**SECTION 09 29 00**

**GYPSUM BOARD**

## PART 1 – GENERAL

### 1.01 Summary

A. Section Includes:

1. Interior gypsum board.
2. Gypsum board accessories.

### 1.02 Action Submittals

A. Product Data: For each type of product.

## PART 2 – PRODUCTS

### 2.01 Interior Gypsum Board

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
1. USG Corporation or equal.

B. Gypsum Wallboard: ASTM C 1396/C 1396M
1. Thickness: 5/8 inch.
2. Long Edges: Tapered and featured (rounded or beveled) for prefilling.

C. Gypsum Board, Type X: ASTM C 1396/C 1396M. Where noted on Plans.
1. Thickness: 5/8 inch.
2. Long Edges: Tapered and featured (rounded or beveled) for prefilling.

D. Moisture- and Mold-Resistant Gypsum Board: ASTM C 1396/C 1396M. With moisture- and mold-resistant core and paper surfaces.
1. Core: 5/8 inch, Type X.
2. Long Edges: Tapered.
3. Mold Resistance: ASTM D 3273, score of 10 as rated according to ASTM D 3274.

### 2.02 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.

### 2.03 Joint Treatment Materials

A. General: Comply with ASTM C 475/C 475M.

B. Joint Tape:

1. Interior Gypsum Board: Paper.
2. Glass-Mat Gypsum Sheathing Board: 10-by-10 glass mesh.
3. 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.

**2.04 Auxiliary Materials**

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

B. Sound Attenuation Blankets: ASTM C 665, Type I (blankets without membrane facing).

C. Acoustical Joint Sealant: ASTM C 834. Product effectively reduces airborne sound transmission through perimeter joints and openings as demonstrated by testing according to ASTM E 90.

1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
   a. USG Corporation; SHEETROCK Acoustical Sealant; or equal.

D. Vapor Retarder: As specified in Section 07 21 00 Thermal Insulation.

**PART 3 – EXECUTION**

**3.01 Applying and Finishing Panels**

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 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. Install 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.

1. Control Joints: Install control joints at locations indicated on Drawings and/or according to ASTM C 840.

E. Prefill open joints, rounded or beveled edges, and damaged surface areas.

F. Apply joint tape over gypsum board joints, except for trim products specifically indicated as not intended to receive tape.

G. Gypsum Board Finish Levels: Finish panels to levels indicated below and according to ASTM C 840:

1. Level 1: Ceiling plenum areas, concealed areas, Back-of-House and where indicated.
2. Level 2: Panels that are substrate for tile.
3. Level 4: At panel surfaces that will be exposed to public view unless otherwise indicated.
   a. Primer and its application to surfaces are specified in Section 09 91 23 Painting.

H. Texture Finish Application: Prepare and apply primer to gypsum panels and other surfaces receiving texture finishes. Mix and apply finish using powered spray equipment, to produce a uniform texture free of starved spots or other evidence of thin application or of application patterns.

I. Protect adjacent surfaces from drywall compound and texture finishes and promptly remove from floors and other non-drywall surfaces. Repair surfaces stained, marred, or otherwise damaged during drywall application.

J. Remove and replace panels that are wet, moisture damaged, and mold damaged.

END OF SECTION

**SECTION 09 30 00**

**TILING**

## PART 1 – GENERAL

### 1.01 Section Includes

A. Tile for wall applications.

B. Cementitious backer board as tile substrate.

### 1.02 Submittals

A. Product Data: Provide manufacturers' data sheets on tile, mortar, grout, and accessories. Include instructions for using grouts and adhesives.

## PART 2 – PRODUCTS

### 2.01 Tile

A. Manufacturers: Daltile, Crossville Ceramics, Mohawk, or equal.

### 2.02 Trim and Accessories

A. Non-Ceramic Trim: Satin natural anodized extruded aluminum, style and dimensions to suit application, for setting using tile mortar or adhesive.

### 2.03 Setting Materials

A. Latex-Portland Cement Mortar Bond Coat: ANSI A118.4, ANSI A118.15.

1. Applications: Use this type of bond coat where indicated and where no other type of bond coat is indicated.

B. Epoxy Adhesive and Mortar Bond Coat: ANSI A118.3.

C. Dry-Set Portland Cement Mortar Bond Coat: ANSI A118.1.

### 2.04 Grouts

A. Polymer Modified Grout: ANSI A118.7 polymer modified cement grout.

1. Applications: Use this type of grout where indicated and where no other type of grout is indicated.
2. Use sanded grout for joints 1/8 inch wide and larger; use unsanded grout for joints less than 1/8 inch wide.

B. Epoxy Grout: ANSI A118.3 chemical resistant and water-cleanable epoxy grout.

1. Applications: Where indicated.

### 2.05 Accessory Materials

A. Waterproofing Membrane at Showers and Tiled Tubs: Specifically designed for bonding to cementitious substrate under thick mortar bed or thin-set tile; complying with ANSI A118.10.

