VILLAGE OF ROYAL PALM BEACH, FLORIDA

PROJECT NAME: **Corporate Picnic Pavilions**
PROJECT NUMBER: **PR2105**

ADDENDUM NUMBER: TWO

DATE OF ISSUANCE: August 8, 2022

TO: Prospective Bidders

THIS ADDENDUM NO. **Two** INCLUDES THE FOLLOWING:

1) Replace page I-3 of the Bid Documents with page I-3-Addendum 2

2) Add the following Specifications to the Bid Documents:
   Section 047300, Manufactured Stone Veneer – 3 pages
   Section 061000, Rough Carpentry – 4 pages
   Section 062000, Finish Carpentry – 3 pages
   Section 072119, Thermal Insulation - 4 pages
   Section 074130, Metal Roof Panels – 4 pages
   Section 076000, Flashing and Sheet Wall – 3 pages
   Section 076310, Gutters and Downspouts – 2 pages
   Section 0798000, Joint Sealers – 3 pages
   Section 092200, Stucco – 4 pages
   Section 099000, Painting – 4 pages

3) Replace drawing sheet A1.1 with drawing sheet A1.1-Addendum 2

4) Replace drawing sheet A2.1 with drawing sheet A2.1-Addendum 2

APPROVED BY: Christopher A. Marsh, P.E., Village Engineer

ACKNOWLEDGMENT OF RECEIPT: _____
Bidder

INDEX

SECTION 04 73 00 - MANUFACTURED STONE VENEER

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Manufactured stone veneer and architectural trim products.

1.2 RELATED SECTIONS

A. Section 03 30 00 - Cast-In-Place Concrete

1.3 REFERENCES

A. ASTM C 1329 - Standard Specification for Portland Cement
B. ASTM C 1670 - Standard Specification for Adhered Manufactured Stone Masonry Veneer Units.
C. ASTM C 1780 - Standard Practice for Installation Methods for Adhered Manufactured Stone Masonry Veneer
D. ICC AC 38 Acceptance Criteria for Water Resistive Barriers
E. ICC ESR 2598 Coronado Stone Products Evaluation Report

1.4 SUBMITTALS

A. Submit following in accordance with Section 01300.
B. Product Data: Manufacturer's specification and data sheets for each product used, including:
    1. Preparation instructions.
    2. Storage and handling requirements and recommendations.
    3. Installation guidelines.
    4. Cleaning and maintenance methods.
C. Shop Drawings: Submit elevations and cross-section details showing proper installation methods.
D. Sample Selection
    1. Standard sample board with selected stone profile and color should be submitted for each product specification.
    2. Selection of approved grout colors and styles (if applicable).
E. Sample Verification: A field panel sample with the minimum size of 3’ x 3’ should be installed for every product selection showing: styles, colors, textures and grout colors.
F. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
G. Closeout Submittals: Provide manufacturer’s warranty and maintenance recommendations.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications: Coronado Stone Products
B. Installer Qualifications: Minimum 5 years experience with similar scope of work and must be able to furnish list of previous jobs and references if requested by Architect.
C. Certifications: Products approved by ICC-ES Evaluation Service.
D. Mock-Up: Provide field panel sample to evaluate preparation and application techniques.
H. Pre-Installation Conference: Conduct a pre-installation meeting to verify all products, application methods, site conditions and warranty terms no less than thirty days prior to stone veneer installation.

1.6 DELIVERY, STORAGE & HANDLING

A. Coordination of on-site delivery and storage should be arranged in advance to avoid work delays.
B. Store and handle stone products in accordance with the manufacturer’s recommendations.
C. All material stored on-site should be protected from the elements before and during the installation process. Store material under cover and in a dry location.

D. Store mortar, sealant and other installation material in compliance with the manufacturer's recommendations.

1.7 PROJECT CONDITIONS

A. Maintain manufacturer's recommended environmental conditions to ensure optimum results.
B. Cold Weather Requirements: Installations should be performed in temperatures exceeding 40 degrees Fahrenheit prior to, during and for 48 hours after completion of work. If temperatures are below 40 degrees Fahrenheit, masons should use heaters and tents during the installation process to regulate temperature.
C. Hot Weather Requirements: If temperatures exceed 90 degrees Fahrenheit during the installation, additional moisture will need to be added to the backs of the stone veneer and scratch coated surface. Shade and/or frequent misting of the wall and stone may be required.

1.8 WARRANTY

A. Provide manufacturer's 50 year limited warranty.

PART 2 – PRODUCTS

2.1 MANUFACTURER

A. Acceptable Manufacturer: **Coronado Stone Products** (Corporate Office), which is located at: 11191 Calabash Ave, Fontana, CA 92337; Toll Free Tel: 800-847-8663; Fax: 909-357-7362; Email: sales@coronado.com; Web: **www.Coronado.com**
B. Substitutions: Not permitted. Shall match existing stone.
C. Authorized Distributors: _____

2.2 MATERIALS

A. Manufactured Stone Veneer:
    1. Profile / Color: Coronado Stone Mountain Strip (S220) / Chablis – Match Existing Stone
B. Stone Accessories:
    1. Profile / Color: Match size, profile finish of existing.
C. Manufactured Stone Veneer - Properties: Units consisting of Portland cement, lightweight aggregates and oxide pigments.
    1. Compressive Strength: Tested in accordance with ASTM C39 and ASTM C192, greater than 1800 psi.
    2. Shear Bond Test: Tested in accordance with ASTM C482, greater than 50 psi.
    3. Water Absorption: Tested in accordance with section 3.1.4 and 4.6 of ICC-ES AC51.
    4. Freeze / Thaw: Tested in accordance with ASTM C67, less than 3% mass loss.
    5. Unit Weight: Shipping weight is less than 15 lbs. per sq ft, density is determined in accordance with ASTM C567.

PART 3 – EXECUTION

3.1 EXAMINATION

A. Do not begin the installation process until substrates have been properly prepared.
B. Notify architect of any unsatisfactory preparation of substrate before proceeding.
C. Correct all unsatisfactory substrate conditions before installation begins.
D. Verify roofs use proper water displacement methods to direct moisture away from the installed stone veneer.
E. If substrate surface is questionable, bonding tests should be performed before installation to assess adhesion and confirm proper bonding strength.

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F. Flashing must be installed at wall penetrations and terminations of the stone veneer. Assure that all flashing and kickouts are corrosion resistant, integrated with the WRB properly (when used), and installed in accordance with the local building code requirements.

3.2 PREPARATION

A. Clean all surfaces thoroughly prior to installation.
B. Use manufacturer surface preparation recommendations to achieve best result.

3.3 INSTALLATION

A. Product should be pulled from a variety of boxes and blended on site during installation to ensure a consistent overall project color on the wall.
B. Install in accordance with manufacturer's installation instructions. Visit this page for detailed installation instructions - https://www.coronado.com/InstallationGuide
C. Application details and mortar recommendations may vary depending on the stone style. Consult manufacturer for proper installation instructions.
D. All dry-stacked and large format standard stones should be installed using a polymer-modified mortar meeting ANSI A118.4 or ANSI 118.15.
E. All applications in freeze-thaw environments require a polymer-modified mortar.

3.4 CLEANING AND PROTECTION

A. Installed manufactured stone veneer can be cleaned with a mild soap and water solution.
B. Cleaning efflorescence can be done by lightly scrubbing the face of the stone with a soft bristle brush and water. In some cases, a 25% vinegar 75% water solution may need to be used. Do not use any harsh cleaning methods to remove efflorescence.
C. Touch-up, repair or replace damaged stone before completion of project.
D. Water repellents and enhancers can be used to further protect a finished project. Only breathable, penetrating water-based silane water repellents should be used.

---END OF SECTION---

SECTION 06 10 00 – ROUGH CARPENTRY

PART 1 - GENERAL

Related Work

All parts of the Contract Documents relate to the Work specified in this section.

Description of Work

Work specified in this section includes rough carpentry that is generally not exposed.

Product Handling

Keep materials under cover and dry. Protect against exposure to weather and contact with damp or wet surfaces. Stack lumber as well as plywood and other panels; provide for air circulation within and around stacks and under temporary coverings including polyethylene and similar material.

Project Conditions

Fit carpentry work to other work; scribe and cope as required for accurate fit. Correlate location of furring, nailers, blocking, grounds and similar supports to allow attachment of other work.

PART 2 - PRODUCTS

Lumber, General

Manufacture lumber to comply with PS 20 "American Softwood Lumber Standard" and with applicable grading rules of inspection agencies certified by American Lumber Standards Committee's (ALSC) Board of Review.

Factory-mark each piece of lumber with grade stamp of inspection agency evidencing compliance with grading rule requirements and identifying grading agency, grade, species, moisture content at time of surfacing, and mill.

Nominal sizes are indicated, except as detail dimensioned. Provide actual sizes as required by PS 20, for moisture content specified for each use.

Dimension Lumber

For light framing provide "Stud" or "Standard" grade lumber for stud framing (2" to 4" thick, 2" to 6" wide, 10' and shorter) and "Standard" grade for other light framing (2" to 4" thick, 2" to 4" wide), any species. Any species of specified grade.

For structural light framing (2" to 4" thick, 2" to 4" wide), provide the following grade and species:
Select structural grade.
Any species of specified grade.

For structural framing (2" to 4" thick, 5" and wider), provide the following grade and species:
Select structural grade.
Any species of specified grade.

Boards

Moisture content shall be 19% maximum, "S-DRY".

Where transparent or natural finish or no finish is indicated, exposed boards shall be Select Heart Grade.

Where painted finish is indicated, exposed boards shall be Southern Pine, No. 2 Boards per SPIB, or Douglas Fir Construction Boards per WCLIB or WWPA rules.

Concealed boards shall be Douglas Fir Construction Common per RIS rules, Southern Pine No. 2 Boards per SPIB rules, or any species graded Construction Boards per WCLIB or WWPA rules.

Miscellaneous Lumber

Provide wood for support or attachment of other work including cant strips, bucks, nailers, blocking, furring, grounds, stripping and similar members. Provide lumber of sizes indicated, worked into shapes indicated, and as follows:

Moisture content shall be 19% maximum for lumber items not specified to receive wood preservative treatment.

Provide Standard Grade light framing size lumber of any species or board size lumber as required. No. 3 Common or Standard grade boards per WCLIB or WWPA rules or No. 3 boards per SPIB rules.

Construction Panels

Comply with PS 1 "U.S. Product Standard for Construction and Industrial Plywood" for plywood panels and, for products not manufactured under PS 1 provisions, with American Plywood Association (APA) "Performance Standard and Policies for Structural-Use Panels", Form No. E445.

Factory-mark each construction panel with APA trademark evidencing compliance with grade requirements.

