CLAREMORE ENGINEERING

PROJECT ADDENDUM

Bid / RFP / RFQ Number: SB-2024-17

Project Number: E2023-028

Project Name: New Claremore Lake Rangers Station

Addendum No.: 1

Date of Addendum: June 13, 2024

To All Plan Holders:

Please note the following changes and/or clarifications:

1. **GENERAL BUILDING CLARIFICATIONS AND CHANGES:**

   a. **REVISED PLANS:**

      An updated plan set is available at the following link: https://www.dropbox.com/scl/fo/2oji9hxrjzrapytuddnyc/ABrGan2brxZrn9e-4-QfNYc?rlkey=89dxjsokmuvjhovzi03ly6lup&st=zbtfoxen&dl=0

      There was an error in our system and everyone was initially sent the non-final revised plans. Everyone who purchased plans via OpenGov, has been sent a set of revised plans and specifications. If you did not purchase thru OpenGov, plans are available from the Dropbox link above.
      Plan changes: mainly involve the relocation of a sink, insulation changes, and other minor items.

   b. **ARCHITECT (BKL) ADDENDUM:**

      Attached to this addendum is the Architect's addendum covering various items in detail related to the project.

c. **Finish Floor Elevation (FFE) / Top of Slab (TOS):**

The plans list FFE/TOS as elevation 100' for the building layout, they then show a conversion to a field elevation of 620'. However, the actual FFE/TOS field elevation should be equal to elevation 621', as shown on the grading plan. The owner will set benchmarks to establish correct FFE field elevation.

d. **PEMB Sheeting:**

All sheeting shall be 24-gauge R-Panel, see attached BKL addendum for details.

e. **INSULATION:**

i. **Roof – Shall be simple saver system, as listed in the attached revised specifications.**

ii. **Walls – Shall be closed cell foam (2.5"), as listed in the attached revised specifications.**

f. **ELECTRICAL:**

i. **Electric pole relocation – The existing electric pole serving the current ranger's station shall be temporarily relocated by the owner.**

ii. **Building Service – A new pole will be set within 50-ft of the building. Contractor shall be responsible for running conduit and wire from said location to electrical panel.**

g. **PLUMBING:**

i. **Water plumbing – water service shall be stubbed out of the building (2-ft min) and capped. Owner will connect at a later date. All pressure testing of the system shall still be required.**

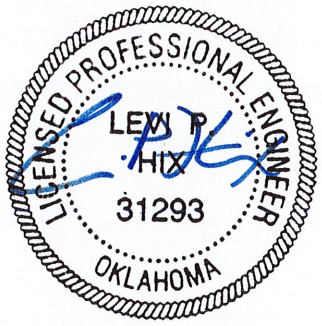
ii. **Sewer service – main service line shall be stubbed out of the building (2-ft min) and capped. Owner will connect at a later date. All pressure testing of system shall still be required.**

h. **DEMO WORK ON SITE:**

i. **Trees - The trees shall be removed by the contractor and the owner shall dispose of all tree related debris.**

ii. **The Contractor shall also be responsible for removing the existing concrete picnic table, and other small concrete pads. Tables shall be placed in a storage area designated by the owner.**

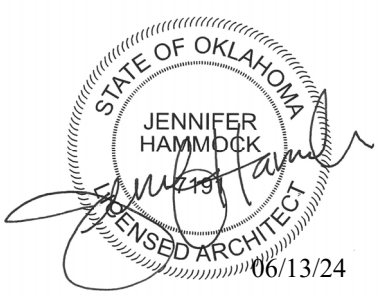
All other terms, conditions and specifications remain unchanged. Any additions made to the Bidding and Contract Documents including the Plans and Specifications per this Addendum shall be considered a part of the original Bidding and Contract Documents. The professional seals and signatures applied to the original Bidding and Contract Documents are thereby considered to cover any additions to said documents per this Addendum.



6/13/24

Levi P. Hix, P.E. **Date**
Engineering Project Manager

Bidders shall acknowledge receipt of this Addendum in the space provided in the Bid Proposal Form.



ADDENDUM NO. 01
CLAREMORE LAKE MAINTENANCE BUILDING
June 13, 2024

NOTICE TO BIDDERS

This Addendum is issued to all registered plan holders pursuant to the Instructions to Bidders and Conditions of the Contract. This Addendum serves to clarify, revise, and supersede information in the Project Manual, Drawings, and previously issued Addenda. Portions of the Addendum affecting the Contract Documents will be incorporated into the Contract by enumeration of the Addendum in the Owner/Contractor Agreement. The date for receipt of bids is unchanged by this Addendum and is at the same time and location. The Bidder shall acknowledge receipt of this Addendum in the appropriate space on the Bid Form.

CHANGES/CLARIFICATIONS TO PROJECT MANUAL

1. Specifications 133419 Metal Building Systems

   Replace specification 133419 Metal Building Systems in its entirety.

CHANGES/CLARIFICATIONS TO DRAWINGS

2. Sheet A1-02

   Keynote 7.MRP, **revise** Hawaiian blue to be Slate Blue.

