See Section 01350 - Submittals, for submittal procedures.

B. Product Data: Provide data on gypsum board, accessories, and joint finishing system.

C. Test Reports: For all stud framing products that do not comply with ASTM C 645 or C 754, provide independent laboratory reports showing maximum stud heights at required spacings and deflections.

1.05 QUALITY ASSURANCE

A. Installer Qualifications: Company specializing in performing gypsum board application and finishing, with minimum 5 years of documented experience.

B. Copies of Documents at Site: Maintain at the project site a copy of each referenced document that prescribes execution requirements.

PART 2 PRODUCTS

2.01 GYPSUM BOARD ASSEMBLIES

A. Provide completed assemblies complying with ASTM C 840 and GA-216.
   1. See PART 3 for finishing requirements.

B. Interior Partitions Indicated as Sound-Rated: Provide completed assemblies with the following characteristics:
   1. Acoustic Attenuation: STC of 53 calculated in accordance with ASTM E 413, based on tests conducted in accordance with ASTM E 90.

C. Fire Rated Assemblies: provide completed assemblies complying with applicable code and as indicated on drawings.

2.02 BOARD MATERIALS

A. Manufacturers - Gypsum-Based Board:
   1. American Gypsum: www.americangypsum.com.

2. CertainTeed Corporation: www.certainteed.com.
3. Georgia-Pacific Gypsum LLC: www.gp.com/gypsum.
4. Lafarge North America Inc: www.lafargenorthamerica.com.
5. National Gypsum Company: www.nationalgypsum.com.
6. PABCO Gypsum: www.pabcogypsum.com.
7. Temple-Inland Inc: www.templeinland.com.
8. USG Corporation: www.usg.com.
9. Substitutions: Refer to Section 01640 - Substitutions and Product Options.

B. Wallboard: Paper-faced gypsum wallboard as defined in ASTM C 1396/C 1396M; sizes to minimize joints in place; ends square cut.
1. Application: Use for vertical surfaces and ceilings, unless otherwise indicated.
2. Mold Resistance: Score of 10, when tested in accordance with ASTM D 3273.
   a. Mold-resistant board is required whenever board is being installed before the building is enclosed and conditioned.
   b. Mold-resistant board is required at all locations.
3. At Assemblies Indicated with Fire-Rating: Use type required by indicated tested assembly; if no tested assembly is indicated, use Type X board, UL or WH listed.
4. Thickness:
   a. Vertical Surfaces: 5/8 inch.
   b. Ceilings: 5/8 inch.
   c. Multi-Layer Assemblies: Thicknesses as indicated on drawings.
5. Mold-Resistant Paper-Faced Products:
   a. American Gypsum; M-Bloc.
   b. CertainTeed Corporation; ProRoc Brand Moisture & Mold Resistant Gypsum Board.
   c. Lafarge North America Inc; Mold Defense Drywall.
   d. Lafarge North America Inc; Protecta AR 100 with Mold Defense.
   e. National Gypsum Company; Gold Bond Brand XP Gypsum Board.
   f. National Gypsum Company; Gold Bond Hi-Abuse Brand XP Wallboard.
   g. Pacific Coast Building Products, Inc; PABCO Mold Curb Gypsum Wallboard.
   h. Temple-Inland Inc; ComfortGuard.
   i. USG Corporation; Sheetrock Brand Mold Tough Gypsum Panels.
   j. USG Corporation; Sheetrock Brand Mold Tough Gypsum Panels AR.
   k. Substitutions: Refer to Section 01640 - Substitutions and Product Options.

