

## SECTION 09255 - GYPSUM BOARD

## PART 1 - GENERAL

## 1.1 SUMMARY

- A. This Section includes the following:
  - 1. Interior gypsum board.
  - 2. Exterior gypsum board for ceilings and soffits.
  - 3. Tile backing panels.

## 1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples: For the following products:
  - 1. Trim Accessories: Full-size Sample in **12-inch- (300-mm-)** long length for each trim accessory indicated.
  - 2. Textured Finishes: [**Manufacturer's standard size**] <Insert size> for each textured finish indicated and on same backing indicated for Work.
- C. LEED Submittals: For Credit EQ 4.1, manufacturers' product data for adhesives used to laminate gypsum board panels to substrates, including printed statement of VOC content.

## 1.3 QUALITY ASSURANCE

- A. Fire-Resistance-Rated Assemblies: For fire-resistance-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 119 by an independent testing agency.
- B. STC-Rated Assemblies: For STC-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 90 and classified according to ASTM E 413 by an independent testing agency.
- C. Mockups: Before beginning gypsum board installation, install mockups of at least **100 sq. ft. (9 sq. m)** in surface area to demonstrate aesthetic effects and set quality standards for materials and execution.
  - 1. Install mockups for the following:
    - a. Each level of gypsum board finish indicated for use in exposed locations.
    - b. Each texture finish indicated.
  - 2. Apply or install final decoration indicated, including painting and wallcoverings, on exposed surfaces for review of mockups.

3. Simulate finished lighting conditions for review of mockups.
4. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 INTERIOR GYPSUM BOARD

- A. General: Complying with ASTM C 36/C 36M or ASTM C 1396/C 1396M, as applicable to type of gypsum board indicated and whichever is more stringent.
1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  2. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. American Gypsum Co.
    - b. BPB America Inc.
    - c. G-P Gypsum.
    - d. Lafarge North America Inc.
    - e. National Gypsum Company.
    - f. PABCO Gypsum.
    - g. Temple.
    - h. USG Corporation.
    - i. <Insert manufacturer's name.>
- B. Regular Type:
1. Thickness: 1/2 inch (12.7 mm).
  2. Long Edges: [Tapered] [Tapered and featured (rounded or beveled) for prefilling].
- C. Type X:
1. Thickness: 5/8 inch (15.9 mm).
  2. Long Edges: [Tapered] [Tapered and featured (rounded or beveled) for prefilling].
- D. Special Type X: Having improved fire resistance over standard Type X, and complying with requirements of fire-resistance-rated assemblies indicated on Drawings.
1. Thickness: As required by fire-resistance-rated assembly indicated on Drawings.
  2. Long Edges: Tapered.
- E. Flexible Type: Manufactured to bend to fit radii and to be more flexible than standard regular-type gypsum board of same thickness.
1. Thickness: 1/4 inch (6.4 mm).
  2. Long Edges: Tapered.
- F. Ceiling Type: Manufactured to have more sag resistance than regular-type gypsum board.

1. Thickness: **1/2 inch (12.7 mm)**.
2. Long Edges: Tapered.

G. Foil-Backed Type:

1. Core: [As indicated on Drawings] [**3/8 inch (9.5 mm), regular type**] [**1/2 inch (12.7 mm), regular type**] [**5/8 inch (15.9 mm), Type X**] [Special Type X as required by fire-resistance-rated assembly indicated on Drawings].
2. Long Edges: [Tapered] [Tapered and featured (rounded or beveled) for prefilling].

H. Abuse-Resistant Type: Manufactured to produce greater resistance to surface indentation and through-penetration (impact resistance) than standard, regular-type and Type X gypsum board.

1. Core: [As indicated on Drawings] [**1/2 inch (12.7 mm), regular type**] [**5/8 inch (15.9 mm), Type X**].
2. Long Edges: Tapered.

