

SECTION 09 20 00

INTERIOR FINISHES

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including the Division 1 Specifications Sections, apply to this Section.
- B. Refer to other Divisions of these Specifications to determine the type and extent of work therein affecting the work of this trade, whether or not such work is specifically mentioned in this Section.

1.02 SUMMARY

- A. Provide all labor, materials, equipment services and accessories necessary to furnish and install work on this Section, complete and functional as indicated in the Contract Documents and as specified herein.
- B. Disposal of materials removed from the building in preparation for flashing or other trades, is performed under this section. The following paragraphs summarize the general extent of that work, itemized by trade.
- C. Section includes, but is not limited to, replacement of interior finishes removed, disturbed or damaged during the installation of steep-slope roofing, storefront and curtain wall units, and interior door security components including, but not limited to, the following:
 - 1. Interior sheathing
 - 2. Fenestration trim and mullion partitions
 - 3. Acoustic ceiling tiles
 - 4. Paint

1.03 RELATED WORK

- A. Work related to this Section includes, but is not limited to, the following:
 - 1. Section 02 41 19 – Selective Demolition
 - 2. Section 05 40 00 – Cold-Formed Metal Framing
 - 3. Section 06 10 00 – Rough Carpentry
 - 4. Section 08 42 13 – Aluminum Framed Entrances and Storefronts
 - 5. Section 08 44 13 – Glazed Aluminum Curtain Walls

1.04 STANDARDS

- A. GA-201 – Gypsum Board for Walls and Ceilings.
- B. GA-216 – Recommended Specifications for the Application and Finishing of Gypsum Board.
- C. ASTM C840 – Standard Specification for Application and Finishing of Gypsum Board.
- D. Painting and Decorating Contractors of America: Painting - Architectural Specifications Manual.

1.05 SUBMITTALS

- A. See Section 01 30 00 – Submittals for general submittal requirements.
- A. Listing of interior finish areas requiring repair and proposed repair materials, procedures, and extent.
- B. Submit the following items in time to allow for review by the Engineer and resubmittals, if needed, without delaying the work. Do not order materials or start work before receiving the Engineer's written approval.
 - 1. Product Data: For each item, submit information on the component materials, information on the construction and application details, information on the manufacturer's recommendations for application and use, test data substantiating that products comply with requirements, and material safety data sheets.
 - 2. Construction work schedule showing areas of work coordinated with the approved work plan and showing expected completion date. Submit updated construction schedule to the Owner every other week or more frequently if required by the Owner. Submit a staging and work area plan of the site showing the proposed location of material and equipment storage.

1.04 MOCKUPS

- A. Build in situ mockup of typical interior finish repairs to demonstrate aesthetic effects, quality of materials, sequencing, transitions between materials, and execution. Mockups should include all typical exterior wall components, including air/water barrier, insulation, through-wall flashing, sealants, and other wall components. Refer to Section 01 45 00 – Mockups.
 - 1. Build mockups for the following:
 - a. Each level of gypsum board finish indicated for use in exposed locations.
 - b. Interior paint color(s)
 - c. Interior trim components
 - 2. Apply or install final decoration indicated, including painting, 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.

1.05 ENVIRONMENTAL PERFORMANCE REQUIREMENTS

- A. Mechanically fasten wallboard in a manner approved by AWCI industry standards. Do not use adhesives, unless absolutely necessary.
- B. Collect and transport all recyclable scrap material in accordance with requirements of Section 01 74 19 – Construction Waste Management and Disposal. Comply with the following:
 1. Separate clean waste gypsum products from contaminants for recycling in accordance with the Waste Management Plan. Do not include wood, plastic, metal, asphalt-impregnated gypsum board, or any gypsum board coated with glass fiber, vinyl, decorative paper, paint, or other finish. Place in designated area and protect from moisture and contamination.
 2. Clean waste gypsum products may be recycled in a manner compliant with any of the following:
 - a. Return to gypsum board manufacturer.
 3. Separate metal waste in accordance with the Waste Management Plan and place in designated areas for recycling or reuse.
- C. IAQ Requirements:
 1. Provide thorough cleaning and removal of all silica/gypsum dust upon completion of gypsum drywall installations, including but not necessarily limited to, all components in plenum spaces, including tops of pipes and sills, and insides and outsides of ducts.

