

State of Alaska Court System

Snowden Admin Center Façade Repair

SHORT-FORM TECHNICAL SPECIFICATIONS

100% Construction Documents

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Prepared by Stantec Architecture, Inc.

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**SECTION 02 41 00
DEMOLITION**

PART 1 GENERAL

1.01 SUBMITTALS

- A. Site Plan: Indicate: staging plans, traffic routes, pedestrian and worker safety routes
- B. Demolition Plans:
- C. Submit demolition plan as required by OSHA and local AHJs. Submit to owner a schedule of demolition activities, plans for temporary removals for reinstallation versus demolition of items, plans for items noted to be salvaged to Owner
- D. Project Record Documents: Accurately record actual locations of capped and active utilities and subsurface construction.

PART 2 PRODUCTS -- NOT USED

PART 3 EXECUTION

3.01 GENERAL PROCEDURES AND PROJECT CONDITIONS

- A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
 - 1. Obtain required permits.
 - 2. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
 - 3. Provide, erect, and maintain temporary barriers and security devices.
- B. Do not begin removal until built elements to be salvaged or relocated have been removed.
- C. Minimize production of dust due to demolition operations. Do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.
- D. Hazardous Materials:
 - 1. If hazardous materials are discovered during removal operations, stop work and notify Architect and Owner; hazardous materials include regulated asbestos containing materials, lead, PCBs, and mercury.

3.02 EXISTING UTILITIES

- A. Coordinate work with utility companies. Notify utilities before starting work, comply with their requirements, and obtain required permits.
- B. Protect existing utilities to remain from damage.

3.03 SELECTIVE DEMOLITION FOR ALTERATIONS

- A. Existing construction and utilities indicated on drawings are based on casual field observation and existing record documents only.
- B. Maintain weatherproof exterior building enclosure, except for interruptions required for replacement or modifications; prevent water and humidity damage.
- C. Remove existing work as indicated and required to accomplish new work.
- D. Services including, but not limited to, HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications: Remove existing systems and equipment as indicated.
- E. Protect existing work to remain.

3.04 DEBRIS AND WASTE REMOVAL

- A. Remove debris, junk, and trash from site.

END OF SECTION 02 41 00

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**SECTION 03 30 00
CAST-IN-PLACE CONCRETE**

PART 1 GENERAL

1.01 SUBMITTALS

- A. Product Data: Submit manufacturers' data on manufactured products showing compliance with specified requirements and installation instructions.
- B. Test Reports: Submit report for each test or series of tests specified.

1.02 QUALITY ASSURANCE

- A. Perform work of this section in accordance with ACI SPEC-301 and ACI CODE-318.
- B. Follow recommendations of ACI PRC-305 when concreting during hot weather.
- C. Follow recommendations of ACI PRC-306 when concreting during cold weather.

PART 2 PRODUCTS

2.01 FORMWORK

- A. Formwork Design and Construction: Comply with guidelines of ACI PRC-347 to provide formwork that will produce concrete complying with tolerances of ACI SPEC-117.
- B. Form Materials: Contractor's choice of standard products with sufficient strength to withstand hydrostatic head without distortion in excess of permitted tolerances.
 - 1. Form Coating: Release agent that will not adversely affect concrete or interfere with application of coatings.
 - 2. Back-of-wall formwork to be the existing wall with new rigid foundation insulation specified in Section 07 21 00.
 - 3. Front-of-wall formwork to be made of a smooth surface material capable of leaving an architectural grade exposed concrete face free of blemishes, exposed aggregate, cracks, chips, or bubbles.

2.02 REINFORCEMENT MATERIALS

- A. Reinforcing Steel: ASTM A615/A615M, Grade 60 (60,000 psi).
 - 1. Type: Deformed billet-steel bars.
 - 2. Finish: Epoxy coated in accordance with ASTM A775/A775M, unless otherwise indicated.
- B. Reinforcement Accessories:
 - 1. Tie Wire: Annealed, minimum 16 gauge, 0.0508 inch.
 - 2. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for adequate support of reinforcement during concrete placement.
 - 3. Provide stainless steel, galvanized, plastic, or plastic coated steel components for placement within 1-1/2 inches of weathering surfaces.

2.03 CONCRETE MATERIALS

- A. Cement: ASTM C150/C150M, Type I - Normal Portland type.
- B. Fine and Coarse Aggregates: ASTM C33/C33M.
- C. Water: ASTM C1602/C1602M; clean, potable, and not detrimental to concrete.

2.04 ACCESSORY MATERIALS

- A. Concrete Sealer: A water-based, 40% silane emulsion, penetrating water repellent sealer suitable for new concrete vertical surfaces in an exterior environment that may include wide temperature variations (-20 deg F. to 85 deg F.), piled snow against the sealer, and road salts and de-icer compounds in contact with the sealer.
 - 1. Basis of Design: *Concrete Silane WB 40 by Prosoco*.
- B. Expansion Joint Filler: compressible filler material that will not allow water penetration or retain moisture.

- C. Expansion Joint Sealant: Non-sag, single or double-component, polyurethane-based, moisture curing sealant: Type S, Grade NS, Class 25 to 50, Use NT.

2.05 BONDING AND JOINTING PRODUCTS

- A. Epoxy Bonding System:
 - 1. Complying with ASTM C881/C881M and of Type required for specific application.
- B. Waterstops: Bentonite and butyl rubber, complying with NSF 61 and NSF 372.

2.06 CONCRETE MIX DESIGN

- A. Normal Weight Concrete:
 - 1. Compressive Strength, when tested in accordance with ASTM C39/C39M at 28 days: 3,000 pounds per square inch.
 - 2. Water-Cement Ratio: Maximum 40 percent by weight.
 - 3. Total Air Content: 4 percent, determined in accordance with ASTM C173/C173M.
 - 4. Maximum Slump: 3 inches.
 - 5. Maximum Aggregate Size: 1/2 inch.

PART 3 EXECUTION

3.01 PREPARATION

- A. Formwork: Comply with requirements of ACI SPEC-301. Design and fabricate forms to support all applied loads until concrete is cured and for easy removal without damage to concrete.
- B. Where new concrete is to be bonded to previously placed concrete, prepare existing surface by cleaning and applying bonding agent in according to bonding agent manufacturer's instructions.

3.02 INSTALLING REINFORCEMENT AND OTHER EMBEDDED ITEMS

- A. Fabricate and handle epoxy-coated reinforcing in accordance with ASTM D3963/D3963M.
- B. Comply with requirements of ACI SPEC-301. Clean reinforcement of loose rust and mill scale, and accurately position, support, and secure in place to achieve not less than minimum concrete coverage required for protection.

3.03 PLACING CONCRETE

- A. Place concrete in accordance with ACI PRC-304.