B. Backer Board: Cementitious type complying with ANSI A118.9; high density, glass fiber reinforced, 5/8-inch thick; 2 inch wide coated glass fiber tape for joints and corners.

## PART 3 – EXECUTION

### 3.01 Installation – General

A. Install tile and grout in accordance with applicable requirements of ANSI A108.1A thru A108.13, manufacturer's instructions, and TCNA (HB) recommendations.

B. Cut and fit tile to penetrations through tile, leaving sealant joint space. Form corners and bases neatly. Align floor joints.

C. Place tile joints uniform in width, subject to variance in tolerance allowed in tile size. Make grout joints without voids, cracks, excess mortar or excess grout, or too little grout.

D. Form internal angles square and external angles bullnosed.

E. Install non-ceramic trim in accordance with manufacturer's instructions.

F. Sound tile after setting. Replace hollow sounding units.

G. Keep control and expansion joints free of mortar, grout, and adhesive.

H. Prior to grouting, allow installation to completely cure; minimum of 48 hours.

I. Grout tile joints unless otherwise indicated. Use standard grout unless otherwise indicated.

J. At changes in plane and tile-to-tile control joints, use tile sealant instead of grout, with either bond breaker tape or backer rod as appropriate to prevent three-sided bonding.

### 3.02 Installation – Wall Tile

A. Over cementitious backer units install in accordance with TCNA (HB) Method W223, organic adhesive.

### 3.03 Cleaning

A. Clean tile and grout surfaces.

END OF SECTION

**SECTION 09 91 00**

**PAINTING**

## PART 1 - GENERAL

### 1.01 Summary

A. Provide
   1. Paint
      a. Exterior Substrates:
         1) Metal
      b. Interior Substrates:
         1) Concrete masonry units
         2) Precast concrete plank
         3) Gypsum drywall
         4) Wood

B. Perform the following:
   1. Surface preparation, priming, and finish coats for exposed surfaces and items including bare and primed mechanical and electrical equipment as scheduled or considered standard practice.

### 1.02 References

A. ASTM D16 - Definitions of Terms Relating to Paint, Varnish, Lacquer, and Related Products.

B. ASTM D2016 - Test Method for Moisture Content of Wood.

### 1.03 Submittals

A. Product Data: Submit manufacturer’s data on each paint and coating product including:

B. Selection Samples: Submit a complete set of color chips that represent the full range of manufacturer’s color samples available.

C. Verification Samples: When requested by Owner submit samples that represent actual product, color, and sheen for each finish product specified.

D. Manufacturer’s Instructions: Submit manufacturer’s instructions indicating special surface preparation procedures, substrate conditions requiring special attention, and application recommendations.

### 1.04 Qualifications

A. Manufacturer: Company specializing in manufacturing the Products specified in this section with a minimum of five years of experience.

B. Applicator: Company specializing in performing the work of this section with a minimum of three years of experience. At least one person shall be present at all times during execution of the work of this section, that is thoroughly familiar with the specified requirements and the materials and methods needed for the work.

### 1.05 Regulatory Requirements

A. Conform to applicable codes for flame and smoke rating requirements for finishes.

### 1.06 Delivery, Storage and Handling

A. Except for custom-mixed colors, deliver products to site in sealed and labeled containers.

B. Container label to include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.

C. Store paint materials at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.

### 1.07 Environmental Requirements

A. Do not apply coatings when surface and ambient temperatures are outside the ranges required by the product manufacturer.

B. Do not apply exterior coatings during rain or snow, or when relative humidity is outside the humidity ranges required by the product manufacturer.

C. Do not apply coatings in areas where dust is being generated.

D. Provide lighting level of 80 ft-candles measured mid-height at substrate surface.

### 1.08 Extra Material

A. Provide one gallon of each color or type.

B. Label each container with color, type, texture, and room locations, in addition to the manufacturer's label.

## PART 2 - PRODUCTS

### 2.01 Acceptable Manufacturer's

A. Manufacturers and specific products are listed to establish the type and quality of coatings to be provided. Products of other manufacturers are acceptable if equal in type and quality.

### 2.02 Materials

A. Metal Doors and Frames:
   1. Type: Acrylic.
   2. Finish: Semi-Gloss
   3. 1st Coat: Factory primed.
   4. 2nd Coat: Sherwin Williams, Pro Industrial WB Alkyd Urethane SG; 1.4 mils DFT/coat
   5. 3rd Coat: Sherwin Williams, Pro Industrial WB Alkyd Urethane SG; 1.4 mils DFT/coat
   6. Color: To be selected by Owner.

B. Interior Concrete Block: ALL AREAS EXCEPT TOILET ROOMS
   1. Type: Latex
   2. Finish: Semi-Gloss
   3. 1st Coat: Sherwin Williams, PrepRite Masonry Block Filler; 8.0 mils DFT.
   4. 2nd Coat: Sherwin Williams ProMar 200 0 VOC Latex Semi-Gloss; 1.6 mils DFT/coat
   5. 3rd Coat: Sherwin Williams ProMar 200 0 VOC Latex Semi-Gloss; 1.6 mils DFT/coat
   6. Color: To be selected by Owner.