Where construction panels will be used for concealed types of applications, provide APA Performance-Rated Panels complying with requirements indicated for grade designation, span rating, exposure durability classification, edge detail (where applicable) and thickness.

For mounting electrical or telephone equipment, provide fire-retardant treated plywood panels with grade designation, APA C-D PLUGGED INT with exterior glue.

Miscellaneous Materials

Provide fasteners and anchorages of size, type, material and finish as indicated and as recommended by applicable standards, complying with applicable Federal Specifications for nails, staples, screws, bolts, nuts, washers and anchoring devices. Provide metal hangers and framing anchors of the size and type recommended by the manufacturer for each use including recommended nails.

Where rough carpentry work is exposed to weather, in ground contact, or in area of high relative humidity, provide fasteners and anchorages with a hot-dip zinc coating (ASTM A 153).

Building Paper shall be ASTM D 226, Type I; asphalt saturated felt, non-perforated, 15-lb. type.

Wood Treatment

Treatment: Lumber or plywood indicated as "treated," or specified as treated, shall comply with the applicable requirement of the American Wood Preservers Association (AWPA). Mark each treated item to comply with the AWPA Quality Mark requirements for the specified requirements.

Preservative Pressure Treatment:

All wood used below grade and in contact with concrete or masonry shall be given pressure treatment with waterborne preservatives for decay and termite protection as follows:

Pressure-treated lumber and plywood shall conform to AWPA standard C2-99 or C9-99 to standard P5 (waterborne) and bear a mark-certifying conformance.

Retention requirements: Provide retention of 4.0 kg/m3 (0.25 pcf) and the notation that the material is intended for Above Ground Use and retention of 6.4 kg/m3 (0.40 pcf) with the notation that the material is intended for Fresh Water or Soil Contact Use.
After treatment, kiln-dry to a maximum moisture content of 16%.

Koppers "Wolmanized" brand shall be acceptable or approved equal.

Complete fabrication of treated items prior to treatment, wherever possible. If cut after treatment, coat cut surfaces with heavy brush coat of same preservative used for treatment. Inspect each piece of lumber or plywood after drying and discard damaged or defective pieces.

Fire-Retardant Treatment:

Provide pressure impregnation with fire-retardant chemicals for wood used in areas of restricted flame spread and as otherwise required (indicated in schedules, drawings, specifications, codes, etc.).

PART 3 - EXECUTION

Installation, General

Discard units of material with defects that might impair quality of work, and units which are too small to use in fabricating work with minimum joints or optimum joint arrangement.

Set carpentry work to required levels and lines, with members plumb and true to line and cut and fitted.

Securely attach carpentry work to substrate by anchoring and fastening required by recognized standards.

Countersink nail heads on exposed carpentry work and fill holes.

Use common wire nails. Use finishing nails for finish work. Select fasteners of size that will not penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting of wood; pre-drill fasteners that could cause splitting.

Wood Grounds, Nailers, Blocking and Sleepers

Provide wood grounds, nailers, blocking and sleepers where required for screeding or attachment of other work. Form each piece to proper shape and cut to true line and level of work to be attached. Coordinate location with other work involved.

Attach grounds, nailers, blocking, etc. to substrates to support applied loading. Countersink bolts and nuts flush with surfaces, unless otherwise indicated. Build into masonry during installation of masonry work. Where possible, anchor to formwork before concrete placement.

Provide permanent grounds of dressed, preservative treated, key-beveled lumber not less than 1-1/2" wide and of thickness required to bring face of ground to exact thickness of finish material involved. Remove temporary grounds when no longer required.

Wood Furring

Install plumb and level with closure strips at edges and openings. Shim with wood for tolerance of finished work.

Furring to receive plywood paneling, unless otherwise indicated, shall be 1" x 3" furring at 2' o.c., horizontally and vertically.

Furring to receive gypsum drywall, unless otherwise indicated, shall be 1" x 2" furring at 16" o.c., vertically.

Furring to receive plaster lath, unless otherwise indicated, shall be 1" x 2" furring at 16" o.c., vertically.

Wood Framing, General

Provide framing members of sizes and on spacings required, and frame openings to comply with recommendations of "Manual for Housing Framing" of National Forest Products Association (N.F.P.A.). Do not splice structural members between supports.

Anchor and nail to comply with "Recommended Nailing Schedule" of "Manual for House Framing" and "National Design Specifications for Wood Construction," published by N.F.P.A.

Timber Framing

Provide wood beams and girders of the size and spacing indicated. Install with crown edge up and provide not less than 4" bearing on supports. Provide continuous members.

Where beams or girders are framed into pockets of exterior concrete or masonry walls, provide 1/2" air space between sides and ends of wood members and supporting wall.

Installation of Construction Panels

General: Comply with applicable recommendations contained in Form No. E 30D, "APA Design/Construction Guide - Residential & Commercial," for types of construction panels and applications indicated.

---END OF SECTION---

SECTION 06 21 00 – FINISH CARPENTRY

PART 1 - GENERAL

Related Work

All parts of the Contract Documents relate to the Work specified in this section.

Description of Work

Finish carpentry includes carpentry work which is exposed to view, is non-structural, and which is not specified as part of other sections.

Quality Assurance

Factory-mark each piece of lumber and plywood with type, grade, mill and grading agency identification; except omit marking from surfaces to receive transparent finish, and submit mill certificate that material has been inspected and graded in accordance with requirements if it cannot be marked on a concealed surface.

Comply with manufacturer's instructions for handling, storage, installation and finishing of treated materials.

Submittals

Submit samples for each species and cut or pattern of finish carpentry. Refer to General Requirements – Submittals 01000.

Product Delivery, Storage and Handling

Protect finish carpentry materials during transit, delivery, storage and handling to prevent damage, soiling and deterioration.

Do not deliver finish carpentry materials, until painting, wet work, grinding and similar operations which could damage, soil or deteriorate woodwork have been completed in installation areas. If, due to unforseen circumstances, finish carpentry materials must be stored in other than installation areas, store only in areas meeting requirements specified for installation areas.

Job Conditions

Do not install finish carpentry until required temperature and relative humidity conditions have been stabilized and will be maintained in installation areas.

Maintain temperature and humidity in installation area as required to maintain moisture content of installed finish carpentry within a 1.0 percent tolerance of optimum moisture content, from date of installation through remainder of construction period.

PART 2 - PRODUCTS

Wood Product Quality Standards

For softwood lumber, comply with PS 20 and applicable grading rules of the respective grading and inspecting agency for the species and product indicated.

For plywood, comply with PS 1/ANSI A199.1.

For hardwood lumber, comply with National Hardwood Lumber Association (NHLA) rules.

Basic Material Requirements

Provide dressed or worked and dressed lumber, as applicable, manufactured to the actual sizes as required by PS 20 or to actual sizes and patterns required for the project.

For softwood lumber, provide seasoned lumber having a moisture content from time of manufacture until time of installation not greater than values required by the applicable grading rules of the respective grading and inspecting agency for the species and product indicated.

For hardwood lumber, provide kiln-dried lumber having a moisture content from time of manufacturer until time of installation within the ranges required in the referenced woodworking standard.

Lumber for transparent finish (stained or clear) shall be pieces made of solid lumber stock.
Lumber for painted finish shall be pieces which are either glued-up lumber or made of solid lumber stock.

For exterior finish carpentry and moist areas, use treated lumber complying with PS 56 for "wet use" and certified so by respective grading and inspecting agency for species and product indicated.

Interior Finish Carpentry

Standing and running trim for transparent finish, manufactured to sizes and patterns (profile) shown from selected First Grade Lumber (NHLS); complying with grade requirements of referenced woodworking standard, for quality of materials and manufacture.

Species:

For Painted members use “P” Grade, Yellow Poplar or Southern Pine.
For Stained members use “N” grade, plain sawn, clear Red or White Oak, unless otherwise noted on drawings.

Grade: AWI Custom Grade.

Location: Cabinetry, Base, Trim and Sills - Refer to drawings for required profiles.

Miscellaneous Materials

Provide nails, screws and other anchoring devices of the type, size, material, and finish required for application indicated to provide secure attachment, concealed where possible, and complying with applicable Federal Specifications. Where finish carpentry is exposed on exterior or in areas of high relative humidity, provide fasteners and anchorages with a hot-dipped zinc coating (ASTM A 153).

Wood Treatment

Treatment shall be in compliance with the standards of AWPA and quality control of AWPB, appropriate for the respective types of wood and use.

Preservative Pressure Treatment, as required

Provide preservative pressure treatment with water-born preservatives for wood used in potentially moist areas such as in contact with earth, masonry, concrete roofing system, flashing, vapor barrier waterproofing, and as otherwise required (indicated in schedules, drawings, specifications, codes, etc.).

Fire-Retardant Treatment, as required

Provide pressure impregnation with fire-retardant chemicals for wood used in areas of restricted flame spread and as otherwise required (indicated in schedules, drawings, specifications, codes, etc.).

PART 3 - EXECUTION

Preparation

Condition wood materials to average prevailing humidity conditions in installation areas prior to installing.

Proceed with finish carpentry on interior only when ambient conditions can be properly maintained.

Installation

Discard units of material which are unsound, warped, bowed, twisted, improperly treated, not adequately seasoned or too small to fabricate work with minimum of joints or optimum jointing arrangements, or which are of defective manufacture with respect to surfaces, sizes or patterns.

Install the work plumb, level, true and straight with no distortions. Shim as required using concealed shims. Install to a tolerance of 1/8" in 8'-0" for plumb and level countertops; and with 1/16" maximum offset in flush adjoining 1/8" maximum offsets in revealed adjoining surfaces.

Provide furring, blocking and backing where required for formation of architectural features, building specialties, and restroom accessories.

Scribe and cut work to fit adjoining work, and refinish cut surfaces or repair damaged finish at cuts.

Install with minimum number of joints possible, using full-length pieces (from maximum lengths of lumber available) to the greatest extent possible. Stagger joints in adjacent and related members. Cope at returns, miter at corners, to produce tight fitting joints with full surface contact throughout length of joint. Use scarf joints for end-to-end joints.

Anchor finish carpentry work to anchorage devices or blocking build-in or directly attached to substrates. Secure to grounds, stripping and blocking with countersunk, concealed fasteners and blind nailing as required for a complete installation. Except where prefinished matching fastener heads are required, use fine finishing nails for exposed nailings, countersunk and filled flush with finished surface, and matching final finish where transparent is indicated.

Adjustment, Cleaning, Finishing and Protection

Repair damaged and defective finish carpentry work wherever possible to eliminate defects functionally and visually; where not possible to repair properly, replace woodwork. Adjust joinery for uniform appearance.

Clean finish carpentry work on exposed and semi-exposed surfaces. Touch-up shop-applied finishes to restore damaged or soiled areas.

Maintain conditions necessary to ensure that work will be without damage or deterioration at time of acceptance.

