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ADDENDUM #1

St Louis Public Schools

October 28, 2025

Bid Package No. 9 Projects – Camp Monroe

Contents:

1. **Note: This project is not a prevailing wage project.**
2. AE Issued Specification Section
 - 284600 – RIB Fire Detection and Alarm
3. Revised Electrical Bid Division Description
 - Updated 222300 Mechanical Bid Division Description
 - Updated 260000 Electrical Bid Division Description
4. Bid RFI's/Clarifications
 - RFI 1 Electric Demo Clarification
5. Pre-Bid Meeting Agenda and Sign in Sheet
6. The bid due date has not changed - November 6, 2025 @ 10:00 AM
7. **Be sure to note receipt of this Addendum on your bid form.**

BID PACKAGE NO. 9
RENOVATIONS TO:
CAMP MONROE
ST. LOUIS, MICHIGAN

PROJECT NO. 2021003.97

SECTION 284600 - FIRE DETECTION AND ALARM

PART 1 GENERAL

1.1 Section Includes

- A. Fire alarm system and associated components, including control units, related equipment, initiating devices, and notification appliances.

1.2 Related Requirements

- A. Section 260534 - Boxes for Electrical Systems.

1.3 Reference Standards

- A. 36 CFR 1191 - Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines; current edition.
- B. ADA Standards - 2010 ADA Standards for Accessible Design; 2010.
- C. NECA 1 - Standard for Good Workmanship in Electrical Construction; 2023.
- D. NECA 305 - Standard for Fire Alarm System Job Practices; 2018.
- E. NFPA 13 - Standard for the Installation of Sprinkler Systems; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- F. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- G. NFPA 72 - National Fire Alarm and Signaling Code; Most Recent Edition Cited by Referring Code or Reference Standard.
- H. NFPA 90A - Standard for the Installation of Air-Conditioning and Ventilating Systems; 2024.
- I. UL 38 - Standard for Manual Signaling Boxes for Fire Alarm Systems; Current Edition, Including All Revisions.
- J. UL 268 - Standard for Smoke Detectors for Fire Alarm Systems; Current Edition, Including All Revisions.
- K. UL 268A - Standard for Smoke Detectors for Duct Application; Current Edition, Including All Revisions.
- L. UL 464 - Standard for Audible Signaling Devices for Fire Alarm and Signaling Systems, Including Accessories; Current Edition, Including All Revisions.
- M. UL 521 - Standard for Heat Detectors for Fire Protective Signaling Systems; Current Edition, Including All Revisions.
- N. UL 864 - Control Units and Accessories for Fire Alarm Systems; Current Edition, Including All Revisions.
- O. UL 1449 - Standard for Surge Protective Devices; Current Edition, Including All Revisions.
- P. UL 1480 - Standard for Speakers for Fire Alarm and Signaling Systems, Including Accessories; Current Edition, Including All Revisions.
- Q. UL 1971 - Standard for Signaling Devices for the Hearing Impaired; Current Edition, Including All Revisions.

1.4 Administrative Requirements

- A. Coordination:

