SECTION 09260 - GYPSUM BOARD ASSEMBLIES

1.1 GENERAL

A. Submittals: Product Data for each type of product indicated.

B. Fire-Test-Response Characteristics: For gypsum board assemblies with fire-resistance ratings, provide materials and construction identical to those tested in assembly indicated according to ASTM E 119 by an independent testing and inspecting agency acceptable to authorities having jurisdiction.

C. Sound Transmission Characteristics: For gypsum board assemblies with STC ratings, provide materials and construction identical to those tested in assembly indicated according to ASTM E 90 and classified according to ASTM E 413 by a qualified independent testing agency.

1.2 PRODUCTS

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

B. Gypsum Wallboard

1. Type X: ASTM C630, 5/8” thickness long edges tapered.

C. Interior Trim: ASTM C 1047.

1. Cornerbead: Use at outside corners.
2. LC-Bead (J-Bead): Use at exposed panel edges.

D. Joint Treatment Materials, General: Comply with ASTM C 475.

E. Joint Tape:

1. Interior Gypsum Wallboard: Paper.

F. 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, flanges of trim accessories, and fasteners, use drying-type, all-purpose compound.

   a. Use setting-type compound for installing paper-faced metal trim accessories.

3. Fill Coat: For second coat, use drying-type, all-purpose compound.
4. Finish Coat: For third coat, use drying-type, all-purpose compound.

G. Joint Compound for Tile Backing Panels:

1. Cementitious Backer Units: As recommended by manufacturer.

H. Acoustical Sealant for Exposed and Concealed Joints: Nonsag, paintable, nonstaining, latex sealant complying with ASTM C 834 that effectively reduces airborne sound transmission through perimeter joints and openings in building construction as demonstrated by testing representative assemblies according to ASTM E 90. Provide at plates and wall penetrations.

I. Auxiliary Materials: Provide auxiliary materials that comply with referenced installation standards and manufacturer's written recommendations.

1. Steel Drill Screws: ASTM C 1002, unless otherwise indicated.

   a. Use screws complying with ASTM C 954 for fastening panels to wood members 1-1/2" thick.
   b. For fastening cementitious backer units, use screws of type and size recommended by panel manufacturer.

2. Sound Attenuation Insulation: ASTM C 665, Type I (fiberglass blankets without membrane facing). Acceptable manufacturers are Certainteed, Owens Corning, Johns Manville.

J. Steel suspended ceiling and soffit framing:

1. Components, General: Comply with ASTM C 754 for conditions indicated.

2. Tie Wire: ASTM A 641/A 641M, Class 1 zinc coating, soft temper, 0.0625-inch- diameter wire, or double strand of 0.0475-inch- diameter wire.

3. Hangers: As follows:

   a. Wire Hangers: ASTM A 641/A 641M, Class 1 zinc coating, soft temper, 0.162-inch diameter.
   b. Rod Hangers: ASTM A 510, mild carbon steel.
      1) Diameter: 1/4-inch.
      2) Protective Coating: ASTM A 153/A 153M, hot-dip galvanized.
   c. Flat Hangers: Commercial-steel sheet, ASTM A 653/A 653M, G40, hot-dip galvanized.
      1) Size: 1 by 3/16 inch by length indicated.
   d. Angle Hangers: ASTM A 653/A 653M, G40, hot-dip galvanized commercial-steel sheet.
      1) Minimum Base Metal Thickness: 0.0312 inch.
      2) Size: 1-5/8 by 1-5/8 inches.

4. Carrying Channels: Cold-rolled, commercial-steel sheet with a base metal thickness of 0.0538 inch, a minimum 1/2-inch- wide flange, with ASTM A 653/A 653M, G40, hot-dip galvanized zinc coating.
   a. Depth: 1-1/2 inches.

5. Furring Channels (Furring Members): Commercial-steel sheet with ASTM A 653/A 653M, G40, hot-dip galvanized zinc coating.
   a. Steel Studs: ASTM C 645.
      1) Minimum Base Metal Thickness: 0.0179 inch.
      2) Depth: 1-5/8 inches.
   b. Hat-Shaped, Rigid Furring Channels: ASTM C 645, 7/8 inch deep.
      1) Minimum Base Metal Thickness: 0.0179 inch.
   c. Resilient Furring Channels: 1/2-inch- deep members designed to reduce sound transmission.
      1) Configuration: Asymmetrical, with face attached to single flange by a slotted leg (web).