C. Impact-Rated Wallboard: Tested to Level 3 soft-body and hard-body impact in accordance with ASTM C 1629.
1. Application: As scheduled on drawings.
2. Mold Resistance: Score of 10, when tested in accordance with ASTM D 3273.
3. Paper-Faced Type: Gypsum wallboard as defined in ASTM C 1396/C 1396M.
4. Unfaced Type: Interior fiber-reinforced gypsum panels as defined in ASTM C 1278/C 1278M.
5. Type: Fire-resistance rated Type X, UL or WH listed.
6. Thickness: 5/8 inch.
7. Edges: Tapered.
8. Products:
   a. National Gypsum Company; Gold Bond Hi-Impact Brand XP Wallboard.
   b. USG Corporation; Fiberock Brand Panels--VHI Abuse-Resistant.

D. Ceiling Board: Special sag-resistant gypsum ceiling board as defined in ASTM C 1396/C 1396M; sizes to minimize joints in place; ends square cut.
1. Application: Ceilings, unless otherwise indicated.
2. Thickness: 5/8 inch.
3. Edges: Tapered.
4. Products:
   a. American Gypsum; Interior Ceiling Board.

b. CertainTeed Corporation; ProRoc Interior Ceiling.
c. Georgia-Pacific Gypsum LLC; ToughRock CD Ceiling Board.
d. Lafarge North America Inc; Sagcheck.
e. National Gypsum Company; High Strength Brand Ceiling Board.
f. Pacific Coast Building Products, Inc; PABCO Ceiling Board.
g. Temple-Inland Inc; Span24 Ceiling Board.
h. USG Corporation; Sheetrock Brand Sag-Resistant Interior Gypsum Ceiling Board.
i. Substitutions: Refer to Section 01640 - Substitutions and Product Options.

E. Exterior Sheathing Board: Sizes to minimize joints in place; ends square cut.
1. Application: Exterior sheathing, unless otherwise indicated.
2. Mold Resistance: Score of 10, when tested in accordance with ASTM D 3273.
3. Paper-Faced Sheathing: Gypsum sheathing board as defined in ASTM C 1396/C 1396M, moisture resistant type with water repellent paper faces.
4. Core Type: Regular and Type X, as indicated.
5. Type X Thickness: 5/8 inch.
6. Regular Board Thickness: 5/8 inch.
7. Edges: Square, for vertical application and V-shaped tongue and groove, for horizontal application..
8. Paper-Faced Products:
a. American Gypsum; Exterior Gypsum Sheathing.
b. CertainTeed Corporation; ProRoc Sheathing Treated Core.
c. Lafarge North America Inc; Exterior Gypsum Sheathing (Treated Core).
d. National Gypsum Company; Gold Bond Brand Gypsum Sheathing.
e. Pacific Coast Building Products, Inc; PABCO Gypsum Sheathing Board.
f. Temple-Inland Inc; Gypsum Sheathing Board.
g. Temple-Inland Inc; StructGuard TS Sheathing (mold-resistant).
h. USG Corporation; Sheetrock Brand Gypsum Sheathing.
i. Substitutions: Refer to Section 01640 - Substitutions and Product Options.

F. Exterior Soffit Board: Exterior gypsum soffit board as defined in ASTM C 1396/C 1396M; sizes to minimize joints in place; ends square cut.
1. Application: Ceilings and soffits in protected exterior areas, unless otherwise indicated.
2. At Assemblies Indicated with Fire-Rating: Use type required by indicated tested assembly; if no tested assembly is indicated, use Type X.
3. Types: Regular, Type X, and Type C, in locations indicated.
4. Type X Thickness: 5/8 inch.
5. Type C Thickness: 5/8 inch.
6. Regular Type Thickness: 5/8 inch.
7. Edges: Tapered.
8. Products:
a. American Gypsum; Exterior Soffit Wallboard.
b. CertainTeed Corporation; ProRoc Brand Exterior Soffit Board.
c. Georgia-Pacific Gypsum LLC; ToughRock Soffit Board.
d. Lafarge North America Inc; Soffitboard.
e. National Gypsum Company; Gold Bond Brand Exterior Soffit Board.
f. Pacific Coast Building Products, Inc; PABCO.
g. Temple-Inland Inc; Exterior Gypsum Soffit Board.
h. USG Corporation; Sheetrock Exterior Gypsum Ceiling Board.
i. Substitutions: Refer to Section 01640 - Substitutions and Product Options.