---END OF SECTION ---

SECTION 07 21 19 - THERMAL INSULATION

PART 1 GENERAL

1.1 SECTION INCLUDES
A. Spray-in-place semi-rigid open cell ½ pound polyurethane foam insulation in various assemblies, to provide an air barrier and improved thermal resistance.

1.2 RELATED SECTIONS
A. Section 05 30 00 – Metal Decking.
B. Section 06 10 00 – Rough Carpentry.

1.3 REFERENCES
A. American Society for Testing and Materials (ASTM):
1. ASTM D 1622 Standard Test Method for Apparent Density of Rigid Cellular Plastics
2. ASTM C 518 Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus
3. ASTM E 283 Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Skylights, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen
4. ASTM E 2178 Standard Test Method for Determining Air Leakage Rate and Calculation of Air Permeance of Building Materials
5. ASTM E 96 Standard Test Methods for Water Vapor Transmission of Materials
6. ASTM D 2842 Standard Test Method for Water Absorption of Rigid Cellular Plastics
7. ASTM D 2126 Standard Test Method for Response of Rigid Cellular Plastics to Thermal and Humid Aging
8. ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials
9. ASTM E 119 Standard Test Methods for Fire Tests of Building Construction and Materials
10. ASTM E 970 Standard Test Method for Critical Radiant Flux of Exposed Attic Floor Insulation Using a Radiant Heat Energy Source

B. National Fire Protection Association (NFPA):
1. NFPA 286 Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth
2. NFPA 285 Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Wall Assemblies Containing Combustible Components

C. Florida Building Code 2018, Current Edition:

1.4 SUBMITTALS
A. Submit under provisions of Section 013300.

B. Before commencing work, submit in accordance with local code.
1. Submit technical data sheets and samples as required by local code officials.
2. Submit the technical data sheet from the manufacturer showing the test results from the ASTM E84 (Surface Burning Characteristics).
3. Submit End Use Configuration Testing Compliance (ESR 1826 Section 4.4.1.2.2)

C. Product Data: Manufacturer's data sheets on each product to be used, including:
1. Preparation instructions and recommendations.

2. Storage and handling requirements and recommendations.
3. Installation methods.

1.5 QUALITY ASSURANCE

A. Installer Qualifications:
   1. Contractor performing work under this section shall be authorized by the manufacturer in the art of applying spray polyurethane foam insulation.
   2. Provide current manufacturer's Authorized Contractor Certificate.

1.6

1.7 DELIVERY, STORAGE, AND HANDLING

A. Materials shall be delivered in manufacturer's original containers clearly labelled with manufacturer's name, product identification, safety information, net weight of contents and expiration date.

B. Material shall be stored in a safe manner and where the temperatures are in the limits specified by the material manufacturer.

C. Empty containers shall be removed from site on a daily basis.

D. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.8 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

B. Ventilate insulation application area in accordance with the Spray Foam Coalition's Guidance on best practices for the installation of Spray Polyurethane Foam.

C. Protect workers as recommended by the Spray Foam Coalition's Guidance on best practices for the installation of Spray Polyurethane Foam.

D. Protect adjacent surfaces, windows, equipment and site areas from damage of overspray.

1.9 WARRANTY

A. Manufacturer's Warranty: Manufacture warrants spray-in-place urethane foam insulation, when installed by certified contractors using factory-trained applicators and applied in accordance with the Installation Instructions, will perform as stated in the Product Technical Data Sheet.
   1. This warranty is in effect throughout the life of the building provided the original purchaser registers with the Warranty Department of the Manufacturer within thirty days of occupancy.
   2. Manufacturer's sole responsibility under this Limited Lifetime Warranty shall be to repair or replace any defective Product at the cost of the material only.
   3. Manufacturer shall not be responsible for labor cost or any other costs whatsoever related to, or in connection with the removal or installation of either the original or replacement product.

PART 2 – PRODUCTS

2.1 ENVIRONNEMENTAL REQUIREMENTS

B. The product shall have a generic industry Environmental Product Declaration (EPD).

2.2 MANUFACTURERS

A. Acceptable Manufacturer: Huntsman Building Solutions

B. Substitutions: Equivalent product must be approved by Architect prior to Bid.

2.3 SPRAY FOAM INSULATION

A. Spray Applied Semi Rigid Polyurethane Foam Insulation System: Open Cell ½ pound Foam Product: Classic Ultra

1. Manufactured by Huntsman Building Solutions, Arlington, TX.
2. Product Approval:
   a. International Code Council Evaluation Services Report #1826 Approved for building types I, II, III, IV, & V
   b. Passed NFPA 286
3. Installation:
   a. Application with a prescriptive Thermal Barrier:
      1) There is no thickness limit when installed behind a code -prescribed 15-minute thermal barrier, (.5 inch Gypsum Wall Board) per ICC ESR 1826 Section 4.3.1.1.
   b. Application without a prescriptive Thermal Barrier:
      1) With DC 315 Intumescent Coating: Up to 8.5 inches (216 mm) thick in walls and vertical surfaces, 14 inches (356 mm) thick on ceilings, underside of roof sheathing/rafters and floors with all foam surfaces covered with 14 wet mils (0.364 mm)
      2) With Fireshell F10E Intumescent Coating: Up to Up to 7.5 inches (191 mm) thick in walls and vertical surfaces, 11.5 inches (292 mm) thick on ceilings, underside of roof sheathing/rafters and floors with all foam surfaces covered with 21 wet mils (0.546 mm)
   c. Use in Attics: Application without a prescriptive Ignition Barrier:
      1) (Entry to the attic is only for service of utilities and no storage is permitted.)
      2) The thickness of the foam plastic applied to the underside of the roof sheathing must not exceed 14 inches (356 mm). The thickness of the spray foam insulation applied to vertical wall surfaces must not exceed 5.5 inches (140 mm).
      3) With DC 315 Intumescent Coating: All foam surfaces must be covered with 4 wet mils (0.1mm)
      4) With NO Burn Plus XD Intumescent Coating: All foam surfaces must be covered with 6 wet mils (0.15mm)
   d. Use in Unvented Attics and Unvented Enclosed Rafter Assemblies in accordance with IRC R806.5 and IBC 1203.3.
      1) Application without an Ignition Barrier or Intumescent coating (Exposed foam). Entry to the attic is only for service of utilities and no storage is permitted. The insulation may be applied to the underside of roof sheathing and/or rafters to a minimum thickness 3.5 inches (89 mm) and may be applied to vertical wall surfaces to a minimum of 3.5 (89 mm).
      2) Maximum thickness on the underside of roof sheathing or on vertical wall surfaces is 20 inches (508 mm). The may be left exposed to the attic without a prescriptive ignition barrier or an intumescent coating.
      3) The attic must have attic access complying with IRC section R807, horizontally placed in the floor, and opening downward toward the living space.
   e. Use on Attic Floors:

      Up to 11.5 inches (292 mm) between and over the joists in an attic floor. No ignition barrier or intumescent coating is required over the foam.

   f. One-Hour Fire-Resistance-Rated Wall Assemblies:

1) Refer to ESR 1826 Section 4.5

4. Equipment used to apply the foam insulation shall have fixed ratio positive displacement pumps and approved by foam manufacturer.
5. Equipment used to apply the Water Based intumescing coating shall be an airless sprayer approved by the manufacturer.

2.4 ACCESSORY PRODUCTS

A. Water Based intumescing coatings:
1. Product: DC 315, Manufactured by International Fireproof Technology, Inc. ESR 3702
2. Product: Fireshell F10E, Manufactured by ICP Building Solutions Group ESR 3997
3. Product: No-Burn® Plus XD, Manufactured by No-Burn Inc. ESR 3102

B. Primers:
1. Product: Adbond manufactured by Adfast or Thermo-Prime by Huntsman Building Solutions
a. Application: Follow manufacturer's application recommendations.
b. Recommended for oily surfaces and galvanized steel like Z-bar, PVC, curtain walls and steel decks

PART 3 – EXECUTION

3.1 EXAMINATION

A. Do not begin installation until substrates have been properly prepared.

B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

C. Commencement of work outlined in this section shall be deemed as acceptance of existing work and conditions.

3.2 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Apply only when surfaces and environmental conditions are within limits prescribed by the material manufacturer.

C. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

D. It is recommended to install primer on oily surfaces and galvanized steel

3.3 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Apply as recommended by manufacturer to thickness as indicated on drawings.

C. Equipment used to apply the foam insulation shall have fixed ratio positive displacement pumps approved by foam manufacturer.

3.4 PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION 07 21 19

SECTION 07 41 30 – METAL ROOF PANELS

PART 1 - GENERAL

Related Work

All parts of the Contract Documents relate to the Work specified in this section.

Work Specified in this Section

Metal roof panels
Miscellaneous trim and fasteners

References

American Iron & Steel Institute (AISI) Specification for the Design of Coldformed Steel Structural Members.
ASTM A-653 & ASTM A924 Steel Sheet, Zinc-Coated (Galvanized)
ASTM E-283-84
ASTM E-331-86
Spec Data Sheet - Galvalume Sheet Metal by Bethlehem Corp.
SMACNA - Architectural Sheet Metal Manual.
Building Materials Directory - Underwriter's Laboratories, Test Procedure 580
Florida Building Code, current edition

Quality Assurance

Comply with applicable requirements of SMACNA Architectural Sheet Metal Manual.

No product substitutions shall be permitted without meeting specifications.

All product substitutions shall be submitted prior to Bid Date for acceptance by Architect.

Regulatory Requirements

Comply with the current Florida Building Code and other applicable regulations including Miami-Dade County Notice of Approval.

Submittals

Submit the following:

- Shop drawings and standard color chart
- Product data
- Finish samples, two 12” x 12”, showing color, finish, profile and thickness.
- Installation instructions

Delivery, Storage and Handling

Deliver products to site under provisions of Section 01000.

Store and protect products under provisions in accordance with manufacturer's instructions.

Deliver products in manufacturer's original containers, dry, undamaged, with seals and labels intact.

Store products in weather-protected environment, clear of ground and moisture. Protect foam insulation from direct sunlight exposure.

Stand roll materials on end and allow for adequate ventilation.

Warranty

Paint finish shall have a twenty (20) year guarantee against cracking, peeling and fade (not to exceed 5 N.B.S. units).

Galvalume material shall have a twenty (20) year guarantee against failure due to corrosion, rupture or perforation.

Applicator shall furnish guarantee covering watertightness of the roofing system for a period two (2) years from substantial completion.

PART 2 - PRODUCTS

Manufacturer

AEP - SPAN
Aeicor-Low Profile
Berridge Manufacturing Co.
Delcoa Industries, Inc.
Others as approved prior to bid

Design

Design and drawings are based on the Delcoa DSS Panel System, Panel No. 100, Structural Seam.