3.04 CONCRETE FINISHING

- A. Repair surface defects, including tie holes, immediately after removing formwork.
 - 1. Discuss proposed repair methods w/ Architect prior to applying them and be prepared to perform test samples of proposed fixes, subject to Architect's approval, in order to ensure a consistent finished appearance without obvious repairs.
- B. After concrete has cured to the sealant manufacturer's requirements, and when environmental conditions allow it, apply concrete sealer specified above.

3.05 CURING AND PROTECTION

- A. Comply with requirements of ACI PRC-308. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
- B. Protect finished concrete surfaces from damage until substantial completion inspection.

END OF SECTION 03 30 00

SECTION 07 11 13
BITUMINOUS DAMPPROOFING

PART 1 GENERAL

1.01 SUBMITTALS

- A. Product Data: Provide properties of primer, bitumen, and mastics.

1.02 FIELD CONDITIONS

- A. Maintain ambient temperatures above 40 degrees F for 24 hours before and during application until dampproofing has cured.

PART 2 PRODUCTS

2.01 BITUMINOUS DAMPPROOFING

- A. Bituminous Dampproofing: Cold-applied, trowel-grade; asphalt base, volatile petroleum solvents, and other content, suitable for application by trowel on vertical and horizontal surfaces.
1. Composition: ASTM D4586/D4586M Type I, asbestos free.
 2. VOC Content: Not more than permitted by local, State, and federal regulations.
 3. Applied Thickness: 1/16 inch, minimum, wet film.
- B. Primers, Mastics, and Related Materials: Type as recommended by dampproofing manufacturer.

2.02 BITUMEN MATERIALS

- A. Cold Asphaltic Type:
1. Emulsified Asphalt: ASTM D1227/D1227M, with fiber reinforcement other than asbestos, Type II, Class 1 or 2.
 2. Asphalt Primer: ASTM D41/D41M, compatible with substrate.

2.03 ACCESSORIES

- A. Protection Board: Rigid insulation; see Section 07 21 00.

PART 3 EXECUTION

3.01 APPLICATION

- A. Foundation Walls: Apply two coats of asphalt dampproofing.
- B. Foundation Walls: Patch disturbed areas of existing dampproofing with two additional coats of dampproofing of the same generic type.
- C. Perform this work in accordance with manufacturer's instructions and NRCA (WM) applicable requirements.
- D. Apply bitumen in two coats, continuous and uniform, at a rate of 25 sq ft/gal per coat.

END OF SECTION 07 11 13

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**SECTION 07 21 00
THERMAL INSULATION**

PART 1 GENERAL

1.01 SUBMITTALS

- A. Product Data: Provide data on product characteristics, performance criteria, and product limitations.

PART 2 PRODUCTS

2.01 APPLICATIONS

- A. Foundation Insulation: Rigid insulation behind new concrete curbs: Extruded polystyrene (XPS) board.
- B. Continuous Wall Exterior Insulation (c.i.) in Ventilated Rainscreen Wall Assemblies: Semi-rigid mineral wool block insulation
- C. Batt Insulation in Metal or Wood Framed Walls: Mineral wool batt insulation with no vapor retarder.

2.02 FOUNDATION INSULATION

- A. Extruded Polystyrene (XPS) Board Thermal Insulation: Comply with ASTM C578 with either natural skin or cut cell surfaces. Basis of Design: *Foamular NGX-250 by Owens Corning*.
 - 1. Type and Compressive Resistance: Type IV, 25 psi (173 kPa), minimum.
 - 2. Flame Spread Index (FSI): Class A - 0 to 25, when tested in accordance with ASTM E84.
 - 3. Smoke Developed Index (SDI): 450 or less, when tested in accordance with ASTM E84.
 - 4. Type and Thermal Resistance, R-value: Type IV, 5.0 (0.88), minimum, per 1 inch thickness at 75 degrees F mean temperature.
 - 5. Type and Water Absorption: Type IV, 0.3 percent by volume, maximum, by total immersion.

2.03 CONTINUOUS WALL EXTERIOR INSULATION (C.I)

- A. Mineral Wool Semi-Rigid Block Thermal Insulation: Complying with ASTM C612 or ASTM C553. Basis of Design: *CavityRock by Rockwool*.
 - 1. Provide black, mineral fiber facing on one side; with flame spread index of 25 or less, when tested in accordance with ASTM E84.
 - 2. Smoke Developed Index: 450 or less, when tested in accordance with ASTM E84.
 - 3. Board Size: 16 by 48 inches.
 - 4. Thermal Resistance: R-value of 4.2 per inch at 75 degrees F, minimum, when tested in accordance with ASTM C518.

2.04 BATT INSULATION

- A. Mineral Wool Batt/ Blanket Thermal Insulation: Flexible or semi-rigid insulation, meant to be friction fit in stud cavities. Basis of Design: *ComfortBatt by Rockwool*.
 - 1. Flame Spread Index: 25 or less, when tested in accordance with ASTM E84.
 - 2. Smoke Developed Index: 450 or less, when tested in accordance with ASTM E84.

2.05 ACCESSORIES

- A. Sheet Vapor Retarder: Black polyethylene film for above grade application, 10 mil, 0.010 inch thick.
- B. Support for Continuous Insulation: Fiber-glass Reinforced Plastic (FRP) engineered furring system. See phenolic-resin panel siding section.
- C. Seam tape, as recommended by insulation Manufacturer.

PART 3 EXECUTION

3.01 BOARD INSTALLATION AT FOUNDATION PERIMETER

- A. Adhere a 6 inches wide strip of polyethylene sheet over construction, control, and expansion joints with double beads of adhesive each side of joint.

3.02 BOARD INSTALLATION USING CLADDING AND CONTINUOUS INSULATION SUPPORTS

- A. Install supports in accordance with manufacturer's installation instructions.
- B. Install supports in compliance with system orientation, sizes, and locations as indicated on drawings and in accordance with approved shop drawings.
- C. Install supports to fill in exterior wall spaces without gaps or voids in insulation.

3.03 BATT INSTALLATION

- A. Install insulation and vapor retarder in accordance with manufacturer's instructions.
- B. Install in exterior wall and roof spaces without gaps or voids. Do not compress insulation.

END OF SECTION 07 21 00

**SECTION 07 27 00
AIR BARRIERS**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Mechanically attached air barrier membrane system.
- B. Fluid applied liquid air barrier membrane system.

1.02 SUBMITTALS

- A. Product Data: Provide data on material characteristics, performance criteria, and limitations.
- B. Manufacturer's standard details and installation instructions.
- C. Manufacturer's qualification statement.
- D. Installer's qualification statement.