3. Sheet E5-01 Light Fixture Schedule

   Approved lighting distributors: All distributors and manufacturers approved to bid must meet or exceed all design criteria. All products must be submitted and reviewed again during the construction submittal phase.

   - Triple C Lighting & CONTROLS

Type	Manufacturer/Brand	Catalog Number
EB	ABL-Lithonia Lighting	ELM4L UVOLT LTP SDRT
WB	ABL-Lithonia Lighting	WDGE3 LED P4 40K 80CRI RFT MVOLT SRM SPD10KV DBLXD
WBE	ABL-Lithonia Lighting	WDGE3 LED P4 40K 80CRI RFT MVOLT SRM SPD10KV E15WH DBLXD
XA	ABL-Lithonia Lighting	LQM S W 3 R MVOLT EL N SD M6

- Premier Lighting Sales

Type	MFG	Part
EB	BARRON LIGHTING GROUP	NFT-HO-W-G2
WB	MCGRAW ED	GWC-SA2B-740-U-T4FT-BK-10K
WBE	MCGRAW ED	GWC-SA2B-740-U-T4FT-BK-10K-CBP-CEC
XA	BARRON LIGHTING GROUP	VEX-U-BP-WB-WH-G2

ATTACHMENTS

Substitution Request Approved As Noted – Triple C Lighting& Controls

Substitution Request Approved As Noted – Premier Lighting Sales

133419 Metal Building Systems

END

SECTION 133419 (Addendum 1)

METAL BUILDING SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Structural-steel framing.
   2. Metal roof panels.
   3. Metal wall panels.
   4. Metal soffit panels.
   5. Thermal insulation.
   6. Accessories.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of metal building system component.

B. Shop Drawings: Indicate components by others. Include full building plan, elevations, sections, details and attachments to other work.

C. Samples: For units with factory-applied finishes.

D. Design Calculations

E. Delegated-Design Submittal: For metal building systems.
   1. Include analysis data indicating compliance with performance requirements and design data signed and sealed by the qualified professional engineer licensed in the State of Oklahoma responsible for their preparation.

1.3 INFORMATIONAL SUBMITTALS

A. Welding certificates.

B. Letter of Design Certification: Signed and sealed by a qualified professional engineer. Include the following:
   1. Name and location of Project.
   2. Order number.
   3. Name of manufacturer.
   4. Name of Contractor.
   5. Building dimensions including width, length, height, and roof slope.
   6. Indicate compliance with AISC standards for hot-rolled steel and AISI standards for cold-rolled steel, including edition dates of each standard.
   7. Governing building code and year of edition.

8. Design Loads: Include dead load, roof live load, collateral loads, roof snow load, deflection, wind loads/speeds and exposure, seismic design category or effective peak velocity-related acceleration/peak acceleration, and auxiliary loads (cranes).
9. Load Combinations: Indicate that loads were applied acting simultaneously with concentrated loads, according to governing building code.
10. Building-Use Category: Indicate category of building use and its effect on load importance factors.
11. Foundation Reactions

C. Material test reports.

D. Source quality-control reports.

E. Field quality-control reports.

F. Sample warranties.

1.4 QUALITY ASSURANCE

A. Manufacturer Qualifications: A qualified manufacturer.
1. Accreditation: Manufacturer's facility accredited according to the International Accreditation Service's AC472, "Accreditation Criteria for Inspection Programs for Manufacturers of Metal Building Systems."
2. Engineering Responsibility: Preparation of comprehensive engineering analysis and Shop Drawings by a professional engineer who is legally qualified to practice in jurisdiction where Project is located.

B. Erector Qualifications: An experienced erector who specializes in erecting and installing work similar in material, design, and extent to that indicated for this Project and who is acceptable to manufacturer.

C. Welding Qualifications: Qualify procedures and personnel according to the following:
1. AWS D1.1/D1.1M, "Structural Welding Code - Steel."
2. AWS D1.3, "Structural Welding Code - Sheet Steel."

1.5 WARRANTY

A. Provide building manufacturer’s warranty guaranteeing the building system against defects in materials for one year from the date of acceptance and provide for replacement material as required within that time period,

B. Special Warranty on Metal Panel Finishes: Manufacturer agrees to repair finish or replace metal panels that show evidence of deterioration of factory-applied finishes within specified warranty period.
1. Finish Warranty Period: 20 years from date of Substantial Completion.

C. Special Weathertightness Warranty for Metal Roof Panels: Manufacturer agrees to repair or replace standing-seam metal roof panel assemblies that leak or otherwise fail to remain weathertight within specified warranty period.

1. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Delegated Design: Engage a qualified professional engineer, registered in the State of Oklahoma to design entire metal building system including anchor bolts and bearing plates.

B. Structural Performance: Metal building systems shall withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated according to procedures in MBMA's "Metal Building Systems Manual."