2.03 ACCESSORIES

A. Acoustic Insulation: ASTM C 665; preformed glass fiber, friction fit type, unfaced. Thickness: 6 inches.

B. Acoustic Sealant: Non-hardening, non-skinning, for use in conjunction with gypsum board.

C. Water-Resistive Barrier: No. 15 asphalt felt.

D. Finishing Accessories: ASTM C 1047, galvanized steel or rolled zinc, unless otherwise indicated.
   1. Types: As detailed or required for finished appearance.
   2. Special Shapes: In addition to conventional cornerbead and control joints, provide U-bead, L-bead, and LC-bead at exposed panel edges.
   3. Manufacturers - Finishing Accessories:
      a. Same manufacturer as framing materials.

E. Joint Materials: ASTM C 475 and as recommended by gypsum board manufacturer for project conditions.
   1. Tape: 2 inch wide, coated glass fiber tape for joints and corners.
   2. Ready-mixed vinyl-based joint compound.
   3. Powder-type vinyl-based joint compound.
   4. Chemical hardening type compound.

F. 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.

G. Screws for Attachment to Steel Members Less Than 0.03 inch In Thickness, to Wood Members, and to Gypsum Board: ASTM C 1002; self-piercing tapping type; cadmium-plated for exterior locations.

H. Screws for Attachment to Steel Members From 0.033 to 0.112 inch in Thickness: ASTM C 954; steel drill screws for application of gypsum board to loadbearing steel studs.

I. Anchorage to Substrate: Tie wire, screws, and other metal supports, of type and size to suit application; to rigidly secure materials in place.

PART 3 EXECUTION

3.01 EXAMINATION

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

3.02 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. In non-fire-rated construction, seal around all penetrations by conduit, pipe, ducts, and rough-in boxes.

3.03 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 perpendicular to framing, 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. 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 C 1280. Install sheathing horizontally, 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 Soffit Board: Install perpendicular to framing, with staggered end joints over framing members or other solid backing.

G. Moisture Protection: Treat cut edges and holes in moisture resistant gypsum board and exterior gypsum soffit board with sealant.

3.04 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.
   2. At exterior soffits, not more than 30 feet apart in both directions.

B. Corner Beads: Install at external corners, using longest practical lengths.

C. Edge Trim: Install at locations where gypsum board abuts dissimilar materials and as indicated.

3.05 JOINT TREATMENT

A. Paper Faced Gypsum Board: Use fiberglass joint tape, bedded with ready-mixed vinyl-based joint compound and finished with ready-mixed vinyl-based joint compound.

B. Finish gypsum board in accordance with levels defined in ASTM C 840, as follows:
   1. Level 4: Walls and ceilings to receive paint finish or wall coverings, unless otherwise indicated.
   2. Level 5: Walls and ceilings to receive semi-gloss or gloss paint finish and other areas specifically indicated.
   3. Level 3: Walls to receive textured wall finish.
   4. Level 2: In utility areas, behind cabinetry, and on backing board to receive tile finish.
   5. Level 1: Wall or Fire Rated wall areas above finished ceilings, whether or not accessible in the completed construction.
   6. Level 0: Temporary partitions and surfaces indicated to be finished in later stage of project.

C. 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 surfaces behind adhesive applied ceramic tile and fixed cabinetry.
   3. Taping, filling and sanding is not required at base layer of double layer applications.

D. 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.

E. Fill and finish joints and corners of cementitious backing board as recommended by manufacturer.

3.06 TOLERANCES

A. Maximum Variation of Finished Gypsum Board Surface from True Flatness: 1/8 inch in 10 feet in any direction.

END OF SECTION