Roof system wind uplift rating shall be UL 90, or equal to or better than the hold down requirements of FM-190, or as required by the current local or state building codes.

Metal roof panel design shall be standing seam with concealed fasteners designed to accommodate panel movement and attached in the standing seam.

Finish panel widths – 16” o.c. / standing seam height – 1.5”.

Roof panels shall be rolled formed in continuous lengths from eave to ridge/eave.

Materials

Metal gauges shall be thicknesses required for structural performances, but not less than manufacturer's recommended minimums for profiles and applications indicated, and not less than 22 gauge core steel – ASTM 792-86, AZ 55.

Prefinished metal shall be full strength “Kynar-500 / Hylar-5000” Flourocarbon coating, applied by the coil coater on a continuous coil coating line, with a top side dry film thickness of 0.70 to 0.90 mil over 0.25 to 0.35 mil prime coat, to provide a total dry film thickness of 0.95 to 1.25 mil. Bottom side shall be coated with primer with dry film thickness of 0.25 mil. Finish shall conform to all tests for adhesion, flexibility, and longevity as specified by “Kynar-500 / Hylar-5000” finish supplier.

Fasteners shall be non-corrosive and sized as necessary to withstand uplift forces as specified above.

Provide components required for a complete roofing system, including trim, copings, closures, clips, flashings, sealants, gaskets, fillers, closure strips and similar items. Match materials and finishes of preformed panels.

Fasteners

Screws: Minimum of #8 wafer head type screws compatible with the material being used, concealed at all times. If an exposed fastener must be used, it can only be a #44 pop rivet of the same material (or compatible) and same finish as roof panels, with washers where required.

Sealants: As specified in Section 07900, and as recommended by manufacturer.

Vinyl Weatherseal Insert.

Fabrication

Fabricate and finish panels and accessories at the factory to greatest extent possible, by manufacturer's standard procedures and processes, and as required to fulfill indicated performance requirements which have been demonstrated by factory testing. Comply with indicated profiles and dimensional requirements, and with structural requirements.

Sub-Roofing: Two-Ply Membrane System

Base Ply: Asphalt Felt

Inorganic Type II membrane commonly called No. 30 or 30# asphalt felt. Conforming to ASTM D-226. Conform to ASTM D-1668, asphalt impregnated fiberglass membrane, minimum 4" overlap and 6" sidelaps.

Ensure that felt is installed horizontally, starting at the eave working to the ridge.

Top Ply: Flexible Membrane @ Flashings

Self adhesive protection underlayment, (Protecto Wrap – Rainproof – 40). 40 mil peel and stick, SBS modified, rubberized asphalt membrane internally reinforced with non-woven polyester fabric and contains a white reflective topping and bottom release film.

Metal Flashing

See Section 076000 – Flashing and Sheet Metal.

PART 3 - EXECUTION

Inspection

Verify that surfaces to receive underlayment and metal roof panels are uniform, smooth, clean, dry, free from irregularities, and that decking nails are driven flush to deck.

Verify roof openings, curbs, pipes, sleeves, ducts or vents through the roof are solidly set, and strips and reglets in place, and nailing strips located.

Do not start roofing installation until local building department and/or architect has inspected and approved decking installation.

Installation

Comply with manufacturers standard instructions and conform to standards set forth in the Architectural Sheet Metal Manual published by SMACNA, in order to achieve a watertight installation.

Install panels in such a manner that horizontal lines are true and level and vertical lines are plumb.

Provide protection to prevent contact of dissimilar metals.

Installation – Top Ply: Flexible Membrane

Nail all metal flashings along and directly on top of Base Ply. Roll the Top Ply membrane out across the deck with the white side up and the release film facing down. Position the roll into the desired location by sliding the membrane over the deck, then pull the material tight from each end.

Remove 2 ½" of the release film prior to removing the whole release backing.

The membrane should be trimmed flush to the outer edge of all flashing metal. Roll the membrane firmly on top of all flashing metal to gain maximum surface contact to all edges of the roof. If the membrane is damaged or requires repairing, clean the area and lightly prime the membrane with #80 Primer at least 6" beyond the damaged area. Cut a membrane patch and roll firmly. A trowel bean of JS160H SBS Mastic should be applied to edges of patch.

Overlaps are 2" minimum and end laps are 6" minimum. All laps should be firmly pressed or rolled

to insure a positive seal.

Overlap the valley metal or cut the material to the center line of the valley.

Stacks and openings in the roof should be detailed in accordance with local building codes and the National Tile Roofing Manufacturer's Association guidelines.

Installation – Metal Roof Panel

Install metal panels in accordance with manufacturer's requirements and recommendations.

Workmanship shall conform to standards set forth in the architectural sheet manual as published by SMACNA and shall be installed in conformance with the approved UL test requirements.

Cleaning

Clean any grease, finger marks or stains from the panels per manufacturer's recommendations.

Remove all scrap and construction debris from site.

---END OF SECTION ---

SECTION 07 60 00 – FLASHING AND SHEET METAL

PART 1 - GENERAL

Related Work

All parts of the Contract Documents relate to the Work specified in this section.

Description of Work

Provide each type of flashing, sheet metal, and trim work required.

Quality Assurance

Provide at least one person, present at all times during execution of the work, who shall be thoroughly trained and experienced in the materials and methods required and who shall direct the entire flashing and sheet metal fabrication and installation.

In addition to complying with pertinent codes and regulations, comply with pertinent recommendations contained in "Architectural Sheet Metal Manual", 4th Edition of the Sheet Metal and Air Conditioning Contractors National Association, Inc. (SMACNA Manual).

Submittals

Submit manufacturer's product specifications, installation instructions and general recommendations for each specified sheet material and fabricated product.

Samples

Two 12" square size samples of sheet metal material, showing pattern, finish, color and thickness.

Two samples of fastener type.

Mock-ups

Prior to installation of flashing and sheet metal work, provide sample mock-up using materials required for final work.

Obtain acceptance of visual qualities of the mock-up before start of sheet metal work.

Retain mock-up during construction as a standard for judging completed flashing and sheet metal work. Do not alter, move or destroy mock-up until work is completed.

Product Handling

Use all means necessary to protect sheet metal materials before, during and after installation. Stack preformed material to prevent twisting, bending, or abrasion with adequate ventilation.

Prevent contact with material or metals during storage which may cause discoloration or staining. In the event of damage, make all repairs and replacements.

PART 2 - PRODUCTS

General

Fabricate to comply with standard SMACNA “Architectural Sheet Metal Manual”. Except otherwise required, provide soldered flat-lock seams and fold backmetal to form a hem on the concealed side of exposed edges. Comply with metal producers recommendations for tinning, soldering and cleaning flux from metal.

Roof Edge / Gravel Stop

Materials

Aluminum, ASTM B-209 alloy 3003 temper H14, minimum 0.060 thickness. Profile to match existing, where applicable..

Finish (exposed materials)

Provide Kynar 500 paint finish. Finish to match adjacent material.

Cap Flashings

Two piece aluminum .025" counter flashing assembly as manufactured by Fry Reglet - “Springlok Flashing” type, surface mounted reglet, with continuous metal spring cleat.

Stucco Accessories

Provide PVC accessories by The Vinyl Corp, per profiles and sizes noted on drawings.

Miscellaneous Materials and Accessories

Fasteners

Use fasteners made of same basic material as the fastened metal, or non-corrosive metal as recommended by SMACNA Manual requirements.

Match finish of exposed metal heads with material being fastened.

Sealants

Utilize sealant shall be uretherne or polysolfide compounds specifically designed for exterior application.

Metal Accessories

Provide sheet metal clips, straps, anchoring devices and similar accessory items as required for installation of work, matching or compatible with material being installed, non-corrosive, size and gauge required for performance.

Fabrication

Field Measurements

Make field measurements for verification of dimensions.

General Metal Fabrication

Shop-fabricate work to greatest extent possible.

Comply with details shown, and with applicable requirements of SMACNA Manual.

Forming

Form sheet metal work accurately to the sizes and profiles required to fit substrates. Curve sheet metal sections to fit configuration of roof edge as occurs.

Form exposed sheet metal work without excessive oil-canning, buckling, and tool marks, true to line and levels indicated.

Form sheet metal work in maximum lengths and keep joints to a minimum.

Joining

Form lock and slip joints in accordance with applicable SMACNA Manual requirements.

Joints are to be made so that slight adjustments of the metal work can be made and at the same time remain water tight.

PART 3 - EXECUTION

Inspecting Surfaces

General

Prior to all work of this section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may properly commence.

Verify that sheet metal may be installed in accordance with the original design and approved mock-ups.

Immediately request clarifications for conflicts. Do not install metal work until defects have been corrected.

Sheet Metal Installation

Total Installation Concept

This system specified is a total flashing system, not a patched, sliced or added to or on flashing system. Therefore, any non-conforming application will not be tolerated under any circumstances. If a section of flashing requires reworking the entire section or length of flashing shall be replaced.

Industry Standard Installation Requirements

Installation of the flashing and sheet metal in accordance with the SMACNA Manual in addition to specified procedures.

General Installation Requirements

Install metal work free of dents, without waves, warps, buckles, fastening stresses or distortion, allowing for expansion and contraction.

Locate and install metal work plumb, level and in alignment with adjacent work.

Form tight joints with exposed joints accurately fitted together. Provide reveals and openings for sealants as shown.

Anchor sections of metal work securely in place, providing for thermal expansion of sections. Use fasteners/clips of type and spacing in accordance with SMACNA Manual unless otherwise shown.

Coat contacting dissimilar metals with bituminous coating 7-1/2 mil dry thickness, minimum, applied to each contacting metal face.

Hold assembly level in all conditions and align all joints, miter all corners. Apply sealant and or waterproofing tape as per manufacturer's recommendations, bed all splice sleeves in sealant. Lap flashings a minimum of 3". Roll wedge gasket in place as occurs.

Sealants

Install sealants in strict accordance with manufacturer's recommendations, taking care that sealants are deposited in uniform, continuous ribbons without gaps or air pockets, with complete "wetting" of joint bond surfaces equally on opposite sides.

Any sealants found to be "lifting" or not anchoring properly shall be totally removed, reprimed, and replaced. Re-sealing over previously installed sealant will not be allowed.

Cleaning and Protection

Clean exposed surfaces

Provide procedures for surveillance and protection of flashings and sheet metal work during construction, to ensure that work will be without damage or deterioration, other than natural weathering, at time of Substantial Completion.

---END OF SECTION—

SECTION 07 63 10 – GUTTERS & DOWNSPOUTS

PART 1 - GENERAL

Related Work

All parts of the Contract Documents relate to the Work specified in this section.

Description of Work

Work specified in this section includes:

Precoated aluminum, downspouts and gutters.

