

SECTION 09 29 00 - GYPSUM BOARD

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Interior gypsum board.
2. Exterior gypsum board for ceilings and soffits.
3. Tile backing panels.
4. Trim accessories.
5. Texture finishes.

B. Related Requirements:

1. Section 06 16 00 "Sheathing" for gypsum sheathing for exterior walls.
2. Section 07 92 19 "Acoustical Joint Sealants" for acoustical joint sealants installed in gypsum board assemblies.
3. Section 09 21 16.23 "Gypsum Board Shaft Wall Assemblies" for steel shaft wall framing, gypsum shaft liners, and other components of shaft wall assemblies.
4. Section 09 22 16 "Non-Structural Metal Framing" for nonstructural steel framing and suspension systems that support gypsum board panels.
5. Section 09 26 13 "Gypsum Veneer Plastering" for gypsum base for veneer plaster and for other components of gypsum-veneer-plaster finishes.
6. Section 09 30 13 "Ceramic Tiling" for cementitious backer units installed as substrates for ceramic tile.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings:

1. Locations and installation of control and expansion joints, including plans, elevations, sections, and attachment details.

C. Samples for Initial Selection:

1. Trim Accessories: For **[aluminum][and][base-of-wall PVC moisture-barrier]<Insert requirements>** trim.
2. Texture Finish: For each type required.

D. Samples for Verification: Actual sample of finished products for the following:

1. Trim Accessories: Actual sample of finished products for each profile of **[aluminum][and][base-of-wall PVC moisture-barrier]<Insert requirements>** trim required.

- a. Size: Full size profile, **[12 inches]<Insert dimension>** long,
- 2. Textured Finishes: **[Manufacturer's standard size]<Insert requirements>** for each textured finish required and on same backing indicated for Work.
- E. Sustainable Design Submittals:

1.3 MOCKUPS

- A. Build mockups of at least **[100 sq. ft.]<Insert dimension>** in surface area to demonstrate aesthetic effects and to set quality standards for materials and execution.
 - 1. Build mockups for the following:
 - a. Each level of gypsum board finish required for use in exposed locations.
 - b. Each texture finish required.
 - 2. Apply or install final decoration required, including painting and wallcoverings, on exposed surfaces for review of mockups.
 - 3. Simulate finished lighting conditions for review of mockups.
 - 4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.4 FIELD CONDITIONS

- A. Environmental Limitations: Comply with ASTM C840 requirements or manufacturer's written instructions, whichever are more stringent.
- B. Do not install paper-faced gypsum panels until installation areas are enclosed and conditioned.
- C. Do not install panels that are wet, moisture damaged, or 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 blotchy surface contamination and discoloration.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Fire-Resistance-Rated Assemblies: For fire-resistance-rated assemblies, provide materials and construction identical to those tested in assembly indicated on Drawings in accordance with ASTM E119; tested by a qualified testing agency.
- B. STC-Rated Assemblies: For STC-rated assemblies, provide materials and construction identical to those tested in assembly indicated on Drawings in accordance with ASTM

E90 and classified in accordance with ASTM E413; tested by a qualified testing agency.

2.2 GYPSUM BOARD, GENERAL

- A. Recycled Content: Postconsumer recycled content plus one-half of preconsumer recycled content not less than **<Insert number>** percent.
- B. Size: Provide panel products in maximum lengths and widths available that will minimize joints in each area and that correspond with support system specified or indicated on Drawings.

2.3 INTERIOR GYPSUM BOARD

- A. Gypsum Wallboard: ASTM C1396/C1396M.
 - 1. Manufacturers: Subject to compliance with requirements, **[provide products by the following][provide products by one of the following][available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:**
 - a. **[American Gypsum]**
 - b. **[CertainTeed; SAINT-GOBAIN]**
 - c. **[Georgia-Pacific Gypsum LLC]**
 - d. **[Gold Bond Building Products, LLC provided by National Gypsum Company]**
 - e. **[PABCO Gypsum]**
 - f. **[USG Corporation]**
 - g. **<Insert manufacturer's name>**
 - 2. Thickness: **[As indicated on Drawings][1/4 inch][3/8 inch][1/2 inch].**
 - 3. Long Edges: **[Tapered][Tapered and featured (rounded or beveled) for prefilling]<Insert requirements>.**
- B. Lightweight Gypsum Wallboard: ASTM C1396/C1396M; manufactured to be lighter in weight and have greater sag resistance than traditional gypsum board of same thickness.
 - 1. Manufacturers: Subject to compliance with requirements, **[provide products by the following][provide products by one of the following][available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:**
 - a. **[American Gypsum]**
 - b. **[CertainTeed; SAINT-GOBAIN]**
 - c. **[Georgia-Pacific Gypsum LLC]**
 - d. **[Gold Bond Building Products, LLC provided by National Gypsum Company]**
 - e. **[PABCO Gypsum]**

- f. **[Panel Rey]**
 - g. **[USG Corporation]**
 - h. **<Insert manufacturer's name>**
 - 2. Thickness: **[As indicated on Drawings][1/2 inch]**.
 - 3. Long Edges: **[Tapered][Tapered and featured (rounded or beveled) for prefilling]<Insert requirements>**.
- C. Gypsum Board, Type X: ASTM C1396/C1396M.
- 1. Manufacturers: Subject to compliance with requirements, **[provide products by the following][provide products by one of the following][available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]**:
 - a. **[American Gypsum]**
 - b. **[CertainTeed; SAINT-GOBAIN]**
 - c. **[Georgia-Pacific Gypsum LLC]**
 - d. **[Gold Bond Building Products, LLC provided by National Gypsum Company]**
 - e. **[PABCO Gypsum]**
 - f. **[Panel Rey]**
 - g. **[USG Corporation]**
 - h. **<Insert manufacturer's name>**
 - 2. Thickness: **[As indicated on Drawings][5/8 inch][3/4 inch]**.
 - 3. Long Edges: **[Tapered][Tapered and featured (rounded or beveled) for prefilling]<Insert requirements>**.
- D. Lightweight Gypsum Board, Type X: ASTM C1396/C1396M; manufactured to be lighter in weight than traditional Type X gypsum board of same thickness.

