September 01, 2023

CITY OF MERCED DEPARTMENT OF ENGINEERING
678 W. 18th Street, Merced, CA 95340

RE-BID2 ADDENDUM NO. 01

To **ALL PROSPECTIVE BIDDERS**

Under Specifications for the Construction of

MERCED YOSEMITE REGIONAL AIRPORT TERMINAL REPLACEMENT 2023, RE-BID

PROJECT NUMBER CP230060

FAA AIP NUMBER 3-06-152-030-2023

For which bids are to be received at the Office of the Purchasing Agent of the City of Merced, 2525 "O" St., Merced, California.

1. GENERAL

ITEM 1: Builders Risk Insurance

Contractor shall obtain and maintain Builders Risk/Course of Construction insurance. Policy shall be provided for replacement value on an "all-risk" basis. The City shall be named as Loss Payee on the policy and there shall be no coinsurance penalty provision in any such policy. Policy must include: (1) coverage for removal of debris, and insuring the buildings, structures, machinery, equipment, materials, facilities, fixtures, and all other properties constituting a part of the project; (2) “Installation Floater” coverage with limits sufficient to insure the full replacement value of any property or equipment stored either on or off the project site. Such insurance shall be on a form acceptable to City to ensure adequacy of terms and limits. Contractor shall not be required to maintain property insurance for any portion of the Project following transfer of control thereof to City.

ITEM 2: ***Exhibit A – IG-2 Custom Image – FOR REFERENCE ONLY*** is being provided to help illustrate the type of custom graphic intended for window types S09 and S10. The example image also represents the design intent for MP-3 locations. Final image will be provided at a later time.

2. SPECIFICATIONS

The following revisions to the specifications shall be made:

ITEM 1: Table of Contents – Volume 3 (FAA Specifications and Technical Specifications – Divisions 01-12)

Remove table of contents in its entirety and replace with new section.

ITEM 2: Specification Section 072100 – Thermal Insulation

Remove section in its entirety and replace with new section.

ITEM 3: Specification Section 074113.16 – Standing-Seam Metal Roof Panel

Remove section in its entirety and replace with new section.

ITEM 4: Specification Section 074213.13 – Formed Metal Wall Panels

Remove section in its entirety and replace with new section.

ITEM 5: Specification Section 076100 – Sheet Metal Roofing

Remove section in its entirety.

ITEM 6: Specification Section 095426 – Suspended Wood Ceilings

Remove section in its entirety and replace with new section.

3. DRAWINGS

The following revisions to the drawings shall be made:

ITEM 1: Sheet C-651 – Marking Plan - 1

1. Revise "Clean Air Vehicle/EV" legend striping from thermoplastic to paint.

ITEM 2: Sheet A-522 – Ceiling Details

1. Revise detail 5. Refer to revised sheet.

ITEM 3: Sheet A-602 – Architectural Schedules - Finishes

1. Revise size for Acoustic Ceiling Tile "ACT-1". Refer to revised sheet.

ITEM 4: Sheet A-701 – First Floor Finish Plan

1. At Checkpoint 121 and Conference Room 150, provide CPT-2 and CPT-3 in the quantities outlined below:
   a. CPT-2 = 70%.
   b. CPT-3 = 30%.

4. RESPONSES TO QUESTIONS FROM BIDDERS

ITEM 1: Bidder questions sent in during the allowed period are answered as shown in the attached ***RE-BID2 Addendum 01 – Questions from Bidders*** document.

END OF RE-BID2 ADDENDUM 01

Michael Wegley, PE
Interim City Engineer

Joe Cruz
Project Manager
Mead & Hunt

Name of Bidder or Firm: _____

THIS ADDENDUM MUST BE SIGNED AND RETURNED WITH BID PROPOSAL.

RE-BID2 ADDENDUM NO. 01 has been received and incorporated into the bid proposal.

Received By: _____

Date: _____ Planholder: _____

NOTE: RECEIPT OF THIS ADDENDUM MUST ALSO BE ACKNOWLEDGED IN THE CONTRACTOR'S BID PROPOSAL.

RE-BID2 ADDENDUM 01
DATE: 09/01/2023

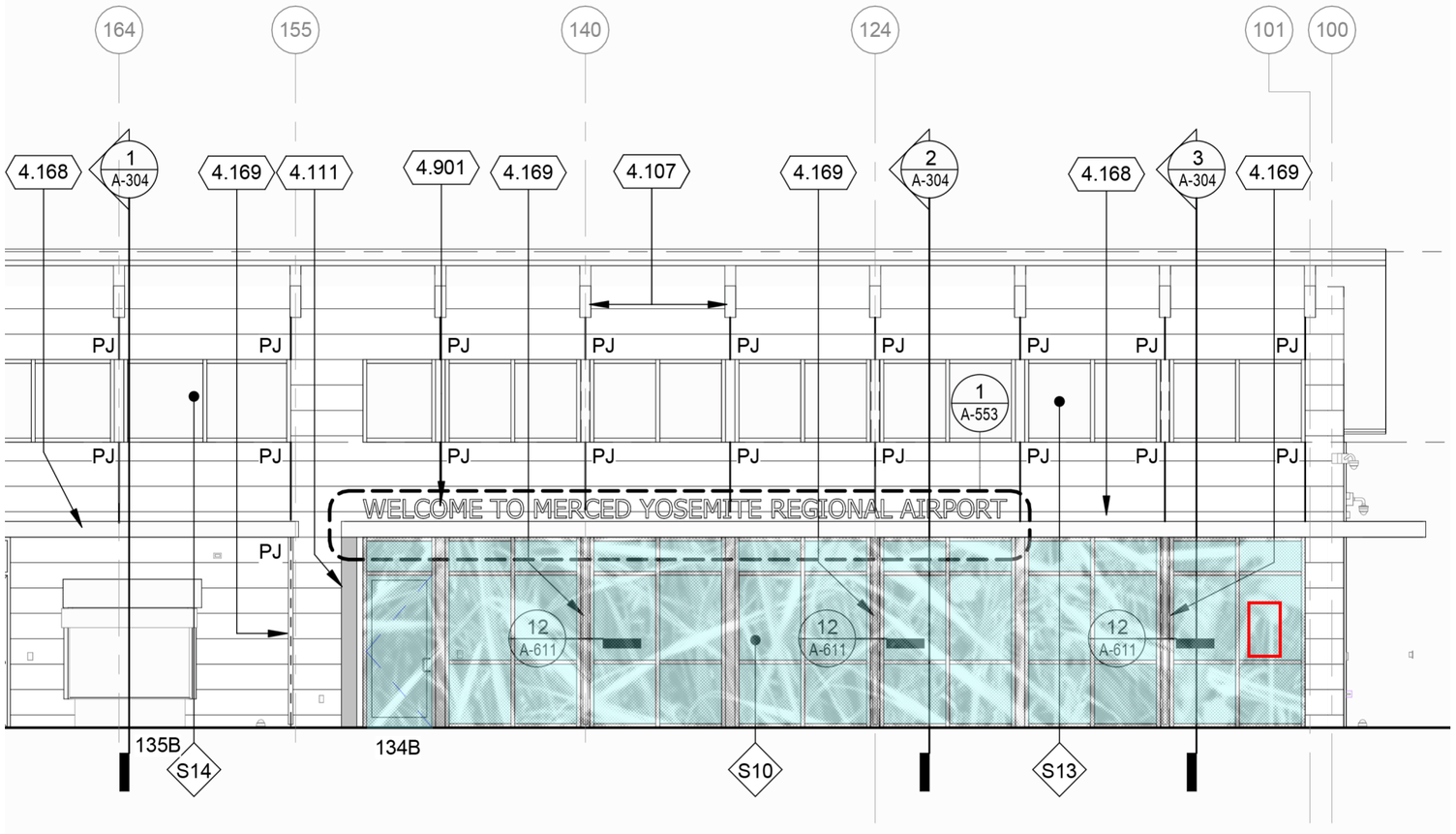
MERCED YOSEMITE REGIONAL AIRPORT

TERMINAL REPLACEMENT 2023

GLAZING TYPES:

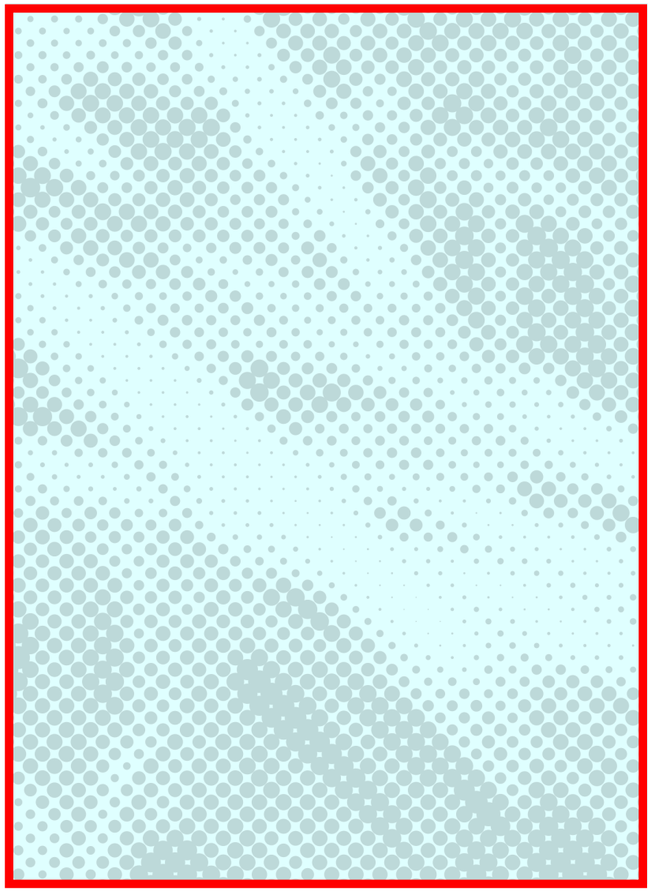
INSULATED GLAZING UNITS (IGU)

IG-1	EXTERIOR CLEAR VISION GLAZING
IG-2	EXTERIOR FRITTED GLAZING, 75% COVERAGE, CUSTOM GRAPHIC



PARTIAL SOUTH ELEVATION WITH EXAMPLE CUSTOM IMAGE

(NOT TO SCALE) NOTE: IMAGE TO OCCUR ON GLAZING ONLY, TYP.



ENLARGED VIEW OF EXAMPLE CUSTOM IMAGE FRITT PATTERN

(NOT TO SCALE)

EXHIBIT A: IG-2 CUSTOM IMAGE - FOR REFERENCE ONLY

Mead&Hunt

TABLE OF CONTENTS – VOLUME 3
(FAA SPECIFICATIONS
AND
TECHNICAL SPECIFICATIONS - DIVISIONS 01-12)

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

DIVISION 08 - OPENINGS

SECTION 072100 - THERMAL INSULATION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Extruded polystyrene foam-plastic board insulation.
2. Polyisocyanurate foam-plastic board insulation.
3. Mineral-wool blanket insulation.
4. Minimally expanding spray polyurethane insulation for miscellaneous voids.

1.2 ACTION SUBMITTALS

A. Product Data: for each type of product.

1.3 INFORMATIONAL SUBMITTALS

A. Installer's Certification: Listing type, manufacturer, and R-value of insulation installed in each element of the building thermal envelope.

1. For blown-in or sprayed fiberglass and cellulosic-fiber loose-fill insulation, indicate initial installed thickness, settled thickness, settled R-value, installed density, coverage area, and number of bags installed.
2. Sign, date, and post the certification in a conspicuous location on Project site.

B. Product Test Reports: For each product, for tests performed by a qualified testing agency.

C. Research Reports: For foam-plastic insulation, from ICC-ES.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Protect insulation materials from physical damage and from deterioration due to moisture, soiling, and other sources. Store inside and in a dry location. Comply with manufacturer's written instructions for handling, storing, and protecting during installation.

B. Protect foam-plastic board insulation as follows:

1. Do not expose to sunlight except to necessary extent for period of installation and concealment.
2. Protect against ignition at all times. Do not deliver foam-plastic board materials to Project site until just before installation time.

3. Quickly complete installation and concealment of foam-plastic board insulation in each area of construction.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Surface-Burning Characteristics: Maximum flame-spread and smoke-developed indexes less than 25 and 450 when tested in accordance with ASTM E84.