1. Coordinate arrangement of equipment with dimensions and clearance requirements of actual equipment.
 2. Coordinate placement of devices and notification appliances with potential conflicts or view obstructions.
 3. Coordinate work to provide power for equipment at required locations (e.g., smoke dampers, type of actuators, line or local control transformer, zoning, grouping and circuit activations).
 4. Coordinate requirements for branch circuit protection, identification, and shunt trip if applicable.
 5. Coordinate reflected ceiling plans to avoid conflicting placements; maintain minimum diffuser and detector clearances as indicated.
 6. Coordinate submittals to confirm equipment and associated components are capable of indicated settings, and manufacturer documentation identifies required compatible product listings.
 7. Notify Architect of conflicts with or deviations from Contract Documents. Obtain direction before proceeding with work.
- B. Preinstallation Meetings:
1. Conduct meeting with facility representative to review devices, notification appliances, and equipment locations.
 2. Conduct meeting with facility representative and other related equipment manufacturers to discuss fire alarm system interface requirements.
 3. Conduct meeting to review anticipated installation of code-required smoke control requirements, product solutions, and SOO.
 4. Convene one week before starting work for review of documented SOO for system applications.
- C. Sequencing:
1. Verify exact termination locations required for boxes, enclosures, and equipment.
 2. Do not install devices or notification appliances until final surface finishes, painting, and cleaning are complete, unless otherwise required by AHJ.
 3. Do not begin installation of conductors and cables until installation of conduit and pathways between termination points is complete.
 4. Sequence work to protect cabling (e.g., overspray painting, physical stress, and insulation damage or covering markings).
 5. Verify naming convention for equipment identification, including room names and numbers, prior to creation of final drawings, reports, and labels.
- D. Scheduling:
1. Arrange access to facility for data collection with facility representative.
 2. Where work involves interruption of existing electrical or fire alarm system service, arrange interruption with Owner.
 - a. Arrange test start and end with responsible reporting service. Confirm system normal operating mode and record as-found and as-left settings.
 - b. Arrange work to disable individual devices or circuits for minimal disruption if possible.
 - c. Arrange in accordance with NFPA 72 fire alarm system impairment requirements.
 - d. Where required by AHJ, arrange systems or partial system out of service interruption in accordance with requirements of building, life safety, and fire codes (e.g., approved fire watch plus required notifications, tags at each fire department connection and control valve, and AHJ notification when excess hours).

1.5 Submittals

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Evidence of designer qualifications.
- C. Comply with NFPA 72 chapter "Documentation," including noting names of installers, owners, and system classification information.
- D. Design Documents: Submit all information required for plan review and permitting by AHJ, including floor plans, riser diagrams, and description of operation.

1. Copy (if any) of list of data required by AHJ.
2. NFPA 72 "Record of Completion", filled out to extent known at time.
3. Clear and concise description of operation, with input/output matrix similar to that shown in NFPA 72 Appendix A, and complete listing of software required.
4. Manufacturer's detailed product data sheet for each component, including wiring diagrams, and circuit length limitations. Catalog pages and product descriptions include ratings, dimensions, finishes, service conditions, and included features.
5. Certification by manufacturer of FACU that system design complies with Contract Documents.
6. Certification by Contractor that system design complies with Contract Documents.
- E. Shop Drawings: Submit installation documentation required for plan review and permitting by AHJ, including floor plans showing locations of fire alarm system components, enlarged drawn to identified scale plan view, and riser diagrams.
 1. System zone boundaries and interfaces to fire safety systems.
 2. Show locations of components, circuits, and raceways; mark components with identifiers used in control unit programming.
 3. Include elevations and details of proposed equipment arrangements.
 4. Include system interconnection schematic riser diagram showing proposed and approved cable size and type; coordinated with floor plans and describing circuit class, survivability, and application specific information required by NFPA 72.
 5. Include typical wiring diagrams for devices, notification appliances, remote indicators, annunciators, remote test stations, and EoL and power supervisory devices.
 6. Include requirements and control diagrams for interfacing with other systems.
 7. Circuit layouts; number, size, and type of raceways and conductors; conduit fill calculations; standby and spare capacity calculations; notification appliance circuit loop resistance and voltage drop calculations, including spare capacity.
 8. List of devices and notification appliances on each SLC, with spare capacity indicated.
 9. Manufacturer's detailed data sheet for each component, including wiring diagrams, installation instructions, and circuit length limitations.
 10. Description of power supplies; if secondary power is by battery include calculations demonstrating adequate battery power.
 11. Detailed drawing of graphic annunciators, displays, and interfaces.
 12. Certification by either FACU manufacturer or manufacturer of related equipment.
 13. Certification by FACU manufacturer that system design complies with Contract Documents.
 14. Certification by Contractor that system design complies with Contract Documents.
- F. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation, and installation of product.
- G. Evidence of installer qualifications.
- H. Inspection and Test Reports:
 1. Submit inspection and test plan prior to closeout demonstration.
 2. Submit documentation of satisfactory inspections and tests.
 3. Submit NFPA 72 "Inspection and Test," filled out.
- I. Operating and Maintenance Data: See Section 01 7800 for additional requirements; revise and resubmit until acceptable; have one set available during closeout demonstration:
 1. Complete set of specified design documents, as approved by AHJ.
 2. Additional printed set of project record documents and closeout documents, bound or filed in same manuals.
 3. Contact information for firm that will be providing contract maintenance and trouble call-back service.
 4. List of recommended spare parts, tools, and instruments for testing.
 5. Replacement parts list with current prices, and source of supply.
 6. Detailed troubleshooting guide and large scale input/output matrix.