References

ASTM B209 - Aluminum and Aluminum Alloy Sheet and Plate.
SMACNA - Architectural Sheet Metal Manual.

Submittals

Submit shop drawings and product data. Indicate on shop drawings, general construction, configurations, jointing methods and locations, fastening methods, locations, and installation details.

Provide product data on prefabricated components.

Submit samples 12 inches long in size illustrating component design, finish, color and configuration.

Submit manufacturer's installation instructions.

Quality Assurance

Conform to SMACNA Manual for nominal sizing of components for rainfall intensity determined by a storm occurrence of 1 in 10 years.

Delivery, Storage and Handling

Store and protect products.

Stack preformed and prefinished material to prevent twisting, bending, or abrasion, and to aid ventilation. Slope to drain.

Prevent contact with materials during storage which may cause discoloration, staining or damage.

PART 2 - PRODUCTS

Material

Aluminum Sheet: ASTM B209, Federal Specification QQ-A-250D, 3003-H alloy, .040 to .051 inch thick; shop precoated with color to be selected.

Components

Gutters: Rectangular or Square SMACNA style profile as shown on Plate 2, of SMACNA manual.

Downspouts: Rectangular, Square or Round profile.

Gauge or thickness shall be as follows:

Aluminum .051 inch thick

End Caps, Downspout Outlets, Rain Diverters, Gutter, Downspout Straps, Support Brackets, Joint Fasteners, Down Spout Strainers, Gutter Screens, Downspout Header: Profiled to suit gutters and downspouts. Terminate Downspouts to splash block and/or drains - see drawings.

Accessories

Anchorage Devices: SMACNA requirements.
Gutter Supports: Brackets as detailed - see drawings.
Downspout Supports: Shall be the same gauge as downspout material.

Fabrication

Form gutters and downspouts of profiles and sizes indicated to SMACNA requirements.

Field measure site conditions prior to fabricating work.

Fabricate with required connection pieces.

Form sections square, true, and accurate in size, in maximum possible lengths and free of distortion or defects detrimental to appearance or performance. Installation shall conform to SMACNA requirements.

Hem exposed edges of metal.

Fabricate gutter and downspout accessories; watertight.

Fabricate corners from one piece with each leg 18 inches long.

PART 3 - EXECUTION

Examination

Verify that surfaces are ready to receive work and conditions are as indicated on shop drawings.

Beginning of installation means acceptance of existing conditions and substrate.

Installation

Install gutters, downspouts, and accessories in accordance with SMACNA and Architect's requirements.

Join lengths with formed seams soldered watertight. Flash and solder gutters to downspouts and accessories.

Apply backing paint to metal back surfaces.

Apply bituminous protective backing on surfaces in contact with dissimilar materials.

Solder metal joints watertight for full metal surface contact. After soldering, was metal clean with neutralizer solution and rinse with water.

Connect downspouts to downspout boots, downspout shoes, storm sewer system. Grout or solder connection watertight.

Set splash blocks under downspouts. Set and secure in place with slope to drain water away from structure.

Shop paint with manufacturer's standard enamel painted finish. Color to be selected by Architect.

END OF SECTION

SECTION 07 90 00 – JOINT SEALERS

PART 1 - GENERAL

Related Work

All parts of the Contract Documents relate to the Work specified in this section.

Description of Work

Work specified in this section includes joint sealers which are not specified in other sections.

Warranty

Repair or replace joint sealers which fail to perform as air-tight and water-tight joints; or fail in joint adhesion, cohesion abrasion resistance, weather resistance, extrusion resistance, migration resistance, stain resistance, or general durability; or appear to deteriorate in any other manner not clearly specified by submitted manufacturer's data as an inherent quality of the material for the exposure indicated. Warranty period is two years.

Job Conditions

Do not proceed with installation of sealants under adverse weather conditions or when temperatures are below or above manufacturer's recommended limitations for installation.

Proceed with the work only when forecasted weather conditions are favorable for proper care and development of high early bond strength. Wherever joint width is affected by ambient temperature variations, install elastomeric sealants only when temperatures are in the lower third of the manufacturer's recommended installation temperature range.

Submittals

Refer to General Requirements – Submittals 01000.

PART 2 - PRODUCTS

Materials, General

Provide color as selected from all available. For concealed materials, provide the natural color which has the best overall performance characteristics.

For each application, provide the grade of sealant (non-sag, self-leveling, no-track, knife grade, pre-formed, etc.) as recommended by the manufacturer for the particular condition of installation to achieve the best possible overall performance. Grades specified herein are for normal condition of installation.

Silicone Sealant

Dow Corning Silicone Sealant 790.

Use for sealant applications on expansion and control joints.

One Component Polysulfide Sealant

Polysulfide-based, one-part elastomeric sealant, FS TT-S- 00230F, Class A.

Use for general purpose sealant applications on exterior vertical surfaces.

One-Component Polyurethane Sealant

Polyurethane-based, one-part elastomeric sealant, FS TT-S- 00230, Class A.

Use for general purpose sealant applications on exterior horizontal surfaces.

Acrylic-Latex Caulk

Acrylic or latex rubber modified acrylic emulsion sealant compound, permanently flexible, non-staining, non-bleeding and paintable.

Use for general purpose caulk applications on interior surfaces.

Miscellaneous Materials

Joint primer/sealer shall be type recommended by the sealant manufacturer for the joint surfaces. Bond breaker tape shall be polyethylene tape or other plastic type as recommended by the sealant manufacturer to be applied to sealant-contact surfaces where bond to the substrate or joint filler must be avoided for proper performance of sealant. Provide self-adhesive tape wherever applicable.

Sealant backer rod shall be compressible rod stock of polyethylene foam, polyethylene jacketed polyurethane foam, butyl rubber foam, neoprene foam or other flexible, permanent, durable non-absorptive material as recommended for compatibility with sealant by the sealant manufacturer.

Firestopping Sealant

Manufacturers

Dow Corning - Fire Stop Systems
3M - Fire Barrier Products
Tremco - Firestopping Systems

Use manufacturer's appropriate product for the type of installation required to achieve proper firestopping.

PART 3 - EXECUTION

Manufacturer's Instructions

Comply with manufacturer's printed instructions except where more stringent requirements are specified, and except where manufacturer's technical representative directs otherwise.

Joint Preparation

Clean joint surfaces immediately before installation of sealant or caulking compound. Remove dirt, insecure coatings, moisture and other substances which would interfere with bond of sealant or caulking compound. Etch concrete, stucco and masonry joint surfaces as recommended by sealant manufacturer.

Prime or seal the joint surfaces where recommended by manufacturer. Do not allow primer/sealer to spill or migrate onto adjoining surfaces.

Installation

Set joint filler units at proper depth in the joint to coordinate with other work, including the installation of bond breakers, backer rods and sealants. Do not leave voids or gaps between the ends of joint filler units.

Install sealant backer rod for liquid elastomeric sealants, except where recommended to be omitted by sealant manufacturer.

Install bond breaker tape where required by manufacturer's recommendations.

Employ only proven installation techniques which will ensure that sealants will be deposited in uniform, continuous ribbons without gaps or air pockets, with complete "wetting" of the joint bond surfaces equally on opposite sides. Fill sealant rabbet to a slightly concave surface, slightly below adjoining surfaces. Where horizontal joints are between a horizontal surface and vertical surface, fill joint to form a slight cove, so that joint will not trap moisture and dirt.

Install sealants to depths as recommended by the manufacturer but within the following general limitations:

For sidewalks, pavements and similar joints sealed with elastomeric sealants and subject to traffic and other abrasion and indentation exposures, fill joints to a depth equal to 75% of joint width, but neither more than 5/8" deep nor less than 3/8" deep.

For normal moving joints sealed with elastomeric sealants but not subject to traffic, fill joints to a depth equal to 50% of joint width, but neither more than 1/2" deep nor less than 1/4" deep.
For joints sealed with non-elastomeric sealants and caulking compounds, fill joints to a depth in the range of 75% to 125% of joint width.

Do not allow sealants or compounds to over-flow or spill onto adjoining surfaces, or to migrate into the voids of adjoining surfaces. Clean the adjoining surfaces by whatever means may be necessary to eliminate evidence of spillage and excess material.

Cure and Protection

Cure sealants and caulking compounds in compliance with manufacturer's instructions and recommendations, to obtain high early bond strength, internal cohesive strength and surface durability.

---END OF SECTION ---

SECTION 09 22 00 - STUCCO

PART 1 - GENERAL

Related Work

All parts of the Contract Documents relate to the Work specified in this section.

Work Specified in This Section

Work specified in this section includes the following:

- Portland cement plaster (stucco)
- Metal furring and lathing
- Exterior Sheating

Quality Assurance

Comply with ANSI A 42.4, for Metal furring and lathing, as applicable.

Comply with Portland Cement Plastering Standards ANSI A-42.2 and A-42.3, as applicable.

Project Conditions

Protect adjacent work from rusting or soiling as a result plastering operations. Make provisions to minimize spattering of stucco on other work.

Protect exterior stucco against climatic conditions as specified in ANSI Standards to prevent freezing or uneven and excessive moisture evaporation from hot, dry air.

PART 2 - PRODUCTS

Protective Finishes

Galvanize all metal lath and furring for exterior work including hangers.

Furring Materials

Rolled Steel Channels:

Provide hot or cold rolled type with a minimum weight per thousand lin. feet of not less than the following: 300 lbs., for 3/4" size, 410 lbs. for 1" hot rolled; 475 lbs. for 1-1/2" cold rolled; 1120 lbs. for 1-1/2" hot rolled; 590 lbs. for 2" cold rolled, and 1260 lbs. for 2" hot rolled size. Provide galvanized for exterior.

Exterior Sheathing

Sheathing Board:

Equal to Georgia-Pacific Corporation, ½" thick, DensGlass Gold Sheathing, unless otherwise noted on drawings.

Butt joints in maximum lengths available to minimize end-to-end butt joints. Joint tape per manufacturers recommendations.

Attachments and Fasteners

Hangers:

Provide wire, rod or rigid steel of the type and minimum size required to comply with the requirements of ANSI A42-4 for maximum areas to be supported in the work.

Wire Ties:

Provide soft annealed galvanized steel wire not less than 16 gauge for tying furring channels to runner channels, and not less than 18 gauge for other ties.

Screws & Nails:

Refer to manufacturers recommendations.

Metal Lath for Stucco

Expanded Metal Lath (Diamond Mesh):

Fabricate from galvanized steel sheet. Provide 3.4 lb. diamond mesh to comply with ANSI A42.4 for the type and spacing of supports used in the work.

Stucco

Scratch and Brown Coats:

Portland Cement: ASTM C-150, Type N.
Lime: Finishing, hydrated ASTM C-206, Type S.
Aggregate: Natural sand, ASTM C-144.