Retain "Manufacturers" Subparagraph and list of manufacturers below to require products from manufacturers listed or a comparable product from other manufacturers.

- 1. Manufacturers: Subject to compliance with requirements, **[provide products by the following][provide products by one of the following][available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]**:
 - a. **[American Gypsum]**
 - b. **[CertainTeed; SAINT-GOBAIN]**
 - c. **[Georgia-Pacific Gypsum LLC]**
 - d. **[Gold Bond Building Products, LLC provided by National Gypsum Company]**
 - e. **[USG Corporation]**
 - f. **<Insert manufacturer's name>**
- 2. Thickness: **[As indicated on Drawings][5/8 inch]**.
- 3. Long Edges: **[Tapered][Tapered and featured (rounded or beveled) for prefilling]<Insert requirements>**.

Retain "Gypsum Board, Type C" Paragraph below if required. Design designations of independent testing agencies indicated on Drawings generally determine product requirements for Type C gypsum board. Type C gypsum board from different manufacturers cannot be intermixed because ratings apply only to assemblies identical in materials and construction to those tested.

- E. Gypsum Board, Type C: ASTM C1396/C1396M; manufactured to have increased fire-resistive capability.

Retain "Manufacturers" Subparagraph and list of manufacturers below to require products from manufacturers listed or a comparable product from other manufacturers.

1. Manufacturers: Subject to compliance with requirements, **[provide products by the following][provide products by one of the following][available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:**
 - a. **[American Gypsum]**
 - b. **[CertainTeed; SAINT-GOBAIN]**
 - c. **[Georgia-Pacific Gypsum LLC]**
 - d. **[Gold Bond Building Products, LLC provided by National Gypsum Company]**
 - e. **[PABCO Gypsum]**
 - f. **[Panel Rey]**
 - g. **[USG Corporation]**
 - h. **<Insert manufacturer's name>**

Type C gypsum board is available in 1/2-, 5/8-, and 3/4-inch (12.7-, 15.9-, and 19.1-mm) thicknesses.

2. Thickness: As required by fire-resistance-rated assembly indicated on Drawings.

Retain "Mold Resistance" Subparagraph below if required. Verify availability with manufacturers.

3. Mold Resistance: ASTM D3273, score of 10 as rated in accordance with ASTM D3274.
4. Long Edges: Tapered.

Retain "Lightweight Gypsum Board, Type C" Paragraph below if required. Design designations of independent testing agencies indicated on Drawings generally determine product requirements for Type C gypsum board. Type C gypsum board from different manufacturers cannot be intermixed because ratings apply only to assemblies identical in materials and construction to those tested.

- F. Lightweight Gypsum Board, Type C: ASTM C1396/C1396M; manufactured to have increased fire-resistive capability and to be lighter in weight than traditional gypsum board of same thickness.

Retain "Manufacturers" Subparagraph and list of manufacturers below to require products from manufacturers listed or a comparable product from other manufacturers.

1. Manufacturers: Subject to compliance with requirements, **[provide products by the following][provide products by one of the following][available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:**
 - a. **[CertainTeed; SAINT-GOBAIN]**
 - b. **[Gold Bond Building Products, LLC provided by National Gypsum Company]**
 - c. **[USG Corporation]**
 - d. **<Insert manufacturer's name>**

Lightweight Type C gypsum board is available in 5/8-inch (12.7-mm) thickness.

2. Thickness: As required by fire-resistance-rated assembly indicated on Drawings.
 3. Long Edges: **[Tapered][Tapered and featured (rounded or beveled) for prefilling]<Insert requirements>**.
- G. Flexible Gypsum Board: ASTM C1396/C1396M; manufactured to bend to fit radii and to be more flexible than standard regular-type gypsum board of same thickness.

Retain "Manufacturers" Subparagraph and list of manufacturers below to require products from manufacturers listed or a comparable product from other manufacturers.

1. Manufacturers: Subject to compliance with requirements, **[provide products by the following][provide products by one of the following][available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:**
 - a. **[Gold Bond Building Products, LLC provided by National Gypsum Company]**
 - b. **[PABCO Gypsum]**
 - c. **[Panel Rey]**
 - d. **[USG Corporation]**
 - e. **<Insert manufacturer's name>**

Retain fourth option in "Core" Subparagraph below if Type C gypsum board is required. Design designations of independent testing agencies indicated on Drawings generally determine product requirements for Type C gypsum board. Type C gypsum board from different manufacturers cannot be intermixed because the ratings apply only to assemblies identical in materials and construction to those tested.

2. Core: **[As indicated on Drawings][1/4 inch; regular type][3/8 inch; regular type][5/16 inch; Type C as required by fire-resistance-rated assembly on Drawings; with ASTM D3273 mold resistance score of 10 rated in accordance with ASTM D3274]<Insert requirements>**.
3. Long Edges: Tapered.

- H. Gypsum Ceiling Board: ASTM C1396/C1396M.

Retain "Manufacturers" Subparagraph and list of manufacturers below to require products from manufacturers listed or a comparable product from other manufacturers.

1. Manufacturers: Subject to compliance with requirements, **[provide products by the following][provide products by one of the following][available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:**
 - a. **[American Gypsum]**
 - b. **[CertainTeed; SAINT-GOBAIN]**
 - c. **[Georgia-Pacific Gypsum LLC]**
 - d. **[Gold Bond Building Products, LLC provided by National Gypsum Company]**
 - e. **[PABCO Gypsum]**
 - f. **[Panel Rey]**
 - g. **[USG Corporation]**
 - h. **<Insert manufacturer's name>**
2. Thickness: **[As indicated on Drawings][1/2 inch].**
3. Long Edges: **[Tapered][Tapered and featured (rounded or beveled) for prefilling]<Insert requirements>.**

The foil backing on gypsum board in "Foil-Backed Gypsum Board" Paragraph below creates a vapor barrier. Verify, with manufacturers, limitations and proper uses.