7. Preventive maintenance, inspection, and testing schedule complying with NFPA 72; provide printed copy and computer format acceptable to Owner.
8. Detailed but easy to read explanation of procedures require recording of system trouble events by qualified personnel, such as when routine testing is being conducted for fire drills and when entering into contracts for building renovations.
- J. Project Record Documents: See Section 01 7800 for additional requirements, have one set available during closeout demonstration:
 1. Complete set of floor plans showing actual installed locations of components, conduit, and zones.
 2. "As installed" wiring and schematic diagrams, with final terminal identifications.
 3. "As programmed" operating sequences, including control events by device, and updated input/output chart.
- K. Closeout Documents:
 1. Certification by manufacturer that system has been installed in compliance with manufacturer's installation requirements, is complete, and is in satisfactory operating condition.
 2. NFPA 72 "Record of Completion," filled out completely and signed by installer and authorized representative of AHJ.
- L. Maintenance Materials, Tools, and Software: Furnish the following for Owner's use in maintenance of project.
 1. Furnish spare parts of same manufacturer and model as those installed; deliver in original packaging, labeled in same manner as in operating and maintenance data and place in spare parts cabinet.

1.6 Quality Assurance

- A. Designer Qualifications: NICET Level IV (four) certified fire alarm technician or registered fire protection engineer, employed by FACU manufacturer, Contractor, or installer, with experience designing fire alarm systems in jurisdictional area of AHJ.
- B. Installer Qualifications: Firm with minimum three years documented experience installing fire alarm systems of specified type and providing contract maintenance service as regular part of their business.
 1. Authorized representative of FACU manufacturer; submit manufacturer's certification that installer is authorized; include name and title of manufacturer's representative making certification.
 2. Installer Personnel: At least two years of experience installing fire alarm systems.
 3. Supervisor: Level III (three) or Level IV (four) certified fire alarm technician; furnish name and address.
- C. Manufacturer Qualifications: Company specialized in manufacturing products specified in this section with at least three years of documented experience.

1.7 Delivery, Storage, and Handling

- A. See Section 017419 - Construction Waste Management and Disposal for packaging waste requirements.
- B. Receive, inspect, handle, and store products in accordance with manufacturer's instructions and NECA 305.
- C. Handle carefully to avoid damage to internal components, enclosure, and finish.
- D. Store products in manufacturer's unopened packaging, keep dry and protect from damage until ready for installation.

1.8 Field Conditions

- A. Maintain field conditions within manufacturer's required service conditions during and after installation.
- B. Do not exceed maximum ambient temperature requirements for batteries at any time, which reduces battery service life. Replace batteries exposed to temperatures in excess of manufacturer's requirements.

- C. Do not install or otherwise handle thermoplastic-insulated conductors at temperatures lower than 14 degrees F (minus 10 degrees C), unless otherwise permitted by manufacturer's instructions. When installation below this temperature is unavoidable, notify Architect and obtain direction before proceeding with work.

1.9 Warranty

- A. See Section 017800 - Closeout Submittals for additional warranty requirements.
- B. Fire Alarm Control Units and Accessory Equipment: Provide minimum 3-year manufacturer warranty covering repair or replacement due to defective materials or workmanship.
- C. Fire Alarm Manual Pull Stations: Provide minimum 1-year manufacturer warranty covering repair or replacement due to defective materials or workmanship.
- D. Fire Alarm System Detectors: Provide minimum 1-year year manufacturer warranty covering repair or replacement due to defective materials or workmanship.
- E. Fire Alarm System Notification Appliances: Provide minimum 1-year year manufacturer warranty covering repair or replacement due to defective materials or workmanship.