1. The structural steel building frame is an engineered system designed, manufactured and erected by the metal building contractor. The drawings, details and dimensions shown on these documents are representative of the Field Engineer's requirements for the appearance of the final product. The foundation drawings are indicative of the expected loadings transmitted by this system. The metal building manufacturer is allowed to adjust the sizes and shapes in order to design the most efficient system for their product within these guidelines. Changes must be approved by the Field Engineer in writing. No additional compensation will be allowed for changes. The foundations are designed for pinned bases.
2. Design Loads: Shall be in accordance with the latest editions of the AISC Allowable Stress Designs Specification for Steel Buildings, AISC Code of Standard Practices for Steel Buildings and Bridges, and the AISI Specification for the Design of Cold Formed Steel Structural Members.

    a. Wind Loads shall be in accordance with ASCE 7-16, Exposure C, Risk Category II and a wind velocity of 120 MPH.

    b. Live Load shall be 20 PSF minimum with tributary reduction not allowed as applicable per code.

    c. Dead Load shall be the weight of the metal building materials.

    d. Auxiliary Design Loads shall be 5 PSF to cover the dead load imposed by fire protection systems, ceilings and lighting, plus the actual weight of equipment or mechanical units located on or attached to the building. Refer to drawings for location of equipment and mechanical units *including but not limited to crane supported by Pre-engineered metal building and mechanical equipment.* Contract Documents must be reviewed by the pre-engineered building engineer to identify any loads that may exceed the 5 PSF limit. Incorporate the necessary structure to carry these loads.
3. Deflection and Drift Limits: Design metal building system assemblies to withstand serviceability design loads without exceeding deflections and drift limits recommended in AISC Steel Design Guide No. 3 "Serviceability Design Considerations for Steel Buildings."

4. Deflection and Drift Limits: No greater than the following:
    a. Purlins and Rafters: Vertical deflection of L/240 of the span.

b. Girts: Horizontal deflection of L/120 of the span.
c. Metal Roof Panels: Vertical deflection of L/240 of the span.
d. Metal Wall Panels: Horizontal deflection of L/240 of the span.
e. Design secondary-framing system to accommodate deflection of primary framing and construction tolerances, and to maintain clearances at openings.
f. Lateral Drift: Maximum of L/200 of the building height.

C. Seismic Performance: Metal building system shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.

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: 120 deg F, ambient; 180 deg F, material surfaces.

E. Fire-Resistance Ratings: Where assemblies are indicated to have a fire-resistance rating, provide metal panel assemblies identical to those of assemblies tested for fire resistance per ASTM E119 or ASTM E108 by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
1. Indicate design designations from UL's "Fire Resistance Directory," FM Global's "Approval Guide," or from the listings of another qualified testing agency.

F. Fire-Rated Door Assemblies: Assemblies complying with NFPA 80 that are listed and labeled by a qualified testing agency, for fire-protection ratings indicated, based on testing at positive pressure according to NFPA 252 or UL 10C.
1. Oversize Fire-Rated Door Assemblies: For units exceeding sizes of tested assemblies, provide certification by a qualified testing agency that doors comply with standard construction requirements for tested and labeled fire-rated door assemblies except for size.

G. Structural Performance for Metal Roof and Wall Panels: 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.

H. Air Infiltration for Metal Roof Panels: Air leakage of not more than 0.06 cfm/sq. ft. when tested according to ASTM E1680 at the following test-pressure difference:
1. Test-Pressure Difference: 6.24 lbf/sq. ft..

I. Air Infiltration for Metal Wall Panels: 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..

J. Water Penetration for Metal Roof Panels: No water penetration when tested according to or ASTM E331 at the following test-pressure difference:
1. Test-Pressure Difference: 6.24 lbf/sq. ft..

K. Water Penetration for Metal Wall Panels: No water penetration when tested according to ASTM E331 at the following test-pressure difference:
1. Test-Pressure Difference: 6.24 lbf/sq. ft..

L. Wind-Uplift Resistance: Provide metal roof panel assemblies that comply with UL 580 for wind-uplift-resistance class indicated.
   1. Uplift Rating: UL 90.

M. Thermal Performance for Opaque Elements: Provide the following maximum U-factors and minimum R-values when tested according to ASTM C1363 or ASTM C518:
   1. Roof:
      a. R-Value: R-29
   2. Walls:
      a. R-Value: R-15

2.2 STRUCTURAL-STEEL FRAMING

A. Structural Steel: Comply with AISC 360, "Specification for Structural Steel Buildings."

B. Bolted Connections: Comply with RCSC's "Specification for Structural Joints Using High-Strength Bolts."

C. Cold-Formed Steel: Comply with AISI's "North American Specification for the Design of Cold-Formed Steel Structural Members" for design requirements and allowable stresses.

D. Primary Framing: Manufacturer's standard primary-framing system, designed to withstand required loads and specified requirements. Primary framing includes transverse and lean-to frames; rafters and rake beams; sidewall, intermediate, end-wall, and corner columns; and wind bracing.
   1. General: Provide frames with attachment plates, bearing plates, and splice members. Factory drill for field-bolted assembly. Provide frame span and spacing indicated.
      a. Slight variations in span and spacing may be acceptable if necessary to comply with manufacturer's standard, as approved by Architect.