1.06 FIELD CONDITIONS

- A. Environmental Limitations: Comply with ASTM C840 requirements or gypsum board 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, and/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 splotchy surface contamination and discoloration.

1.07 WARRANTY

- A. Contractor's Warranty: Guarantee all Work under this Section in a document stating that if, within 2 yrs after the Date of Substantial Completion of the Work, any of the work of this Section is found to be defective or not in accordance with the Contract Documents, the Contractor shall, at its sole cost and expense, correct it promptly after receipt of a written notice from the Owner to do so, unless the Owner has previously given the Contractor a written acceptance of such condition. Also, state that the Contractor shall bear all costs incurred by the Owner including reasonable attorney's fees, court costs, and expert witness and consultant fees to enforce Contractor's compliance with the obligations of this Guarantee. The obligations of this Guarantee shall run directly to the Owner and its successors and assigns and may be enforced by the Owner and its successors and assigns against the Contractor, shall survive the termination of the Contract, and shall not be limited by conditions other than the Contract.

PART 2 – PRODUCTS

2.01 GYPSUM SHEATHING

- A. Gypsum wallboard and ceiling board: ASTM C1396, minimum thickness 1/2 in. with tapered edges, or thickness to match existing.
- B. Moisture-resistant gypsum wallboard (for use at Natatorium interiors): fiberglass faced or fiberglass-impregnated gypsum wallboard rated for use in environments with high humidity, minimum thickness 5/8 in. thick with tapered edges, or thickness to match existing.
- C. Acceptable Manufacturers: Provide products by one of the following:
1. CertainTeed Corporation.
 2. National Gypsum Company.
 3. United States Gypsum Company.
- D. Accessories
1. Joint compound and tape: to match existing, meeting requirements of ASTM C475 and as approved by the gypsum wallboard manufacturer.
 2. Gypsum wallboard accessories: comply with GA-216 recommendations, corner beads to be galvanized steel with perforated flanges of width to match existing and with screw attachment only, provide edge trim at all junctions with dissimilar materials or exposed edges.
 3. Fasteners: As approved by the gypsum wallboard manufacturer.

2.02 METAL STUDS

- A. Metal studs: 16 ga, conforming to ASTM C955 and ASTM A653, 3-1, size as required to replace existing metal stud framing along interior side of CMU backup walls.

1. Metal-to-metal fasteners: Self-drilling screws, hex-washer head, minimum side 10-16 x 3/4 in., Hilti Kwik-Flex, or approved equal.
2. Metal-to-Concrete or CMU: 1/4 in. dia. Nylon Nailin with stainless steel nail and mushroom head by Rawl Powers Inc., New Rochelle, New York, with length to provide a minimum of 1-1/4 in. embedment.
3. Connector hardware: Simpson Strong Tie Company or approved equal.

2.03 TRIM ACCESSORIES

A. Interior Trim: ASTM C 1047.

1. Material: Galvanized or aluminum-coated steel sheet or rolled zinc.
2. Shapes:
 - a. Cornerbead.
 - b. LC-Bead: J-shaped; exposed long flange receives joint compound.
 - c. L-Bead: L-shaped; exposed long flange receives joint compound.
 - d. U-Bead: J-shaped; exposed short flange does not receive joint compound.
 - e. Expansion (control) joint.

B. Structural Corner Trim: ASTM D1037.

1. Material: High strength tapered copolymer core. Copolymer tapered plastic trim with paper face and joint tape backing as manufactured by Structus Building Technologies, Inc.
 - a. Trims shall be engineered for fully bonded adhesive application with joint compound and without mechanical fasteners.
2. Shapes:
 - a. Cornerbead: Use at all outside corners in public areas.
 - b. Copolymer thickness: 0.060 in.
 - c. Flange width: 2-1/8 in.