PART 2 PRODUCTS

2.01 AIR BARRIER MATERIALS (AIR IMPERMEABLE AND WATER VAPOR PERMEABLE)

- A. Air Barrier Sheet, Mechanically Fastened:
 - 1. Thickness: 18 mils, 0.018 inch.
 - 2. Basis of Design: *RevealShield IT by VaproShield*
 - 3. Air Permeance: 0.004 cfm/sq ft, maximum, when tested in accordance with ASTM E2178.
 - 4. Water Vapor Permeance: 10 perms, minimum, when tested in accordance with ASTM E96/E96M using Procedure A - Desiccant Method, at 73.4 degrees F.
 - 5. Water Penetration Resistance: Withstand a water head of 21 inches, minimum, for at least 5 hours, when tested in accordance with AATCC Test Method 127.
 - 6. Ultraviolet (UV) and Weathering Resistance: Approved by manufacturer for up to 90 days of weather exposure.
 - 7. Surface Burning Characteristics: Flame spread index of 25 or less, and smoke developed index of 50 or less, Class A, when tested in accordance with ASTM E84.
 - 8. Seam and Perimeter Tape: Self-adhering type compatible with sheet material, integral w/ sheet material.
 - 9. Color: Black, with no logos
- B. Air Barrier, Fluid-Applied: Vapor permeable, elastomeric waterproofing.
 - 1. Air Barrier Coating:
 - a. Material: Acrylic.
 - b. Dry Film Thickness (DFT): 40 mil minimum.
 - c. Air Permeance: 0.004 cfm/sq ft, maximum, when tested in accordance with ASTM E2178.
 - d. Water Vapor Permeance: 11 perms, minimum, when tested in accordance with ASTM E96/E96M using Procedure B - Water Method, at 73.4 degrees F.
 - e. Surface Burning Characteristics: Flame spread index of 25 or less, smoke developed index of 450 or less, Class A when tested in accordance with ASTM E84.
 - f. Sealants, Tapes and Accessories: As recommended by coating manufacturer.
 - g. Manufacturers and Products: May include, but are not limited to one of the following:
 - 1) *Tremco ExoAir 230/230LT*
 - 2) *Henry's Air-Bloc 17MR*
 - 3) *GCP Perm-A-Barrier VPL*

2.02 ACCESSORIES

- A. Sealants, Tapes, and Accessories for Sealing Air Barrier and Adjacent Substrates: As indicated or in compliance with air barrier manufacturer's installation instructions.
- B. Sealant for Cracks and Joints In Substrates: Resilient elastomeric joint sealant compatible with substrate and air barrier materials.

1. Application: Apply at 30 to 40 mil, 0.030 to 0.040 inch, nominal thickness.
- C. Composite Through-Wall Flexible Flashing: Membrane consisting of self-adhered rubberized asphalt laminated to a smooth surface, cross-laminated, high-density polyethylene film. Removable siliconized release liner prevents material from sticking together before application.
 1. Thickness: 40 mils, 0.04 inch.
 2. Roll Size: 100 feet long by 12 inches wide.
- D. Liquid Flashing: One part, fast curing, non-sag, elastomeric, gun grade, trowelable.
- E. Fasteners for Mechanically-Fastened Air Barrier: Manufacturer's approved fasteners for attaching primarily to fiberglass reinforced girts, black (without colored or white markings), to match air barrier color.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install materials in accordance with manufacturer's installation instructions.
- B. Air Barriers: Install continuous airtight barrier over surfaces indicated, with sealed seams and with sealed joints to adjacent surfaces.
- C. Apply sealants and adhesives within recommended temperature range in accordance with manufacturer's installation instructions.
- D. Mechanically Fastened Sheets - On Exterior:
 1. Install sheets shingle fashion to shed water, with seams generally horizontal.
- E. Fluid-Applied Coatings or Membranes:
 1. Prepare substrate in accordance with manufacturer's installation instructions; treat joints in substrate and between dissimilar materials as indicated.
- F. Openings and Penetrations in Exterior Air Barriers:
 1. Install flashing over sills, covering entire sill frame member, extending at least 5 inches onto air barrier and at least 6 inches up jambs; mechanically fasten stretched edges.

END OF SECTION 07 27 00

SECTION 07 42 43
PHENOLIC WALL PANELS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Phenolic wall and soffit panels and attachment system.
- B. Fiber-glass-reinforced furring system.

1.02 SUBMITTALS

- A. Product Data: Provide manufacturer's data sheets on each product.
- B. Shop Drawings: Indicate layout, panel locations, and configuration.
 - 1. Indicate size, spacing, and location of support and attachment components, connections, and types and locations of fasteners.
 - 2. Indicate necessary provisions for structural and thermal movement between wall panel system and adjacent materials.
 - 3. Indicate locations and sizes of penetrations through wall panel system for Architect's approval.
 - 4. Sealed by professional engineer licensed in the State in which the Project is located.
- C. Samples for Decorative Finish Selection: Submit Manufacturer's full color and finish options, either as actual material samples or as color charts, to Architect and Owner for selections.
- D. Samples for Verification: Submit samples 12 by 12 inches in size of each style and color of panel showing finish color, sheen, and texture.
 - 1. Submit 12-inch samples of support framing, trim, and corners.
- E. Manufacturer's Instructions: Include instructions for storage, handling, preparation, and product installation.
- F. Fabricator's qualification statement.
- G. Installer's qualification statement.
- H. Designer's qualification statement.
- I. Maintenance Data: Periodic inspection recommendations and maintenance procedures.
- J. Sample warranty

1.03 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Indicating manufacturing of similar products for commercial installations for a minimum of five years, and a minimum of five (5) successful exterior installations on similar civic/commercial buildings in sub-arctic environments that have been in place for a minimum of two (2) years each.
- B. Installer's Qualifications: Indicating they have received manufacturer's approval as a qualified installer and have been installing similar products on civic/commercial buildings for a minimum of five (5) years.
- C. Designer Qualifications: The Contractor is required to design and submit stamped structural component system documents to the Building Official for approval. Submittals shall be prepared by a licensed Civil or Structural Engineer registered in Alaska and be sealed in accordance with State Law. Submittals shall include calculations and erection or design drawings as necessary to describe the system or component and its connection to the primary structure. The Contractor's engineer is required to resolve all the Building Official structural review comments that may arise out of the component design.

1.04 WARRANTY

- A. Manufacturer Warranty: Provide 10-year manufacturer warranty for panels covering material defects, including delamination caused by material or manufacturing flaws.

PART 2 PRODUCTS

2.01 GENERAL

- A. Type of Wall Panel System: Drained and back-ventilated rain screen, complying with AAMA 509.
- B. Type of Soffit Panel System: Direct fastened phenolic-resin panels w/ exposed fasteners
- C. Provide 3/8 inch to 1 inch clear air space behind panels.
- D. Cladding includes exterior wall panels, soffit panels, and subgirt framing assembly.
- E. Factory-fabricated, prefinished cladding; site assembled.
- F. Concealed fastener system.
- G. Drainage: Provide positive drainage to exterior for moisture entering or condensation occurring within panel system.