2.3 METAL ROOF PANELS

A. Exposed Fastener, Tapered-Rib, Metal Roof Panels: Formed with raised, trapezoidal major ribs and intermediate stiffening ribs symmetrically spaced between major ribs; designed to be installed by lapping side edges of adjacent panels and mechanically attaching panels to supports using exposed fasteners in side laps.

1. Material: Zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet, 24 ga. nominal uncoated steel thickness. Prepainted by the coil-coating process to comply with ASTM A 755/A 755M.
   a. Exterior Finish: Two-coat fluoropolymer or two-coat Kynar finish.
   b. Color: As selected by Architect from manufacturer's standard and premium range.
      1) Basis of Design: Alliance Fluoropon/Kynar Slate Blue

2. Major-Rib Spacing: 12 inches o.c.

3. Panel Coverage: 36 inches.

4. Panel Height: 1.125 inches.

5. Standard R-Panel.

2.4 EXTERIOR METAL WALL PANELS

A. Exposed-Fastener, Tapered-Rib, Metal Wall Panels: Formed with raised, trapezoidal ribs; designed to be installed by lapping side edges of adjacent panels and mechanically attaching panels to supports using exposed fasteners in side laps.
   1. Material: Zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet, 0.024-inch nominal uncoated steel thickness. Prepainted by the coil-coating process to comply with ASTM A755/A755M.

      a. Exterior Finish: Three-coat fluoropolymer (PVDF)

      b. Color: As selected by Architect from manufacturer's standard and premium range.
         1) Basis of Design: Alliance Fluoropon/Colonial Red
   2. Major-Rib Spacing: 12 inches o.c.
   3. Panel Coverage: 36 inches.
   4. Panel Height: 1.125 inches.
   5. Standard R-Panel

2.5 THERMAL INSULATION AT ROOF

A. Wall Insulation: Closed cell spray foam insulation.

   1. R-15; 2.5 inches.

B. Basis of Design (Roof Insulation): Thermal Design, Inc., Simple Saver System. P.O. Box 468, 601 N. Main Street, Madison, NE 68748. ASD. Tel: (800) 255-0776 or (402) 454-6591. Fax: (402) 454-2708. Email: sales@thermaldesign.com,

   1. Or approved Equal.

C. Batt Insulation: ASTM C 991 Type 1; preformed formaldehyde-free glass fiber batt conforming to the following:
   1. Thermal Resistance: R-10; 3”
   2. Batt Size: Equal to purlin/girt spacing by manufacturer’s standard lengths.
   3. Unfaced.

D. Roof Insulation: Formaldehyde-free fiberglass batt or fiberglass blanket complying with ASTM C 991 Type 1 and ASTM E 84 with a thermal resistance and thickness as follows:

   1. R-19; 6 inches + R-11; 3.5 inches

E. Vapor Barrier Liner Fabric: Syseal® type woven, reinforced, high-density polyethylene yarns coated on both sides with a continuous white or colored polyethylene coatings, as follows:
   1. Product complies with ASTM C 1136, Types I though Type VI.
   2. Perm rating: 0.02 for fabric and for seams in accordance with ASTM E 96.

3. Flame/Smoke Properties:
    a. 25/50 in accordance with ASTM E 84.
    b. Self-extinguishes with field test using matches or butane lighter.
4. Ultra violet radiation inhibitor to minimum UVMAX® rating of 8.
5. Size and seaming: Manufactured in large custom pieces by extrusion welding from roll goods, and fabricated to substantially fit defined building area with minimum practicable job site sealing.
6. Provide with factory triple, extrusion welded seams. Stapled seams or heat-melted seams are not acceptable due to degradation of fabric.
7. Factory-folded to allow for rapid installation.
8. Color: White.

F. Accessories and Fasteners:

1. Vapor Barrier Lap Sealant: Solvent-based, Simple Saver polyethylene fabric adhesive.

2. Vapor Barrier Tape: Double-sided sealant tape 3/4 inch (19 mm) wide by 1/32 inch (.79 mm) thick.

3. Vapor Barrier Patch Tape: Single-sided, adhesive backed sealant tape 3 inches (76 mm) wide made from same material as Syseal® type liner fabric.

4. Thermal Breaks:
    a. 3/16 inch (4.7 mm) thick by 3 inch (76 mm) wide white, closed-cell polyethylene foam with pre-applied adhesive film and peel-off backing.
    b. Polystyrene Snap-R snap-on thermal blocks.

5. Straps:
    a. 100 KSI minimum yield tempered, high-tensile-strength steel.
    b. Size: Not less than 0.020 inch (0.50 mm) thick by 1 inch (25 mm) by continuous length.
    c. Galvanized, primed, and painted to match specified finish color on the exposed side.
    d. Color: White.
    e. Primed and painted to match specified finish color on the exposed side.
    f. High-tensile-strength stainless steel.
    g. Woven polyester plastic. Color as selected.

6. Fasteners:
    a. For heavy gage steel: #12 by 1-1/2 inch (38 mm) plated Tek 4 type screws with sealing washer, painted to match specified color.

G. Faced Metal Building Insulation: ASTM C991, Type II, glass-fiber-blanket insulation; 0.5-lb/cu. ft. density; 2-inch-wide, continuous, vapor-tight edge tabs; with a flame-spread index of 25 or less.