Finish Coat:

Cement: Non-staining gray FS-SS-C181.
Lime: Finishing, hydrated ASTM C-206, Type S.
Aggregate: Silica Sand.
Texture: To be determined.

Accessories for Stucco Applications

For exterior use, rigid vinyl stucco & plaster wall and ceiling accessories, as manufactured by the Vinyl Corp., or as noted otherwise.

Provide size and shape as noted on drawings.

PART 3 - EXECUTION

Installation of Suspended Furring Systems

Provide complete suspension systems, including hangers, attachments, main runners and cross furring. Use components of the sizes and locate at the spacing required by ANSI A42.2 for the maximum areas to be supported, unless otherwise shown or specified.

Suspend hangers from structural supporting members or intermediate framing members only. Secure by attaching to metal clips designed for the type of member involved, or by looping and wire tying directly to members.

Locate hangers plumb in relation to main runners. Alter spacing of hanger or splay hangers to obstructions, but do not exceed maximum allowable areas to be supported by each hanger. Offset horizontal forces of splayed hangers by counter splaying, bracing or other suitable means.

Provide extra hangers within 6" of ends of main runners and as required to support the additional weight of inlaid items. At control or expansion joints, provide extra hangers as required to support discontinuous runners.

Support main runners from hangers by saddle tying wire hangers to runners, or wrapping rod hangers by saddle tying wire hangers to runners or wrapping rod hangers around runners. If flat steel hangers are used, bolt hangers to channels or bend around runner and bolt to hanger above runner, using 3/8" stove bolts.

Locate main runners within 6" of parallel walls to support ends of cross furring.

Locate cross furring perpendicular to main runners and not more than 2" from parallel walls. Attach to main runners at each intersection with not less than 16 gauge wire or a double strand of 18 gauge wire.

Do not abut runners or furring into wall construction; allow not less than 1" clearance between such construction and ends of runners and furring.

Splice main runners and furring channels by overlapping (with flanges of channels interlocked) and wire tie each end of splice with not less than double loops of 16 gauge wire. Overlap not less than 12" for main runner splices and not less than 8" for cross furring splices.

Suspension Systems for Metal Lath Applications

Where 1-1/2" cold rolled steel channels are used for carrying channels (main runners), provide not lighter than 9 gauge wire hangers. Space hangers and main runners so that each hanger supports not more than 12.5 sq. ft. of area. If other runners and hangers are used, comply with the applicable requirements of ANSI A42.4 for sizes and spacing of components used in the work, unless otherwise shown. Space 3/4" channel cross furring not to exceed the maximum span requirements of ANSI A42.4 for the type and weight of metal lath to be supported in the work.

Installation of Building Paper

Install asphalt saturated, non-perforated type (vertical surfaces only): ASTM D226, Type 1, 15 lb.

Place felts horizontally and lap material a minimum of 6".

Use tin tag nailing system 6" o.c. maximum at seam overlap.

Installation of Metal Lath

Attach lath to supports in accordance with the requirements of ANSI A42.4 but do not exceed 6" o.c. spacing between attachments.

Lap sides of diamond mesh not less than ½". Locate all end laps over supports and lap not less than 1". Stagger end laps over different supports wherever possible. Wire tie side laps at intervals not to exceed 9" o.c. Wire tie and laps over supports at intervals not to exceed 6" o.c. and lace and laps occurring between supports.

At interval corners, butt lath at vertex of angle and reinforce with cornerite strip reinforcing. Wire at the cornerite may be omitted if lath is bent around internal corners. At horizontal internal corners, bend lath not less than 6" down at vertical internal angles, extend bent lath to not less than one support away from corner.

Where control joints are shown, terminate lath on each side of joint. Do not bridge joints with lath.

Surface Preparation

Prepare surfaces to receive stucco by cleaning and removing loose material and other deleterious substances which might impair the work.

Mix and proportion stucco in accordance with the requirements of ANSI Standards. Do not exceed specified aggregate ratios. Do not use excessive water or water which has been used for cleaning tools or equipment. Mix each batch of stucco separately and only in the quantity which will be used before it starts to set. Discard stucco which has started to set, do not retemper. Clean tools and equipment before mixing next batch of stucco.

Installation of Stucco Accessories

Installation shall be in accordance with ASTM standards and prevalent industry standards and good practice.

Use single length wherever length of run does not exceed longest standard stock length available. Miter or cope at corner.

Set accessories level, plumb and true to line with a tolerance of not more than 1/8" in 10'-0" from plumb or level.

Stucco Application

Do not use materials which are caked or lumpy, or which are dirty (contaminated by foreign materials), and use only clean water, free from impurities that might impair the stucco work.

Wherever permanent grounds are too far apart to serve as guides for rodding, provide plaster screeds and establish true surface of screeds with rod before screeds are set. Keep grounds clean and free of stucco. Finish stucco in a true, plumb or level plane with grounds.

Apply stucco with minimum thicknesses established by ANSI Standards for the types of bases occurring in the work, unless otherwise shown or required for fire resistance ratings.

Apply scratch and brown coats, proportions as follows, total 5/8" thick:

a. Sand - 2 cu. ft.
b. Cement - 1 cu. ft.
c. Lime - 10 lbs.

Apply finish coat, proportions as follows, 1/8" thick:

a. White Silica Sand - 3 to 5 cu. ft.
b. White Cement - 1 cu. ft.
c. Lime - sufficient for plastic mixture.

Apply finish coat to entire area without stopping. Finish, smooth trowel.

Field Quality Control

Provide the most effective procedure for curing and time lapse between application of coats based on climatic and job conditions. Stucco that is excessively cracked or crazed due to improper timing and curing will not be accepted. Remove and replace unacceptable stucco, including base materials if damaged during removal of defective stucco.

Curing and Patching

Cut, patch, repair and point-up stucco as required and as directed. Repair cracks and indented surfaces by moistening stucco and filling with new material, troweled or tamped flush with adjoining surfaces. Point-up finish stucco surfaces around items that are built into or penetrate stucco surfaces.

---END OF SECTION ---

SECTION 09 90 00 - PAINTING

PART 1 - GENERAL

Related Work

All parts of the Contract Documents relate to the Work specified in this section.

Work Specified in This Section

Work specified in this section includes painting of all exposed to view items except those that are specifically excluded.

For clarification, exposed to view items include (in addition to the obvious): interior and exterior surfaces; surfaces behind doors, such as closets (clothes, janitor, mechanical, electrical, telephone, etc.), cabinets and casework interiors; items within spaces which are accessible and exposed to view; surfaces behind equipment and furnishings; pipes, ducts, conduit, fixtures, supports and hangars; interior surfaces (such as ducts) which are visible through grilles, registers, louvers, grates, diffusers, etc.

Items that are specifically excluded from painting under this section include:

Finish materials (examples include tile, carpet, wall coverings, face brick, etc.).

Pre-finished items which are specified as pre-finished in other sections. (Note - items which are supplied as pre-finished but not specifically specified as pre-finished with a color selection are subject to be painted under work of this section; examples include access panels, grilles, registers, convector covers, equipment cabinets, etc.)

Pre-finished pieces of equipment (examples include furnaces, fans, pumps, motors, switchgear, etc.)

Equipment tunnels and shafts used only for the purpose of facilitating the equipment therein.

Pipes, ducts, conduit, fixtures, supports and hangars which are not exposed to view and are not specified to be painted for identification.

Items specifically noted or scheduled as unfinished.

The term "painting" as used in this section means all coating system materials including primes, emulsions, enamels, stains, sealers, fillers, and other applied materials whether used as prime, intermediate, or finish coats.

Surface preparation, priming, and coats of paint specified in this section are in addition to shop priming and surface treatment specified in other sections.

Extra Stock

Upon completion of the work of this section, deliver to the Owner an extra stock equaling 2%, or a minimum of one gallon, whichever is greater, of each color, type, and gloss of paint used in the work, tightly sealing each container, and clearly labeling with contents and location where used.

Quality Control

Wherever possible, provide painting products from a single manufacturer. Where this is not possible, use products that are approved by the primary manufacturer as being compatible for use with their products.

Submittals

Refer to General Requirements – Submittals Section 010000-3:

Color samples, product data, a list showing the specific brand and type of paint to be used on each material.

PART 2 - PRODUCTS

Materials

Manufacturers

MAB
Benjamin Moore
Pratt & Lambert
Sherwin Williams Company
Glidden Company
PPG Industries
Porter Paints

Quality

Provide the best quality grade of the various types of coatings as regularly manufactured by approved paint materials manufacturers. Materials not displaying the manufacturer's identification as a standard, best-grade product will not be acceptable.

Exterior Painting Applications

Note: Verify mils thickness per coat as recommended by the applicable manufacturer.

Masonry, Stucco

1st coat: primer/sealer (min. 3.6 mils dry)
2nd coat: flat acrylic latex masonry paint (min. 2.5 mils dry)
3rd coat: flat acrylic latex masonry paint (min. 2.5 mils dry)

Exposed Metal

1st coat: acrylic metal primer (min. 3.0 mils dry)
2nd coat: acrylic semi-gloss enamel (min. 3.0 mils dry)
3rd coat: acrylic semi-gloss enamel (min. 3.0 mils dry)

Interior Painting Application (Refer to Drawings for finish)

Note: Verify mils thickness per coat as recommended by the applicable manufacturer.

Concrete Floors -

Two coats of clear sealer after acid etching

Masonry -

1st coat: masonry block filler, tinted
2nd & 3rd coats: latex paint

Masonry, Water Base/Epoxy (Gloss) -

1st coat: PrepRite® 200 interior latex wall primer, B28 Series (3.0 mils)
2nd coat: water based catalyzed epoxy, B70 Series (3.0 mils)
3rd coat: water based catalyzed epoxy, B70 Series (3.0 mils)
Surfaces: Masonry walls, ceiling

Metals (door frames, louvers) -

1st coat: metal alkyd primer
2nd coat: metal alkyd satin finish enamel
3rd coat: metal alkyd satin finish enamel

Gypsum Board Walls Typical –

1st coat: primer/sealer acrylic latex
2nd coat & 3rd coat: acrylic low luster latex enamel

Gypsum Board Walls Restrooms, Kitchens, Laboratories –
1st coat: primer/sealer acrylic latex
2nd coat & 3rd coat: water based epoxy (walls)

Wood Base, Trim & Doors, Millwork -
1st coat: compatible sanding wood sealer; per manufacturer of finish coat
2nd coat: alkyd resin stain (finish per architect's sample)
3rd & 4th coat: polyurethene satin clear interior coating

PART 3 – EXECUTION

Preparation

Perform preparation and cleaning procedures in strict accordance with the paint manufacturer's instructions and as herein specified, for each particular substrate condition.