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

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Fry Reglet Corp.

- b. Gordon, Inc.
 - c. Pittcon Industries.
- 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. Color to match adjacent curtain wall or as selected by the Owner from the manufacturer's standard colors.
- D. Partition Closures: Mullion Mate by Gordon Incorporated.
 - 1. Design Features: Spring-loaded, adjustable partition closure; preassembled with acoustical batts for sound attenuation.
 - 2. Size: 2-in. minimum to 4-1/2 in. maximum by width of curtain wall mullion.
 - 3. Length: Continuous for height of wall.
 - 4. Finish and Color: Manufacturer's standard paint to match curtain wall.
- E. Wood Trim: Size and profile to match existing.

2.04 ACOUSTICAL CEILING TILE

- A. Acoustical Ceiling Tile: Provide manufacturer's standard panels according to ASTM E1264 and designated by type, form, pattern, acoustical rating, and light reflectance unless otherwise indicated to match existing ceiling tiles in color, texture and configuration.
 - 1. Broad Spectrum Antimicrobial Fungicide and Bactericide Treatment: Provide acoustical panels treated with manufacturer's standard antimicrobial formulation that inhibits fungus, mold, mildew, and gram-positive and gram-negative bacteria and showing no mold, mildew, or bacterial growth when tested according to ASTM D3273 and evaluated according to ASTM D3274 or ASTM G21.
 - 2. Metal Suspension-System Standard: Provide manufacturer's standard, direct-hung, metal suspension system and accessories according to ASTM C635/C 635M and designated by type, structural classification, and finish indicated.
 - 3. Attachment Devices: Size for five times the design load indicated in ASTM C 635/C 635M, Table 1, "Direct Hung," unless otherwise indicated. Comply with seismic design requirements.

2.05 PAINT, GENERAL

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Benjamin Moore & Co.

2. PPG Architectural Finishes, Inc.

3. Sherwin-Williams Company (The).

B. MPI Standards: Products shall comply with MPI standards indicated and shall be listed in its "MPI Approved Products Lists."

C. Colors: As selected by Owner from manufacturer's full range to match existing.

2.06 ACCESSORY MATERIALS

A. Semi-Rigid Fiberglass Insulation: Unfaced glass fiber thermal insulation complying with ASTM C612, by Owens Corning, thickness to match existing wall cavity insulation.

PART 3 – EXECUTION

3.01 GENERAL

A. Replace in kind all interior finishes where removed under Section 02 41 19 and as shown on the Drawings.

B. Repairs shall match existing interior finishes and are subject to the Owner's approval.

C. Protect all interior finishes including window frames and carpeting during all interior finish removal and replacement.

3.02 GYPSUM SHEATHING REPAIR

A. Interior gypsum installation shall comply with ASTM C840.

B. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold damaged.

C. 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.

D. Install panels with face side out. Butt panels together for a light contact at edges and ends with not more than 1/16 in. of open space between panels. Do not force into place.

E. 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.

F. Form control and expansion joints with space between edges of adjoining gypsum panels.

G. 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-in. wide joints to install sealant.
- H. Isolate perimeter of gypsum board applied to non-load-bearing partitions at structural abutments, except floors. Provide 1/4- to 1/2-in. 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.
- I. 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 or according to ASTM C840 and in specific locations approved by Owner or Engineer for visual effect.
- J. Aluminum Trim: Install in locations indicated on Drawings.
- K. Prefill open joints and damaged surface areas.
- L. Apply joint tape over gypsum board joints, except for trim products specifically indicated as not intended to receive tape.
- M. 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 and with manufacturer's written recommendations for locating edge trim and closing off sound-flanking paths around or through assemblies, including sealing partitions above acoustical ceilings.