PART 2 PRODUCTS

2.1 Fire Alarm System

- A. General Requirements:
 - 1. Provide new fire alarm system complying with NFPA 70, NFPA 72, NFPA 90A, and consisting of required equipment, conduit, cabinets, outlet boxes, wiring, connectors, hardware, supports, accessories, components, software, and system programming as necessary for complete operating system that provides functional intent indicated.
 - 2. Comply with the following; where requirements conflict, order of precedence of requirements is as listed:
 - a. 36 CFR 1191 and ADA Standards.
 - b. Requirements of AHJ.
 - c. Applicable local codes.
 - d. Contract Documents.
 - e. NFPA 72; "should" is mandatory; where conflicts between requirements require deviation, identify deviations clearly on design documents.
 - 3. Fire Alarm System Products:
 - a. Listed, classified, and labeled as suitable for purpose intended.
 - b. Installation Environments: Provide products suitable for their respective indoor and outdoor applications.
 - 4. Fire Alarm System Design Information:
 - a. Building Code: Comply with Michigan Building Code.
 - 1) Principle Occupancy: As indicated on Architect code summary drawings.
 - 2) Principle Use: As indicated on Architect code summary drawings.
 - 3) Occupant Evacuation Method: Total building.
 - 4) Equipment Room Rating: None required.
 - b. NFPA 72 Fire Alarm System Classification: Protected premises.
 - 5. Provide fire alarm circuits in accordance with NFPA 70.
 - a. Comply with methods of interconnecting FACUs in accordance with NFPA 72 and NFPA 70.
 - b. Power Sources:
 - 1) Comply with requirements for power supplies of emergency systems in accordance with NFPA 70.

- 2) Primary: Dedicated branch circuits from facility power distribution system.
- 3) Secondary: Storage batteries with capacity to operate system for period specified by NFPA 72.
- c. Wiring and Wiring Methods:
 - 1) General Requirements:
 - a) Comply with requirements for wiring and wiring methods in accordance with NFPA 70.
 - b) Conductors and Cables Installed Exposed in Spaces Used for Environmental Air (only where specifically permitted): Plenum-rated, listed and labeled as suitable for use in return air plenums.
 - c) Special Occupancies: Comply with NFPA 70.
 - d) Comply with NFPA 70 for wire and cable plenum, riser, general-purpose, limited-use, undercarpet, and underground applications.
 - 2) Fire Alarm Circuits:
 - a) Comply with NFPA 70 for conditions and types required for multiconductor cable systems.
 - b) Non-Power-Limited Fire Alarm (NPLFA) Circuits:
 - 1 Provide dedicated NPLFA non-GFCI branch circuits for fire alarm equipment and marked by red identification in accordance with NFPA 70.
 - c) Power-Limited Fire Alarm (PLFA) Circuits:
 - 1 Provide identification for PLFA circuits in accordance with NFPA 70.
6. Provide pathway class designations and pathway survivability, as defined in NFPA 72.
 - a. Provide monitoring of conductors and other signaling channels for integrity and circuit performance.
 - b. Pathway Class Designations:
 - 1) Unless otherwise indicated or required, pathways to meet the following requirements:
 - a) SLCs: Class B (star, tee-tap, multi-tap, with no return).
 - b) IDCs: Class B (daisy-chain with EoL resistor device installed at end of circuit).
 - c) NACs: Class B (daisy-chain with EoL resistor device installed at end of circuit).
7. Spare System Capacity:
 - a. SLCs: Minimum 25 percent spare capacity.
 - b. NACs: Minimum 25 percent spare capacity.
8. Secondary Power Source - Battery Storage Capacity:
 - a. Provide standby (nonalarm) operation sufficient for 24 hours.
 - b. Provide additional alarm operation for 15 minutes.
 - c. Calculate combined of standby load plus alarm load for overall battery storage capacity requirements, per power supply.
 - d. Provide 25 percent additional overall battery capacity correction factor.
- B. Fire Alarm System Interfaces and Control Functions:
 1. UL 864 listed unless otherwise indicated.