- I. Foil-Backed Gypsum Board: ASTM C1396/C1396M.

Retain "Manufacturers" Subparagraph and list of manufacturers below to require products from manufacturers listed or a comparable product from other manufacturers.

1. Manufacturers: Subject to compliance with requirements, **[provide products by the following][provide products by one of the following][available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:**
 - a. **[Gold Bond Building Products, LLC provided by National Gypsum Company]**
 - b. **<Insert manufacturer's name>**
2. Core: **[As indicated on Drawings][1/2 inch, regular type][5/8 inch, Type X]<Insert requirements>.**
3. Long Edges: **[Tapered]<Insert requirements>.**

"Abuse-Resistant Gypsum Board" Paragraph below describes products tested in accordance with ASTM C1629/C1629M for resistance to abrasion, indentation, and soft-body impact. See "Abuse- and Impact-Resistant Gypsum Board" Article in the Evaluations for additional information. Verify availability with manufacturers.

- J. Abuse-Resistant Gypsum Board: ASTM C1396/C1396M, tested in accordance with ASTM C1629/C1629M.

Retain "Manufacturers" Subparagraph and list of manufacturers below to require products from manufacturers listed or a comparable product from other manufacturers.

1. Manufacturers: Subject to compliance with requirements, **[provide products by the following][provide products by one of the following][available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:**
 - a. **[American Gypsum]**
 - b. **[CertainTeed; SAINT-GOBAIN]**
 - c. **[Georgia-Pacific Gypsum LLC]**
 - d. **[Gold Bond Building Products, LLC provided by National Gypsum Company]**
 - e. **[PABCO Gypsum]**
 - f. **[USG Corporation]**
 - g. **<Insert manufacturer's name>**
2. Core: **[As indicated on Drawings][5/8 inch, Type X]<Insert requirements>**.
3. Surface Abrasion: ASTM C1629/C1629M, meets or exceeds **[Level 1][Level 2][Level 3]** requirements.
4. Indentation: ASTM C1629/C1629M, meets or exceeds **[Level 1][Level 2][Level 3]** requirements.
5. Soft-Body Impact: ASTM C1629/C1629M, meets or exceeds **[Level 1][Level 2][Level 3]** requirements.
6. Mold Resistance: ASTM D3273, score of 10 as rated in accordance with ASTM D3274.
7. Long Edges: **[Tapered]<Insert requirements>**.

"Impact-Resistant Gypsum Board" Paragraph below describes products tested in accordance with ASTM C1629/C1629M for resistance to abrasion, indentation, and soft- and hard-body impact. See "Abuse- and Impact-Resistant Gypsum Board" Article in the Evaluations for additional information. Retain option if glass-mat-faced gypsum board is acceptable. Verify availability with manufacturers.

- K. Impact-Resistant Gypsum Board: ASTM C1396/C1396M [**or ASTM C1658/C1658M**], tested in accordance with ASTM C1629/C1629M.

Retain "Manufacturers" Subparagraph and list of manufacturers below to require products from manufacturers listed or a comparable product from other manufacturers.

1. Manufacturers: Subject to compliance with requirements, **[provide products by the following][provide products by one of the following][available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:**
 - a. **[American Gypsum]**
 - b. **[CertainTeed; SAINT-GOBAIN]**
 - c. **[Georgia-Pacific Gypsum LLC]**
 - d. **[Gold Bond Building Products, LLC provided by National Gypsum Company]**
 - e. **[PABCO Gypsum]**
 - f. **[USG Corporation]**
 - g. **<Insert manufacturer's name>**

2. Core: **[As indicated on Drawings][5/8 inch, Type X]<Insert requirements>**.
3. Surface Abrasion: ASTM C1629/C1629M, meets or exceeds **[Level 1][Level 2][Level 3]** requirements.
4. Indentation: ASTM C1629/C1629M, meets or exceeds **[Level 1][Level 2][Level 3]** requirements.
5. Soft-Body Impact: ASTM C1629/C1629M, meets or exceeds **[Level 1][Level 2][Level 3]** requirements.
6. Hard-Body Impact: ASTM C1629/C1629M, meets or exceeds **[Level 1][Level 2][Level 3]** requirements in accordance with test in Annex A1.
7. Mold Resistance: ASTM D3273, score of 10 as rated in accordance with ASTM D3274.
8. Long Edges: **[Tapered]<Insert requirements>**.

- L. Mold-Resistant Gypsum Board: ASTM C1396/C1396M; manufactured with moisture- and mold-resistant core and paper surfaces.

Retain "Manufacturers" Subparagraph and list of manufacturers below to require products from manufacturers listed or a comparable product from other manufacturers.

1. Manufacturers: Subject to compliance with requirements, **[provide products by the following][provide products by one of the following][available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]**:
 - a. **[American Gypsum]**
 - b. **[CertainTeed; SAINT-GOBAIN]**
 - c. **[Georgia-Pacific Gypsum LLC]**
 - d. **[Gold Bond Building Products, LLC provided by National Gypsum Company]**
 - e. **[PABCO Gypsum]**
 - f. **[Panel Rey]**
 - g. **[USG Corporation]**
 - h. **<Insert manufacturer's name>**

Retain fourth option in "Core" Subparagraph below if Type C gypsum board is required. Design designations of independent testing agencies indicated on Drawings generally determine product requirements for Type C gypsum board. Type C gypsum board from different manufacturers cannot be intermixed because the ratings apply only to assemblies identical in materials and construction to those tested.

2. Core: **[As indicated on Drawings][1/2 inch, regular type][5/8 inch, Type X][5/8 inch, Type C as required by fire-resistance-rated assembly indicated on Drawings]<Insert requirements>**.
3. Mold Resistance: ASTM D3273, score of 10 as rated in accordance with ASTM D3274.
4. Long Edges: **[Square][Tapered]<Insert requirements>**.

- M. Lightweight Mold-Resistant Gypsum Board: ASTM C1396/C1396M; manufactured with moisture- and mold-resistant core and paper surfaces.

