

SECTION 092900 - GYPSUM BOARD**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Interior gypsum board.
 - 2. Concealed interior drywall trim.
 - 3. Extruded aluminum reveals.
- B. Related Requirements:
 - 1. Section 072100 "Thermal Insulation" for sound insulation in walls around noise critical areas.
 - 2. Section 092216 "Non-Load-Bearing Steel Framing" for non-structural framing and suspension systems that support gypsum board panels.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Store materials inside under cover and keep them dry and protected against weather, condensation, direct sunlight, construction traffic, and other potential causes of damage. Stack panels flat and supported on risers on a flat platform to prevent sagging.

1.5 FIELD CONDITIONS

- A. Environmental Limitations: Comply with ASTM C 840 requirements or gypsum board manufacturer's written recommendations, 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, those that are moisture damaged, and those that are 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.

PART 2 - PRODUCTS**2.1 GYPSUM BOARD, GENERAL**

- A. Size: Provide maximum lengths and widths available that will minimize joints in each area and that correspond with support system indicated.

2.2 INTERIOR GYPSUM BOARD

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. CertainTeed Corporation.
 - 2. Georgia-Pacific Building Products.
 - 3. Lafarge North America Inc.
 - 4. National Gypsum Company.

5. Temple-Inland Building Product by Georgia-Pacific.
6. USG Corporation.

B. Gypsum Wallboard: ASTM C 1396/C 1396M.

1. Thickness: 5/8 inch.
2. Long Edges: Tapered.

C. Moisture- and Mold-Resistant Gypsum Board: ASTM C 1396/C 1396M. With moisture- and mold-resistant core and paper surfaces.

1. Core: As indicated.
2. Long Edges: Tapered.
3. Mold Resistance: ASTM D 3273, score of 10 as rated according to ASTM D 3274.

2.3 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.
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: Provide 0.93 inch zinc control joints, style no. 093 with perforated flanges for fully concealed embedment with removable plastic protective tape applied to the open joint, removed after application of joint compound.
 - g. Curved-Edge Cornerbead: With notched or flexible flanges.

B. Aluminum Trim: Extruded accessories of profiles and dimensions indicated.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Fry Reglet Corporation.
 - b. Gordon, Inc.
2. Aluminum: Alloy and temper with not less than the strength and durability properties of ASTM B 221, Alloy 6063-T5. Unless noted otherwise, provide shapes with flanges designed to be taped and floated with joint compound.
3. Color Anodized Finish: Integral colors to conform with designation 3AA-M112C22A32 of the Aluminum Association.
 - a. Color: Black Anodized.
4. Basis of Design: Provide the following shapes as manufactured by Fry Reglet Corporation or equal products by the other manufacturers listed:
 - a. Z-Molding: continuous reveal with mud flanges:
 - 1) Below wood caps and waterfall cap edges: DRMZ-625-XX.
 - a) Size: See drawing details and elevations for reveal width. Provide depth of extrusion equal to the gypsum board thickness indicated.
 - 2) Miter outside corners and carry reveal under the full length of the wood cap - typ. both sides.
 - b. Non-Vented Reveal Moldings with mud flanges:
 - 1) Wall-to-Wall (in plane): DRM 625-XX.

- a) Size: See drawing details and elevations for reveal width. Provide depth of extrusion equal to the gypsum board thickness indicated.
- c. Provide factory fabricated intersections wherever moldings change direction or intersect, including but not limited to inside and outside corners, crossing intersections, and “Tee” intersections.
- d. Wherever reveal moldings terminate in an open-end condition (the throat of a hollow metal frame, the back side of storefront members or behind surface applied trim) and elsewhere as noted on the drawings, provide end caps (without mud flanges) to close the end of the DRM reveal moldings.

2.4 JOINT TREATMENT MATERIALS

- A. General: Comply with ASTM C 475/C 475M.
- B. Joint Tape:
 - 1. Interior Gypsum Board: Paper.
 - 2. Tile Backing Panels: As recommended 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.
- D. Joint Compound for Tile Backing Panels:
 - 1. Water-Resistant Gypsum Backing Board: Use setting-type taping compound and setting-type, sandable topping compound.

2.5 AUXILIARY MATERIALS

- A. General: Provide auxiliary materials that comply with referenced installation standards and manufacturer's written recommendations.
- B. 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 thick.
- C. Sound Attenuation Blankets: As specified in Section 072100 “Building Insulation”.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and substrates including welded hollow-metal frames and framing, with Installer present, for compliance with requirements and other conditions affecting performance.
- B. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold damaged.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 APPLYING AND FINISHING PANELS, GENERAL

- A. Comply with ASTM C 840.
- 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.
- G. Isolate perimeter of gypsum board applied to non-load-bearing partitions at structural abutments, except floors. 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.
- I. Install sound attenuation blankets before installing gypsum panels unless blankets are readily installed after panels have been installed on one side.