H. Retainer Strips: For securing insulation between supports, 0.025-inch nominal-thickness, formed, metallic-coated steel or PVC retainer clips colored to match insulation facing.

I. Vapor-Retarder Facing: ASTM C1136, with permeance not greater than 0.02 perm when tested according to ASTM E96/E96M, Desiccant Method.

2.6 ACCESSORIES

A. General: Provide accessories as standard with metal building system manufacturer and as specified. Fabricate and finish accessories at the factory to greatest extent possible, by manufacturer's standard procedures and processes. Comply with indicated profiles and with dimensional and structural requirements.
   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.

B. Roof Panel Accessories: Provide components required for a complete metal roof panel assembly including copings, fascia, corner units, ridge closures, clips, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal roof panels unless otherwise indicated.

C. Wall Panel Accessories: Provide components required for a complete metal wall panel assembly including copings, fascia, mullions, sills, corner units, clips, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal wall panels unless otherwise indicated.

D. Flashing and Trim: Zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet, 0.018-inch nominal uncoated steel thickness, prepainted with coil coating; finished to match adjacent metal panels.

E. Gutters: Zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet, 0.018-inch nominal uncoated steel thickness, prepainted with coil coating; finished to match roof fascia and rake trim. Match profile of gable trim, complete with end pieces, outlet tubes, and other special pieces as required. Fabricate in minimum 96-inch-long sections, sized according to SMACNA's "Architectural Sheet Metal Manual."
   1. Gutter Supports: Fabricated from same material and finish as gutters.
   2. Strainers: Bronze, copper, or aluminum wire ball type at outlets.

F. Downspouts: Zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet, 0.018-inch nominal uncoated steel thickness, prepainted with coil coating; finished to match metal wall panels. Fabricate in minimum 10-foot-long sections, complete with formed elbows and offsets.
   1. Mounting Straps: Fabricated from same material and finish as gutters.

G. Pipe Flashing: Premolded, EPDM pipe collar with flexible aluminum ring bonded to base.

2.7 FABRICATION

A. General: Design components and field connections required for erection to permit easy assembly.
   1. Mark each piece and part of the assembly to correspond with previously prepared erection drawings, diagrams, and instruction manuals.
   2. Fabricate structural framing to produce clean, smooth cuts and bends. Punch holes of proper size, shape, and location. Members shall be free of cracks, tears, and ruptures.

B. Tolerances: Comply with MBMA's "Metal Building Systems Manual" for fabrication and erection tolerances.

C. Primary Framing: Shop fabricate framing components to indicated size and section, with baseplates, bearing plates, stiffeners, and other items required for erection welded into place. Cut, form, punch, drill, and weld framing for bolted field assembly.

D. Secondary Framing: Shop fabricate framing components to indicated size and section by roll forming or break forming, with baseplates, bearing plates, stiffeners, and other plates required for erection welded into place. Cut, form, punch, drill, and weld secondary framing for bolted field connections to primary framing.

E. Metal Panels: Fabricate and finish metal panels at the factory to greatest extent possible, by manufacturer's standard procedures and processes, as necessary to fulfill indicated performance requirements. Comply with indicated profiles and with dimensional and structural requirements.
   1. Provide panel profile, including major ribs and intermediate stiffening ribs, if any, for full length of metal panel.

2.8 SOURCE QUALITY CONTROL

A. Special Inspection: Owner will engage a qualified special inspector to perform source quality control inspections and to submit reports.
   1. Accredited Manufacturers: Special inspections will not be required if fabrication is performed by an IAS AC472-accredited manufacturer approved by authorities having jurisdiction to perform such Work without special inspection.

B. Product will be considered defective if it does not pass tests and inspections.

C. Prepare test and inspection reports.

PART 3 - EXECUTION

3.1 ERECTION OF STRUCTURAL FRAMING

A. Erect metal building system according to manufacturer's written instructions and drawings.

B. Do not field cut, drill, or alter structural members without written approval from metal building system manufacturer's professional engineer.

C. Set structural framing accurately in locations and to elevations indicated, according to AISC specifications referenced in this Section. Maintain structural stability of frame during erection.

D. Base and Bearing Plates: Clean concrete- and masonry-bearing surfaces of bond-reducing materials, and roughen surfaces prior to setting plates. Clean bottom surface of plates.
   1. Set plates for structural members on wedges, shims, or setting nuts as required.
   2. Tighten anchor rods after supported members have been positioned and plumbed. Do not remove wedges or shims but, if protruding, cut off flush with edge of plate before packing with grout.
   3. Promptly pack grout solidly between bearing surfaces and plates so no voids remain. Neatly finish exposed surfaces; protect grout and allow to cure. Comply with manufacturer's written installation instructions for shrinkage-resistant grouts.

E. Align and adjust structural framing before permanently fastening. Before assembly, clean bearing surfaces and other surfaces that will be in permanent contact with framing. Perform necessary adjustments to compensate for discrepancies in elevations and alignment.
   1. Level and plumb individual members of structure.
   2. Make allowances for difference between temperature at time of erection and mean temperature when structure will be completed and in service.