I. Moisture- and Mold-Resistant Type: With moisture- and mold-resistant core and surfaces.

1. Core: **5/8 inch (15.9 mm)**, Type X.
2. Long Edges: Tapered.

## 2.2 EXTERIOR GYPSUM BOARD FOR CEILINGS AND SOFFITS

A. Exterior Gypsum Soffit Board: ASTM C 931/C 931M or ASTM C 1396/C 1396M, with manufacturer's standard edges.

1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
2. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

- a. American Gypsum Co.
- b. BPB America Inc.
- c. G-P Gypsum.
- d. Lafarge North America Inc.
- e. National Gypsum Company.
- f. PABCO Gypsum.
- g. Temple.
- h. USG Corporation.
- i. <Insert manufacturer's name.>

3. Core: [As indicated] [**1/2 inch (12.7 mm), regular type**] [**5/8 inch (15.9 mm), Type X**].

B. Glass-Mat Gypsum Sheathing Board: ASTM C 1177/C 1177M.

1. Product: Subject to compliance with requirements, provide "Dens-Glass Gold" by G-P Gypsum.

2. Core: [As indicated] [1/2 inch (12.7 mm), regular type] [5/8 inch (15.9 mm), Type X].

### 2.3 TILE BACKING PANELS

#### A. Water-Resistant Gypsum Backing Board: ASTM C 630/C 630M or ASTM C 1396/C 1396M.

1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
2. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - a. American Gypsum Co.
  - b. BPB America Inc.
  - c. G-P Gypsum.
  - d. Lafarge North America Inc.
  - e. National Gypsum Company.
  - f. PABCO Gypsum.
  - g. Temple.
  - h. USG Corporation.
  - i. <Insert manufacturer's name.>
3. Core: [As indicated on Drawings] [1/2 inch (12.7 mm), regular type] [5/8 inch (15.9 mm), Type X] [Special Type X as required by fire-resistance-rated assembly indicated on Drawings].

#### B. Glass-Mat, Water-Resistant Backing Board:

1. Complying with ASTM C 1178/C 1178M.
  - a. Product: Subject to compliance with requirements, provide "DensShield Tile Guard" by G-P Gypsum.
2. Complying with ASTM C1177/C 1177M.
  - a. Product: Subject to compliance with requirements, provide "DensArmor Plus Interior Guard" by G-P Gypsum.
3. Core: [As indicated on Drawings] [1/2 inch (12.7 mm), regular type] [5/8 inch (15.9 mm), Type X].

#### C. Cementitious Backer Units: ANSI A108.1.

1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
2. Products: Subject to compliance with requirements, provide one of the following:
  - a. Custom Building Products; Wonderboard.
  - b. FinPan, Inc.; Util-A-Crete Concrete Backer Board.

- c. USG Corporation; DUROCK Cement Board.
  - d. <Insert manufacturer's name; product name or designation.>
3. Thickness: [As indicated on Drawings] [**1/2 inch (12.7 mm)**] <Insert thickness>.

## 2.4 TRIM ACCESSORIES

### A. Interior Trim: ASTM C 1047.

1. Material: [**Galvanized or aluminum-coated steel sheet, rolled zinc, plastic, or paper-faced galvanized steel sheet**] [**Galvanized or aluminum-coated steel sheet or rolled zinc**] [**Plastic**] [**Paper-faced galvanized steel sheet**].
2. Shapes:
  - a. Cornerbead.
  - b. Bullnose bead.
  - c. LC-Bead: J-shaped; exposed long flange receives joint compound.
  - d. L-Bead: L-shaped; exposed long flange receives joint compound.
  - e. U-Bead: J-shaped; exposed short flange does not receive joint compound.
  - f. Expansion (control) joint.
  - g. Curved-Edge Cornerbead: With notched or flexible flanges.

### B. Exterior Trim: ASTM C 1047.

1. Material: [**Hot-dip galvanized steel sheet, plastic, or rolled zinc**] <Insert material>.
2. Shapes:
  - a. Cornerbead.
  - b. LC-Bead: J-shaped; exposed long flange receives joint compound.
  - c. Expansion (Control) Joint: One-piece, rolled zinc with V-shaped slot and removable strip covering slot opening.