2.02 PERFORMANCE REQUIREMENTS

- A. Furring and siding shall conform to the following:
 - 1. Design Wind Loads: Comply with the following:
 - a. Max Wind Speed (3-second gust): 135mph, Municipality of Ancho Zone 1, Risk Category III
 - b. Positive Design Wind Load: 36 lbf/sq ft.
 - c. Negative Design Wind Load: 48 lbf/sq ft.
 - d. Measure performance by testing in accordance with ASTM E330/E330M, using test loads equal to 1.5 times the design wind loads and 10 second duration of maximum pressure.
 - e. For allowable (ASD) values, multiply by 0.6.
 - 2. Seismic Loads: Design and size components to withstand seismic loads and sway displacement in accordance with ASCE 7-16, Sections 13.3, 13.6.
 - a. Sds = 1.00g, Risk Category III.

2.03 PHENOLIC-RESIN SIDING PANELS

- A. Basis of Design: MEG (formerly Stonewood) Quick Ship Program (QSP) Concealed Fastener System. Other products may be accepted based on Architect's approval of a formal substitution request showing compliance with all specified requirements.
- B. Thickness: 3/8"
- C. Panel Size (Maximum): 48" x 96"
- D. Weight: 2.69lbs/ sq. ft.
- E. Construction: Solid core of phenolic resin impregnated kraft paper under a decorative pattern layer, and a clear coat top layer.
- F. Colors: Per drawings or as selected by Architect in submittal process from Manufacturer's full line of available laminates and other finishes.

2.04 PHENOLIC-RESIN SOFFIT PANELS

- A. Basis of Design: MEG (formerly Stonewood) Quick Ship Program (QSP) Exposed Fastener System. Other products may be accepted based on Architect's approval of a formal substitution request showing compliance with all specified requirements.
- B. Thickness: 3/8"
- C. Panel Size (Maximum): 48" x 96"
- D. Weight: 2.69lbs/ sq. ft.
- E. Construction: Solid core of phenolic resin impregnated kraft paper under a decorative pattern layer, and a clear coat top layer.

- F. Colors: Per drawings or as selected by Architect in submittal process from Manufacturer's full line of available laminates and other finishes.

2.05 ACCESSORIES

- A. Support for Continuous Insulation & Proprietary Cladding Panel Supports: Continuous thermally broken Z-girts.
 - 1. Type: Fiberglass reinforced plastic (FRP) girts.
 - a. Basis of Design: *StrongGirt by StrongWell*, 2" and 2-1/2" nominal sizes, see drawings for locations. Other products may be accepted based on Architect's approval of a formal substitution request showing compliance with all specified requirements.
 - 2. Fasteners: As recommended by clip manufacturer.
- B. Support for Siding Panels: Panel Manufacturer's proprietary clip and rail system.
 - 1. Vertical Rails: Manufacturer's proprietary extruded aluminum Z furring attached to FRP girts; black factory finish.
 - 2. Horizontal Rail: Manufacturer's proprietary extruded aluminum J rail attached to vertical rails; mill finish
 - 3. Vertical Joint Covers: Manufacturer's proprietary extruded aluminum C channels; black factory finish.
 - 4. Cladding Panel Clips: Manufacturer's proprietary extruded aluminum clips; mill finish.
 - 5. Fasteners: As provided or recommended by system manufacturer in accordance with requirements.
- C. Support for Soffit Panels: Panel Manufacturer's color matched exposed fasteners.
- D. Sealants: As recommended by Panel Manufacturer.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Ensure that supports for cladding and continuous insulation are plumb and plane and air barrier continuity is established prior to installing cladding support rails.
- B. FRP Girts:
- C. Wall & Soffit Panels: Install per manufacturer instructions and details on drawings.
- D. Install with consistent 3/8" wide vertical and horizontal reveals between panel edges and between panel edges and trim/flashings, unless noted or shown otherwise on drawings.

3.02 TOLERANCES

- A. Installed Tolerance: Not more than 0.072 inch per 3 feet from true line, level, and plumb between fixing points, non-accumulative.

3.03 CLEANING

- A. Remove all protective films.
- B. Remove all stickers and markings from visible surfaces.
- C. Clean all panels prior to substantial completion.

END OF SECTION 07 42 43

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SECTION 07 62 00
SHEET METAL FLASHING AND TRIM

PART 1 GENERAL

1.01 SUBMITTALS

- A. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, and installation details.
- B. Samples for Initial Selection: Provide color selection charts for Architect and Owner's selection of flashing colors.
- C. Samples for Verification: Submit two samples, 4 by 4 inches in size, illustrating metal finish colors for each pre-painted finish.

1.02 QUALITY ASSURANCE

- A. Perform work in accordance with SMACNA (ASMM) and AAMA requirements and standard details, except as otherwise indicated.

PART 2 PRODUCTS

2.01 SHEET MATERIALS

- A. Galvanized Steel: ASTM A653/A653M, with G90/Z275 zinc coating; minimum 24-gauge, 0.0239-inch thick base metal.
- B. Stainless Steel: ASTM A666/A666M, Type 316 alloy, soft temper, 22 gauge, 0.03 inch thick; smooth No. 4 - Brushed finish.

2.02 PREFINISHED SHEET METAL FLASHING

- A. Description: Factory-applied coatings applied to metallic-coated steel sheet substrates prior to fabrication by coil coating; topcoat systems consist of primers and organic topcoats on exposed, top side of sheet; washcoats on bottom, unexposed sheet side.
- B. Comply with ASTM A755/A755M.
- C. Metallic-Coated Steel Sheet Substrates:
 - 1. Zinc-Coated, Galvanized, Steel Sheets: Commercial steel sheets, galvanized by hot-dip process; comply with ASTM A653/A653M; coating designation G90.
 - 2. Aluminum-Zinc-Alloy-Coated Steel Sheets: Commercial steel sheets, alloy-coated by hot-dip process; comply with ASTM A792/A792M; coating designation AZ50.
- D. Substrate Preparation for Pre-finishing: Clean and prepare substrate surfaces in accordance with coating manufacturer's recommendations for substrate type and application.
- E. Washcoats or Backercoats: Provide washcoats or backercoats in accordance with organic coating manufacturer's recommendations.
- F. Primer Coats: Provide basecoat primers in accordance with coating manufacturer's recommendations for substrate type, topcoat, and application.
- G. Superior Performance Organic Coating System: Provide thermally cured 70-percent PVDF or FEVE fluoropolymer systems in accordance with AAMA 2605, tested for weathering for 10 years with 5 delta units maximum of color change.
- H. Application: Copings, flashing, and trim, except at locations indicated to receive stainless steel flashing.
 - 1. Drawing Detail: As indicated on drawings.
 - 2. Base Metal Thickness: 24 gauge, 0.024 inch, minimum.
 - 3. Coating System: Superior-performance organic coating system.
 - 4. Colors: As selected by Architect from manufacturer's full colors, including premium and metallics lines. There will be minimum of two colors selected.