Retain "Manufacturers" Subparagraph and list of manufacturers below to require products from

manufacturers listed or a comparable product from other manufacturers.

1. Manufacturers: Subject to compliance with requirements, **[provide products by the following][provide products by one of the following][available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]**:
 - a. **[USG Corporation]**
 - b. **<Insert manufacturer's name>**
2. Core: **[As indicated on Drawings][1/2 inch, regular type][5/8 inch, Type X]<Insert requirements>**.
3. Mold Resistance: ASTM D3273, score of 10 as rated in accordance with ASTM D3274.
4. Long Edges: **[Tapered][Tapered and featured (rounded or beveled) for prefilling]<Insert requirements>**.

- N. Glass-Mat Interior Gypsum Board: ASTM C1658/C1658M; manufactured with fiberglass mat laminated to both sides and designed for interior use.

Retain "Manufacturers" Subparagraph and list of manufacturers below to require products from manufacturers listed or a comparable product from other manufacturers.

1. Manufacturers: Subject to compliance with requirements, **[provide products by the following][provide products by one of the following][available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]**:
 - a. **[CertainTeed; SAINT-GOBAIN]**
 - b. **[Georgia-Pacific Gypsum LLC]**
 - c. **[Gold Bond Building Products, LLC provided by National Gypsum Company]**
 - d. **[PABCO Gypsum]**
 - e. **[Panel Rey]**
 - f. **[USG Corporation]**
 - g. **<Insert manufacturer's name>**
2. Core: **[As indicated on Drawings][1/2 inch, regular type][1/2 inch, Type C as required by fire-resistance-rated assembly indicated on Drawings][5/8 inch, Type X][5/8 inch, Type C as required by fire-resistance-rated assembly indicated on Drawings]<Insert requirements>**.

Retain "Abuse and Impact Resistance" Subparagraph below if required. Verify availability with manufacturers.

3. Abuse and Impact Resistance:
 - a. Surface Abrasion: ASTM C1629/C1629M, meets or exceeds **[Level 1][Level 2][Level 3]** requirements.
 - b. Indentation: ASTM C1629/C1629M, meets or exceeds **[Level 1][Level 2][Level 3]** requirements.

- c. Soft-Body Impact: ASTM C1629/C1629M, meets or exceeds **[Level 1][Level 2][Level 3]** requirements.
- d. Hard-Body Impact: ASTM C1629/C1629M, meets or exceeds **[Level 1][Level 2][Level 3]** requirements in accordance with test in Annex A1.

Retain "Mold Resistance" Subparagraph below if required. Verify availability with manufacturers.

- 4. Mold Resistance: ASTM D3273, score of 10 as rated in accordance with ASTM D3274.
 - 5. Long Edges: Tapered.
- O. Acoustically Enhanced Gypsum Board: ASTM C1766; multilayer products constructed of two layers of gypsum boards sandwiching a viscoelastic sound-absorbing polymer core.

Retain "Manufacturers" Subparagraph and list of manufacturers below to require products from manufacturers listed or a comparable product from other manufacturers.

- 1. Manufacturers: Subject to compliance with requirements, **[provide products by the following][provide products by one of the following][available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:**
 - a. **[CertainTeed; SAINT-GOBAIN]**
 - b. **[Gold Bond Building Products, LLC provided by National Gypsum Company]**
 - c. **[PABCO Gypsum]**
 - d. **<Insert manufacturer's name>**
- 2. Core: **[As indicated on Drawings][1/2 inch, regular type][5/8 inch, Type X]<Insert requirements>**.
- 3. Long Edges: Tapered.

2.4 EXTERIOR GYPSUM BOARD FOR CEILINGS AND SOFFITS

- A. Exterior Gypsum Soffit Board: ASTM C1396/C1396M, with manufacturer's standard edges.

Retain "Manufacturers" Subparagraph and list of manufacturers below to require products from manufacturers listed or a comparable product from other manufacturers.

- 1. Manufacturers: Subject to compliance with requirements, **[provide products by the following][provide products by one of the following][available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:**
 - a. **[American Gypsum]**
 - b. **[CertainTeed; SAINT-GOBAIN]**
 - c. **[Georgia-Pacific Gypsum LLC]**
 - d. **[Gold Bond Building Products, LLC provided by National Gypsum]**

- e. **Company]**
 - f. **[PABCO Gypsum]**
 - f. **[Panel Rey]**
 - g. **<Insert manufacturer's name>**
2. Core: **[As indicated on Drawings][1/2 inch, regular type][1/2 inch, Type C as required by fire-resistance-rated assembly indicated on Drawings][5/8 inch, Type X][5/8 inch, Type C as required by fire-resistance-rated assembly indicated on Drawings]<Insert requirements>**.

- B. Glass-Mat Gypsum Sheathing Board: ASTM C1177/C1177M, with fiberglass mat laminated to both sides and with manufacturer's standard edges.

Retain "Manufacturers" Subparagraph and list of manufacturers below to require products from manufacturers listed or a comparable product from other manufacturers.

1. Manufacturers: Subject to compliance with requirements, **[provide products by the following][provide products by one of the following][available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:**
- a. **[American Gypsum]**
 - b. **[CertainTeed; SAINT-GOBAIN]**
 - c. **[Georgia-Pacific Gypsum LLC]**
 - d. **[Gold Bond Building Products, LLC provided by National Gypsum Company]**
 - e. **[PABCO Gypsum]**
 - f. **[Panel Rey]**
 - g. **[USG Corporation]**
 - h. **<Insert manufacturer's name>**
2. Core: **[As indicated on Drawings][1/2 inch, regular type][5/8 inch, Type X]<Insert requirements>**.

Retain "Mold Resistance" Subparagraph below if required. Verify availability with manufacturers.

3. Mold Resistance: ASTM D3273, score of 10 as rated in accordance with ASTM D3274.

2.5 TILE BACKING PANELS

Tile backing panels may be specified in this Section or in Section 09 30 13 "Ceramic Tiling."