B. Fire-Resistance Ratings: Comply with ASTM E119 or UL 263; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

1. Indicate design designations from UL's "Fire Resistance Directory" or from listings of another qualified testing agency.

C. Fire Propagation Characteristics: Passes NFPA 285 testing as part of an approved assembly, where applicable.

D. Labeling: Provide identification of mark indicating R-value of each piece of insulation 12 inches and wider in width.

E. Thermal-Resistance Value (R-Value): R-value as indicated on Drawings in accordance with ASTM C518.

2.2 EXTRUDED POLYSTYRENE FOAM-PLASTIC BOARD INSULATION

A. Extruded Polystyrene Board Insulation, Type VI : ASTM C578, Type VI, 40-psi minimum compressive strength; maximum flame-spread and smoke-developed indexes of 25 and 450, respectively, per ASTM E 84.

1. Extruded polystyrene boards in this article are also called "XPS boards." Roman numeral designators in ASTM C 578 are assigned in a fixed random sequence, and their numeric order does not reflect increasing strength or other characteristics.
2. Location: Under-slab concrete floors.

2.3 POLYISOCYANURATE FOAM-PLASTIC BOARD INSULATION

A. Polyisocyanurate Board Insulation, Foil Faced : ASTM C1289, foil faced, Type I, Class 1 or 2.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Hunter Panels Xci-Class A or comparable product by one of the following:
   a. Atlas Polyiso Roof and Wall Insulation.
   b. Carlisle Coatings & Waterproofing Inc.
   c. DuPont de Nemours, Inc.

d. Johns Manville; a Berkshire Hathaway company.
e. Rmax, A Business Unit of Sika Corporation.
f. The Dow Chemical Company.

2. Location: Continuous exterior insulation, where indicated on Drawings.

2.4 MINERAL-WOOL BLANKET INSULATION

A. Mineral-Wool Blanket Insulation, Unfaced : ASTM C665, Type I (blankets without membrane facing); consisting of fibers; passing ASTM E136 for combustion characteristics.

2.5 ACCESSORIES

A. Insulation for Miscellaneous Voids:

1. Spray Polyurethane Foam Insulation: minimally expanding, low pressure-build, flexible foam, with compressive strength less than 10 psi per ASTM D1621, designed to insulate and seal window and door framing, with maximum flame-spread and smoke-developed indexes of 75 and 450, respectively, per ASTM E84.
   a. Basis-of-Design Product: Subject to compliance with requirements, provide DOW Great Stuff Pro or comparable product.
2. Low-Emitting Thermal Insulation: Provide materials/products installed within the weatherproofing system that comply with the California Department of Public Health Standard Method v1.1-2010, using the applicable exposure scenario.

B. Adhesive for Bonding Insulation: Product compatible with insulation and air and water barrier materials, and with demonstrated capability to bond insulation securely to substrates without damaging insulation and substrates.

1. Adhesives shall have a VOC content of 70g/L or less.
2. Low-Emitting Adhesives and Sealants: Provide products, applied on-site within the weatherproofing system, that comply with South Coast Air Quality Management District (SCAQMD) Rule 1168for VOC content, and comply with the California Department of Public Health (CDPH) Standard Method v1.1-2010, using the applicable exposure scenario.

C. Insulation Anchors, Spindles, and Standoffs: As recommended by manufacturer.

PART 3 - EXECUTION

3.1 PREPARATION

A. Clean substrates of substances that are harmful to insulation, including removing projections capable of puncturing insulation or vapor retarders, or that interfere with insulation attachment.

3.2 INSTALLATION, GENERAL

A. Comply with insulation manufacturer's written instructions applicable to products and applications.

B. Install insulation that is undamaged, dry, and unsoiled and that has not been left exposed to ice, rain, or snow at any time.

C. Install insulation with manufacturer's R-value label exposed after insulation is installed.

D. Extend insulation to envelop entire area to be insulated. Fit tightly around obstructions and fill voids with insulation. Remove projections that interfere with placement.

E. Provide sizes to fit applications and selected from manufacturer's standard thicknesses, widths, and lengths. Apply single layer of insulation units unless multiple layers are otherwise shown or required to make up total thickness or to achieve R-value.

3.3 INSTALLATION OF SLAB INSULATION

A. On horizontal surfaces, loosely lay insulation units according to manufacturer's written instructions. Stagger end joints and tightly abut insulation units.

3.4 INSTALLATION OF INSULATION IN FRAMED CONSTRUCTION

A. Blanket Insulation: Install in cavities formed by framing members according to the following requirements:

1. Use insulation widths and lengths that fill the cavities formed by framing members. If more than one length is required to fill the cavities, provide lengths that will produce a snug fit between ends.
2. Place insulation in cavities formed by framing members to produce a friction fit between edges of insulation and adjoining framing members.
3. Maintain 3-inch clearance of insulation around recessed lighting fixtures not rated for or protected from contact with insulation.
4. For metal-framed wall cavities where cavity heights exceed 96 inches, support unfaced blankets mechanically and support faced blankets by taping flanges of insulation to flanges of metal studs.

B. Miscellaneous Voids: Install insulation in miscellaneous voids and cavity spaces where required to prevent gaps in insulation using the following materials:

1. Spray Polyurethane Insulation: Apply according to manufacturer's written instructions.

3.5 INSTALLATION OF CONTINUOUS EXTERIOR BOARD INSULATION

A. Rigid Foam Board Insulation:

1. Installation, General:
    a. Comply with manufacturer's instructions for installation of rigid foam board insulation.
    b. Do not install rigid foam board insulation that has become soiled, wet, or has not been properly protected from sunlight.
    c. Dry fit rigid foam board insulation prior to final installation. Neatly trim board around conduits, pipes and other items that will penetrate board insulation.
    d. Butt edges tightly in both directions.
    e. Seal any gaps greater than 1/4" with spray polyurethane insulation for miscellaneous voids, or compatible sealant according to manufacturer's recommendations.
2. Installation over Gypsum Sheathing:
    a. Install manufacturer's recommended mechanical fasteners with washers, approximately 16 inches x 24 inches on center into stud framing, or spacing as otherwise recommended by manufacturer.

3.6 PROTECTION

A. Protect installed insulation from damage due to harmful weather exposures, physical abuse, and other causes.

B. Provide temporary coverings or enclosures where insulation is subject to abuse and cannot be concealed and protected by permanent construction immediately after installation.

END OF SECTION 072100

SECTION 074113.16 - STANDING-SEAM METAL ROOF PANELS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Prefinished, prefabricated structural standing seam roof system with continuous interlocking field formed seams, associated flashings, and underlayment.

B. Counterflashings.

C. Integral fascias.

D. Internally sloped gutters.

E. Sealants for joints within sheet metal fabrications.

1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site .

1. Meet with Owner, Architect, Owner's insurer if applicable, metal panel Installer, metal panel manufacturer's representative, structural-support Installer, and installers whose work interfaces with or affects metal panels, including installers of roof accessories and roof-mounted equipment.
2. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
3. Review methods and procedures related to metal panel installation, including manufacturer's written instructions.
4. Examine support conditions for compliance with requirements, including alignment between and attachment to structural members.
5. Review structural loading limitations of deck purlins and rafters during and after roofing.
6. Review flashings, special details, drainage, penetrations, equipment curbs, and condition of other construction that affect metal panels.
7. Review governing regulations and requirements for insurance, certificates, and tests and inspections if applicable.
8. Review temporary protection requirements for metal panel systems during and after installation.
9. Review procedures for repair of metal panels damaged after installation.
10. Document proceedings, including corrective measures and actions required, and furnish copy of record to each participant.

1.3 ACTION SUBMITTALS

A. Product Data: For standing-seam metal roof panels. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of panel and accessory.

B. Shop Drawings:

1. Include fabrication and installation layouts of metal panels; details of edge conditions, joints, panel profiles, corners, anchorages, attachment system, trim, flashings, closures, and accessories; and special details.
2. Accessories: Include details of the flashing, trim, and anchorage systems, at a scale of not less than 1-1/2 inches per 12 inches.

C. Samples for Initial Selection: For each type of metal panel indicated with factory-applied color finishes.

1. Include similar Samples of trim and accessories involving color selection.

D. Samples for Verification: For each type of exposed finish required, prepared on Samples of size indicated below.

1. Metal Panels: 12 inches long by actual panel width. Include clips, fasteners, closures, and other metal panel accessories.

1.4 INFORMATIONAL SUBMITTALS

A. Manufacturer Qualifications.

B. Installer Qualifications: Submit list of completed projects, with names and contact information for architects and contractors.

C. Product Test Reports: For standing-seam metal roof panels, for tests performed by a qualified testing agency and indicating compliance of products with project requirements.

D. Sample Warranties: For special warranties.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For metal panels to include in maintenance manuals.

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications:

1. Minimum ten years of experience, in factory fabrication of metal panels.

B. Installer Qualifications:

1. Minimum three years of experience, in application of metal roof panels.
2. An entity that employs installers and supervisors who are trained and approved by manufacturer.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver components, metal panels, and other manufactured items so as not to be damaged or deformed. Package metal panels for protection during transportation and handling.

B. Unload, store, and erect metal panels in a manner to prevent bending, warping, twisting, and surface damage.

C. Stack metal panels horizontally on platforms or pallets, covered with suitable weathertight and ventilated covering. Store metal panels to ensure dryness, with positive slope for drainage of water. Do not store metal panels in contact with other materials that might cause staining, denting, or other surface damage.

D. Retain strippable protective covering on metal panels during installation.

1.8 FIELD CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit assembly of metal panels to be performed according to manufacturers' written instructions and warranty requirements.

1.9 COORDINATION

A. Coordinate sizes and locations of roof curbs, equipment supports, and roof penetrations with actual equipment provided.

B. Coordinate metal panel installation with rain drainage work, flashing, trim, construction of soffits, and other adjoining work to provide a leakproof, secure, and noncorrosive installation.

1.10 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of metal panel systems that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:
   a. Structural failures including rupturing, cracking, or puncturing.
   b. Deterioration of metals and other materials beyond normal weathering.

2. Warranty Period: Two years from date of Substantial Completion.

B. Special Warranty on Panel Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace metal panels that show evidence of deterioration of factory-applied finishes within specified warranty period.

1. Exposed Panel Finish: Deterioration includes, but is not limited to, the following:
   a. Color fading more than 5 Delta E units when tested according to ASTM D2244.
   b. Chalking in excess of a No. 8 rating when tested according to ASTM D4214.
   c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.
2. Finish Warranty Period: 20 years from date of Substantial Completion.

C. Special Weathertightness Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace standing-seam metal roof panel assemblies that fail to remain weathertight, including leaks, within specified warranty period.

1. Warranty Period: 20 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Energy Performance:

1. Provide roof panels according to one of the following when tested according to CRRC-1:
   a. Three-year, aged solar reflectance of not less than 0.55 and emissivity of not less than 0.75 .
   b. Three-year, aged Solar Reflectance Index of not less than 64 when calculated in accordance with ASTM E1980.

B. Structural Performance: Provide metal panel systems capable of withstanding the effects of the following loads, based on testing according to ASTM E1592:

1. Wind Loads: As indicated on Drawings.
2. Other Design Loads: As indicated on Drawings .
3. Deflection Limits: For wind loads, no greater than 1/180 of the span.

C. Air Infiltration: Tested in accordance with ASTM E1680.

1. 0.002 cfm per linear foot of joint at static test pressuure differential of 12.00 psf. .

D. Water Infiltration under Static Pressure: Tested with side lap sealant per ASTM E1646.

1. No leakage through panel joints at 20.00 psf .

E. Wind-Uplift Resistance: Provide metal roof panel assemblies that comply with UL 580 for wind-uplift-resistance class indicated.

1. Uplift Rating: UL 90.

F. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes by preventing buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature Change (Range): 120 deg F, ambient; 180 deg F, material surfaces.

2.2 STANDING-SEAM METAL ROOF PANELS

A. Vertical-Rib, Seamed-Joint, Standing-Seam Metal Roof Panels : Formed with vertical ribs at panel edges and intermediate stiffening ribs symmetrically spaced a flat pan between ribs; designed for sequential installation by mechanically attaching panels to supports using concealed clips located under one side of panels, engaging opposite edge of adjacent panels, and mechanically seaming panels together.