2.03 STAINLESS STEEL FLASHING

- A. Application: Base of wall & any flashing extending into soil

2.04 ACCESSORIES

- A. Fasteners: Exterior-grade, non-corrosive, galvanically compatible, of type and size required for fastening flashing to substrate or to furring or other flashing/trim/clips..
- B. Primer Type: Zinc chromate.
- C. Concealed Sealants: Non-curing butyl sealant.
- D. Exposed Sealants: ASTM C920; elastomeric sealant, with minimum movement capability as recommended by manufacturer for substrates to be sealed; color as selected by Architect.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Comply & coordinate with drawing details, storefront/curtain wall/window manufacturer's details, FRP girt manufacturer's details, phenolic-resin panel manufacturer's details, SMACNA standards, and AAMA standards for flashing type and application. Notify Architect if conflicts between the details and these standards are discovered.
- B. Secure flashings in place using concealed fasteners, and use exposed fasteners only where permitted, or required.
- C. Provide splice plates, sealant, and single piece corner transitions as required to maintain weather barrier.

3.02 CLEAN

- A. Ensure all pencil or pen markings, protective films and stickers are fully removed. Clean surfaces of exposed flashing using compatible cleaners.
- B. Clean adjacent surfaces of any filings, metal scraps, or sealants caused by the installation of any flashing or trim specified in this section.

END OF SECTION 07 62 00

SECTION 07 95 13
EXPANSION JOINT COVER ASSEMBLIES

PART 1 GENERAL

1.01 DEFINITIONS

- A. Maximum Joint Width: Widest linear gap a joint system tolerates and in which it performs its designed function without damaging its functional capabilities.
- B. Minimum Joint Width: Narrowest linear gap a joint system tolerates and in which it
- C. Movement Capability: Value obtained from the difference between widest and narrowest widths of a joint.
- D. Nominal Joint Width: The width of the linear opening specified in practice and in which the joint system is installed.

1.02 SUBMITTALS

- A. Product Data: Provide joint assembly profiles, profile dimensions, anchorage devices and available colors and finish.
- B. Shop Drawings: Indicate joint and splice locations, miters, layout of the work, affected adjacent construction and anchorage locations.
- C. Samples: Submit two samples 12 inches long, illustrating profile, dimension, color, and finish selected.

1.03 COORDINATION

- A. Coordinate installation of exterior wall joint systems with existing roof expansion assemblies to ensure that wall transitions are watertight.

1.04 WARRANTY

- A. Manufacturer's standard 5-year warranty on product defects.
- B. Installer's minimum 1-year warranty on installation defects or damage.

PART 2 PRODUCTS

2.01 EXPANSION JOINT COVER ASSEMBLIES

- A. Expansion Joint Cover Assemblies - General: Factory-fabricated and assembled; designed to completely fill joint openings, sealed to prevent passage of air, dust, and water.
 - 1. Joint Dimensions and Configurations: As indicated on drawings. Field verify width of existing joints.
 - 2. Joint Cover Sizes: Selected to suit joint width and configuration, based on manufacturer's published recommendations and limitations. Must accommodate +/- 50% movement.
 - 3. Basis of Design: *Construction Specialties SF-400*.

2.02 MATERIALS

- A. Extruded Aluminum Frames: ASTM B221 (ASTM B221M) alloy & temper per joint cover manufacturer.
- B. Resilient Seals:
 - 1. Exterior (Primary) Seal: Santoprene-TPV; no PVC.
 - a. Shore A hardness of [70] Durometer, ASTM D2240, minimum,
 - b. Ozone Resistance: No cracks, ASTM D1149
 - c. Color: to be selected by Architect from Manufacturer's standard colors during submittals.
 - 2. Interior (Secondary) Seal: PVC, ASTM D2000,
 - a. Shore A hardness of 65 Durometer, minimum.
- C. Backing Paint for Aluminum Components in Contact with Cementitious Materials: 2 mil, heavy-metal free, high solids primer type.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Comply with manufacturer's written instructions for storing, handling, and installing architectural joint assemblies and materials.
- B. Metal Frames: Perform cutting, drilling, and fitting required to install joint systems.
 - 1. Install in true alignment and proper relationship to joints and adjoining finished surfaces measured from established lines and levels.
 - 2. Adjust for differences between actual structural gap and nominal design gap due to ambient temperature at time of installation. Notify Architect where discrepancies occur that will affect proper joint installation and performance.
- C. Cut and fit ends to accommodate thermal expansion and contraction of metal without buckling of frames.
- D. Locate in continuous contact with adjacent surfaces.
- E. Locate anchors at interval recommended by manufacturer, but not less than 3 inches from each end and not more than 24 inches o.c.
- F. Seals in Metal Frames: Install elastomeric seals and membranes in frames to comply with manufacturer's written instructions. Install with minimum number of end joints.
 - 1. Provide in continuous lengths for straight sections.
 - 2. Seal transitions according to manufacturer's written instructions. Vulcanize or heat-weld field-spliced joints as recommended by manufacturer.
 - 3. Installation: Mechanically lock seals into frames or adhere to frames with adhesive or pressure-sensitive tape as recommended by manufacturer.
- G. Terminate exposed ends of joint assemblies with field- or factory-fabricated termination devices.

3.02 PROTECTION & CLEANING

- A. Do not remove protective covering until finish work in adjacent areas is complete. When protective covering is removed, clean exposed metal surfaces to comply with manufacturer's written instructions.

END OF SECTION 07 95 13

SECTION 08 43 13
ALUMINUM-FRAMED STOREFRONTS

PART 1 GENERAL

1.01 SUBMITTALS

- A. Product Data: Provide component dimensions, describe components within assembly, anchorage and fasteners, glass and infill, door hardware, and internal drainage details.
- B. Shop Drawings: Indicate system dimensions & details.
- C. Manufacturer's qualification statement.
- D. Designer's qualification statement.
- E. Installer's qualification statement.
- F. Sample warranty

1.02 DESIGNER QUALIFICATIONS

- A. The Contractor is required to design and submit stamped structural component system documents to the Building Official for approval. Submittals shall be prepared by a licensed Civil or Structural Engineer registered in Alaska and be sealed in accordance with State Law. Submittals shall include calculations and erection or design drawings as necessary to describe the system or component and its connection to the primary structure. The Contractor's engineer is required to resolve all the Building Official structural review comments that may arise out of the component design.