C. Interior Concrete Block (High Performance Immersion) IN TOILET ROOMS
   1. Type: Polyamide Epoxy
   2. Finish: Semi-Gloss.
   3. 1st Coat: Sherwin Williams: Macropoxy 646 FC Epoxy; 5.0 mils DFT
   4. 2nd Coat: Sherwin Williams, Macropoxy 646 FC Epoxy; 5.0 mils DFT
   5. Color: To be selected by Owner

D. Gypsum Wallboard:
   1. Type: Latex.
   2. Finish: Egg-shell.
   3. 1st Coat: Sherwin Williams, ProMar 200 0 VOC Interior Latex Primer; 1.0 mils DFT
   4. 2nd Coat: Sherwin Williams, ProMar 200 0 VOC Latex Eg-Shel; 1.7 mils DFT/coat
   5. 3rd Coat: Sherwin Williams, ProMar 200 0 VOC Latex Eg-Shel; 1.7 mils DFT/coat
   6. Color: To be selected by Owner.

E. Wood Trim and Millwork: TOILET ROOM LAVATORY WOOD TRIM
   1. Type: Alkyd.
   2. Finish: [Gloss] [Satin].
   3. 1st Coat: Sherwin Williams, WoodClassics Interior Oil Stain; 450-500 sq ft/gal.
   4. 2nd Coat: Sherwin Williams, WoodClassics Polyurethane Varnish; 1.4 mils DFT/coat
   5. 3rd Coat: Sherwin Williams, Wood Classics Polyurethane Varnish; 1.4 mils DFT/coat
   6. Color: To be selected by Owner.

## PART 3 - EXECUTION

### 3.01 Examination

A. Verify surfaces are ready to receive work as instructed by the product manufacturer.

B. Examine surfaces scheduled to be painted prior to commencement of the work. Report any condition that may potentially affect proper application.

C. Do not proceed with surface preparation or application until conditions are suitable.

D. Test shop applied primers for compatibility with subsequent cover materials.

### 3.02 Preparation

A. Remove electrical plates, hardware, light fixture trim, escutcheons, and fittings prior to preparing surfaces or finishing.

B. The surface must be dry and in sound condition. Remove oil, dust, dirt, loose rust, peeling paint or other contamination to ensure good adhesion.

C. Remove mildew before painting by washing with a solution of 1 part liquid household bleach and 3 parts of warm water. Apply the solution and scrub the mildewed area. Allow the solution to remain on the surface for 10 minutes. Rinse thoroughly with clean water and allow the surface to dry 48 hours before painting. Wear protective glasses or goggles, waterproof gloves, and protective clothing. Quickly wash off any of the mixture that comes in contact with your skin. Do not add detergents or ammonia to the bleach/water solution

D. Prepare surfaces in accordance with the coating manufacturer's recommendations. Minimum surface preparation is as follows:
   1. Interior/Exterior Wood: Wood shall be smooth, clean and dry. Remove dust, grit, and foreign matter; seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes.

2. Concrete Block Masonry and Concrete: Remove all loose mortar and foreign material. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement, and hardeners. Concrete and mortar must be cured at least 30 days. The pH of the surface should be between 6 and 9. On cast-in-place concrete, commercial detergents and abrasive blasting may be necessary to prepare the surface. Fill bug holes, air pockets, and other voids with a cement patching compound.
3. Shop Primed Steel Surface: Solvent and hand tool cleaning. Feather edges to make touch-up patches inconspicuous. Prime bare steel surfaces.
4. Galvanized Steel: SSPC-SP1 Solvent cleaned.
5. Steel and Ductile Iron Pipe: Solvent Cleaning followed by Commercial Blast Cleaning.
6. Submerged Steel and Ductile Iron Pipe: Solvent Cleaning followed by Near-White Blast Cleaning.

**3.03 Application**

A. Apply products by brush, roller, or spay application in even colors without drops, lumps, or runs. Edges of paint adjoining other materials or colors shall be clean and sharp.

B. Do not apply coatings in dusty conditions. Comply with manufacturer's recommendations regarding minimum application temperatures and maximum humidity.

C. Sand paint applied to wood or metal surfaces between coats to produce a smooth, even finish.

D. If paint thickness is not indicated, provide at least the minimum recommended by the paint manufacturer.

E. Comply with recommendations of product manufacturer for drying time between successive coats. Successive coats shall be slightly darker than preceding coats.

F. Finish coats shall be smooth, free of brush marks, streaks, laps or pile-ups, and skipped or missed areas.

**3.05 Cleaning**

A. Reinstall electrical cover plates, hardware, fixture trim, fittings, etc. removed for painting.

B. Collect waste materials which may constitute a fire hazard, place in closed metal containers, and remove daily from site.

C. Touch-up and restore damaged finishes. Remove spilled, splattered, or splashed paint.

END OF SECTION