1. Basis-of-Design Product: Subject to compliance with requirements, provide AEP Span a brand of ASC Profiles LLC, a part of BlueScope; SpanSeam or comparable product by one of the following:
   a. AEP Span a brand of ASC Profiles LLC, a part of BlueScope.
   b. ATAS International, Inc.
   c. CENTRIA, a Nucor Brand.
   d. Metal Sales Manufacturing Corporation.
   e. Morin - A Kingspan Group Company.
2. Material: Steel conforming to ASTM A792.
   a. Nominal Thickness: 22 gauge. .
   b. Yield strength: 50,000 psi; with aluminum-zinc alloy coating conforming to ASTM A792, Class AZ50.
   c. Exterior Finish: Premium 70% fluoropolymer (PVDF) Coating .
   d. Color: As selected by Architect from manufacturer's full range .
3. Clips: Provide clip designed to accommodate thermal movement. Clip shall incorporate a self-centering feature to allow 1 inch of movement in both directions along panel length. Clip type shall be selected to meet negative (uplift) pressures as specified.
   a. 0.028-inch- nominal thickness, zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet.
   b. Profile: Low profile.
4. Panel Joint Type: 180 degree seam.
5. Panel Width and Pattern: 12 inches, flat pan.
6. Panel Height: 2.0 inches .

2.3 UNDERLAYMENT MATERIALS

A. Self-Adhering, High-Temperature Underlayment: Provide self-adhering, cold-applied, sheet underlayment, a minimum of thick 40 mils, consisting of slip-resistant, polyolefin composite film top surface laminated to a layer of SBS-modified asphalt adhesive, with release-paper backing. Provide primer when recommended by underlayment manufacturer.

1. Thermal Stability: Stable after testing at 250 deg F; ASTM D1970.
2. Low-Temperature Flexibility: Passes after testing at minus 45 deg F; ASTM D1970.
3. Basis-of-Design Product: Subject to compliance with requirements, provide AEP Span a brand of ASC Profiles LLC, a part of BlueScope; AEP Span Underlayment HT or comparable product by one of the following:
   a. ATAS International, Inc.
   b. Carlisle WIP Products; a brand of Carlisle Construction Materials.
   c. GCP Applied Technologies Inc.
   d. Henry Company; a Carlisle company.
   e. Owens Corning.
   f. Polyglass U.S.A., Inc.
   g. Protecto Wrap Company.
   h. SDP Advanced Polymer Products Inc.

2.4 MISCELLANEOUS MATERIALS

A. Panel Accessories: Provide components required for a complete, weathertight panel system including trim, copings, fasciae, mullions, sills, corner units, clips, flashings, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal panels unless otherwise indicated.

1. Closures: Provide closures at eaves and ridges, fabricated of same metal as metal panels.
2. Backing Plates: Provide metal backing plates at panel end splices, fabricated from material recommended by manufacturer.
3. Closure Strips: Closed-cell, expanded, cellular, rubber or crosslinked, polyolefin-foam or closed-cell laminated polyethylene; minimum 1-inch- thick, flexible closure strips; cut or premolded to match metal panel profile. Provide closure strips where indicated or necessary to ensure weathertight construction.

B. Flashing and Trim: Provide flashing and trim formed from same material as metal panels as required to seal against weather and to provide finished appearance. Locations include, but are not limited to, eaves, rakes, corners, bases, framed openings, ridges, fascias, and fillers. Finish flashing and trim with same finish system as metal roof panels.

C. Gutters: Formed from same material as roof panels, complete with end pieces and other special pieces as required. Fabricate in minimum 96-inch- long sections, of size and metal thickness according to SMACNA's "Architectural Sheet Metal Manual."

Furnish gutter supports spaced a maximum of 36 inches o.c., fabricated from same metal as gutters. Provide wire ball strainers of compatible metal at outlets. Gutter profile to match adjacent fascia, as indicated on drawings. Finish gutters to match roof fascia and rake trim. Provide gutters with integrated internal slope.

D. Downspouts: Galvalume steel round pipe. Fabricate in10-foot- long sections, complete with formed elbows and offsets, of size as indicated on drawings and 24 gauge thickness. Finish downspouts to match gutters.

E. Panel Fasteners: Manufacturer standard.

F. Panel Sealants: Provide sealant type recommended by manufacturer that are compatible with panel materials, are nonstaining, and do not damage panel finish.

1. Sealant Tape: Pressure-sensitive, 100 percent solids, gray polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape 1/2 inch wide and 1/8 inch thick.
2. Joint Sealant: ASTM C920; elastomeric polyurethane or silicone sealant; of type, grade, class, and use classifications required to seal joints in metal panels and remain weathertight; and as recommended in writing by metal panel manufacturer.
3. Butyl-Rubber-Based, Solvent-Release Sealant: ASTM C1311.

2.5 FABRICATION

A. Fabricate and finish metal panels and accessories at the factory, by manufacturer's standard procedures and processes, as necessary to fulfill indicated performance requirements demonstrated by laboratory testing. Comply with indicated profiles and with dimensional and structural requirements.

B. On-Site Fabrication: Subject to compliance with requirements of this Section, metal panels may be fabricated on-site using UL-certified, portable roll-forming equipment if panels are of same profile and warranted by manufacturer to be equal to factory-formed panels. Fabricate according to equipment manufacturer's written instructions and to comply with details shown.

C. Provide panel profile, including major ribs and intermediate stiffening ribs, if any, for full length of panel.

D. Fabricate metal panel joints with factory-installed captive gaskets or separator strips that provide a weathertight seal and prevent metal-to-metal contact, and that minimize noise from movements.

E. Sheet Metal Flashing and Trim: Fabricate flashing and trim to comply with manufacturer's recommendations and recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of item indicated.

1. Form exposed sheet metal accessories that are without excessive oil canning, buckling, and tool marks and that are true to line and levels indicated, with exposed edges folded back to form hems.
2. Seams for Aluminum: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with epoxy seam sealer. Rivet joints for additional strength.
3. Seams for Other Than Aluminum: Fabricate nonmoving seams in accessories with flat-lock seams. Tin edges to be seamed, form seams, and solder.
4. Sealed Joints: Form nonexpansion, but movable, joints in metal to accommodate sealant and to comply with SMACNA standards.
5. Conceal fasteners and expansion provisions where possible. Exposed fasteners are not allowed on faces of accessories exposed to view.
6. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal recommended in writing by metal panel manufacturer.
    a. Size: As recommended by SMACNA's "Architectural Sheet Metal Manual" or metal panel manufacturer for application, but not less than thickness of metal being secured.

2.6 FINISHES

A. Protect mechanical and painted finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

B. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in same piece are unacceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

C. Steel Panels and Accessories:

1. Three-Coat Fluoropolymer: AAMA 621. Fluoropolymer finish containing not less than 70 percent polyvinylidene fluoride (PVDF) resin by weight in both color coat and clear topcoat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, metal panel supports, and other conditions affecting performance of the Work.

1. Examine primary and secondary roof framing to verify that rafters, purlins, angles, channels, and other structural panel support members and anchorages

have been installed within alignment tolerances required by metal roof panel manufacturer.

2. Examine solid roof sheathing to verify that sheathing joints are supported by framing or blocking and that installation is within flatness tolerances required by metal roof panel manufacturer.
    a. Verify that air- or water-resistive barriers have been installed over sheathing or backing substrate to prevent air infiltration or water penetration.

B. Examine roughing-in for components and systems penetrating metal panels to verify actual locations of penetrations relative to seam locations of metal panels before installation.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Miscellaneous Supports: Install subframing, furring, and other miscellaneous panel support members and anchorages according to ASTM C754 and metal panel manufacturer's written recommendations.

3.3 INSTALLATION OF UNDERLAYMENT

A. Self-Adhering Sheet Underlayment: Apply primer if required by manufacturer. Comply with temperature restrictions of underlayment manufacturer for installation. Apply at locations indicated below , wrinkle free, in shingle fashion to shed water, and with end laps of not less than 6 inches staggered 24 inches between courses. Overlap side edges not less than 3-1/2 inches. Extend underlayment into gutter trough. Roll laps with roller. Cover underlayment within 14 days.

1. Apply over the entire roof surface.
2. Apply over the roof area indicated below:
    a. Roof perimeter for a distance up from eaves of 24 inches beyond interior wall line.
    b. Valleys, from lowest point to highest point, for a distance on each side of 18 inches . Overlap ends of sheets not less than 6 inches.
    c. Rake edges for a distance of 18 inches .
    d. Hips and ridges for a distance on each side of 12 inches .
    e. Roof-to-wall intersections for a distance from wall of 18 inches .
    f. Around dormers, chimneys, skylights, and other penetrating elements for a distance from element of 18 inches .

B. Felt Underlayment: Apply at locations indicated below , in shingle fashion to shed water, and with lapped joints of not less than 2 inches.

1. Apply over the entire roof surface.

2. Apply on roof not covered by self-adhering sheet underlayment. Lap over edges of self-adhering sheet underlayment not less than 3 inches, in shingle fashion to shed water.

C. Slip Sheet: Apply slip sheet over underlayment before installing metal roof panels.

D. Flashings: Install flashings to cover underlayment to comply with requirements specified in Section 076200 "Sheet Metal Flashing and Trim."

3.4 INSTALLATION OF STANDING-SEAM METAL ROOF PANELS

A. Install metal panels according to manufacturer's written instructions in orientation, sizes, and locations indicated. Install panels perpendicular to supports unless otherwise indicated. Anchor metal panels and other components of the Work securely in place, with provisions for thermal and structural movement.

1. Shim or otherwise plumb substrates receiving metal panels.
2. Flash and seal metal panels at perimeter of all openings. Fasten with self-tapping screws. Do not begin installation until air- or water-resistive barriers and flashings that will be concealed by metal panels are installed.
3. Install screw fasteners in predrilled holes.
4. Locate and space fastenings in uniform vertical and horizontal alignment.
5. Install flashing and trim as metal panel work proceeds.
6. Locate panel splices over, but not attached to, structural supports. Stagger panel splices and end laps to avoid a four-panel lap splice condition.
7. Align bottoms of metal panels and fasten with blind rivets, bolts, or self-tapping screws. Fasten flashings and trim around openings and similar elements with self-tapping screws.
8. Provide weathertight escutcheons for pipe- and conduit-penetrating panels.

B. Fasteners:

1. Steel Panels: Use stainless steel fasteners for surfaces exposed to the exterior; use galvanized-steel fasteners for surfaces exposed to the interior.
2. Aluminum Panels: Use aluminum or stainless steel fasteners for surfaces exposed to the exterior; use aluminum or galvanized-steel fasteners for surfaces exposed to the interior.
3. Copper Panels: Use copper, stainless steel, or hardware-bronze fasteners.
4. Stainless Steel Panels: Use stainless steel fasteners.

C. Anchor Clips: Anchor metal roof panels and other components of the Work securely in place, using manufacturer's approved fasteners according to manufacturers' written instructions.

D. Metal Protection: Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action as recommended in writing by metal panel manufacturer.

E. Standing-Seam Metal Roof Panel Installation: Fasten metal roof panels to supports with concealed clips at each standing-seam joint at location, spacing, and with fasteners recommended in writing by manufacturer.

1. Install clips to supports with self-tapping fasteners.
2. Install pressure plates at locations indicated in manufacturer's written installation instructions.
3. Snap Joint: Nest standing seams and fasten together by interlocking and completely engaging factory-applied sealant.
4. Seamed Joint: Crimp standing seams with manufacturer-approved, motorized seamer tool so clip, metal roof panel, and factory-applied sealant are completely engaged.
5. Watertight Installation:
    a. Apply a continuous ribbon of sealant or tape to seal joints of metal panels, using sealant or tape as recommend in writing by manufacturer as needed to make panels watertight.
    b. Provide sealant or tape between panels and protruding equipment, vents, and accessories.
    c. At panel splices, nest panels with minimum 6-inch end lap, sealed with sealant and fastened together by interlocking clamping plates.

F. Clipless Metal Panel Installation: Fasten metal panels to supports with screw fasteners at each lapped joint at location and spacing recommended by manufacturer.

G. Accessory Installation: Install accessories with positive anchorage to building and weathertight mounting, and provide for thermal expansion. Coordinate installation with flashings and other components.

1. Install components required for a complete metal panel system including trim, copings, corners, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items. Provide types indicated by metal roof panel manufacturers; or, if not indicated, types recommended by metal roof panel manufacturer.