1.03 WARRANTY

- A. Correct defective Work within a five year period after Date of Substantial Completion.
- B. Provide five year manufacturer warranty against failure of glass seal on insulating glass units, including interpane dusting or misting. Include provision for replacement of failed units.
- C. Provide five year manufacturer warranty against excessive degradation of exterior finish. Include provision for replacement of units with excessive fading, chalking, or flaking.

PART 2 PRODUCTS

2.01 ALUMINUM-FRAMED STOREFRONT

- A. Aluminum-Framed Storefront: Factory fabricated, factory finished aluminum framing members with double pane insulated glass unit (IGU) glazing, and related flashings, anchorage and attachment devices. Basis of Design: *Kawneer Trifab 451UT*.
 - 1. Glazing Rabbet: For 1 inch insulating glazing.
 - 2. Glazing Position: Centered (front to back).
 - 3. Vertical Mullion Dimensions: 2 inches wide by 4-1/2 inches deep.
 - 4. Finish: Class I color anodized.
 - a. Factory finish all surfaces that will be exposed in completed assemblies.
 - b. Touch-up surfaces cut during fabrication so that no natural aluminum is visible in completed assemblies, including joint edges.
 - c. Coat concealed metal surfaces that will be in contact with cementitious materials or dissimilar metals with bituminous paint.
 - 5. Finish Color: Dark bronze.
 - 6. Fabrication: Joints and corners flush, hairline, and weatherproof, accurately fitted and secured; prepared to receive anchors and hardware; fasteners and attachments concealed from view; reinforced as required for imposed loads.
 - 7. Construction: Eliminate noises caused by wind and thermal movement, prevent vibration harmonics, and prevent "stack effect" in internal spaces.
 - 8. System Internal Drainage: Drain to the exterior by means of a weep drainage network any water entering joints, condensation occurring in glazing channel, and migrating moisture occurring within system.

B. Performance Requirements

1. Wind Loads: Design and size components to withstand the specified load requirements without damage or permanent set, when tested in accordance with ASTM E330/E330M, using loads 1.5 times the design wind loads and 10 second duration of maximum load.
 - a. Design Wind Loads: Comply with the following:
 - 1) Max Wind Speed (3-second gust): 135mph, Municipality of Ancho Zone 1, Risk Category III.
 - 2) Positive Design Wind Load: 36 lbf/sq ft.
 - 3) Negative Design Wind Load: 48 lbf/sq ft.
 - 4) Measure performance by testing in accordance with ASTM E330/E330M, using test loads equal to 1.5 times the design wind loads and 10 second duration of maximum pressure.
 - 5) For allowable (ASD) values, multiply by 0.6.
2. Seismic: Design and size components to withstand seismic loads and sway displacement in accordance with ASCE 7-16, Sections 13.3, 13.6. Sds = 1.00g, Risk Category III.
3. Water Penetration Resistance on Manufactured Assembly: No uncontrolled water on interior face, when tested in accordance with ASTM E331 at pressure differential of 8 psf.
4. Air Leakage: 0.06 cfm/sq ft maximum leakage of storefront wall area when tested in accordance with ASTM E283/E283M at 1.57 psf pressure difference.
5. Condensation Resistance Factor of Framing: 50, minimum, measured in accordance with AAMA 1503.
6. Thermal Performance:
 - a. Storefront: Maximum U-Value: 0.36 (Doors: 0.77) , SHGC: Minimum 0.40.

2.02 COMPONENTS

- A. Aluminum Framing Members: Tubular aluminum sections, thermally broken with interior section insulated from exterior, drainage holes and internal weep drainage system.
 1. Glazing Stops: Flush.
- B. Glazing: double-paned IGU, argon filled, w/ warm-edge spacers:
 1. Exterior Laminated Pane:
 - a. Layer 1: 1/8 inch (3mm) clear heat-strengthened glass (surfaces 1 & 2) with low-E coating on surface 2.
 - b. Layer 2: nominal 1mm PVB safety/security lamination film.
 - c. Layer 3: 1/8 inch (3mm) clear annealed glass (surfaces 3 & 4).
 2. Airspace:
 - a. 1/2 inch (12mm) argon filled air space w/ warm edge spacer
 3. Interior Laminated Pane:
 - a. Layer 4: 1/8 inch (3mm) clear annealed glass (surfaces 5 & 6)
 - b. Layer 5: nominal 1mm PVB safety/security lamination film
 - c. Layer 6: 1/8 inch (3mm) clear heat strengthened glass (surfaces 7 & 8).
 4. Total Thickness: 1 inch (24mm)
- C. Swing Doors: Glazed Aluminum: Basis of Design: *Kawneer Insulpour 350T* double door.
 1. Thickness: 2-1/4 inches
 2. Top Rail: 3-1/2 inches wide.
 3. Vertical Stiles: 3-1/2 inches wide.
 4. Bottom Rail: 6-1/2 inches wide.
 5. Finish: Same as storefront.
 6. Glazing: Same as storefront

2.03 MATERIALS

- A. Extruded Aluminum: ASTM B221 (ASTM B221M).
- B. Fasteners: Stainless steel.

- C. Sealants: Type as recommended or required by store-front manufacturer for application, climate, and items being sealed.

2.04 FINISHES

- A. Class I Color Anodized Finish: AAMA 611 AA-M12C22A42 Integrally colored anodic coating not less than 0.7 mils thick.

2.05 HARDWARE

- A. For each door, include weatherstripping, sill sweep strip, and threshold.
- B. Other Door Hardware: Storefront manufacturer's standard type to suit application.
 - 1. Finish on Hand-Contacted Items: Polished chrome.
 - 2. For each door, include butt hinges, pull handle, exit device, and closer.
- C. Threshold: Extruded aluminum, one piece per door opening, ribbed surface; provide on all doors.
- D. Hinges: Butt type, swing clear; top, intermediate, and bottom.
- E. Exit Devices: Panic type.
- F. Door Closers: Provide active door leaf w/ re-used surface mounted low-voltage operator connected to exterior and interior push buttons, with hold-open option .
- G. Locks: Coordinate w/ Owner on lock requirements, matching existing system for any card reader or alarm connectivity and keying. .

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install wall system in accordance with manufacturer's instructions.
- B. Attach to structure to permit sufficient adjustment to accommodate construction tolerances and other irregularities.
- C. Align assembly plumb and level, free of warp or twist. Maintain assembly dimensional tolerances, aligning with adjacent work.

END OF SECTION 08 43 13

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SECTION 08 44 13
GLAZED ALUMINUM CURTAIN WALLS

PART 1 GENERAL

1.01 SUBMITTALS

- A. Shop Drawings: Indicate system dimensions, framed opening requirements and tolerances, affected related Work, expansion and contraction joint location and details, and field welding required.
- B. Designer's Qualification Statement.
- C. Manufacturer's Qualification Statement.
- D. Installer's Qualification Statement.