- A. Glass-Mat, Water-Resistant Backing Board: ASTM C1178/C1178M, with manufacturer's standard edges.

Retain "Manufacturers" Subparagraph and list of manufacturers below to require products from manufacturers listed or a comparable product from other manufacturers.

1. Manufacturers: Subject to compliance with requirements, **[provide products by**

the following][provide products by one of the following][available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:

- a. **[CertainTeed; SAINT-GOBAIN]**
 - b. **[Georgia-Pacific Gypsum LLC]**
 - c. **[Gold Bond Building Products, LLC provided by National Gypsum Company]**
 - d. **[USG Corporation]**
 - e. **<Insert manufacturer's name>**
2. Core: **[As indicated on Drawings][1/4 inch, regular type][1/2 inch, regular type][5/8 inch, Type X]<Insert requirements>**.
 3. Mold Resistance: ASTM D3273, score of 10 as rated in accordance with ASTM D3274.

- B. Cementitious Backer Units: ANSI A118.9 and ASTM C1288 or ASTM C1325, with manufacturer's standard edges.

Retain "Manufacturers" Subparagraph and list of manufacturers below to require products from manufacturers listed or a comparable product from other manufacturers.

1. Manufacturers: Subject to compliance with requirements, **[provide products by the following][provide products by one of the following][available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:**
 - a. **[James Hardie Building Products, Inc.]**
 - b. **[PermaBASE Building Products, LLC provided by National Gypsum Company]**
 - c. **[USG Corporation]**
 - d. **<Insert manufacturer's name>**
2. Thickness: **[As indicated on Drawings][1/4 inch][1/2 inch][5/8 inch]**.
3. Mold Resistance: ASTM D3273, score of 10 as rated in accordance with ASTM D3274.

The International Building Code does not permit using water-resistant gypsum backing board as a backing board for tile in tub and shower areas or as wallboard or ceiling panels in shower areas.

- C. Water-Resistant Gypsum Backing Board: ASTM C1396/C1396M, with manufacturer's standard edges.

Retain "Manufacturers" Subparagraph and list of manufacturers below to require products from manufacturers listed or a comparable product from other manufacturers.

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

- a. **[American Gypsum]**
 - b. **[CertainTeed; SAINT-GOBAIN]**
 - c. **[Gold Bond Building Products, LLC provided by National Gypsum Company]**
 - d. **[Panel Rey]**
 - e. **<Insert manufacturer's name>**
2. Core: **[As indicated on Drawings][1/2 inch, regular type][5/8 inch, Type X]<Insert requirements>**.

2.6 Interior Trim

"Retain "Basis-of-Design Product" Subparagraph and list of manufacturers below to identify a specific product or a comparable product from manufacturers listed."

- A. Basis-of-Design Product: Subject to compliance with requirements, provide **<Insert manufacturer's name; product name or designation>** or comparable product by one of the following:
 1. **[CertainTeed; SAINT-GOBAIN]**
 2. **<Insert manufacturer's name>**

2.7 TRIM ACCESSORIES

- A. Interior Trim: ASTM C1047.
 1. Material: **[Galvanized-steel sheet or aluminum-coated steel sheet, rolled zinc, plastic, or paper-faced galvanized-steel sheet][Galvanized-steel sheet or aluminum-coated steel sheet or rolled zinc][Plastic][Paper-faced galvanized-steel sheet]<Insert requirements>**.
 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.

Retain "Base-of-Wall PVC Moisture-Barrier Trim" Subparagraph below if required to lift gypsum board edges off floor surfaces. For fire-rated assemblies, verify that authorities having jurisdiction accept its use in fire-rated assemblies indicated on Drawings. Alternative methods for isolating finish panels from floor surfaces include proprietary, nonstructural steel track specified in Section 09 22 16 "Non-Structural Metal Framing."

- h. Base-of-Wall PVC Moisture Barrier Trim: Extruded PVC, **[1/2 inch][1-3/4 inch][3-1/2 inch]** high.

Retain "Manufacturers" Subparagraph and list of manufacturers below to require products from manufacturers listed or a comparable product from other manufacturers.

- 1) Manufacturers: Subject to compliance with requirements, **[provide products by the following][provide products by one of the following][available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:**
 - a) **[Waterguard]**
 - b) **<Insert manufacturer's name>**

B. Exterior Trim: ASTM C1047.

1. Material: **[Hot-dip galvanized-steel sheet, plastic, or rolled zinc]<Insert requirements>**.
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.

Indicate dimensions and profiles of aluminum trim on Drawings.

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

Retain "Manufacturers" Subparagraph and list of manufacturers below to require products from manufacturers listed or a comparable product from other manufacturers.

1. Manufacturers: Subject to compliance with requirements, **[provide products by the following][provide products by one of the following][available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:**
 - a. **[Brand X Metals, Inc]**
 - b. **[Flannery, Inc.]**
 - c. **[Fry Reglet Corporation]**
 - d. **[Gordon Inc.]**
 - e. **[Pittcon Industries]**
 - f. **<Insert manufacturer's name>**
2. Aluminum: Alloy and temper with not less than the strength and durability properties of **ASTM B221**, Alloy 6063-T5.
3. Finish: **[Corrosion-resistant primer compatible with joint compound and finish materials specified]<Insert requirements>**.

2.8 Joint Tape

"Retain "Basis-of-Design Product" Subparagraph and list of manufacturers below to identify a specific product or a comparable product from manufacturers listed."

- A. Basis-of-Design Product: Subject to compliance with requirements, provide **<Insert manufacturer's name; product name or designation>** or comparable product by one of the following:
 - 1. **[CertainTeed; SAINT-GOBAIN]**
 - 2. **<Insert manufacturer's name>**

2.9 JOINT TREATMENT MATERIALS

- A. General: Comply with ASTM C475/C475M requirements.

Retain "Mold-Resistant Joint Compound" Subparagraph below if required. Availability is limited; verify availability with manufacturers.