F. Primary Framing and End Walls: Erect framing level, plumb, rigid, secure, and true to line. Level baseplates to a true even plane with full bearing to supporting structures, set with double-nutted anchor bolts. Use grout to obtain uniform bearing and to maintain a level base-line elevation. Moist-cure grout for not less than seven days after placement.
   1. Make field connections using high-strength bolts installed according to RCSC's "Specification for Structural Joints Using High-Strength Bolts" for bolt type and joint type specified.

      a. Joint Type: Snug tightened or pretensioned as required by manufacturer.

G. Secondary Framing: Erect framing level, plumb, rigid, secure, and true to line. Field bolt secondary framing to clips attached to primary framing.
   1. Provide rake or gable purlins with tight-fitting closure channels and fasciae.
   2. Locate and space wall girts to suit openings such as doors and windows.
   3. Provide supplemental framing at entire perimeter of openings, including doors, windows, ventilators, and other penetrations of roof and walls.

H. Bracing: Install bracing in roof and sidewalls where indicated on erection drawings.
   1. Tighten rod and cable bracing to avoid sag.
   2. Locate interior end-bay bracing only where indicated.

I. Framing for Openings: Provide shapes of proper design and size to reinforce openings and to carry loads and vibrations imposed, including equipment furnished under mechanical and electrical work. Securely attach to structural framing.

J. Erection Tolerances: Maintain erection tolerances of structural framing within AISC 303.

3.2 METAL PANEL INSTALLATION, GENERAL

A. General: Anchor metal panels and other components of the Work securely in place, with provisions for thermal and structural movement.
   1. Field cut metal panels as required for doors, windows, and other openings. Cut openings as small as possible, neatly to size required, and without damage to adjacent metal panel finishes.

      a. Field cutting of metal panels by torch is not permitted unless approved in writing by manufacturer.
   2. Install metal panels perpendicular to structural supports unless otherwise indicated.
   3. Flash and seal metal panels with weather closures at perimeter of openings and similar elements. Fasten with self-tapping screws.
   4. Locate and space fastenings in uniform vertical and horizontal alignment.
   5. Locate metal panel splices over structural supports with end laps in alignment.
   6. Lap metal flashing over metal panels to allow moisture to run over and off the material.

B. Lap-Seam Metal Panels: Install screw fasteners using power tools with controlled torque adjusted to compress EPDM washers tightly without damage to washers, screw threads, or metal panels. Install screws in predrilled holes.
   1. Arrange and nest side-lap joints so prevailing winds blow over, not into, lapped joints. Lap ribbed or fluted sheets one full rib corrugation. Apply metal panels and associated items for neat and weathertight enclosure. Avoid "panel creep" or application not true to line.

C. Metal Protection: Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with corrosion-resistant coating, by applying rubberized-asphalt underlayment to each contact surface, or by other permanent separation as recommended by metal roof panel manufacturer.

D. Joint Sealers: Install gaskets, joint fillers, and sealants where indicated and where required for weatherproof performance of metal panel assemblies. Provide types of gaskets, fillers, and sealants indicated; or, if not indicated, provide types recommended by metal panel manufacturer.
   1. Seal metal panel end laps with double beads of tape or sealant the full width of panel. Seal side joints where recommended by metal panel manufacturer.
   2. Prepare joints and apply sealants to comply with requirements in Section 079200 "Joint Sealants."

3.3 METAL ROOF PANEL INSTALLATION

A. General: Provide metal roof panels of full length from eave to ridge unless otherwise indicated or restricted by shipping limitations.
   1. Install ridge and hip caps as metal roof panel work proceeds.
   2. Flash and seal metal roof panels with weather closures at eaves and rakes. Fasten with self-tapping screws.

B. Standing-Seam Metal Roof Panels: Fasten metal roof panels to supports with concealed clips at each standing-seam joint, at location and spacing and with fasteners recommended by manufacturer.
   1. Install clips to supports with self-drilling or self-tapping fasteners.
   2. Install pressure plates at locations indicated in manufacturer's written installation instructions.
   3. Seamed Joint: Crimp standing seams with manufacturer-approved motorized seamer tool so that clip, metal roof panel, and factory-applied sealant are completely engaged.
   4. Rigidly fasten eave end of metal roof panels and allow ridge end free movement for thermal expansion and contraction. Predrill panels for fasteners.
   5. Provide metal closures at peaks rake edges rake walls and each side of ridge and hip caps.
   6. Provide sealant tape at lapped joints of metal roof panels and between panels and protruding equipment, vents, and accessories.
   7. Apply a continuous ribbon of sealant tape to weather-side surface of fastenings on end laps and on side laps of nesting-type metal panels, on side laps of ribbed or fluted metal panels, and elsewhere as needed to make metal panels weatherproof to driving rains.
   8. At metal panel splices, nest panels with minimum 6-inch end lap, sealed with butyl-rubber sealant and fastened together by interlocking clamping plates.

C. Metal Fascia Panels: Align bottom of metal panels and fasten with blind rivets, bolts, or self-drilling or self-tapping screws. Flash and seal metal panels with weather closures where fasciae meet soffits, along lower panel edges, and at perimeter of all openings.