### C. Aluminum Trim: Extruded accessories of profiles and dimensions indicated.

1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
2. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - a. Fry Reglet Corp.
  - b. Gordon, Inc.
  - c. Pittcon Industries.
  - d. <Insert manufacturer's name.>
3. Aluminum: Alloy and temper with not less than the strength and durability properties of **ASTM B 221 (ASTM B 221M)**, Alloy 6063-T5.
4. Finish: [**Corrosion-resistant primer compatible with joint compound and finish materials specified**] <Insert requirements for Class II anodic finishes and factory-painted, baked-enamel finishes>.

## 2.5 JOINT TREATMENT MATERIALS

- A. General: Comply with ASTM C 475/C 475M.
- B. Joint Tape:
1. Interior Gypsum Wallboard: Paper.
  2. Exterior Gypsum Soffit Board: Paper.
  3. Glass-Mat Gypsum Sheathing Board: 10-by-10 glass mesh.
  4. Tile Backing Panels: As recommended by panel manufacturer.
- C. Joint Compound for Interior Gypsum Wallboard: For each coat use formulation that is compatible with other compounds applied on previous or for successive coats.
1. Prefilling: At open joints[, **rounded or beveled panel edges,**] and damaged surface areas, use setting-type taping compound.
  2. Embedding and First Coat: For embedding tape and first coat on joints, fasteners, and trim flanges, use [**setting-type taping**] [**drying-type, all-purpose**] compound.
    - a. Use setting-type compound for installing paper-faced metal trim accessories.
  3. Fill Coat: For second coat, use [**setting-type, sandable topping**] [**drying-type, all-purpose**] compound.
  4. Finish Coat: For third coat, use [**setting-type, sandable topping**] [**drying-type, all-purpose**] compound.
  5. Skim Coat: For final coat of Level 5 finish, use [**setting-type, sandable topping compound**] [**drying-type, all-purpose compound**] [**high-build interior coating product designed for application by airless sprayer and to be used instead of skim coat to produce Level 5 finish**].
- D. Joint Compound for Exterior Applications:
1. Exterior Gypsum Soffit Board: Use setting-type taping compound and setting-type, sandable topping compound.
  2. Glass-Mat Gypsum Sheathing Board: As recommended by sheathing board manufacturer.
- E. Joint Compound for Tile Backing Panels:
1. Water-Resistant Gypsum Backing Board: Use setting-type taping compound and setting-type, sandable topping compound.
  2. Glass-Mat, Water-Resistant Backing Panel: As recommended by backing panel manufacturer.
  3. Cementitious Backer Units: As recommended by backer unit manufacturer.

## 2.6 AUXILIARY MATERIALS

- A. General: Provide auxiliary materials that comply with referenced installation standards and manufacturer's written recommendations.

- B. Laminating Adhesive: Adhesive or joint compound recommended for directly adhering gypsum panels to continuous substrate.
  - 1. Use adhesives that have a VOC content of 50 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
- C. Steel Drill Screws: ASTM C 1002, unless otherwise indicated.
  - 1. Use screws complying with ASTM C 954 for fastening panels to steel members from **0.033 to 0.112 inch** (0.84 to 2.84 mm) thick.
  - 2. For fastening cementitious backer units, use screws of type and size recommended by panel manufacturer.
- D. Sound Attenuation Blankets: ASTM C 665, Type I (blankets without membrane facing) produced by combining thermosetting resins with mineral fibers manufactured from glass, slag wool, or rock wool.
  - 1. Fire-Resistance-Rated Assemblies: Comply with mineral-fiber requirements of assembly.
- E. Acoustical Sealant: As specified in Division 7 Section "Joint Sealants."
- F. Thermal Insulation: As specified in Division 7 Section "Building Insulation."
- G. Vapor Retarder: As specified in Division 7 Section "Building Insulation."