H. Flashing and Trim: Comply with performance requirements, manufacturer's written installation instructions, and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, and set units true to line and level as indicated. Install work with laps, joints, and seams that will be permanently watertight and weather resistant.

1. Install exposed flashing and trim that is without buckling and tool marks, and that is true to line and levels indicated, with exposed edges folded back to form hems. Install sheet metal flashing and trim to fit substrates and achieve waterproof and weather-resistant performance.
2. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 feet with no joints allowed within 24 inches of corner or intersection. Where lapped expansion provisions cannot be used or would not be sufficiently weather resistant and waterproof, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with mastic sealant (concealed within joints).

I. Gutters: Join sections with riveted and soldered or lapped and sealed joints. Attach gutters to eave with gutter hangers spaced not more than 36 inches o.c. using manufacturer's standard fasteners. Provide end closures and seal watertight with sealant. Provide for thermal expansion.

J. Downspouts: Join sections with telescoping joints. Provide fasteners designed to hold downspouts securely 1 inch away from walls; locate fasteners at top and bottom and at approximately 60 inches o.c. in between.

1. Provide elbows at base of downspouts to direct water away from building.

K. Pipe Flashing: Form flashing around pipe penetration and metal roof panels. Fasten and seal to metal roof panels as recommended by manufacturer.

3.5 ERECTION TOLERANCES

A. Installation Tolerances: Shim and align metal panel units within installed tolerance of 1/4 inch in 20 feet on slope and location lines as indicated and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.

3.6 CLEANING AND PROTECTION

A. Remove temporary protective coverings and strippable films, if any, as metal panels are installed, unless otherwise indicated in manufacturer's written installation instructions. On completion of metal panel installation, clean finished surfaces as recommended by metal panel manufacturer. Maintain in a clean condition during construction.

B. Replace metal panels that have been damaged or have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION 074113.16

SECTION 074213.13 - FORMED METAL WALL PANELS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Flush-Profile, concealed-fastener, lap-seam metal wall panels.
2. Box-Rib-Profile, concealed-fastener, metal wall panels.
3. Perforated aluminum wall panels.

1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at .

1. Meet with Owner, Architect, Owner's insurer if applicable, metal panel Installer, metal panel manufacturer's representative, structural-support Installer, and installers whose work interfaces with or affects metal panels, including installers of doors, windows, and louvers.
2. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
3. Review methods and procedures related to metal panel installation, including manufacturer's written instructions.
4. Examine support conditions for compliance with requirements, including alignment between and attachment to structural members.
5. Review flashings, special siding details, wall penetrations, openings, and condition of other construction that affect metal panels.
6. Review governing regulations and requirements for insurance, certificates, and tests and inspections if applicable.
7. Review temporary protection requirements for metal panel assembly during and after installation.
8. Review of procedures for repair of metal panels damaged after installation.
9. Document proceedings, including corrective measures and actions required, and furnish copy of record to each participant.

1.3 ACTION SUBMITTALS

A. Product Data: Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of panel and accessory.

1. Concealed-fastener, lap-seam metal wall panels.

B. Shop Drawings:

1. Include fabrication and installation layouts of metal panels; details of edge conditions, joints, panel profiles, corners, anchorages, attachment system, trim, flashings, closures, and accessories; and special details.
2. Accessories: Include details of the flashing, trim, and anchorage systems, at a scale of not less than 1-1/2 inches per 12 inches.

C. Samples for Initial Selection: For each type of metal panel indicated with factory-applied finishes.

1. Include Samples of trim and accessories involving color selection.

D. Samples for Verification: For each type of exposed finish, prepared on Samples of size indicated below:

1. Metal Panels: 12 inches long by actual panel width. Include fasteners, closures, and other metal panel accessories.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

B. Product Test Reports: For concealed-fastener, lap-seam metal wall panels , for tests performed by a qualified testing agency.

C. Sample Warranties: For special warranties.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For metal panels to include in maintenance manuals.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.

1.7 MOCKUPS

A. Build in-place mockups, in an agreed upon location between all parties, to verify selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for fabrication and installation.

1. Build mockup of typical metal panel assembly including corner, supports, attachments, and accessories.
2. Water-Spray Test: Conduct water-spray test of metal panel assembly mockup, testing for water penetration according to AAMA 501.2.

3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Deliver components, metal panels, and other manufactured items so as not to be damaged or deformed. Package metal panels for protection during transportation and handling.

B. Unload, store, and erect metal panels in a manner to prevent bending, warping, twisting, and surface damage.

C. Stack metal panels horizontally on platforms or pallets, covered with suitable weathertight and ventilated covering. Store metal panels to ensure dryness, with positive slope for drainage of water. Do not store metal panels in contact with other materials that might cause staining, denting, or other surface damage.

D. Retain strippable protective covering on metal panels during installation.

1.9 FIELD CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit assembly of metal panels to be performed according to manufacturers' written instructions and warranty requirements.

1.10 COORDINATION

A. Coordinate metal panel installation with rain drainage work, flashing, trim, construction of soffits, and other adjoining work to provide a leakproof, secure, and noncorrosive installation.

1.11 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of metal panel systems that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:
   a. Structural failures including rupturing, cracking, or puncturing.
   b. Deterioration of metals and other materials beyond normal weathering.
2. Warranty Period: Two years from date of Substantial Completion.

B. Special Warranty on Panel Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace metal panels that show evidence of deterioration of factory-applied finishes within specified warranty period.

1. Exposed Panel Finish: Deterioration includes, but is not limited to, the following:
   a. Color fading more than 5 Delta E units when tested according to ASTM D2244.
   b. Chalking in excess of a No. 8 rating when tested according to ASTM D4214.
   c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.
2. Finish Warranty Period: 20 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Structural Performance: Provide metal panel systems capable of withstanding the effects of the following loads, based on testing according to ASTM E1592:

1. Wind Loads: As indicated on Drawings.
2. Other Design Loads: As indicated on Drawings .
3. Deflection Limits: For wind loads, no greater than 1/180 of the span.

B. Air Infiltration: Air leakage of not more than 0.06 cfm/sq. ft. when tested according to ASTM E283 at the following test-pressure difference:

1. Test-Pressure Difference: 6.24 lbf/sq. ft..

C. Water Penetration under Static Pressure: No water penetration when tested according to ASTM E331 at the following test-pressure difference:

1. Test-Pressure Difference: 6.24 lbf/sq. ft..

D. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes by preventing buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature Change (Range): 120 deg F , ambient; 180 deg F , material surfaces .

E. Fire-Resistance Ratings: Comply with ASTM E119; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

1. Indicate design designations from UL's "Fire Resistance Directory" or from the listings of another qualified testing agency.

2.2 CONCEALED-FASTENER, LAP-SEAM METAL WALL PANELS

A. Provide factory-formed metal panels designed to be field assembled by lapping and interconnecting side edges of adjacent panels and mechanically attaching through panel to supports using concealed fasteners in side laps. Include accessories required for weathertight installation.

B. Flush-Profile, Concealed-Fastener Metal Wall Panels MP-2 : Formed with vertical panel edges and a flat pan between panel edges; with flush joint between panels.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Western States Metal Roofing; T-Groove - NR or comparable product by one of the following:
   a. AEP Span a brand of ASC Profiles LLC, a part of BlueScope.
   b. CENTRIA, a Nucor Brand.
   c. Dimensional Metals, Inc.
   d. Metal Sales Manufacturing Corporation.
   e. PAC-CLAD; Petersen; a Carlisle company.
2. Metallic-Coated Steel Sheet: Zinc-coated (galvanized) steel sheet complying with ASTM A653/A653M, G90 coating designation, or aluminum-zinc alloy-coated steel sheet complying with ASTM A792/A792M, Class AZ50 coating designation; structural quality. Prepainted by the coil-coating process to comply with ASTM A755/A755M.
   a. Thickness: 22 gauge. .
   b. Exterior Finish: Three-coat fluoropolymer .
   c. Color: Match Architect's samples .
3. Panel Coverage: As indicated on drawings. .
4. Panel Height: 1.0 inch .

C. Box-Rib -Profile, Concealed-Fastener Metal Wall Panels MP-1 : Formed with raised, box-shaped ribs, evenly spaced across panel width, and with rib/recess sides angled 80 degrees or more.

1. Basis-of-Design Product: Subject to compliance with requirements, provide PAC-CLAD; Petersen; a Carlisle company; Precision Series Box Rib, or comparable product by one of the following:
   a. AEP Span a brand of ASC Profiles LLC, a part of BlueScope.
   b. CENTRIA, a Nucor Brand.
   c. Dimensional Metals, Inc.
   d. Metal Sales Manufacturing Corporation.
2. Metallic-Coated Steel Sheet: Zinc-coated (galvanized) steel sheet complying with ASTM A653/A653M, G90 coating designation, or aluminum-zinc alloy-coated steel sheet complying with ASTM A792/A792M, Class AZ50 coating designation; structural quality. Prepainted by the coil-coating process to comply with ASTM A755/A755M.
   a. Nominal Thickness: 22 gauge.
   b. Exterior Finish: Three-coat fluoropolymer .
   c. Color: Match Architect's samples .
3. Panel Coverage: 12 inches nominal.
4. Panel Height: 1-3/8". .

5. Corners: Mitered.

D. Flush-Profile, Perforated. Concealed-Fastener Perforated Metal Wall Panels MP-3, formed with vertical panel edges and a flat pan between panel edges, with flush joint between panels.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Dri-Design; Wall Panel System - Perforated Series or comparable product by one of the following:
   a. AEP Span a brand of ASC Profiles LLC, a part of BlueScope.
   b. CENTRIA, a Nucor Brand.
   c. Dimensional Metals, Inc.
   d. Metal Sales Manufacturing Corporation.
2. Materials:
   a. Aluminum Plate: Alloy and temper as recommended by manufacturer for application and in complance with manufacturers design requirements.
      1) Aluminum Material: Tension-leveled, fluoropolymer PVDF painted finish.
      2) Field Touch-up Materials: As recommended by coating manufacturer for field application.
   b. Panel Depth: 1-1/4 inch nominal.
   c. Thickness: 0.080 inch.
   d. Panel Size: As indicated on drawings.
   e. Panel Joints: Flush.
   f. Perforation pattern: Custom image provided by Architect.
3. Accessories:
   a. Provide components required for a complete metal wall panel assembly including trim, copings, fascia, mullions, sills, corner units, flashings, and similar items. Match material and finish of panels unless otherwise indicated.
   b. Provide integral drainage system and manufacturers standard extrusions at termination of dissimilar materials.
   c. Flashing and Trim: Match material, finish, gauge and color of adjacent wall panels.
   d. Panel Fasteners: Designed to withstand design loads with at least 7/16 inch diameter head and neoprene washer.
      1) Aluminum Wall Panel Material: Provide stainless steel fasteners, or coated fastener approved by panel manufacturer.
   e. Sub-Girts: Galvanized, provide size and gauge in accordance with project requirements.
      1) Flat Strap: At least 14 gauge thick, painted black.

2.3 MISCELLANEOUS MATERIALS

A. Miscellaneous Metal Subframing and Furring: ASTM C645, cold-formed, metallic-coated steel sheet, ASTM A653/A653M, G90 hot-dip galvanized coating designation or ASTM A792/A792M, Class AZ50 aluminum-zinc-alloy coating designation unless otherwise indicated. Provide manufacturer's standard sections as required for support and alignment of metal panel system.

B. Panel Accessories: Provide components required for a complete, weathertight panel system including trim, copings, fasciae, mullions, sills, corner units, clips, flashings, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal panels unless otherwise indicated.

1. Closures: Provide closures at eaves and rakes, fabricated of same metal as metal panels.
2. Backing Plates: Provide metal backing plates at panel end splices, fabricated from material recommended by manufacturer.
3. Closure Strips: Closed-cell, expanded, cellular, rubber or crosslinked, polyolefin-foam or closed-cell laminated polyethylene; minimum 1-inch- thick, flexible closure strips; cut or premolded to match metal panel profile. Provide closure strips where indicated or necessary to ensure weathertight construction.

C. Flashing and Trim: Provide flashing and trim formed from same material as metal panels as required to seal against weather and to provide finished appearance. Locations include, but are not limited to, bases, drips, sills, jambs, corners, endwalls, framed openings, rakes, fasciae, parapet caps, soffits, reveals, and fillers. Finish flashing and trim with same finish system as adjacent metal panels.