- 1. Mold-Resistant Joint Compound: Use mold-resistant formulations with mold-resistant panel products.
- B. Joint Tape:
 - 1. Interior Gypsum Board: Paper.
 - 2. Exterior Gypsum Soffit Board: Paper.
 - 3. Glass-Mat Gypsum Sheathing Board: 10-by-10 glass mesh.
 - 4. Tile Backing Panels: As recommended in writing by panel manufacturer.
- C. Joint Compound for Interior Gypsum Board: 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 in writing by sheathing board manufacturer.

E. Joint Compound for Tile Backing Panels:

1. Glass-Mat, Water-Resistant Backing Panel: As recommended in writing by backing panel manufacturer.
2. Cementitious Backer Units: As recommended in writing by backer unit manufacturer.
3. Water-Resistant Gypsum Backing Board: Use setting-type taping compound and setting-type, sandable topping compound.

2.10 Paperless Wallboard

"Retain "Basis-of-Design Product" Subparagraph and list of manufacturers below to identify a specific product or a comparable product from manufacturers listed."

- A. Basis-of-Design Product: Subject to compliance with requirements, provide **<Insert manufacturer's name; product name or designation>** or comparable product by one of the following:
1. **[USG Corporation]**
 2. **<Insert manufacturer's name>**

2.11 AUXILIARY MATERIALS

- A. Provide auxiliary materials that comply with referenced installation standards and manufacturer's written instructions.
- B. Laminating Adhesive: Adhesive or joint compound recommended in writing by manufacturer for directly adhering gypsum panels to continuous substrate.
- C. Steel Drill Screws: ASTM C1002 unless otherwise specified or indicated on Drawings.

Retain first subparagraph below if panels are attached to cold-formed metal framing specified in Section 05 40 00 "Cold-Formed Metal Framing."

1. Use screws complying with ASTM C954 for fastening panels to steel members from **0.033 to 0.112 inch** thick.

Retain subparagraph below for cementitious backer units.

2. For fastening cementitious backer units, use screws of type and size recommended in writing by panel manufacturer.
- D. Sound-Attenuation Blankets: ASTM C665, Type I (blankets without membrane facing)

produced by combining thermosetting resins with mineral fibers as follows:

Insert requirements for products of specific manufacturers in "Non-Fire-Resistance-Rated Assemblies" and "Fire-Resistance-Rated Assemblies" subparagraphs below if required.

1. Non-Fire-Resistance-Rated Assemblies: **[Glass][or][slag or rock wool]**.
2. Fire-Resistance-Rated Assemblies: Comply with mineral-fiber requirements of assembly.

Retain "Recycled Content" Subparagraph below to specify recycled content if required. An alternative method of requiring recycled content is to retain requirement in Project's Division 01 sustainable design requirements Section that gives Contractor the option and responsibility to determine how recycled content requirements will be met.

3. Recycled Content: Postconsumer recycled content plus one-half of preconsumer recycled content not less than **<Insert number>** percent.
- E. Acoustical Sealant: As specified in Section 07 92 19 "Acoustical Joint Sealants."
- F. Thermal Insulation: As specified in Section 07 21 00 "Thermal Insulation."
- G. Vapor Retarder: As specified in Section 07 26 00 "Vapor Retarders."

2.12 TEXTURE FINISHES

- A. Primer: As recommended in writing 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 in accordance with ASTM E84.

Retain "Manufacturers" Subparagraph and list of manufacturers below to require products from manufacturers listed or a comparable product from other manufacturers.

1. Manufacturers: Subject to compliance with requirements, **[provide products by the following][provide products by one of the following][available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]**:
 - a. **[ProForm Finishing Products, LLC provided by National Gypsum Company]**
 - b. **[USG Corporation]**
 - c. **<Insert manufacturer's name>**
 2. Texture: **[Fine][Medium][Coarse]**.
- C. Aggregate Job-Mixed Finish: Water-based, drying-type texture finish for spray application.

Retain "Manufacturers" Subparagraph and list of manufacturers below to require products from manufacturers listed or a comparable product from other manufacturers.

1. Manufacturers: Subject to compliance with requirements, **[provide products by the following][provide products by one of the following][available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:**
 - a. **[CertainTeed; SAINT-GOBAIN]**
 - b. **[ProForm Finishing Products, LLC provided by National Gypsum Company]**
 - c. **[USG Corporation]**
 - d. **<Insert manufacturer's name>**

Consider naming acceptable manufacturers' products to control texture effects.

2. Texture: **[Light spatter][Spatter knock-down]<Insert requirements>**.

D. Non-Aggregate Premixed Finish: Vinyl texture finish for spray application.

Retain "Manufacturers" Subparagraph and list of manufacturers below to require products from manufacturers listed or a comparable product from other manufacturers.

1. Manufacturers: Subject to compliance with requirements, **[provide products by the following][provide products by one of the following][available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:**
 - a. **[CertainTeed; SAINT-GOBAIN]**
 - b. **[ProForm Finishing Products, LLC provided by National Gypsum Company]**
 - c. **[USG Corporation]**
 - d. **<Insert manufacturer's name>**

Consider naming acceptable manufacturers' products to control texture effects.

2. Texture: **[Orange peel][Spatter][Spatter knock-down]<Insert requirements>**.

E. Acoustical Finish: Water-based, chemical-setting or drying-type, job-mixed texture finish for spray application.

Retain "Manufacturers" Subparagraph and list of manufacturers below to require products from manufacturers listed or a comparable product from other manufacturers.

1. Manufacturers: Subject to compliance with requirements, **[provide products by the following][provide products by one of the following][available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:**
 - a. **[International Cellulose Corp.]**
 - b. **<Insert manufacturer's name>**
2. Application Thickness: **[1/2 inch]<Insert dimension>**.
3. Surface-Burning Characteristics: Comply with ASTM E84; testing by a qualified

testing agency.. Identify products with appropriate markings of applicable testing agency.

- a. Flame-Spread Index: [5]<Insert value> or less.
- b. Smoke-Developed Index: [5]<Insert value> or less.

- 4. NRC: [0.65]<Insert NRC> in accordance with ASTM C423.