Remove all hardware, hardware accessories, machined surfaces, plates, lighting fixtures, and similar items in place and not to be painted, or provide surface-applied protection prior to surface preparation and painting operations. Following completion of painting of each space, or area, reinstall the removed items.

Clean surfaces to be painted before applying paint or surface treatments. Remove oil and grease prior to mechanical cleaning. Program the cleaning and painting so that contaminants from the cleaning process will not fall onto wet, newly-painted surfaces.

Cementitious Materials

Prepare cementitious surfaces of concrete, and stucco to be painted by removing all efflorescence, chalk, dust, dirt, grease, oils, and by roughening to remove glaze. Clean concrete floor surfaces scheduled to be painted with a 5% solution of muriatic acid, or other etching cleaner. Flush floor with clean water to neutralize acid, and allow to dry before painting.

New stucco or plaster must cure a minimum of 30 days before applying paints or coatings.

Ferrous Metals

Clean ferrous surfaces, (which are not galvanized or shop-coated) of oil, grease, dirt, loose mill scale and other foreign substances by solvent or mechanical cleaning.

Galvanized Surfaces

Clean free of oil and surface contaminants with non-petroleum based solvent.

Material Preparation

Mix and prepare painting materials in accordance with manufacturer's directions.

Store materials not in actual use in tightly covered containers used in storage, mixing and application of paint in a clean condition, free of foreign materials and residue.

Stir materials before application to produce a mixture of uniform density, and stir during the application of the materials to maintain uniform density. Do not stir surface film into the material. Remove the film and, if necessary, strain the material before using.

Application

Apply paint in accordance with the manufacturer's directions. Use applicators and techniques best suited for the type of material being applied.

Do not apply finishes to surfaces that are not dry.

Apply additional coats when undercoats, stains or other conditions show through the final coat of paint, until the paint film is of uniform finish, color and appearance.

Allow applied coat to completely dry before next coat is applied.

Sand lightly between each succeeding enamel or varnish coat.

Apply each material at not less than the manufacturer's recommended spreading rate, to provide a total dry film thickness of not less than 5.0 mils for the entire coating system of prime and finish coats for 3-coat work.

Recoat primed and sealed walls and ceilings where there is evidence of suction spots or unsealed areas in first coat, to assure a finish coat with no burn-through or other defects due to insufficient sealing.

For pigmented (opaque) finishes, completely cover to provide an opaque, smooth surface of uniform finish, color, appearance and coverage. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness or other surface imperfections will not be acceptable.

For transparent (clear) finishes, use multiple coats to produce glass-smooth surface film of even luster. Provide a finish free of laps, cloudiness, color irregularity, runs, brush marks, orange peel, nail holes, or other surface imperfections.

Clean-Up and Protection

During the progress of the work, remove from the project daily all discarded paint materials, rubbish, cans and rags.

Upon completion of painting work, clean all paint-spattered surfaces. Remove spattered paint by proper methods of washing and scraping, using care not to scratch or otherwise damage finished surfaces.

Protect work of other trades, whether to be painted or not, against damage by painting and finishing work. Correct any damages by cleaning, repairing or replacing, as directed.

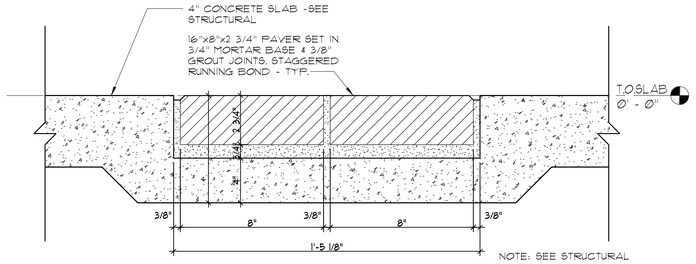
---END OF SECTION---

ADDENDUM 2 8/8/2022

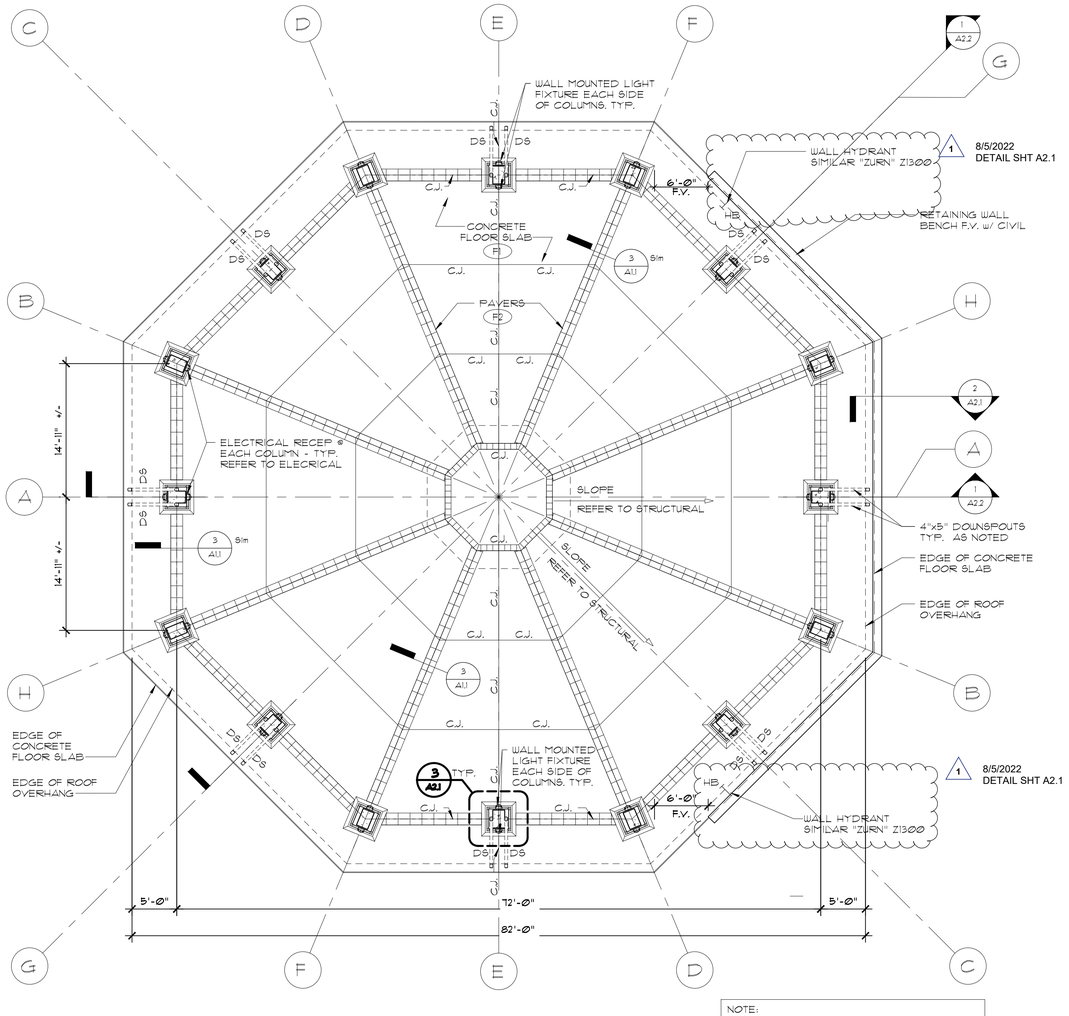
FINISH INDEX (DENOTED BY "XX")

100 - FLOOR FINISH	MATERIAL & LOCATION	DESCRIPTION	
F1	CONCRETE SLAB	Mfr: Pattern: Color: Other:	- N/A Natural C.O.F Min. (Ø.6) Wet
F2	PAVERS	Mfr: Pattern: Color: Size: Other:	- - - - C.O.F Min. (Ø.6) Wet
300 - WALL FINISH	MATERIAL & LOCATION	DESCRIPTION	
W1	PAINT - CUPOLA INTERIOR	Mfr: Color: Finish:	Sherwin Williams Navajo White SW6126 Flat
W2	PAINT - EXTERIOR STUCCO	Mfr: Color: Finish:	Sherwin Williams Navajo White SW6126 Flat
400 - CEILING FINISH	MATERIAL & LOCATION	DESCRIPTION	
C1	STAIN - WOOD CEILING	Mfr: Color: Finish:	Sherwin Williams TBS Low Luster
C2	PAINT - STUCCO SOFFIT & CEILING @ CUPOLA	Mfr: Color: Finish:	Sherwin Williams Navajo White SW6126 Flat

500 - SPECIALTIES	MATERIAL & LOCATION	DESCRIPTION	
S1	PAINT - UPPER COLUMNS	Mfr: Color: Finish:	Sherwin Williams Alabaster SW7008 Flat
S2	STONE VENEER - LOWER COLUMN	Mfr: Color: Finish:	Coronado Mountain Strip 5220 -
S3	PAINT - GUTTERS, DOWNSPOUTS	Mfr: Color: Finish:	Sherwin Williams Navajo White SW6126 Semi-Gloss Enamel
S4	PAINT - STRUCTURAL STEEL	Mfr: Color: Finish:	Una-Clad or Pac-Clad Burgundy RAL3004 Kynar 500
S5	PAINT - FASCIA BOARD	Mfr: Color: Finish:	Sherwin Williams Navajo White SW6126 Flat
S6	METAL ROOF	Mfr: Color: Finish:	Firestone Una-Clad Cityscape Kynar 500
S7	METAL LOUVER	Mfr: Color: Finish:	CSI, INC. TBD Kynar
S8	TENSION ROD, FAN SUPPORT ROD	Mfr: Color: Finish:	Sherwin Williams Flat Black Flat