3.03 ACOUSTICAL CEILING TILES

- A. Install acoustical panel ceilings to comply with ASTM C636/C 636M and seismic design requirements indicated, according to manufacturer's written instructions and CISCA's "Ceiling Systems Handbook."
- B. Suspend ceiling hangers from building's structural members and as follows:
1. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structure or of ceiling suspension system.
 2. Splay hangers only where required to miss obstructions; offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.

3. Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with location of hangers at spacings required to support standard suspension-system members, install supplemental suspension members and hangers in form of trapezes or equivalent devices.
 4. Secure wire hangers to ceiling-suspension members and to supports above with a minimum of three tight turns. Connect hangers directly either to structures or to inserts, eye screws, or other devices that are secure and appropriate for substrate and that will not deteriorate or otherwise fail due to age, corrosion, or elevated temperatures.
 5. Secure flat, angle, channel, and rod hangers to structure, including intermediate framing members, by attaching to inserts, eye screws, or other devices that are secure and appropriate for both the structure to which hangers are attached and the type of hanger involved. Install hangers in a manner that will not cause them to deteriorate or fail due to age, corrosion, or elevated temperatures.
 6. Do not support ceilings directly from permanent metal forms or floor deck. Fasten hangers to cast-in-place hanger inserts, post-installed mechanical or adhesive anchors, or power-actuated fasteners that extend through forms into concrete.
 7. When steel framing does not permit installation of hanger wires at spacing required, install carrying channels or other supplemental support for attachment of hanger wires.
 8. Do not attach hangers to steel deck tabs.
 9. Do not attach hangers to steel roof deck. Attach hangers to structural members.
 10. Space hangers not more than 48 in. o.c. along each member supported directly from hangers unless otherwise indicated; provide hangers not more than 8 in. from ends of each member.
 11. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced standards and publications.
- C. Secure bracing wires to ceiling suspension members and to supports with a minimum of four tight turns. Suspend bracing from building's structural members as required for hangers, without attaching to permanent metal forms, steel deck, or steel deck tabs.
- D. Install edge moldings and trim of type indicated at perimeter of acoustical ceiling area and where necessary to conceal edges of acoustical panels.
1. Apply acoustical sealant in a continuous ribbon concealed on back of vertical legs of moldings before they are installed.
 2. Screw attach moldings to substrate at intervals not more than 16 in. o.c. and not more than 3 in. from ends, leveling with ceiling suspension system to a tolerance of 1/8 in. in 12 ft. Miter corners accurately and connect securely.
 3. Do not use exposed fasteners, including pop rivets, on moldings and trim.

- E. Install suspension-system runners so they are square and securely interlocked with one another. Remove and replace dented, bent, or kinked members.
- F. Install acoustical panels with undamaged edges and fit accurately into suspension-system runners and edge moldings. Scribe and cut panels at borders and penetrations to provide a neat, precise fit.
 - 1. Paint cut edges of panel remaining exposed after installation; match color of exposed panel surfaces using coating recommended in writing for this purpose by acoustical panel manufacturer.
 - 2. Install hold-down clips in areas indicated, in areas required by authorities having jurisdiction, and for fire-resistance ratings; space as recommended by panel manufacturer's written instructions unless otherwise indicated.

3.04 PAINTING AND OTHER FINISHES

- A. Prepare surfaces as required by these specifications or as recommended by the manufacturer.
- B. Apply paint and finishes over sound substrates. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates and paint systems indicated.
- C. As a minimum, if any portion of a wall requires refinishing (due to staining, patching, etc.), refinishing shall cover the entire wall or ceiling, extending to the nearest corners. If the existing finish cannot be matched exactly due to fading, aging, etc; then refinish all the walls in the room.
- D. Apply at least one coat of primer and two coats of paint at repair areas, in accordance with the paint manufacturer's specifications and application rates.
 - E. Seal interior trim to windows and doors with sealant, as needed.

END OF SECTION