PART 3 - EXECUTION

3.1 INSTALLATION AND FINISHING OF PANELS, GENERAL

- A. Comply with ASTM C840 requirements.
- B. Install ceiling panels across framing to minimize the number of abutting end joints and to avoid abutting end joints in central area of each ceiling. Stagger abutting end joints of adjacent panels not less than one framing member.
- C. Install panels with face side out. Butt panels together for a light contact at edges and ends with not more than **1/16 inch** of open space between panels. Do not force into place.
- D. Locate edge and end joints over supports, except in ceiling applications where intermediate supports or gypsum board back-blocking is provided behind end joints. Do not place tapered edges against cut edges or ends. Stagger vertical joints on opposite sides of partitions. Do not make joints other than control joints at corners of framed openings.
- E. Form control and expansion joints with space between edges of adjoining gypsum panels.
- F. Cover both faces of support framing with gypsum panels in concealed spaces (above ceilings, etc.), except in chases braced internally.
 - 1. Unless concealed application is indicated or required for sound, fire, air, or smoke ratings, coverage may be accomplished with scraps of not less than **8 sq. ft.** in area.
 - 2. Fit gypsum panels around ducts, pipes, and conduits.
 - 3. Where partitions intersect structural members projecting below underside of floor/roof slabs and decks, cut gypsum panels to fit profile formed by structural members; allow **1/4- to 3/8-inch-** wide joints to install sealant.

Indicate perimeter isolation on Drawings. See "Crack Control" Article in the Evaluations.

- G. Isolate perimeter of gypsum board applied to non-load-bearing partitions at structural abutments. Provide **1/4- to 1/2-inch-** 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.
- H. Attachment to Steel Framing: Attach panels so leading edge or end of each panel is

attached to open (unsupported) edges of stud flanges first.

Retain "Wood Framing" Paragraph below for wood framing where fire ratings are not required.

- I. 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.
- J. STC-Rated Assemblies: Seal construction at perimeters, behind control joints, and at openings and penetrations with a continuous bead of acoustical sealant. Install acoustical sealant at both faces of partitions at perimeters and through penetrations. Comply with ASTM C919 requirements and with manufacturer's written instructions for locating edge trim and closing off sound-flanking paths around or through assemblies, including sealing partitions above acoustical ceilings.
- K. Install sound-attenuation blankets before installing gypsum panels unless blankets are readily installed after panels have been installed on one side.

3.2 INSTALLATION OF INTERIOR GYPSUM BOARD

- A. Install interior gypsum board in the following locations:
 - 1. Gypsum Wallboard: **[As indicated on Drawings][Vertical surfaces unless otherwise indicated]**.
 - 2. Lightweight Gypsum Wallboard: **[As indicated on Drawings][Vertical surfaces unless otherwise indicated]**.
 - 3. Gypsum Board, Type X: **[As indicated on Drawings][Where required for fire-resistance-rated assembly][Vertical surfaces unless otherwise indicated]<Insert requirements>**.
 - 4. Lightweight Gypsum Board, Type X: **[As indicated on Drawings][Where required for fire-resistance-rated assembly][Vertical surfaces unless otherwise indicated]<Insert requirements>**.
 - 5. Gypsum Board, Type C: **[As indicated on Drawings][Where required for specific fire-resistance-rated assembly indicated]<Insert requirements>**.
 - 6. Flexible Gypsum Board: **[As indicated on Drawings][Apply in double layer at curved assemblies]<Insert requirements>**.
 - 7. Gypsum Ceiling Board: **[As indicated on Drawings][Ceiling surfaces]<Insert requirements>**.
 - 8. Foil-Backed Gypsum Board: **[As indicated on Drawings]<Insert requirements>**.
 - 9. Abuse-Resistant Gypsum Board: **[As indicated on Drawings]<Insert requirements>**.
 - 10. Impact-Resistant Gypsum Board: **[As indicated on Drawings]<Insert requirements>**.
 - 11. Mold-Resistant Gypsum Board: **[As indicated on Drawings]<Insert requirements>**.
 - 12. Lightweight Mold-Resistant Gypsum Board: **[As indicated on Drawings]<Insert requirements>**.
 - 13. Glass-Mat Interior Gypsum Board: **[As indicated on Drawings]<Insert requirements>**.

requirements>.

14. Acoustically Enhanced Gypsum Board: **[As indicated on Drawings]<Insert requirements>.**

B. Single-Layer Application:

1. On ceilings, apply gypsum panels before wall/partition board application to greatest extent possible and at right angles to framing unless otherwise indicated on Drawings.
2. On partitions/walls, apply gypsum panels [**vertically (parallel to framing)**][**horizontally (perpendicular to framing)**] unless otherwise specified or indicated on Drawings or required by fire-resistance-rated assembly, and minimize end joints.
 - a. Stagger abutting end joints not less than one framing member in alternate courses of panels.

Usually, retain first subparagraph below if vertical application of panels is specified.

- b. At stairwells and other high walls, install panels horizontally unless otherwise indicated on Drawings or required by fire-resistance-rated assembly.
3. On Z-shaped furring members, apply gypsum panels vertically (parallel to framing) with no end joints. Locate edge joints over furring members.
4. Fastening Methods: Apply gypsum panels to supports with steel drill screws.

C. Multilayer Application:

Retain first subparagraph below for multilayer gypsum board ceilings.

1. On ceilings, apply gypsum board indicated for base layers before applying base layers on walls/partitions; apply face layers in same sequence. Apply base layers at right angles to framing members and offset face-layer joints one framing member, **16 inches** minimum, from parallel base-layer joints, unless otherwise indicated on Drawings or required by fire-resistance-rated assembly.

Revise first two subparagraphs below if wall conditions permit economical use of horizontal application of base layer and face layers are laminated to base layers.