D. Panel Fasteners: Self-tapping screws designed to withstand design loads. Provide exposed fasteners with heads matching color of metal panels by means of plastic caps or factory-applied coating. Provide EPDM or PVC sealing washers for exposed fasteners.

E. Panel Sealants: Provide sealant type recommended by manufacturer that are compatible with panel materials, are nonstaining, and do not damage panel finish.

1. Sealant Tape: Pressure-sensitive, 100 percent solids, gray polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape 1/2 inch wide and 1/8 inch thick.
2. Joint Sealant: ASTM C920; elastomeric polyurethane or silicone sealant; of type, grade, class, and use classifications required to seal joints in metal panels and remain weathertight; and as recommended in writing by metal panel manufacturer.
3. Butyl-Rubber-Based, Solvent-Release Sealant: ASTM C1311.

2.4 FABRICATION

A. Fabricate and finish metal panels and accessories at the factory, by manufacturer's standard procedures and processes, as necessary to fulfill indicated performance requirements demonstrated by laboratory testing. Comply with indicated profiles and with dimensional and structural requirements.

B. Provide panel profile, including major ribs and intermediate stiffening ribs, if any, for full length of panel.

C. Fabricate metal panel joints with factory-installed captive gaskets or separator strips that provide a weathertight seal and prevent metal-to-metal contact, and that minimize noise from movements.

D. Sheet Metal Flashing and Trim: Fabricate flashing and trim to comply with manufacturer's recommendations and recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of item indicated.

1. Form exposed sheet metal accessories that are without excessive oil canning, buckling, and tool marks and that are true to line and levels indicated, with exposed edges folded back to form hems.
2. Seams for Aluminum: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with epoxy seam sealer. Rivet joints for additional strength.
3. Seams for Other Than Aluminum: Fabricate nonmoving seams in accessories with flat-lock seams. Tin edges to be seamed, form seams, and solder.
4. Sealed Joints: Form nonexpansion, but movable, joints in metal to accommodate sealant and to comply with SMACNA standards.
5. Conceal fasteners and expansion provisions where possible. Exposed fasteners are not allowed on faces of accessories exposed to view.
6. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal recommended in writing by metal panel manufacturer.
    a. Size: As recommended by SMACNA's "Architectural Sheet Metal Manual" or metal wall panel manufacturer for application but not less than thickness of metal being secured.

2.5 FINISHES

A. Protect mechanical and painted finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

B. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

C. Steel Panels and Accessories:

1. Three-Coat Fluoropolymer: AAMA 621. Fluoropolymer finish containing not less than 70 percent polyvinylidene fluoride (PVDF) resin by weight in both color coat and clear topcoat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, metal panel supports, and other conditions affecting performance of the Work.

1. Examine wall framing to verify that girts, angles, channels, studs, and other structural panel support members and anchorage have been installed within alignment tolerances required by metal wall panel manufacturer.
2. Examine wall sheathing to verify that sheathing joints are supported by framing or blocking and that installation is within flatness tolerances required by metal wall panel manufacturer.
    a. Verify that air- or water-resistive barriers have been installed over sheathing or backing substrate to prevent air infiltration or water penetration.

B. Examine roughing-in for components and systems penetrating metal panels to verify actual locations of penetrations relative to seam locations of metal panels before installation.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Miscellaneous Supports: Install subframing, furring, and other miscellaneous panel support members and anchorages according to ASTM C754 and metal panel manufacturer's written recommendations.

3.3 INSTALLATION OF METAL PANELS

A. Install metal panels according to manufacturer's written instructions in orientation, sizes, and locations indicated. Install panels perpendicular to supports unless otherwise indicated. Anchor metal panels and other components of the Work securely in place, with provisions for thermal and structural movement.

1. Shim or otherwise plumb substrates receiving metal panels.
2. Flash and seal metal panels at perimeter of all openings. Fasten with self-tapping screws. Do not begin installation until air- or water-resistive barriers and flashings that will be concealed by metal panels are installed.
3. Install screw fasteners in predrilled holes.
4. Locate and space fastenings in uniform vertical and horizontal alignment.
5. Install flashing and trim as metal panel work proceeds.
6. Locate panel splices over, but not attached to, structural supports. Stagger panel splices and end laps to avoid a four-panel lap splice condition.

7. Align bottoms of metal panels and fasten with blind rivets, bolts, or self-tapping screws. Fasten flashings and trim around openings and similar elements with self-tapping screws.
8. Provide weathertight escutcheons for pipe- and conduit-penetrating panels.

B. Fasteners:

1. Steel Panels: Use stainless steel fasteners for surfaces exposed to the exterior; use galvanized-steel fasteners for surfaces exposed to the interior.
2. Aluminum Panels: Use aluminum or stainless steel fasteners for surfaces exposed to the exterior; use aluminum or galvanized-steel fasteners for surfaces exposed to the interior.

C. Metal Protection: Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action as recommended in writing by metal panel manufacturer.

D. Lap-Seam Metal Panels: Fasten metal panels to supports with fasteners at each lapped joint at location and spacing recommended by manufacturer.

1. Lap ribbed or fluted sheets one full rib. Apply panels and associated items true to line for neat and weathertight enclosure.
2. Provide metal-backed washers under heads of exposed fasteners bearing on weather side of metal panels.
3. Locate and space exposed fasteners in uniform vertical and horizontal alignment. Use proper tools to obtain controlled uniform compression for positive seal without rupture of washer.
4. Install screw fasteners with power tools having controlled torque adjusted to compress washer tightly without damage to washer, screw threads, or panels. Install screws in predrilled holes.
5. Flash and seal panels with weather closures at perimeter of all openings.

E. Accessory Installation: Install accessories with positive anchorage to building and weathertight mounting, and provide for thermal expansion. Coordinate installation with flashings and other components.

1. Install components required for a complete metal panel system including trim, copings, corners, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items. Provide types indicated by metal wall panel manufacturer; or, if not indicated, provide types recommended by metal panel manufacturer.

F. Flashing and Trim: Comply with performance requirements, manufacturer's written installation instructions, and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, and set units true to line and level as indicated. Install work with laps, joints, and seams that are permanently watertight.

1. Install exposed flashing and trim that is without buckling and tool marks, and that is true to line and levels indicated, with exposed edges folded back to form hems. Install sheet metal flashing and trim to fit substrates and achieve waterproof performance.

2. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 feet with no joints allowed within 24 inches of corner or intersection. Where lapped expansion provisions cannot be used or would not be sufficiently waterproof, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with mastic sealant (concealed within joints).

3.4 CLEANING AND PROTECTION

A. Remove temporary protective coverings and strippable films, if any, as metal panels are installed, unless otherwise indicated in manufacturer's written installation instructions. On completion of metal panel installation, clean finished surfaces as recommended by metal panel manufacturer. Maintain in a clean condition during construction.

B. After metal panel installation, clear weep holes and drainage channels of obstructions, dirt, and sealant.

C. Replace metal panels that have been damaged or have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION 074213.13

SECTION 095426 - SUSPENDED WOOD CEILINGS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Wood-veneer, grille-panel ceilings.

1.2 DEFINITIONS

A. NRC: Noise Reduction Coefficient.

1.3 COORDINATION

A. Coordinate layout and installation of wood ceilings and suspension systems with other construction that penetrates ceilings or is supported by them, including light fixtures, HVAC equipment, fire-suppression system, and partition assemblies.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site .

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Wood-veneer, grille-panel ceilings.

B. Shop Drawings: For suspended wood ceilings.

1. Include reflected ceiling plans, sections, and details, drawn to scale, showing the following:
   a. Wood ceiling patterns and joints.
   b. Ceiling suspension members.
   c. Method of attaching hangers to building structure and locations of cast-in-place anchors, clips, and other ceiling attachment devices whose installation is specified in other Sections.
   d. Ceiling-mounted items including, but not limited to, light fixtures, diffusers, grilles, speakers, sprinklers, and access panels.
   e. Ceiling perimeter and penetrations through ceiling; trim and moldings.

C. Samples for Initial Selection: For units with factory-applied colors and finishes.

1. Include Samples of accessories involving color and finish selections.

1.6 INFORMATIONAL SUBMITTALS

A. Product Test Reports: For each suspended wood ceiling, for tests performed by a qualified testing agency.

B. Evaluation Reports: For suspended-wood-ceiling framing systems.

1.7 CLOSEOUT SUBMITTALS

A. Maintenance Data: For finishes to include in maintenance manuals.

1.8 QUALITY ASSURANCE

A. Mockups: Build mockups to verify selections made under Sample submittals and to demonstrate aesthetic effects and to set quality standards for materials and execution.

1. Build in place mock-up of each type of suspended wood ceiling as agreed upon between all parties.
   a. Demonstrate treatment of exposed field cuts.
2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
3. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.9 DELIVERY, STORAGE, AND HANDLING

A. Deliver ceiling components and accessories to Project site in original, unopened packages and store them in a fully enclosed, conditioned space where they are protected against damage from moisture, humidity, temperature extremes, direct sunlight, surface contamination, and other causes.

1. Store materials flat and level, raised from the floor.

B. Handle ceiling components and accessories in a manner that prevents damage.

1.10 PROJECT CONDITIONS

A. Environmental Limitations: Do not install interior ceilings until spaces are enclosed and weathertight, wet-work in spaces is complete and dry, work above ceilings is complete, and HVAC system is operating and maintaining temperature and relative humidity at levels planned for building occupants during the remainder of the construction period.

1. Store and acclimatize wood products in the spaces where they will be installed for a minimum of 72 hours immediately before ceiling installation.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Seismic Criteria: Provide suspended wood ceilings designed and installed to withstand the effects of earthquake motions in accordance with ASTM E580/E580M and requirements of authorities having jurisdiction.

B. Recycled Content of Composite-Wood Products: Postconsumer recycled content plus one-half of preconsumer recycled content not less than 50 percent.

2.2 WOOD-VENEER, GRILLE-PANEL CEILINGS

A. Wood-Veneer Grille Panels: Manufacturer's standard grille panels fabricated from rails consisting of wood veneer adhered to backs and exposed surfaces of ANSI A208.1 particle board composite-wood cores.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Armstrong WoodWorks Grille - Forte Veneered Panels, Model Number 633 5 L6 S14 GLC or comparable product by one of the following:
   a. ASI Architectural.
   b. 9Wood.
2. Surface-Burning Characteristics: Provide products with the following characteristics when tested in accordance with ASTM E84:
   a. Flame-Spread Index: 25 or less.
   b. Smoke-Developed Index: 50 or less.
3. Veneer Face Grade: Grade A based on the Decorative Hardwoods Association's HPVA HP-1 definitions and characteristics .
4. Veneer Species: Light Cherry (GLC). .
5. Veneer Cut: Manufacturer Standard.
6. Slat Dimensions: As indicated on drawings. .
7. Slat Spacing: As indicated on drawings .
8. Rail Profile: Square exposed, horizontal face.
9. Stabilizing Backer Strips: Manufacturer's standard notched and diagonal alignment type that attach rails together; spaced per manufacturer's recommendations.
   a. Material and Finish: Black; with finish applied to every surface.
10. Panel Module: 12 by 96 inches .
11. Panel Type: Clip-attached installation on grid suspension system.
    a. Attachment Clips: Panel manufacturer's standard black, corrosion-resistant, metal spring clips that allow downward access of panels .
    b. Attachment Screws: Manufacturer's standard .
12. Factory Finish: Manufacturer's standard finish ; applied on every wood surface.
    a. Type: Clear .

B. Wood-Grille-Panel Accessories: Wood-grille-panel manufacturer's accessories required to provide a complete installation of ceiling in accordance with manufacturer's written installation instructions.

1. Acoustic Infill Panels: Manufacturer's standard to provide NRC rating indicated , with flame-spread index of 25 or less and smoke-developed index of 50 or less as determined by testing in accordance with ASTM E84.
   a. NRC: 0.75 when tested in accordance with ASTM C423.
2. Acoustic Felt: Manufacturer's standard , factory applied, black, backer with flame-spread index of 25 or less and smoke-developed index of 450 or less as determined by testing in accordance with ASTM E84.
3. Veneer Edge Banding: Manufacturer's standard matching planks for treating cut edges; with pressure-sensitive adhesive backing.
4. Trim: As indicated on Drawings ; with trim connectors recommended in writing by ceiling and suspension-system manufacturers.
   a. Material: Wood-veneered composite matching rails .