## 2.7 TEXTURE FINISHES

- A. Primer: As recommended by textured finish manufacturer.
- B. Polystyrene Aggregate Ceiling Finish: Water-based, job-mixed, polystyrene aggregate finish with flame-spread and smoke-developed indexes of not more than 25 when tested according to ASTM E 84.
  - 1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
  - 2. Products: Subject to compliance with requirements, provide one of the following:
    - a. G-P Gypsum; Georgia-Pacific Regency Ceiling Textures/Polystyrene.
    - b. National Gypsum Company; Perfect Spray.
    - c. USG Corporation; SHEETROCK Ceiling Spray Texture, QT.
    - d. **<Insert manufacturer's name; product name or designation.>**
  - 3. Texture: **[Fine] [Medium] [Coarse]**.
- C. Aggregate Finish: Water-based, job-mixed, aggregated, drying-type texture finish for spray application.
  - 1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
  - 2. Products: Subject to compliance with requirements, provide one of the following:

- a. G-P Gypsum; Georgia-Pacific Ceiling Textures/Vermiculite.
  - b. USG Corporation; SHEETROCK Wall and Ceiling Spray Texture (Aggregated).
  - c. <Insert manufacturer's name; product name or designation.>
3. Texture: [**Light spatter**] [**Spatter knock-down**] <Insert texture>.
- D. Acoustical Finish: Water-based, chemical-setting or drying-type, job-mixed texture finish for spray application.
1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
  2. Products: Subject to compliance with requirements, provide one of the following:
    - a. International Cellulose Corp.; SonaSpray "fc."
    - b. USG Corporation; USG Acoustical Plaster Finish.
    - c. <Insert manufacturer's name; product name or designation.>
  3. Application Thickness: [**1/2 inch (12.7 mm)**] <Insert thickness>.
  4. Fire-Test-Response Characteristics: Indices when tested according to ASTM E 84 as follows:
    - a. Flame Spread: Less than [**25**] <Insert index>.
    - b. Smoke Developed: Less than [**450**] <Insert index>.
  5. NRC: [**0.55**] <Insert NRC> according to ASTM C 423.

### PART 3 - EXECUTION

#### 3.1 APPLYING AND FINISHING PANELS, GENERAL

- A. Comply with ASTM C 840.
- B. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold damaged.
- C. Isolate perimeter of gypsum board applied to non-load-bearing partitions at structural abutments, except floors. Provide **1/4- to 1/2-inch- (6.4- to 12.7-mm-)** wide spaces at these locations, and trim edges with edge trim where edges of panels are exposed. Seal joints between edges and abutting structural surfaces with acoustical sealant.
- D. Wood Framing: Install gypsum panels over wood framing, with floating internal corner construction. Do not attach gypsum panels across the flat grain of wide-dimension lumber, including floor joists and headers. Float gypsum panels over these members, or provide control joints to counteract wood shrinkage.

#### 3.2 APPLYING INTERIOR GYPSUM BOARD

- A. Install interior gypsum board in the following locations:



1. Regular Type: [As indicated on Drawings] [Vertical surfaces, unless otherwise indicated].
2. Type X: [As indicated on Drawings] [Where required for fire-resistance-rated assembly] [Vertical surfaces, unless otherwise indicated] <Insert requirements>.
3. Special Type X: [As indicated on Drawings] [Where required for specific fire-resistance-rated assembly indicated].
4. Flexible Type: [As indicated on Drawings] [Apply in double layer at curved assemblies].
5. Ceiling Type: [As indicated on Drawings] [Ceiling surfaces].
6. Foil-Backed Type: [As indicated on Drawings] <Insert requirements>.
7. Abuse-Resistant Type: [As indicated on Drawings] <Insert requirements>.
8. Moisture- and Mold-Resistant Type: [As indicated on Drawings] <Insert requirements>.

### 3.3 APPLYING EXTERIOR GYPSUM PANELS FOR CEILINGS AND SOFFITS

- A. Apply panels perpendicular to supports, with end joints staggered and located over supports.
  1. Install with **1/4-inch (6.4-mm)** open space where panels abut other construction or structural penetrations.
  2. Fasten with corrosion-resistant screws.

### 3.4 APPLYING TILE BACKING PANELS

- A. Water-Resistant Gypsum Backing Board: Install at showers, tubs, and where indicated. Install with **1/4-inch (6.4-mm)** gap where panels abut other construction or penetrations.
- B. Glass-Mat, Water-Resistant Backing Panel: Comply with manufacturer's written installation instructions and install at [showers, tubs, and where indicated] [locations indicated to receive tile]. Install with **1/4-inch (6.4-mm)** gap where panels abut other construction or penetrations.
- C. Cementitious Backer Units: ANSI A108.1, at [showers, tubs, and where indicated] [locations indicated to receive tile].
- D. Areas Not Subject to Wetting: Install regular-type gypsum wallboard panels to produce a flat surface except at showers, tubs, and other locations indicated to receive water-resistant panels.
- E. Where tile backing panels abut other types of panels in same plane, shim surfaces to produce a uniform plane across panel surfaces.