3.4 EXTERIOR METAL WALL PANEL INSTALLATION

A. General: Install metal wall panels in orientation, sizes, and locations indicated on Drawings. Install panels perpendicular to girts, extending full height of building, unless otherwise indicated. Anchor metal wall panels and other components of the Work securely in place, with provisions for thermal and structural movement.
   1. Unless otherwise indicated, begin metal panel installation at corners with center of rib lined up with line of framing.
   2. Shim or otherwise plumb substrates receiving metal wall panels.
   3. When two rows of metal panels are required, lap panels 4 inches minimum.
   4. When building height requires two rows of metal panels at gable ends, align lap of gable panels over metal wall panels at eave height.
   5. Rigidly fasten base end of metal wall panels and allow eave end free movement for thermal expansion and contraction. Predrill panels.
   6. Flash and seal metal wall panels with weather closures at eaves and rakes, and at perimeter of all openings. Fasten with self-tapping screws.
   7. Install screw fasteners in predrilled holes.
   8. Install flashing and trim as metal wall panel work proceeds.
   9. Apply elastomeric sealant continuously between metal base channel (sill angle) and concrete, and elsewhere as indicated on Drawings; if not indicated, as necessary for waterproofing.
   10. Align bottom of metal wall panels and fasten with blind rivets, bolts, or self-drilling or self-tapping screws.
   11. Provide weatherproof escutcheons for pipe and conduit penetrating exterior walls.

B. Metal Wall Panels: Install metal wall panels on exterior side of girts. Attach metal wall panels to supports with fasteners as recommended by manufacturer.

3.5 THERMAL INSULATION INSTALLATION

A. General: Install insulation concurrently with metal panel installation, in thickness indicated to cover entire surface, according to manufacturer's written instructions.
   1. Set vapor-retarder-faced units with vapor retarder toward warm side of construction unless otherwise indicated. Do not obstruct ventilation spaces except for firestopping.
   2. Tape joints and ruptures in vapor retarder, and seal each continuous area of insulation to the surrounding construction to ensure airtight installation.
   3. Install factory-laminated, vapor-retarder-faced blankets straight and true in one-piece lengths, with both sets of facing tabs sealed, to provide a complete vapor retarder.
   4. Install blankets straight and true in one-piece lengths. Install vapor retarder over insulation, with both sets of facing tabs sealed, to provide a complete vapor retarder.

B. Blanket Roof Insulation: Comply with the following installation method:
   1. Over-Purlin-with-Spacer-Block Installation: Extend insulation and vapor retarder over and perpendicular to top flange of secondary framing. Install layer of filler insulation over

first layer to fill space formed by metal roof panel standoffs. Hold in place by panels fastened to standoffs.

a. Thermal Spacer Blocks: Where metal roof panels attach directly to purlins, install thermal spacer blocks.

2. Retainer Strips: Install retainer strips at each longitudinal insulation joint, straight and taut, nesting with secondary framing to hold insulation in place.

3.6 ACCESSORY INSTALLATION

A. General: 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 roof panel assembly, including trim, copings, ridge closures, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items.
   2. Install components for a complete metal wall panel assembly, including trim, copings, corners, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items.
   3. Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with corrosion-resistant coating, by applying rubberized-asphalt underlayment to each contact surface, or by other permanent separation as recommended by manufacturer.

B. 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. Install work with laps, joints, and seams that will be permanently watertight and weather resistant.
   1. Install exposed flashing and trim that is without excessive oil-canning, 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 to result in 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 or bayonet-type 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).

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

D. Downspouts: Join sections with 1-1/2-inch 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 or Tie downspouts to underground drainage system indicated.

E. Circular Roof Ventilators: Set ventilators complete with necessary hardware, anchors, dampers, weather guards, rain caps, and equipment supports. Mount ventilators on flat level base. Install preformed filler strips at base to seal ventilator to metal roof panels.

F. Roof Curbs: Install curbs at locations indicated on Drawings. Install flashing around bases where they meet metal roof panels.

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

3.7 FIELD QUALITY CONTROL

A. Special Inspections: Owner will engage a qualified special inspector to perform field quality control special inspections and to submit reports.

B. Product will be considered defective if it does not pass tests and inspections.

C. Prepare test and inspection reports.

END OF SECTION

Advancement of Construction Technology

SUBSTITUTION REQUEST

(During the Bidding Phase)

Project: Claremore Lake Ranger Maintenance Bldg

Substitution Request Number: _____

From: TRIPLE C LIGHTING & CONTROLS / Shane Bryant

To: Rick Scott / BKL / PEC

Date: 6/7/2024

A/E Project Number: _____

Re: LIGHTING FIXTURE SUBSTITUTION

Contract For: _____

Specification Title: LED Interior Lighting / LED Exterior Lighting

Description: _____

Section: 265119 / 265619 Page: _____

Article/Paragraph: _____

Proposed Substitution: Fixture types attached in the submittal link

Manufacturer: _____ Address: _____ Phone: _____

Trade Name: _____ Model No.: _____

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: Shane Bryant

Signed by: _____

Firm: TRIPLE C LIGHTING & CONTROLS

Address: 1212 W. MAIN ST
OKLAHOMA CITY, OK 73106

Telephone: (405)235-5456

A/E's REVIEW AND ACTION

☐ Substitution approved - Make submittals in accordance with Specification Section 01330.
☒ Substitution approved as noted - Make submittals in accordance with Specification Section 01330.
☐ Substitution rejected - Use specified materials.
☐ Substitution Request received too late - Use specified materials.