6. Grid Suspension System for Interior Ceilings: ASTM C 645, direct-hung system composed of main beams and cross-furring members that interlock.

a. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
   1) Armstrong World Industries, Inc.; Furring Systems/Drywall.
   2) Chicago Metallic Corporation; Drywall Furring 640 System.
   3) USG Interiors, Inc.; Drywall Suspension System.

K. Steel partition and soffit framing:

1. Components, General: As follows:
   a. Comply with ASTM C 754 for conditions indicated.
   b. Steel Sheet Components: Complying with ASTM C 645 requirements for metal and with ASTM A 653/A 653M, G40, hot-dip galvanized zinc coating.
2. Steel Studs and Tracks: ASTM C 645.
   a. Minimum Base Metal Thickness: 0.027 inch 0.0329 inch. Typical Stud-wall locations will be constructed of studs with 20 gage minimum. Loading shall be 5 PSF.
   b. All studs framed @ 16” o.c.
   c. Depth: As indicated on the plans.
   d. At openings in wall and door openings 8’-0: wide of greater provide built-up jambs of 3 16 gage studs and 16 gage built-up headers.
   e. Walls over 25 feet tall provide 6” studs at 20 gage minimum.
3. Deep-Leg Deflection Track: ASTM C 645 top runner with 2-inch- deep flanges.
4. Proprietary Firestop Track: Top runner manufactured to allow partition heads to expand and contract with movement of the structure while maintaining continuity of fire-resistance-rated assembly indicated; in thickness not less than indicated for studs and in width to accommodate depth of studs.
   a. Available Product: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
      1) Fire Trak Corp.; Fire Trak.
      2) Metal-Lite, Inc.; The System.
5. Cold-Rolled Channel Bridging: 0.0538-inch bare steel thickness, with minimum 1/2-inch- wide flange.
   a. Depth: 1-1/2 inches.
   b. Clip Angle: 1-1/2 by 1-1/2 inch, 0.068-inch- thick, galvanized steel.
6. Hat-Shaped, Rigid Furring Channels: ASTM C 645.
   a. Minimum Base Metal Thickness: 0.0179 inch.
   b. Depth: 7/8 inch.
7. Resilient Furring Channels: 1/2-inch- deep, steel sheet members designed to reduce sound transmission.
   a. Configuration: Asymmetrical, with face attached to single flange by a slotted leg (web).
8. Z-Shaped Furring: With slotted or nonslotted web, face flange of 1-1/4 inches, wall attachment flange of 7/8 inch, minimum bare metal thickness of 0.0179 inch, and depth required to fit insulation thickness indicated.
9. Fasteners for Metal Framing: Of type, material, size, corrosion resistance, holding power, and other properties required to fasten steel members to substrates.

1.3 EXECUTION

A. Polyethylene Vapor Retarder: Install to comply with requirements specified in Division 7 Section "Building Insulation."

B. Gypsum Board Application: Comply with ASTM C 840 and GA-216.

1. Space screws a maximum of 12 inches o.c. for vertical applications.
2. Space fasteners in panels that are tile substrates a maximum of 8 inches o.c.

3. On ceilings, apply gypsum panels before wall/partition board application to the greatest extent possible and at right angles to framing, unless otherwise indicated.
4. On partitions/walls, apply gypsum panels horizontally (perpendicular to framing), unless otherwise indicated 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 board.
    b. At stairwells and other high walls, install panels horizontally, unless otherwise indicated or required by fire-resistance-rated assembly.

5. On Z-furring members, apply gypsum panels vertically (parallel to framing) with no end joints. Locate edge joints over furring members.
6. Single-Layer Fastening Methods: Apply gypsum panels to supports with steel drill screws.
7. Multilayer Fastening Methods: Fasten base layers and face layers separately to supports with screws.
8. Laminating to Substrate: Comply with gypsum board manufacturer's written recommendations and temporarily brace or fasten gypsum panels until fastening adhesive has set.

C. Cementitious Backer Unit Application: ANSI A108.11.

D. Installing Trim Accessories: 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.

E. Finishing Gypsum Board Assemblies: 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.

1. Prefill open joints, rounded or beveled edges, and damaged surface areas.
2. Apply joint tape over gypsum board joints, except those with trim having flanges not intended for tape.
3. Gypsum Board Finish Levels: Finish panels to levels indicated below, according to ASTM C 840, for locations indicated:

    a. Level 1: Embed tape at joints in ceiling plenum areas, concealed areas, and where indicated above SAT ceilings throughout.
    b. Level 4: Embed tape and apply separate first, fill, and finish coats of joint compound to tape, fasteners, and trim flanges at panel surfaces that will be exposed to view, unless otherwise indicated.

END OF SECTION 09260