C. Grid Suspension System: ASTM C635/C635M; recommended in writing by ceiling and suspension-system manufacturers for applications indicated; main- and cross-runner system complete with suspension-system components required to support ceiling units and other ceiling-supported construction.

1. Material: All main beams and cross tees shall be commercial quality hot dipped galvanized steel as per ASTM A653. Main beams and cross tees are double-web steel construction with 15/16 inch type exposed flange design. Exposed surfaces chemically cleansed, capping prefinished galvanized steel in baked polyester paint. Main beams and cross tees shall ahve rotary stiching. .
2. Structural Classification: Heavy-duty system.
3. Face Width: 15/16 inch .
4. Finish: Flat black .

2.3 SUSPENSION-SYSTEM HANGERS, BRACES, AND TIES

A. Attachment Devices: Size for 5 times the design load indicated in ASTM C635/C635M, Table 1, Direct Hung, unless otherwise indicated.

B. Wire Hangers, Braces, and Ties: Provide wire complying with the following requirements:

1. Zinc-Coated, Carbon-Steel Wire: ASTM A641/A641M, Class 1 zinc coating, soft temper.
2. Size: Select wire diameter so its stress at 3 times the hanger design load indicated in ASTM C635/C635M, Table 1, Direct Hung is less than yield stress of wire, but provide not less than 12 gauge diameter wire.

C. Rods and Flat Hangers: Mild steel, zinc coated or protected with rust-inhibitive paint.

D. Angle Hangers: Angles with legs not less than 7/8 inch wide; formed from 0.04-inch-thick, galvanized-steel sheet complying with ASTM A653/A653M, G90 coating designation; with bolted connections and 5/16-inch- diameter bolts.

E. Seismic Stabilizer Bars: Grid-suspension-system manufacturer's standard perimeter stabilizers designed to accommodate seismic forces.

F. Seismic Struts: Suspension-system manufacturer's standard compression struts designed to accommodate seismic forces.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, including structural framing and substrates to which suspended wood ceilings attach or abut, with Installer present, for compliance with requirements specified in this and other Sections that affect ceiling installation and anchorage, and with requirements for installation tolerances and other conditions affecting performance of suspended wood ceilings.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Measure each ceiling area and establish layout of suspended wood ceilings.

1. Balance border widths at opposite edges of each ceiling.
2. Avoid using less-than-half-width units.

3.3 INSTALLATION OF SUSPENDED WOOD CEILINGS

A. Comply with ASTM C636/C636M and seismic requirement indicated, in accordance with manufacturer's written instructions and CISCA's "Ceiling Systems Handbook."

B. Suspend ceiling hangers from building's structural members and as follows:

1. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structure or of ceiling suspension system.
2. Splay hangers only where required to miss obstructions; offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
3. Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with location of hangers at spacings required to support standard suspension-system members, install supplemental suspension members and hangers in form of trapezes or equivalent devices.

4. Secure wire hangers to ceiling suspension members and to supports above with a minimum of three tight turns in 3 inches. Connect hangers directly either to structures or to inserts, eye screws, or other devices that are secure and appropriate for substrate to which hangers are attached and for type of hanger involved.
5. Secure flat, angle, channel, and rod hangers to structure, including intermediate framing members, by attaching to inserts, eye screws, or other devices that are secure and appropriate for both structure to which hangers are attached and type of hanger involved. Install hangers in a manner that does not cause them to deteriorate or fail due to age, corrosion, or elevated temperatures.
6. When steel framing does not permit installation of hanger wires at spacing required, install carrying channels or other supplemental support for attachment of hanger wires.
7. Do not attach hangers to steel deck tabs.
8. Do not attach hangers to steel roof deck. Attach hangers to structural members.
9. Space hangers not more than 48 inches o.c. along each member supported directly from hangers unless otherwise indicated; provide hangers not more than 8 inches from ends of each member.
10. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced standards and publications.

C. Secure bracing wires to ceiling suspension members and to supports with a minimum of four tight turns in 1-1/2 inches. Suspend bracing from building's structural members as required for hangers and without attaching to permanent metal forms, steel deck, or steel deck tabs. Fasten bracing wires into concrete with cast-in-place or postinstalled anchors.

D. Install edge moldings and trim at perimeter of ceiling area and where necessary to conceal edges and ends of wood units.

1. Screw-attach metal moldings to substrate at intervals of not more than 16 inches o.c. and not more than 3 inches from ends, leveling with ceiling suspension system to a tolerance of 1/8 inch in 12 feet. Miter corners accurately and connect securely.
2. Do not use exposed fasteners on moldings and trim.

E. Grid Suspension Systems: Space main beams at 48 inches o.c.

1. Install cross tees to form modules sized in accordance with manufacturer's written installation instructions .
2. Remove and replace dented, bent, or kinked members.

F. Linear-Carrier Suspension Systems: Install carriers at no more than 24 inches o.c. aligned and securely interlocked with one another.

1. Install stabilizer channels, tees, and bars at regular intervals to stabilize carriers and at light fixtures, air-distribution equipment, access doors, and other equipment; spaced as standard with manufacturer for use indicated.
2. Remove and replace dented, bent, or kinked members.

G. Install wood components and accessories in accordance with manufacturer's written instructions and to accommodate natural expansion and contraction of wood products resulting from fluctuations in humidity.

H. Cut wood components for accurate fit at borders and at interruptions and penetrations by other work through ceilings.

1. Stiffen edges of cut wood components as required to eliminate variations in flatness.

I. Treat field-cut edges of wood components in accordance with manufacturer's written recommendations; finish exposed field cuts to match factory finish.

1. Solid-Wood Planks: Use solid-wood end caps to conceal exposed field-cut edges .
2. Wood-Veneer Units: Edge band exposed field-cut edges .

J. Install wood components in coordination with suspension system and moldings and trim.

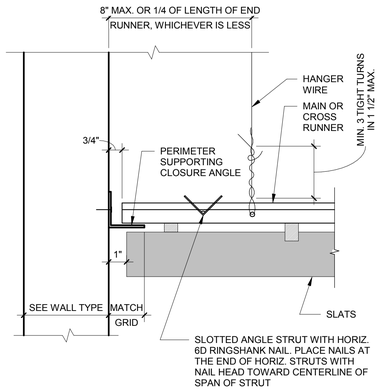
1. Install wood components in patterns indicated on Drawings .

K. Install field-constructed access panels in locations indicated on Drawings.

3.4 CLEANING

A. Clean exposed surfaces of ceilings, including trim and edge moldings. Comply with manufacturer's written instructions for cleaning and touchup of minor finish damage. Remove and replace ceiling components that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage, including dented units.

END OF SECTION 095426



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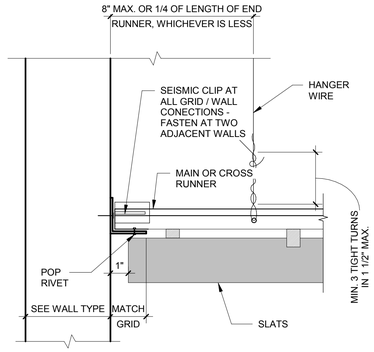

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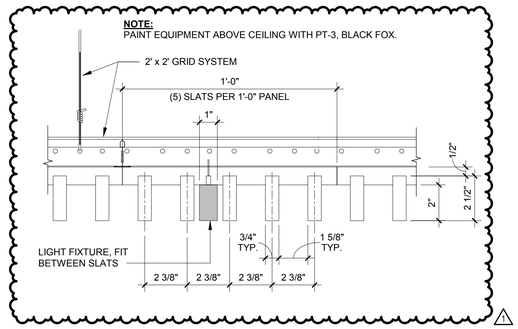

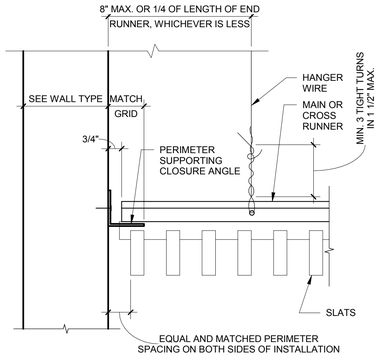

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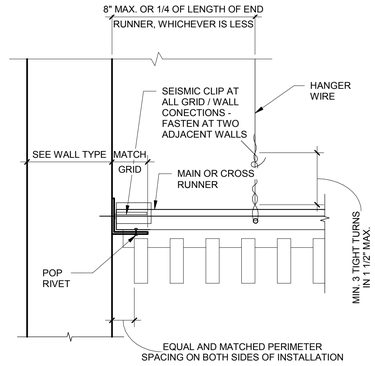
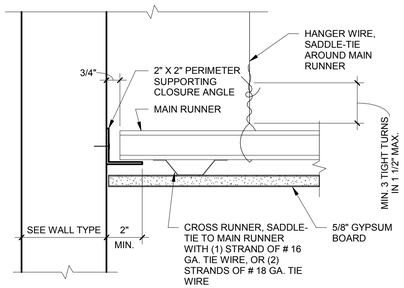
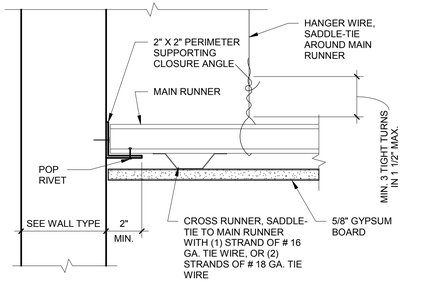


ATTACHED SIDE

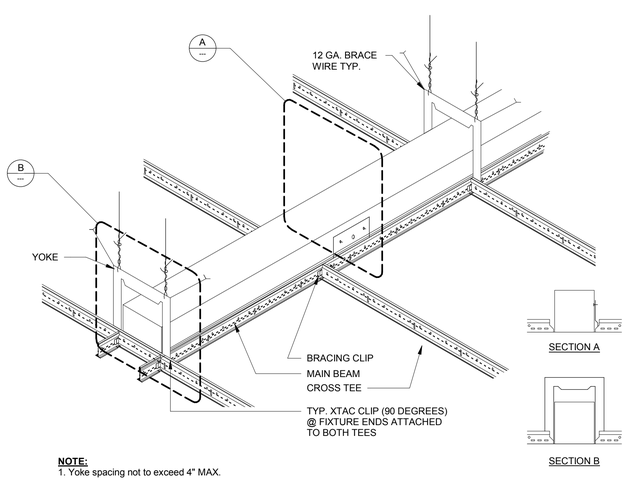
1 SLATTED CEIILING - SLATS PARALLEL
3" = 1'-0"



2 GYP BRD CEILING - ATTACHED END
3" = 1'-0"



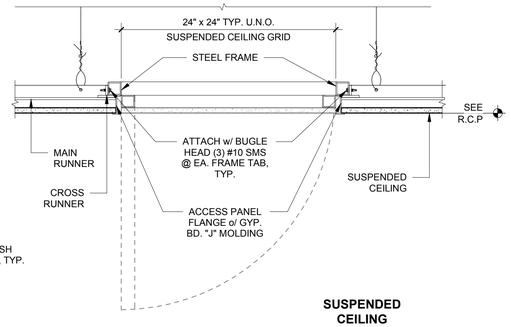
3 HIDDEN FRAME ACCESS PANEL
1 1/2" = 1'-0"



NOTE:
1. Yoke spacing not to exceed 4" MAX.