Products must be submitted during submittal phase. Products to meet all performance and aesthetic criteria.

Signed by: _____

Date: 06/13/24

Supporting Data Attached: ☐ Drawings ■ Product Data ☐ Samples ☐ Tests ☐ Reports ☐ _____

TRIPLE C INC
1212 W MAIN ST
OKLAHOMA CITY, OK 73106
Phone: 405-235-5456
Fax: 405-235-5445
Contact: Catlege, Misti

Claremore Lake Ranger Maintenance Bldg

24-33306-0

6/6/2024

Submission Type

- [x] Prior Approval
- [ ] Resubmittal for Approval
- [ ] Approval
- [ ] Corrections
- [ ] Your Use
- [ ] Other

SUBMITTAL REVIEW

- [ ] **REVIEWED**
- [x] **MAKE CORRECTIONS NOTED**

If checked above, fabrication MAY be undertaken and re-submittal is not required unless specifically noted in the correction comments. Review does not authorize changes to Contract Sum unless stated in a Change Order.

If checked below, fabrication MAY NOT be undertaken. Resubmit corrected copies for final approval. Correction shall be limited to items marked.

- [ ] **REVISE AND RESUBMIT**
- [ ] **REJECTED**

5/10

Reviewed is only for general conformance with the design concept of the project. Contractor at all times remains solely responsible for compliance with the Contract Documents, including dimensions and safety analyses. Deviations are not approved unless Contractor has in writing called Engineer's attention to such deviation at the time of submission and Engineer has in writing approved the specific deviation. No acceptance by Engineer relieves Contractor from responsibility for errors or omissions in Compliance Submittals.

PEC
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.

BY William.Renner DATE 06/10/2024

EB - Provide high output head options. ELM6L
WBE - Provide cold weather rated battery pack. E20WC
All fixtures verify finish with architect.

SUBSTITUTION REQUEST
(During the Bidding/Negotiating Stage)

Project: New Claremore Lake Rangers Station

Substitution Request Number: _____

From: Premier Lighting Sales - Jennifer Rozene

To: BKL Architecture

Date: 6 JUNE 2024

PEC Tulsa

A/E Project Number: 814-23-06

Re: Prior Approval

Contract For: _____

Specification Title: _____

Description: _____

Section: _____ Page: _____

Article/Paragraph: _____

Proposed Substitution: Lighting

Manufacturer: MULTIPLE Address: _____ Phone: _____

Trade Name: _____ Model No.: _____

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: Jennifer Rozene

Signed by: JENNIFER ROZENE

Firm: Premier Lighting Sales

Address: 4141-A So. 68th Street South
Tulsa, Ok 74145

Telephone: 918-669-9008

A/E's REVIEW AND ACTION

☐ Substitution approved - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
☒ Substitution approved as noted - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
☐ Substitution rejected - Use specified materials.
☐ Substitution Request received too late - Use specified materials.

Products must be submitted during submittal phase. Products to meet all performance and aesthetic criteria.

Signed by: _____ Date: 06/13/24

Supporting Data Attached: ☐ Drawings ☒ Product Data ☐ Samples ☐ Tests ☐ Reports ☐ _____

Form Version: January 2013
CSI Form 1.5C

Premier Lighting Sales
4141-A South 68th East Ave.
Tulsa OK
Phone: (918) 669-9008
Fax: (918) 669-9018

Date: Jun 6, 2024

Job Name
NEW CLAREMORE LAKE RANGERS STATION PROJECT
PLSTUL24-41536
CLAREMORE OK

Bid Date
Jun 18, 2024

Submittal Date
Jun 6, 2024

SUBMITTAL REVIEW

☐ **REVIEWED**

☒ **MAKE CORRECTIONS NOTED**
If checked above, fabrication MAY be undertaken and re-submittal is not required unless specifically noted in the correction comments. Review does not authorize changes to Contract Sum unless stated in a Change Order.

If checked below, fabrication MAY NOT be undertaken. Resubmit corrected copies for final approval. Correction shall be limited to items marked.

☐ **REVISE AND RESUBMIT**

☐ **REJECTED**

5/10

Reviewed is only for general conformance with the design concept of the project. Contractor at all times remains solely responsible for compliance with the Contract Documents, including dimensions and safety analyses. Deviations are not approved unless Contractor has in writing called Engineer's attention to such deviation at the time of submission and Engineer has in writing approved the specific deviation. No acceptance by Engineer relieves Contractor from responsibility for errors or omissions in Compliance Submittals.

PEC
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.

BY **William.Renner** DATE **06/10/2024**

Verify finishes with architect