3.3 APPLYING INTERIOR GYPSUM BOARD

- A. Install interior gypsum board in the following locations:
 - 1. Wallboard Type: As indicated on Drawings.
 - 2. Type X: Where required for fire-resistance-rated assembly and elsewhere as specified. Type X may be used in non-fire rated assemblies at the contractor's option.
 - 3. Ceiling Type: Ceiling surfaces.
 - 4. Moisture- and Mold-Resistant Type: As indicated on Drawings.
- 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.
 - 2. On partitions/walls, apply gypsum panels vertically (parallel to framing) or horizontally (perpendicular to framing) as required to meet the criteria for limiting heights based on wall construction, top of wall conditions, bracing, deflection and lateral loading specified, unless otherwise indicated or required by fire-resistance-rated assembly, and to minimize end joints.
 - a. Stagger abutting end joints not less than one framing member in alternate courses of panels.
 - 3. Fastening Methods: Apply gypsum panels to supports with steel drill screws.
- C. Multilayer Application:
 - 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 or required by fire-resistance-rated assembly.
 - 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 stud or furring member and face-layer joints offset at least one stud or furring member with base-layer joints, unless otherwise indicated or required by fire-resistance-rated assembly. Stagger joints on opposite sides of partitions.
 - 3. Fastening Methods: Fasten base layers and face layers separately to supports with screws.
 - 4. Seal perimeter of walls in noise critical areas with acoustic sealant.
- 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 recommendations and temporarily brace or fasten gypsum panels until fastening adhesive has set.

3.4 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 according to ASTM C 840 and in specific locations approved by Architect for visual effect.
 - 1. Install control joints in wall and ceiling membranes by breaking the gypsum boards behind the control joint.
 - a. In ceiling construction, break the framing above joint locations.
 - b. In partitions, separate studs should be used on each side of the control joints.
 - c. Control joints should be positioned to intersect light fixtures, air diffusers, door openings and other areas of stress concentration.
 - 2. Gypsum construction should be isolated by control joints where:
 - a. Partitions or ceilings of dissimilar construction meet and remain in the same plane;
 - b. Wings of "L," "U" and "T" shaped ceiling areas are joined; and
 - c. Expansion or control joints occur in the base wall construction and/or building structure.
 - 3. Provide control joints in the face of gypsum partitions and ceilings when the size of the surface exceeds the following control-joint spacings:
 - a. Partitions, 30' maximum in either direction
 - b. Interior ceilings, 30' maximum in either direction
 - c. Exterior ceilings, 30' maximum in either direction
 - 4. Ceiling-height door frames may be used as vertical control joints for partitions. At door frames of lesser height provide control joints extended to the ceiling from both corners of the top of the door frame.
 - 5. Provide ceiling control joints around column penetrations
 - 6. At control joint locations:
 - a. Leave continuous opening between gypsum boards as recommended by manufacturer for insertion of control joint.
 - b. Provide separate supports for each control joint flange.
 - c. Provide an adequate seal or fire-safing insulation behind control joints at sound rated construction, walls and ceilings scheduled for sound attenuation at fire rated applications.
- C. Interior Trim: Install in the following locations:
 - 1. Cornerbead: Use at outside corners.
 - 2. LC-Bead: Use at exposed panel edges.
 - 3. L-Bead: Use where indicated.
 - 4. U-Bead: Use at exposed panel edges where indicated.
 - 5. Curved-Edge Cornerbead: Use at curved openings.
- D. Extruded Aluminum Trim: Install in locations indicated on Drawings. Mask or take necessary steps to prevent joint compound or paint from anodized surfaces intended to be left exposed.

3.5 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 and damaged surface areas.
- C. Apply joint tape over gypsum board joints, except for trim products specifically indicated as not intended to receive tape.
- D. Gypsum Board Finish Levels: Finish panels to levels indicated below and according to ASTM C 840:
 - 1. Level 1: Ceiling plenum areas, concealed areas, and where indicated.
 - 2. Level 2: Panels that are substrate for tile.

3. Level 3: Surfaces receiving medium- or heavy-textured finishes before painting or heavy wall coverings where lighting conditions are not critical.
4. Level 4: Provide level 4 finish at the following locations:
 - a. At panel surfaces that will be exposed to view unless otherwise indicated.
5. See Section 099123 "Interior Painting" for primer and its application to drywall surfaces.

3.6 PROTECTION

- A. Protect adjacent surfaces from drywall compound and promptly remove from floors and other non-drywall surfaces. Repair surfaces stained, marred, or otherwise damaged during drywall application.
- B. Protect installed products from damage from weather, condensation, direct sunlight, construction, and other causes during remainder of the construction period.
- C. 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 092900