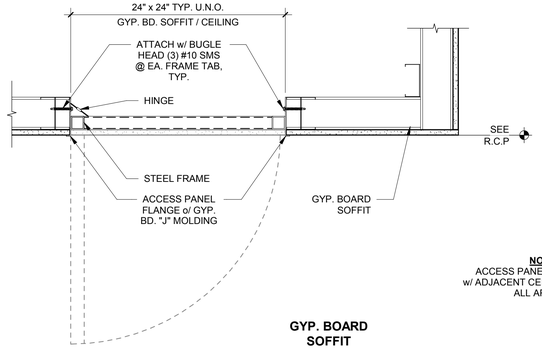
4 SUSPENDED CEILING BRACING CLIP
1 1/2" = 1'-0"

5 LIGHT FIXTURE AT SLATTED CEILING
3" = 1'-0"



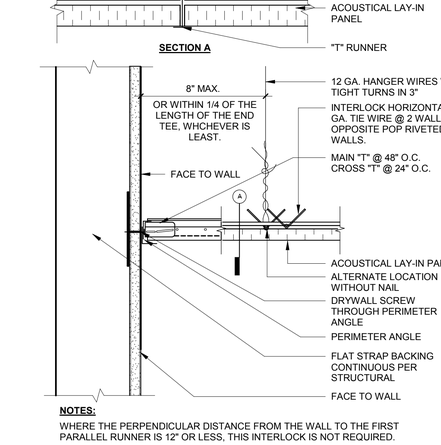
NOTE:
ACCESS PANEL TO BE FLUSH w/ ADJACENT CEILING PLANE, TYP. ALL AROUND

SUSPENDED CEILING



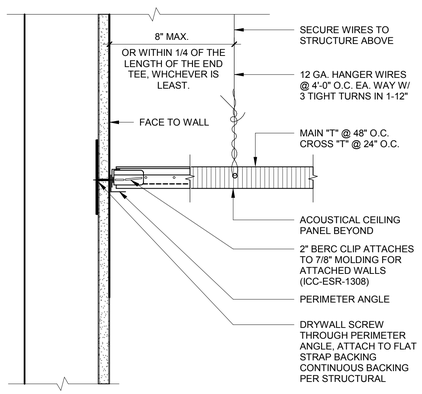
GYP. BOARD SOFFIT

6 GYP BRD CEILING - UNATTACHED END
3" = 1'-0"

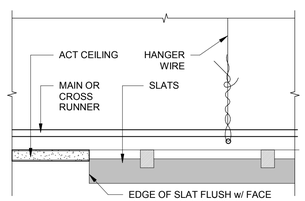


NOTES:
WHERE THE PERPENDICULAR DISTANCE FROM THE WALL TO THE FIRST PARALLEL RUNNER IS 12" OR LESS, THIS INTERLOCK IS NOT REQUIRED.

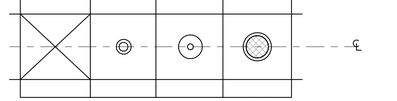
7 PERIMETER STARTER WALL (FIXED END)
3" = 1'-0"

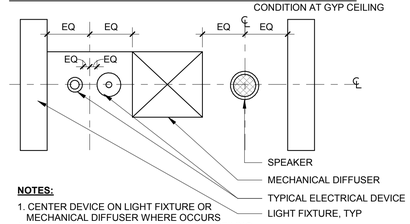


8 OPPOSITE OF STARTER WALL (FREE END)
3" = 1'-0"



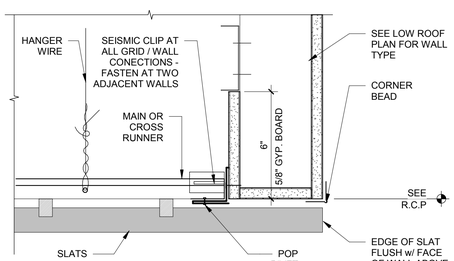
12 SLATTED CEILING @ ACT TRANSITION
3" = 1'-0"





NOTES:
1. CENTER DEVICE ON LIGHT FIXTURE OR MECHANICAL DIFFUSER WHERE OCCURS
2. IN ACPT CEILINGS, CENTER DEVICES IN CEILING TILE, NO MORE THAN ONE DEVICE PER 2x2 TILE
3. WHERE MULTIPLE DEVICES OCCUR, CONSOLIDATE INTO ONE AREA WHERE POSSIBLE

10 TYPICAL DEVICE LAYOUT
1/2" = 1'-0"



11 SLATTED CEILING @ SOFFIT
3" = 1'-0"

Mead & Hunt
Mead & Hunt, Inc.
1360 19th Hole Drive, Suite 200
Windsor CA 95492
phone: 707-526-5010
meadhunt.com

LICENCED ARCHITECT
TIMOTHY R DACEY
LIC. # 35197
Signed/Date
NOVEMBER 30, 2021
STATE OF CALIFORNIA

MERCED

MERCED YOSEMITE REGIONAL AIRPORT
TERMINAL REPLACEMENT PROJECT 2023

PARCEL APN# 059-300-025-000
20 MACREADY DRIVE MERCED, CA 95641

ISSUED

1	09/01/23	RE-BID2 SET ADDENDUM 1

CoM NO.:	CP230060
AIP NO.:	3-06-0152-030-2023
M&H NO.:	R4665943-220849.05
DATE:	06.15.2023
DESIGNED BY:	MP/LD
DRAWN BY:	MP/LD/CM
CHECKED BY:	MP/JC

DO NOT SCALE DRAWINGS

SHEET CONTENTS
CEILING DETAILS

SHEET NO.:
A-522

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ARCHITECTURAL FINISHES SCHEDULE

FINISH NUMBER	FINISH DESCRIPTION	PRODUCT DESCRIPTION					REMARKS
		MANUFACTURER	MODEL NUMBER	STYLE	COLOR	SIZE	
ACT-1	ACCOUSTIC CEILING TILE	ARMSTRONG CEILINGS	-	LYRA PB CONCEALED	WHITE	CUSTOM SIZE: 24" X 24" ⚠	CONCEALED GRID LAY IN
CLT-1	WOODWORKS CEILING PANEL	ARMSTRONG CEILINGS	-	WOODWORKS GRILLE	LIGHT CHERRY	12" X 72" AND 12" X 96" / SLAT WIDTH 3/4" / SLAT DEPTH 2 1/2"	
CONC -1	CONCRETE	-	-	-	-	-	SEALED
CONC -2	CONCRETE	-	-	-	-	-	POLISHED
CPT-1	CARPET TILE	FLOR	21-1452	AMONG THE WILDFLOWERS	PERIWINKLE	19.7" X 19.7"	NON-DIRECTIONAL
CPT-2	CARPET TILE	INTERFACE	105766	NY+LON STREETS	METAL CIRCLE	50CM X 50CM	FIELD CARPET, RANDOM
CPT-3	CARPET TILE	INTERFACE		NY+LON STREETS	BROOME STREET	50CM X 50CM	ACCENT FOR CPT-2 FIELD CARPET, RANDOM
CT-1	CERAMIC TILE	CROSSVILLE	-	JAVA JOINT	TWO SUGARS	12" X 24"	PORCELAIN STONE FLOOR TILE, WALL TILE
CT-2	CERAMIC TILE	GARDEN STATE TILE	-	EYE 3D TURCHESE	OZEAN	3" X 8"	WALL TILE, ACCENT
CT-3	CERAMIC TILE	TILEBAR	-	SUMATRA SLICED ROUND	NATURE	5" X 7"	WALL TILE, ACCENT
CT-4	INTEGRAL CERAMIC TILE	DALTILE	-	PORTFOLIO	DOVE GREY	6"X12"	WALL TILE BASE, COVE BASE SHAPE #P36C9
EP-1	EPOXY PAINT	SHERWIN WILLIAMS	-	-	-	-	
LVT-1	LUXURY VINYL TILE	MILLIKEN	ALB267	QUIET LIFE	CALCITE GREY	25CM X 150CM	FIELD PLANKS
LVT-2	LUXURY VINYL TILE	MILLIKEN	ALB162	QUIET LIFE	CHALICE JADE	25CM X 150CM	ACCENT PLANKS
MP-1	METAL WALL PANEL	FORMS + SPACES	BONDED METAL		TBD	TBD	WAINSCOT
PLAM-1	PLASTIC LAMINATE - TYPE 1	FORMICA	8826A	NEUTRAL TWILL	-	-	ANTI MICROBIAL COLLECTION
PT-1	PAINT COLOR - FIELD	BENJAMIN MOORE	960	REGAL O.O VOC, MILDEW RESISTANT	DOVE WING	-	LATEX MATTE FINISH
PT-2	PAINT COLOR - FIELD	SHERWIN WILLIAMS	SW 7066	PROMAR 200 HP ZERO VOC	GRAY MATTERS	-	LATEX MATTE FINISH
PT-3	PAINT COLOR ACCENT	SHERWIN WILLIAMS	SW 7020	PROMAR 200 HP ZERO VOC	BLACK FOX	-	LATEX MATTE FINISH
PT-4	PAINT COLOR ACCENT	BENJAMIN MOORE	CW-555	REGAL O.O VOC, MILDEW RESISTANT	GOODWIN GREEN	-	LATEX MATTE FINISH
PT-5	PAINT COLOR ACCENT	SHERWIN WILLIAMS	SW 9009	PROMAR 200 HP ZERO VOC	SUBDUED SIENNA	-	LATEX MATTE FINISH
RB-1	RUBBER WALL BASE - TYPE 1	TARKETT	TA4	DURACOVE THERMOPLASTIC RUBBER	GATEWAY	4" AND 6"	
RCW	RECLAIMED WOOD	STIKWOOD	-	-	RECLAIMED BARREL OAK		ACCENT WALL TREATMENT
RP-1	RESIN PANEL	3FORM			RICE GRASS	3/8"	
SS-1	SOLID SURFACE	WILSONART	-	-	HEKLA SLOPE	-	QUARTZ
SS-3	SOLID SURFACE	CORIAN	-	-	DOVE	-	ACRYLIC POLYMER
VWC-1	WALL COVERING	KOROSEAL	CT21-02	TYPE II, 20 OZ. LOW VOC	COSTA MACAW	-	100% VINYL, NON-WOVEN BACKING
WWA-1	WOODWORKS WALL PANEL	ARMSTRONG WALLS	-	WOODWORKS GRILLE	LIGHT CHERRY		