2. On partitions/walls, apply gypsum board indicated for base layers and face layers vertically (parallel to framing) with joints of base layers located over studs or furring members and face-layer joints offset at least one stud or furring member with base-layer joints unless otherwise indicated on Drawings or required by fire-resistance-rated assembly. Stagger joints on opposite sides of partitions.
 3. On Z-shaped furring members, apply base layer vertically (parallel to framing) and face layer either vertically (parallel to framing) or horizontally (perpendicular to framing) with vertical joints offset at least one furring member. Locate edge joints of base layer over furring members.

First option in "Fastening Methods" Subparagraph below is required for some fire-resistance-

rated assemblies.

4. Fastening Methods: Fasten base layers **[and face layers separately to supports with screws][with screws; fasten face layers with adhesive and supplementary fasteners]**.

Insert specific requirements for particular substrate in "Laminating to Substrate" Paragraph below.

- D. Laminating to Substrate: Where gypsum panels are indicated as directly adhered to a substrate (other than studs, joists, furring members, or base layer of gypsum board), comply with gypsum board manufacturer's written instructions and temporarily brace or fasten gypsum panels until fastening adhesive has set.
- E. Curved Surfaces:
 1. Install panels horizontally (perpendicular to supports) and unbroken, to extent possible, across curved surface plus **12-inch-** long straight sections at ends of curves and tangent to them.
 2. For double-layer construction, fasten base layer to studs with screws **16 inches** o.c. Center gypsum board face layer over joints in base layer, and fasten to studs with screws spaced **12 inches** o.c.

3.3 INSTALLATION OF EXTERIOR GYPSUM BOARD FOR CEILINGS AND SOFFITS

- A. Apply panels perpendicular to supports, with end joints staggered and located over supports.

Retain first subparagraph below unless perimeter relief is provided by trim. If retaining, indicate sealant in gap on Drawings to keep insects from entering above ceiling areas.

1. Install with **1/4-inch** open space where panels abut other construction or structural penetrations.
2. Fasten with corrosion-resistant screws.

3.4 INSTALLATION OF TILE BACKING PANELS

- A. Glass-Mat, Water-Resistant Backing Panels: Comply with manufacturer's written installation instructions and install at **[showers, tubs, and where indicated on Drawings][locations indicated to receive tile]**. Install with **1/4-inch** gap where panels abut other construction or penetrations.
- B. Cementitious Backer Units: ANSI A108.11, at **[showers, tubs, and where indicated on Drawings][locations indicated to receive tile]**.
- C. Water-Resistant Backing Board: Install where indicated with **1/4-inch** gap where panels abut other construction or penetrations.

Retain paragraph below if tile backing panels abut thinner board in same plane, or vice versa, and detail these conditions on Drawings.

- D. Where tile backing panels abut other types of panels in same plane, shim surfaces to produce a uniform plane across panel surfaces.

3.5 INSTALLATION OF TRIM ACCESSORIES

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

Generally, retain first option in "Control Joints" Paragraph below and indicate joints on Drawings. See "Crack Control" Article in the Evaluations for discussion of control joints.

- B. Control Joints: Install control joints **[at locations indicated on Drawings][in accordance with ASTM C840 and in specific locations approved by Architect for visual effect]<Insert requirements>**.
- C. Interior Trim: Install in the following locations:
 - 1. Cornerbead: Install at outside corners **[unless otherwise specified or indicated on Drawings]**.
 - 2. Bullnose Bead: Install **[at outside corners][where indicated on Drawings]<Insert requirements>**.
 - 3. LC-Bead: Install **[at exposed panel edges]<Insert requirements>**.
 - 4. L-Bead: Install **[where indicated on Drawings]<Insert requirements>**.
 - 5. U-Bead: Install **[at exposed panel edges][where indicated on Drawings]<Insert requirements>**.
 - 6. Curved-Edge Cornerbead: Install at curved openings.
 - 7. Base-of-Wall PVC Moisture Barrier Trim: Install **[where indicated on Drawings]<Insert requirements>**.
- 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 APPLICATION OF JOINT TREATMENT MATERIALS

- A. Finishing Panel Products: Treat joints, interior angles, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare panel 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 panel joints, except for trim products specifically indicated as not intended to receive tape.

See "Gypsum Board Finish Levels" Article in the Evaluations for a discussion of requirements of

various levels.

- D. Interior Gypsum Board: Finish panels to levels indicated below and in accordance with ASTM C840:

Gypsum board finish levels are minimum requirements established by ASTM C840 without elaboration.

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>**.

Level 3 is suitable for surfaces receiving medium- or heavy-textured finishes before painting or heavy wallcoverings where lighting conditions are not critical. ASTM C840 requires applying compatible primers on surfaces before final decoration. Specify priming gypsum board surfaces in Section 09 91 23 "Interior Painting."

3. Level 3: **[Where indicated on Drawings]<Insert locations>**.
 - a. Primer and its application to surfaces are specified in Section 09 91 23 "Interior Painting."

Level 4 is suitable for surfaces receiving light-textured finishes, wallcoverings, and flat paints. It is generally the standard exposed finish. Gloss and semigloss enamel paints are not usually recommended over this level of finish. ASTM C840 requires applying compatible primers on surfaces before final decoration. Specify priming gypsum board surfaces in Section 09 91 23 "Interior Painting."

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 Section 09 91 23 "Interior Painting."

Level 5 is suitable for surfaces receiving gloss and semigloss enamels and other surfaces subject to severe lighting. It is considered a high-quality gypsum board finish. ASTM C840 requires applying compatible primers on surfaces before final decoration. Specify priming gypsum board surfaces in Section 09 91 23 "Interior Painting."

5. Level 5: **[Where indicated on Drawings]<Insert locations>**.
 - a. Primer and its application to surfaces are specified in Section 09 91 23 "Interior Painting."

- E. Exterior Gypsum Board for Ceilings and Soffits: Finish in accordance with manufacturer's written instructions.
- F. Glass-Mat Faced Panels: Finish in accordance with manufacturer's written instructions.
- G. Cementitious Backer Units: Finish in accordance with manufacturer's written instructions.

3.7 APPLICATION OF 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 contacting 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 in accordance with texture-finish manufacturer's written instructions.

END OF SECTION 09 29 00