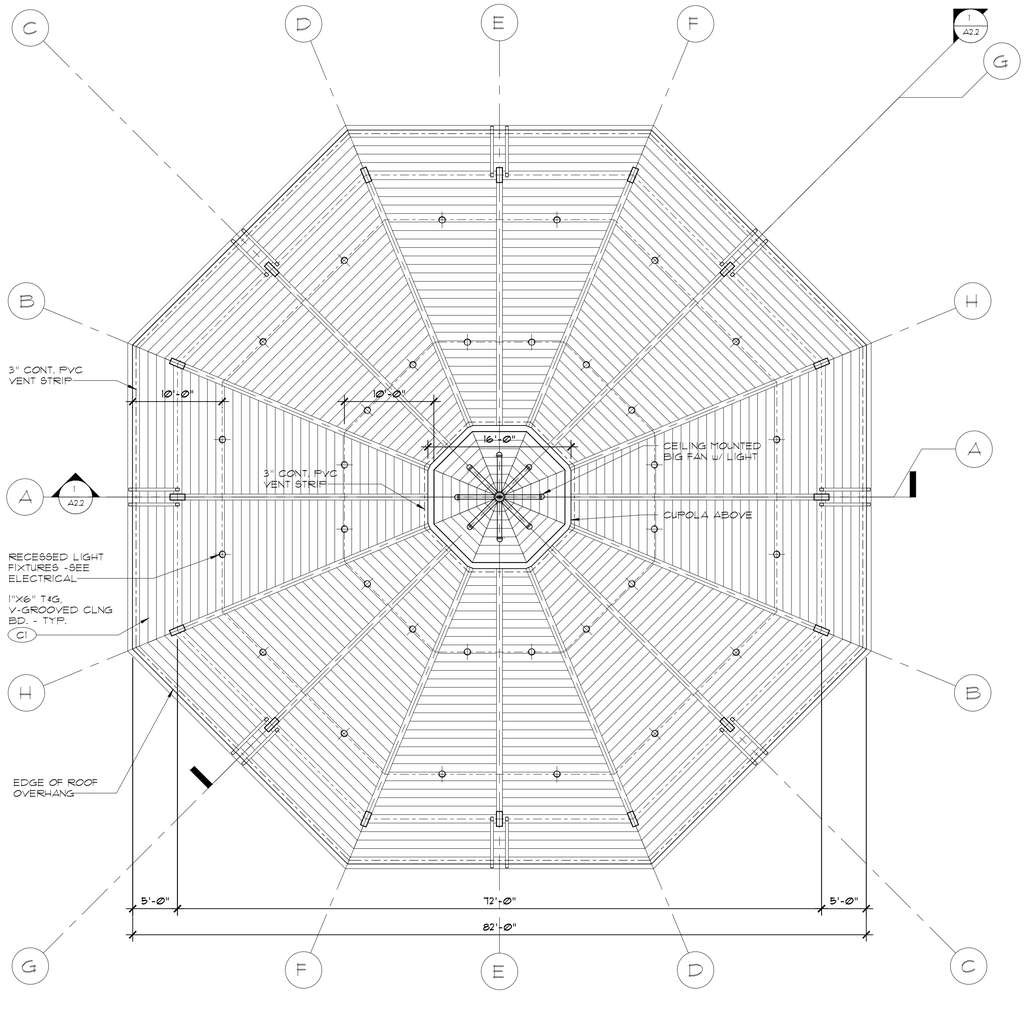


3 / A1.1 PAVER DETAIL
SCALE: 3" = 1'-Ø"



NOTE:
1. FOR PAVILION ORIENTATION REFER TO: C-2 (SOUTHWEST) & C-3 (NORTHEAST) SHEETS REFER TO CIVIL PLAN FOR LOCATION & ELEVATIONS OF PAVILIONS

1 / A1.1 FLOOR / SLAB PLAN
SCALE: 1/8" = 1'-Ø"



2 / A1.1 REFLECTED CEILING PLAN
SCALE: 1/8" = 1'-Ø"

DHGA DESIGN - FL
ARCHITECTURE INTERIORS
225 SOUTHERN BLVD. SUITE 202
WEST PALM BEACH FLORIDA 33405
PH: 561-290-5843 M: 561-329-4147
ROBERT E. HILL - AR93356 AA26002079

COMMONS PARK PAVILION (PR2015)
11600 POINCIANA BLVD.
ROYAL PALM BEACH FLORIDA 33411

DRAWING TITLE
FLOOR / SLAB PLAN
CEILING PLAN
FINISH INDEX

SEAL

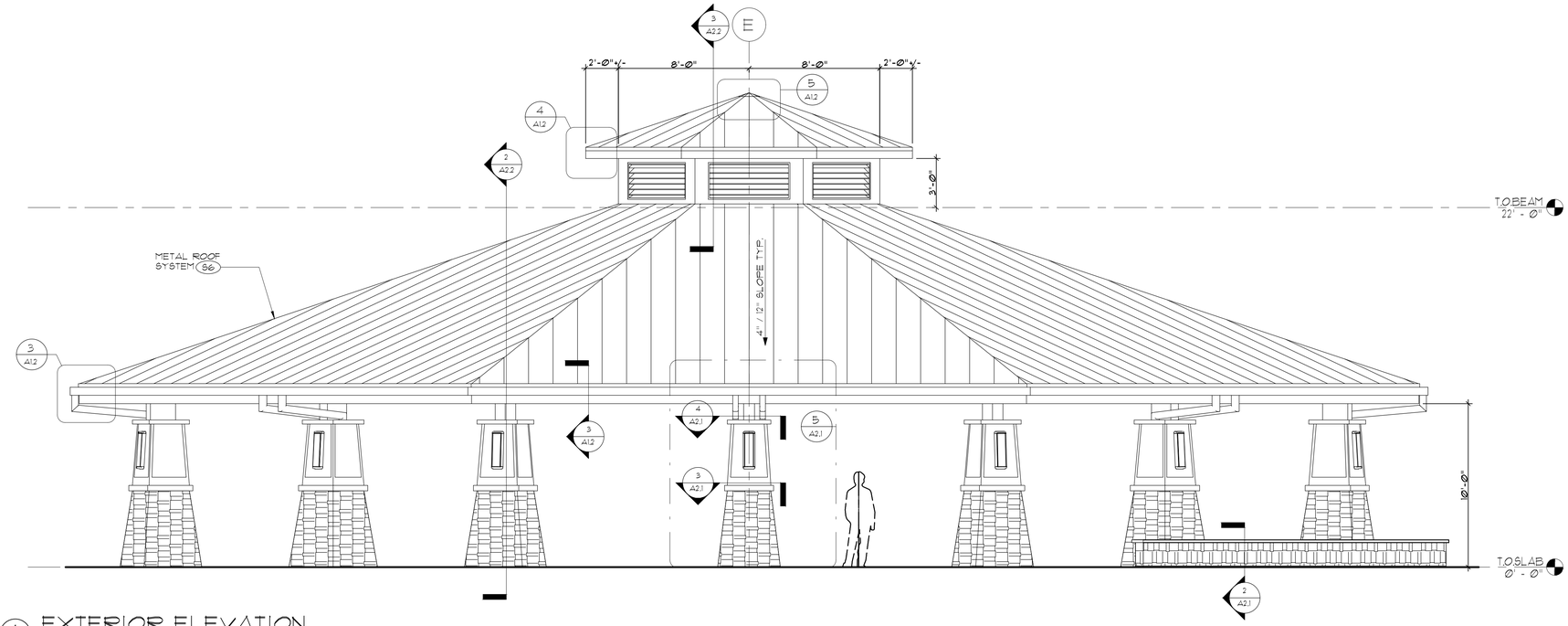
REVISED
1 8/5/2022

ISSUE DATE
JULY 19, 2022

PROJECT NO.
2021-0112

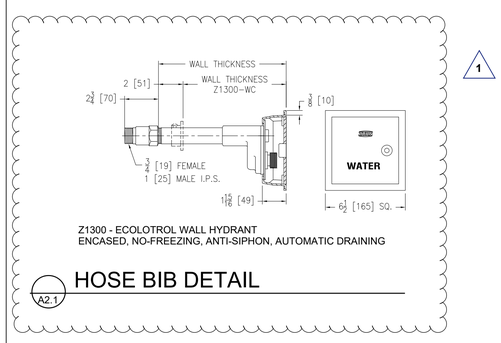
SHEET NO.
A1.1

ADDENDUM 2 8/8/2022



1 A2.1 EXTERIOR ELEVATION

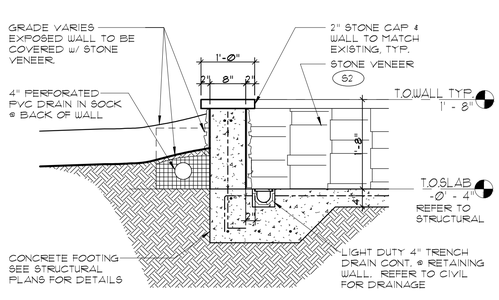
SCALE: 1/4" = 1'-Ø"



1

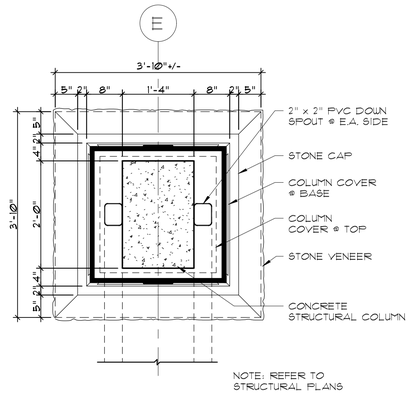
Z1300 - ECOLOTROL WALL HYDRANT
ENCASED, NO-FREEZING, ANTI-SIPHON, AUTOMATIC DRAINING

A2.1 HOSE BIB DETAIL



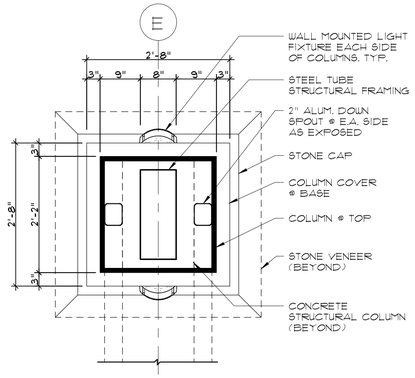
2 A2.1 RETAINING WALL/SEAT SECTION

SCALE: 3/4" = 1'-Ø"



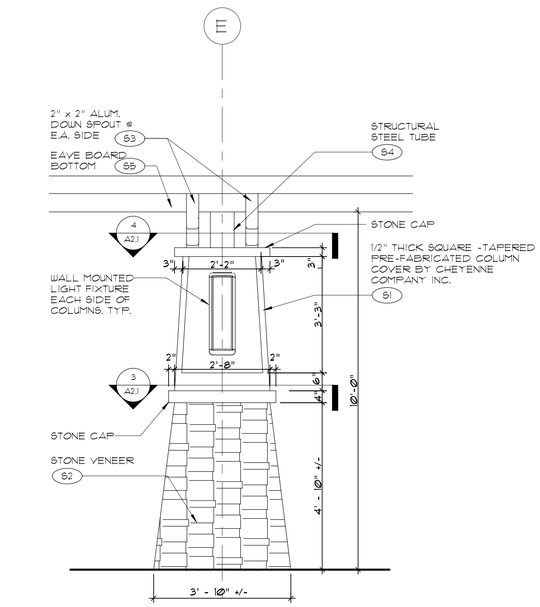
3 A2.1 COLUMN LOWER BASE PLAN

SCALE: 3/4" = 1'-Ø"



4 A2.1 COLUMN UPPER PLAN

SCALE: 3/4" = 1'-Ø"



5 A2.1 COLUMN PROFILE

SCALE: 1/2" = 1'-Ø"

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COMMONS PARK PAVILION (PR2015)

11600 POINCIANA BLVD. ROYAL PALM BEACH FLORIDA 33411

DRAWING TITLE
ELEVATION, DETAILS

SEAL

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A2.1