1.02 QUALITY ASSURANCE

- A. Designer Qualifications: The Contractor is required to design and submit stamped structural component system documents to the Building Official for approval. Submittals shall be prepared by a licensed Civil or Structural Engineer registered in Alaska and be sealed in accordance with State Law. Submittals shall include calculations and erection or design drawings as necessary to describe the system or component and its connection to the primary structure. The Contractor's engineer is required to resolve all the Building Official structural review comments that may arise out of the component design.

1.03 FIELD CONDITIONS

- A. Do not install sealants when ambient temperature is less than 40 degrees F. Maintain this minimum temperature during and 48 hours after installation.

1.04 WARRANTY

- A. Manufacturer Warranty: Provide 5-year manufacturer warranty against failure of glass seal on insulating glass units, including inter-pane dusting or misting. Include provision for replacement of failed units. Complete forms in Owner's name and register with installer.
- B. Finish Warranty: Provide 5-year manufacturer warranty against excessive degradation of exterior finish. Include provision for replacement of units with excessive fading, chalking, or flaking. Complete forms in Owner's name and register with warrantor.

PART 2 PRODUCTS

2.01 BASIS OF DESIGN - CURTAIN WALL SYSTEMS

- A. Pressure Cap Four Sides; Not Unitized, Field Assembled:
 - 1. Basis of Design: *Kawneer 1600UT System 1.*

2.02 CURTAIN WALL

- A. Aluminum-Framed Curtain Wall: Factory fabricated, factory finished aluminum framing members with infill, and related flashings, anchorage and attachment devices.
 - 1. Outside glazed, with pressure plate and mullion cover.
 - 2. Fabrication Method: Field fabricated stick system.
 - 3. Glazing Method: Field glazed system.
 - 4. Vertical Mullion Dimensions: 2-1/2 inches wide by 7-1/2 inches deep.
 - 5. Vertical Mullion Face Width: 2-1/2 inches.
 - 6. Vertical Mullion Depth From Face of Glazing to Back of Frame: 6-1/4 inches.
 - 7. Finish: Class I color anodized.
 - a. Factory finish surfaces that will be exposed in completed assemblies.
 - b. Touch-up surfaces cut during fabrication so that no natural aluminum is visible in completed assemblies, including joint edges.
 - c. Coat concealed metal surfaces that will be in contact with cementitious materials or dissimilar metals with bituminous paint.
 - d. Color: dark bronze

8. Provide flush joints and corners, weather-sealed, accurately fitted and secured; prepared to receive anchors; fasteners and attachments concealed from view; reinforced as required for imposed loads.
 9. Construction: Eliminate noises caused by wind and thermal movement, prevent vibration harmonics, and prevent "stack effect" in internal spaces.
 10. System Internal Drainage: Drain to the exterior by means of a weep drainage network any water entering joints, condensation occurring in glazing channel, and migrating moisture occurring within system.
- B. Structural Performance Requirements: Design and size components to withstand the following load requirements without damage or permanent set.
1. Design Wind Loads: Comply with the following:
 - a. Max Wind Speed (3-second gust): 135mph, Municipality of Ancho Zone 1, Risk Category III
 - b. Positive Design Wind Load: 36 lbf/sq ft.
 - c. Negative Design Wind Load: 48 lbf/sq ft.
 - d. Measure performance by testing in accordance with ASTM E330/E330M, using test loads equal to 1.5 times the design wind loads and 10 second duration of maximum pressure.
 - e. For allowable (ASD) values, multiply by 0.6.
 2. Seismic Loads: Design and size components to withstand seismic loads and sway displacement in accordance with ASCE 7-16, Sections 13.3, 13.6.
 - a. Sds = 1.00g, Risk Category III.
 3. Movement: Accommodate the following movement without damage to components or deterioration of seals:
 - a. Expansion and contraction caused by 180 degrees F surface temperature.
 - b. Expansion and contraction caused by cycling temperature range of 170 degrees F over a 12 hour period.
 - c. Movement of curtain wall relative to perimeter framing.
 - d. Deflection of structural support framing, under permanent and dynamic loads.
- C. Water Penetration Resistance on Manufactured Assembly: No uncontrolled water on indoor face when tested as follows:
1. Test Pressure Differential: 12 psf.
 2. Test Method: ASTM E331.
 3. Test Method: AAMA 501.1.
- D. Air Leakage: 0.06 cfm/sq ft maximum leakage of wall area when tested in accordance with ASTM E283/E283M at 6.24 psf pressure difference across assembly.
- E. Thermal Performance Requirements:
1. Condensation Resistance Factor of Framing: 70, minimum, measured in accordance with AAMA 1503.
 2. Overall U-value Including Glazing: 0.43 Btu/(hr sq ft deg F), maximum.
- F. Acoustical Performance Requirements:
1. Sound Attenuation: STC of 31, minimum, from exterior to interior.
 2. Test Method: ASTM E90, with calculation in accordance with ASTM E413.

2.03 COMPONENTS

- A. Aluminum Framing Members: Tubular aluminum sections, thermally broken with interior section insulated from exterior, drainage holes and internal weep drainage system.
1. Structurally Reinforced Members: Extruded aluminum with internal reinforcement of structural steel member.
- B. Glazing: double-paned IGU, argon filled, w/ warm-edge spacers:
1. Exterior Laminated Pane:

- a. Layer 1: 1/8 inch (3mm) clear heat-strengthened glass (surfaces 1 & 2) with low-E coating on surface 2.
- b. Layer 2: nominal 1mm PVB safety/security lamination film.
- c. Layer 3: 1/8 inch (3mm) clear annealed glass (surfaces 3 & 4).
- 2. Airspace:
 - a. 1/2 inch (12mm) argon filled air space w/ warm edge spacer.
- 3. Interior Laminated Pane:
 - a. Layer 4: 1/8 inch (3mm) clear annealed glass (surfaces 5 & 6).
 - b. Layer 5: nominal 1mm PVB safety/security lamination film.
 - c. Layer 6: 1/8 inch (3mm) clear heat strengthened glass (surfaces 7 & 8).
 - d. Total Thickness: 1 inch (24mm)

2.04 MATERIALS

- A. Extruded Aluminum: ASTM B221 (ASTM B221M).
- B. Structural Steel Sections: ASTM A36/A36M; galvanized in accordance with requirements of ASTM A123/A123M.
- C. Fasteners: Stainless steel; type as required or recommended by curtain wall manufacturer.
- D. Weather-Seal Sealant: Silicone, with adhesion in compliance with ASTM C794; compatible with glazing accessories.
- E. Glazing Gaskets: Type to suit application to achieve weather, moisture, and air infiltration requirements.
- F. Shop and Touch-Up Primer for Steel Components: Zinc oxide, alkyd, linseed oil primer appropriate for use over hand cleaned steel.