ROOM FINISH SCHEDULE

ROOM NO.	ROOM NAME	FLOOR	BASE	WALLS				CEILING		REMARKS
				NORTH	EAST	SOUTH	WEST	MTL	HEIGHT	
150	CONFERENCE ROOM	CPT-2	RB-1	PT-1	PT-3	PT-1	PT-1	ACT-1	10'-0"	
151	OFFICE	CPT-2	RB-1	PT-1		PT-1	PT-1	ACT-1	10'-0"	
149	OFFICE	CPT-2	RB-1	PT-5	PT-1	PT-1	PT-1	ACT-1	10'-0"	
148	OFFICE	CPT-2	RB-1	PT-5	PT-1	PT-1	PT-1	ACT-1	10'-0"	
147	VEST.	CONC-2	CT-4	PT-1	PT-1	PT-1	PT-1	ACT-1	10'-0"	
152	VEST.	CONC-2	CT-4	PT-1	PT-1	PT-1	PT-1	ACT-1	10'-0"	
143	BREAK ROOM	CONC-2	CT-4	PT-1, RP-1	PT-2	PT-2	PT-1, RP-1	ACT-1	10'-0"	
146	OPEN OFFICE	CONC-2	CT-4	PT-2	PT-2	PT-2	PT-2	ACT-1	10'-0"	
144	UNISEX TOILET	CT-1	CT-4	CT-1	CT-1	CT-1	CT-1	PT-4	10'-0"	
145	BADGING	CPT-2	RB-1	PT-1	PT-1	PT-1	PT-1	ACT-1	10'-0"	
141	ATO OFFICE	CPT-2	RB-1	PT-1	PT-1	PT-1	PT-5	ACT-1	10'-0"	
140	TICKETING	CONC-2	CT-4	PT-1	-	PT-1	PT-3	CLT-1	10'-0"	PAINT SOFFIT PT-3; PAINT ALL MECHANICAL, PLUBMING, AND FIRE ABOVE WOOD SLAT CEILING PT-3
142	OUTBOUND BAGGAGE	CONC-1	RB-1	PT-2	PT-2	PT-2	PT-2	EXPD	-	INSTALL STAINLESS STEEL WALL PROTECTION FROM TOP OF CONCRETE UP 4'-0" ON WALLS
139	TICKET QUEUE	CONC-2	CT-4	PT-1	-	-	-	CLT-1	10'-0"	
138	KIOSK	CONC-2	CT-4	-	-	-	PT-1	PT-2	VARIES	
129	LACTATION ROOM	LVT-1, LVT- 2	CT-4	PT-1	PT-1	PT-4	PT-1	ACT-1	10'-0"	
133	JAN.	CONC-1	RB-1	PT-2	PT-2	PT-2	PT-2	EXPD	-	
116	JAN.	CONC-1	RB-1	PT-2	PT-2	PT-2	PT-2	EXPD	-	
117	UNISEX TOILET	CT-1	CT-4	CT-1	CT-1	CT-1	CT-1	PT-4	10'-0"	
118	UNISEX TOILET	CT-1	CT-4	CT-1	CT-1	CT-1	CT-1	PT-4	10'-0"	
119	UNISEX TOILET	CT-1	CT-4	CT-1	CT-1	CT-1	CT-1	PT-4	10'-0"	
130	UNISEX TOILET	CT-1	CT-4	CT-1	CT-1	CT-1	CT-1	PT-4	10'-0"	
131	UNISEX TOILET	CT-1	CT-4	CT-1	CT-1	CT-1	CT-1	PT-4	10'-0"	
132	UNISEX TOILET	CT-1	CT-4	CT-1	CT-1	CT-1	CT-1	PT-4	10'-0"	
100	VESTIBULE	CONC-2	CT-4	PT-1	PT-1	PT-1	PT-1	CLT-1	VARIES	
135	INBOUND BAGGAGE	CONC-2	CT-4	-	PT-1	PT-1	PT-1	PT-2	VARIES	
134	VESTIBULE	CONC-2	CT-4	PT-1	PT-1	PT-1	PT-1	PT-2	VARIES	
115	HALLWAY	CONC-2	-	MP-1. VWC-1	MP-1. VWC-1	MP-1. VWC-1	-	PT-1	10'-0"	
128	HALLWAY	CONC-2	-	MP-1. VWC-1	MP-1. VWC-1	MP-1. VWC-1	MP-1, VWC-1	PT-1	10'-0"	
113	QUEUE	CONC-2	CT-4	PT-1	MP-1, PT-1	-	-	PT-2	VARIES	
114	SEATING AREA	CONC-2	-	-	MP-1, PT-1	MP-1. PT-1	-	PT-2	VARIES	
120	CONCESSIONS	CONC-2	CT-4	-	PT-1	PT-1	-	PT-2	VARIES	
112	CIRCULATION	CONC-2	CT-4	PT-1	PT-1	PT-1	PT-1	PT-2	VARIES	
101	TELECOM	CONC-1	RB-1	PT-1	PT-1	PT-1	PT-1	EXPD	-	
102	ELECT.	CONC-1	RB-1	PT-1	PT-1	PT-1	PT-1	EXPD	-	
103	MECH.	CONC-1	RB-1	PT-1	PT-1	PT-1	PT-1	EXPD	-	
104	FIRE RISER	CONC-1	-	PT-1	PT-1	PT-1	PT-1	EXPD	-	
105	LACTATION ROOM	LVT-1, LVT- 2	CT-4	PT-1	PT-1	PT-4	PT-1	ACT-1		
107	STORAGE	CONC-1	RB-1	PT-1	PT-1	PT-1	PT-1	ACT-1	10'-0"	
106	STORAGE	CONC-1	RB-1	PT-1	PT-1	PT-1	PT-1	ACT-1	10'-0"	
108	VEST.	CONC-2	CT-4	PT-1	PT-1	PT-1	PT-1	ACT-1	10'-0"	
110	TRAINING	CPT-2	RB-1	PT-1	PT-1	PT-5	PT-1	ACT-1	10'-0"	
111	QUEUE	CONC-2	CT-4	VWC-1	-	PT-1	PT-1	ACT-1	10'-0"	
121	CHECKPOINT	CONC-2, CPT-2	CT-4	VWC-1	PT-1	PT-1	PT-1	ACT-1, CLT-1	10'-0"	PAINT ALL MECHANICAL, PLUBMING, AND FIRE ABOVE WOOD SLAT CEILING PT-3
127	SEATING	CPT-1	-	MP-1, PT-1	-	-	-	PT-2	VARIES	
125	PODIUM	CPT-1	-	-	-	-	MP-1, PT-1	PT-2	VARIES	
124	CONCESSIONS	CPT-1	-	MP-1, PT-1	-	-	MP-1, PT-1	PT-2	VARIES	
123	HOLDROOM	CPT-1	CT-4	-	PT-1	PT-1	-	PT-2	VARIES	
126	CIRCULATION	CPT-1	-	-	-	-	-	PT-2	VARIES	
122	CHECKPOINT EXIT AREA	CPT-1	CT-4	MP-1, PT-1	PT-1	-	MP-1, PT-1	PT-2	VARIES	
136	RAC	CONC-2	CT-4	PT-1	PT-3	PT-1	-	PT-2	VARIES	
137	RAC QUEUE	CONC-2	CT-4	PT-1	-	-	-	PT-2	VARIES	
153	ACCESS	CONC-1	-	-	-	-	-	EXPD	-	
109	TSA IT CLOSET	CONC-1	RB-1	PT-1	PT-1	PT-1	PT-1	ACT-1	10'-0"	
121A	TSA SCREENING	CPT-2	RB-1	PT-2	PT-2	PT-2	PT-2	ACT-1	10'-0"	
121B	TSA BREAK ROOM	CONC-2	RB-1	PT-1	PT-1	PT-1	PT-1	ACT-1	10'-0"	
121C	OFFICE	CPT-2	RB-1	PT-1	PT-1	PT-1	PT-1	ACT-1	10'-0"	
124	CONCESSIONS	CPT-1	-	MP-1, PT-1	-	-	MP-1, PT-1	PT-2	VARIES	

Mead & Hunt

Mead & Hunt, Inc.
1360 19th Hole Drive, Suite 200
Windsor CA 95492
phone: 707-526-5010
meadhunt.com

LICENCED ARCHITECT
TIMOTHY R DACEY
LIC. # 35197
Signed Date
DECEMBER 31, 2021
STATE OF CALIFORNIA

MERCED

MERCED YOSEMITE REGIONAL AIRPORT
TERMINAL REPLACEMENT PROJECT 2023

PARCEL APN# 059-300-025-000
20 MACREADY DRIVE MERCED, CA 95641

ISSUED

	08/01/23	RE-BID2 SET
1	09/01/23	RE-BID2 SET ADDENDUM 1

CoM NO.:	CP230060
AIP NO.:	3-06-0152-030-2023
M&H NO.:	R4665943-220849.05
DATE:	06.15.2023
DESIGNED BY:	MP/LD
DRAWN BY:	MP/LD/CM
CHECKED BY:	MP/JC

DO NOT SCALE DRAWINGS

SHEET CONTENTS
ARCHITECTURAL SCHEDULES - FINISHES

SHEET NO.:

A-602

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09/01/2023
MCE Terminal Replacement, RE-BID2 Addendum 01

Questions from Bidders

#	QUESTIONS	Referenced Drawing/ Specification	RESPONSE	INCLUDED IN ADDENDUM 01
1	Regarding - Section 088000 Subsection 2.7.6.d.2 - Custom image using frit on #3 surface Please provide Custom frit pattern for quotation purposes.	Spec 088000, 2.7.6.d.2	An example image is provided for bidding purposes. Refer to “Exhibit A: IG-2 Custom Image – For Reference Only”. Final image will be provided at a later time.	Y
2	The plans call for the whole parking to be striped in Thermoplastic. Please confirm if it is acceptable for the “Clean Air Vehicle/EV” legends to be striped in paint. Striping these Legends in Thermoplastic would cost a substantial amount of money.	C-651 – Marking Plan - 1	“Clean Air Vehicle/EV” legends can be striped using paint or thermoplastic.	Y
3	In order to avoid data entry errors, can all of the bid schedule A,B,C be turn in via email 1 hour after the bid is turn in?	N/A	No, all bid schedules are required to be turned in at the time of bid.	N
4	Will the bid schedules A, B, C be utilized to add or delete scope of work during the construction process? Will these unit pricing be utilize for future change orders?	N/A	Possibly if alterations are necessary, refer to Section 40 of FAA Contract Provisions	N
5	Since the current insurance requirements does not require builder’s risk coverage. Does the owner have builder’s risk cover under their policy? If yes, does the coverage include the general contractor?	N/A	Contractor shall obtain and maintain Builders Risk/Course of Construction insurance. Policy shall be provided for replacement value on an "all-risk" basis. The City shall be named as Loss Payee on the policy and there shall be no coinsurance penalty provision in any such policy. Policy must include: (1) coverage for removal of debris, and insuring the buildings, structures, machinery, equipment, materials, facilities, fixtures, and all other properties constituting a part of the project; (2) “Installation Floater” coverage with limits sufficient to insure the full replacement value of any property or equipment stored either on or off the project site. Such insurance shall be on a form acceptable to City to ensure adequacy of terms and limits. Contractor shall not be required to maintain property insurance for any portion of the Project following transfer of control thereof to City.	Y
6	Will there be a checkpoint on a daily basis for personnel coming in and coming out of the job site?	N/A	Refer to Special Provisions for Airport Construction, SP-1-1.16 Access and Security for requirements.	N
7	RCP sheet A-121 shows 2'x2' ceiling tile. Finish schedule sheet A-602 says that ceiling tile ACT-1 is 18"x48" Lyra PB Concealed. Data sheet-Lyra PB Concealed does not have 24"x24" and 18"x48" among the standard sizes. Custom Size 24"x24" is available. Please clarify ceiling type and size.	A-121 – First Floor Reflected Ceiling Plan A-602 – Architectural Schedules - Finishes	Provide custom size 24” x 24”	Y
8	Please confirm that manufacturer Rockfon is acceptable for Ceiling Tile&Grid.	Spec 095123	Bid on the design as provided in the bid documents and as updated via Addendum 1; Substitution requests for alternate manufacturers and products to those listed in the documents can be submitted after award using the substitution process detailed in the bid documents.	N
9	Spec 09 54 26 says Basis-of-Design Product is Armstrong Woodworks Grille- Classics Solid Ceiling Panels, Model: 7097BO. This model #7097BO has 3 slats per 1'. But detail 5 sheet A-522 shows 6 slats per 1" panel. Please clarify how many slats per 1' Wood Grille Ceiling Panels will be have.	Spec 095426, Detail 5/A-522	Basis of Design product is Armstrong WoodWorks Grille – Forte Veneered Panels. Model Number 633 5 L6 S14 GLC. Finish color to match Armstrong WoodWorks Grille – Light Cherry (GLC). Refer to revised specification Section 095426 and revised detail 5/A-522.	Y
10	Spec 09 54 26 says Basis-of-Design Product is Armstrong Woodworks Grille- Classics Solid Ceiling Panels, Model: 7097BO (BO=Backer only). Also Spec 09 54 26 says: Dowels: Manufacturer's standard dowels that attach rails together: spaced at not more than 12" o.c. and 5-1/2" from panel ends. Please clarify what type of Wood grille Panels will be used in the project: with Backer Only, with Dowel Only or Backer&Dowel Combination.	Spec 095426	Refer to response to item 9 above for Basis of Design product and model info. Provide panels with notched and diagonal alignment backers. Refer to revised specification section 095426.	Y
11	Per Specification 08 41 13 – Aluminum Framed Entrances and Storefronts, Section 1.5, a “stand-alone mock-up is required as indicated drawings” is required. However, in the drawings there is no indication of a mock up. Please provide elevations/sheets of the desired stand-alone mock-up.	Spec 084113, 1.5	In place mock-up is acceptable in lieu of stand-alone mock-up. Exact openings can be agreed upon between parties once sequencing is confirmed, but assume one bay of S10 system or similar and one S01 opening as part of in-place mock-up.	N
12	Alpine SnowGuards is not listed as Basis of Design or as approved equal	Spec 074113.16, 076100	Project is located in an area where there is no annual snowfall nor snow accumulation, therefore, snowguards are not required. Reference to snow guards has been removed from specification section 074113.16. Specification section 076100 has been removed in its entirety.	Y
13	A-701/ Conference Room 150 & Checkpoint Room 121, call for CPT-2 &3. Can you please provide the pattern or % of each carpet?	A-701 – First Floor Finish Plan	Provide CPT-2 and CPT-3 in the quantities outlined below: CPT-2 =70% CPT-3 = 30%	Y
14	With the construction phasing of the job outlined in the specification “Construction Safety and Phasing Plan” 11 months is a tight timeline to complete this project with a hard September 1, 2024 completion date (including weather delays). With liquated damages at $6,700 a day, has the A/E team verified procurement of specified materials and equipment that 11 months is feasible?	N/A	Yes, the design team and City have reviewed these concerns and held a public meeting for input from contractors on February 23, 2023.	N

END OF COMMENT RESPONSES