### 3.5 INSTALLING TRIM ACCESSORIES

- A. General: For trim with back flanges intended for fasteners, attach to framing with same fasteners used for panels. Otherwise, attach trim according to manufacturer's written instructions.

- B. Control Joints: Install control joints **[at locations indicated on Drawings]** **[according to ASTM C 840 and in specific locations approved by Architect for visual effect]**.
- C. Interior Trim: Install in the following locations:
  - 1. Cornerbead: Use at outside corners[, **unless otherwise indicated**].
  - 2. Bullnose Bead: Use **[at outside corners]** **[where indicated]** **<Insert requirements>**.
  - 3. LC-Bead: Use **[at exposed panel edges]** **<Insert requirements>**.
  - 4. L-Bead: Use **[where indicated]** **<Insert requirements>**.
  - 5. U-Bead: Use **[at exposed panel edges]** **[where indicated]** **<Insert requirements>**.
  - 6. Curved-Edge Cornerbead: Use at curved openings.
- D. Exterior Trim: Install in the following locations:
  - 1. Cornerbead: Use at outside corners.
  - 2. LC-Bead: Use **[at exposed panel edges]** **<Insert requirements>**.
- E. Aluminum Trim: Install in locations **[indicated on Drawings]** **<Insert requirements>**.

### 3.6 FINISHING GYPSUM BOARD

- A. General: Treat gypsum board joints, interior angles, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration. Promptly remove residual joint compound from adjacent surfaces.
- B. Prefill open joints[, **rounded or beveled edges,**] and damaged surface areas.
- C. Apply joint tape over gypsum board joints, except those with trim having flanges not intended for tape.
- D. Gypsum Board Finish Levels: Finish panels to levels indicated below:
  - 1. Level 1: Ceiling plenum areas, concealed areas, and where indicated.
  - 2. Level 2: **[Panels that are substrate for tile]** **[Panels that are substrate for acoustical tile]** **[Where indicated on Drawings]** **<Insert locations>**.
  - 3. Level 3: **[Where indicated on Drawings]** **<Insert locations>**.
  - 4. Level 4: **[At panel surfaces that will be exposed to view, unless otherwise indicated]** **<Insert locations>**.
    - a. Primer and its application to surfaces are specified in other Division 9 Sections.
  - 5. Level 5: **[Where indicated on Drawings]** **<Insert locations>**.
    - a. Primer and its application to surfaces are specified in other Division 9 Sections.
- E. Glass-Mat Gypsum Sheathing Board: Finish according to manufacturer's written instructions for use as exposed soffit board.
- F. Glass-Mat, Water-Resistant Backing Panels: Finish according to manufacturer's written instructions.

- G. Cementitious Backer Units: Finish according to manufacturer's written instructions.

### 3.7 APPLYING TEXTURE FINISHES

- A. Surface Preparation and Primer: Prepare and apply primer to gypsum panels and other surfaces receiving texture finishes. Apply primer to surfaces that are clean, dry, and smooth.
- B. Texture Finish Application: Mix and apply finish using powered spray equipment, to produce a uniform texture[ **matching approved mockup and**] free of starved spots or other evidence of thin application or of application patterns.
- C. Prevent texture finishes from coming into contact with surfaces not indicated to receive texture finish by covering them with masking agents, polyethylene film, or other means. If, despite these precautions, texture finishes contact these surfaces, immediately remove droppings and overspray to prevent damage according to texture-finish manufacturer's written recommendations.

### 3.8 PROTECTION

- A. Protect installed products from damage from weather, condensation, direct sunlight, construction, and other causes during remainder of the construction period.
- B. Remove and replace panels that are wet, moisture damaged, and mold damaged.
  - 1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
  - 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

END OF SECTION 09250