2.05 FINISHES

- A. Class I Color Anodized Finish: AAMA 611 AA-M12C22A42 Integrally colored anodic coating not less than 0.7 mils thick.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install curtain wall system in accordance with manufacturer's instructions.
- B. Attach to structure to permit sufficient adjustment to accommodate construction tolerances and other irregularities.
- C. Align assembly plumb and level, free of warp or twist. Maintain assembly dimensional tolerances, aligning with adjacent work.
- D. Pressure Plate Framing: Install glazing and infill panels using exterior dry glazing method.

END OF SECTION 08 44 13

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SECTION 09 30 00 TILING

PART 1 GENERAL

1.01 SUBMITTALS

- A. Product Data: Provide manufacturers' data sheets on tile, mortar, grout, and accessories. Include instructions for using grouts and adhesives.
- B. Shop Drawings: Indicate tile layout, patterns, color arrangement, perimeter conditions, junctions with dissimilar materials, control and expansion joints, thresholds, ceramic accessories, and setting details.
- C. Samples: Mount tile and apply grout on two plywood panels, minimum 18 by 18 inches in size illustrating pattern, color variations, and grout joint size variations.
- D. Installer's qualification statement.
- E. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. See Section , for additional provisions.
 - 2. Extra Tile: 10 sq ft of each size, color, and surface finish combination.

1.02 FIELD CONDITIONS

- A. Maintain ambient and substrate temperature above 50 degrees F and below 100 degrees F during installation and curing of setting materials.

PART 2 PRODUCTS

2.01 TILE

- A. Porcelain Tile: Rectified porcelain floor/wall tile, suitable to be used on vertical walls.
 - 1. Size: 300mm X 300mm X 7.8mm (nominal 12in X 12in X 0.31in) rectified
 - 2. Surface Finish: Unglazed.
 - 3. Tile Model Lines and Colors: As indicated on drawings, Basis of Design Manufacturer and Line: MOSA Global.

2.02 TRIM AND ACCESSORIES

- A. Trim: Dark bronze anodized aluminum, style and dimensions to suit application, set with tile mortar or adhesive, or fastened to backer board before tile is set.
 - 1. Locations: Where indicated on drawings, and typically at tile wall perimeter and outside.

2.03 SETTING MATERIALS

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

2.04 GROUTS

- A. Epoxy Grout: ANSI A118.3 chemical resistant and water-cleanable epoxy grout.
 - 1. Color: To be selected by Architect from Manufacturer's full line.

2.05 MAINTENANCE MATERIALS

- A. Tile Sealant: Gunnable, non-sag, single or double component exterior-grade polyurethane sealant; Type S, Grade NS, Class 25-50, Use NT
 - 1. Applications: between tile and penetrations and at control joints in tile.
 - 2. Color: to be selected by Architect from Manufacturer's full range.
- B. Grout Sealer: Liquid-applied, moisture and stain protection for existing or new Portland cement grout.
 - 1. Composition: Water-based colorless silicone.

2.06 ACCESSORY MATERIALS

- A. Elastomeric Polyether Waterproofing: Single-component, 100 percent solids, cold-fluid-applied waterproofing membrane.
 - 1. Cured Thickness: 60 mil, 0.060 inch, minimum.

- 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/A118/A136, manufacturer's instructions, and TCNA (HB) or TCNA (HB-GP) recommendations, as applicable.
- B. Lay tile to pattern indicated on drawings.
- C. Include control joints as indicated on drawings, with sealant instead of grout in joints.

3.02 INSTALLATION - WALL TILE

- A. On exterior walls, install in accordance with TCNA (HB) Method W244E, thin-set over cementitious backer units, with waterproofing membrane.

END OF SECTION 09 30 00

SECTION 09 91 13 EXTERIOR PAINTING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Scope: Exterior painting of existing concrete masonry units that will be left exposed to view
- B. Do Not Paint or Finish the Following Items:
 - 1. Items factory-finished unless otherwise indicated; materials and products having factory-applied primers are not considered factory finished.
 - 2. Items indicated to receive other finishes.
 - 3. Items indicated to remain unfinished.
 - 4. Glass.

1.02 SUBMITTALS

- A. Product Data: Provide complete list of products to be used, with the following information for each:
 - 1. Manufacturer's name, product name and/or catalog number, and general product category (e.g. "alkyd enamel").
 - 2. MPI product number (e.g. MPI #47).
 - 3. Cross-reference to specified paint system(s) product is to be used in; include description of each system.
- B. Samples for Initial Selection: Submit catalog, provide website, or provide local store address where manufacturer's available colors may be viewed for initial selection.
- C. Samples for verification: Submit three paper "draw down" samples, 8-1/2 by 11 inches in size, illustrating range of colors available for each finishing product specified.
 - 1. Where sheen is specified, submit samples in only that sheen.

PART 2 PRODUCTS

2.01 PAINTS AND FINISHES - GENERAL

- A. Paints and Finishes: Pre-mixed with base and colors mixed in a shop setting.
 - 1. Provide paints capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
 - 2. Supply each paint material in quantity required to complete entire project's work from a single production run.
 - 3. Do not reduce, thin, or dilute paint or add materials unless such procedure is described explicitly in manufacturer's product instructions.
- B. Acceptable Manufacturers:
 - 1. Commercial Grade paints from *Sherwin-Williams* or *PPG Paints*.

2.02 PAINT SYSTEMS - EXTERIOR

- A. Paint E-OP - Exterior Surfaces to be Painted, including concrete masonry units.
 - 1. Two top coats and one coat primer.
 - 2. Top Coat(s): Exterior Latex; MPI #10, 11, 15, 119, or 214.

2.03 PRIMERS

- A. Primers: Provide the following unless other primer is required or recommended by manufacturer of top coats.
 - 1. Interior/Exterior Latex Block Filler; MPI #4.

PART 3 EXECUTION

3.01 PREPARATION

- A. Clean surfaces thoroughly and correct defects prior to application.

- B. At existing painted CMU walls that will receive new exposed paint finish , remove any loose, damaged or flaking existing paint, using wire brush, clean CMU surfaces, fill any large cracks with paintable exterior joint sealant or grout.
- C. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- D. Mask surrounding areas and protect from drips or over-spray.
- E. Apply paint with professional spray equipment only, no brushing or rolling

3.02 APPLICATION

- A. Apply products in accordance with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual".
- B. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
- C. Only apply in weather conditions acceptable to the paint Manufacturer in their written instructions, including minimum temperatures and maximum relative humidity.

END OF SECTION 09 91 13