2. Descriptions below are intended to provide means for interface. See project SOOs, narrative, and input/output matrix for execution requirements.
3. Provide initiating devices, interfaces, and control functions for emergency control function interfaces in accordance with NFPA 72.
4. Provide monitoring of interconnected systems. Coordinate notification appliance alternate markings as indicated on drawings.
5. Fire and Smoke Doors/Shutters/Curtains:
 - a. Automatic Fire and Smoke Door/Shutter/Curtain Release:
 - 1) Provide output signal for release of fire and smoke doors/shutters/curtains via addressable relay module and power isolation relay.
6. Electrically Locked Doors:
 - a. Comply with NFPA 72, building code, and life safety code requirements for electrically locked doors.
 - b. Lock Power Supplies: Provide independent power supplies.
7. HVAC Systems:
 - a. Air Handling Units (AHUs) and Roof Top Units (RTUs):
 - 1) Provide duct smoke detector on supply side of air stream for units over 2,000 cfm.
 - 2) Provide duct smoke detector on return side of air stream for units over 15,000 cfm.
 - 3) Provide remote test station for each duct smoke detector unless explicitly indicated as not required.
 - 4) Provide output signal to shut down units with at least one duct smoke detector via addressable relay module.
 - 5) Where fire/smoke dampers are located downstream of unit, provide monitoring point input to determine that unit is not operational and subsequently provide output signal to close such dampers via addressable relay module and power isolation relay.
 - b. Energy Recovery Units (ERUs):
 - 1) Provide duct smoke detector on supply side of air stream.
 - 2) Provide duct smoke detector on return side of air stream.
 - 3) Provide remote test station for each duct smoke detector unless explicitly indicated as not required.
 - 4) Provide output signal to shut down units with at least one duct smoke detector via addressable relay module.
 - 5) Where fire/smoke dampers are located downstream of unit, provide monitoring point input to determine that unit is not operational and subsequently provide output signal to close such dampers via addressable relay module and power isolation relay.
8. High Volume Low Speed (HVLS) Fans:
 - a. Provide interlocked shut down of all HVLS fans upon activation of waterflow switch, in accordance with NFPA 13 and NFPA 72.
 - b. HVLS Fan Shutoff:
 - 1) Provide output signal to stop fans via addressable relay module and power isolation relay.
 - 2) Fan shutoff activated by local smoke detection.
9. Fire/Smoke Dampers:
 - a. Provide output signal to close fire/smoke damper via addressable relay module and power isolation relay.
 - b. Fire/smoke damper activated as indicated on drawings.
 - 1) By addressable duct smoke detector.

2.2 Fire Alarm Control Units and Related Equipment

- A. Fire Alarm Control Units and Related Equipment: Listed and labeled as complying with UL 864.
- B. Provide cabinets and enclosures as indicated or as required to house system components.
- C. Fire Alarm Control Unit (FACU): Addressable.

1. SLCs and IDCs: Configurable for Class B or Class A with additional modules.
2. NACs: Integral and programmable with synchronization modules or cards as required.
3. Power Supply: 120 VAC, 60 Hz, supplying necessary power for FACU.
4. User-Interface: Touchscreen display for system interfacing and service mode settings, include password and user credentials; configurable for custom actions and incorporates historical event log.
5. Support self-testing detector capability.
6. Remote Annunciator Support: Up to 10.
7. Provide NAC expansion as required.
8. Networking: Not required.
- D. Notification Appliance Circuit Expansion:
 1. Where notification appliance circuit requirements exceed capacity of FACU, provide accessories and cabinets as required for expansion.
- E. Addressable Interface Modules:
 1. General Requirements:
 - a. Provide addressable modules suitable for connection to FACU SLCs.
 - b. Unless otherwise indicated, use addressable modules only in clean, dry, indoor, nonhazardous locations.
 2. Addressable Monitor Modules: Unless devices are explicitly permitted connected together on one zone; provide separate addressable monitor module for each conventional dry-contact input device in order to be individually identifiable by addressable FACU.
 3. Addressable Relay Modules:
 - a. Provide as indicated or as required to perform necessary functions via dry-contact interface.
 - b. Where load exceeds module contact rating, provide accessory power isolation relays suitable for load as required.
- F. Alarm Communication:
 1. Protected Premises Alarm and Signaling Systems:
 - a. Provide accessories as required for interface as indicated and as required by AHJ.
 - b. Provide accessories in accordance with building code, fire code, and life safety code requirements for occupancy classifications and use cases.
 - c. Include software and firmware control, required features, special requirements for low-power radio (wireless) systems, and fire alarm system interconnections required by NFPA 72.

2.3 Fire Alarm System Initiating Devices

- A. General Requirements:
 1. Addressable Systems:
 - a. Addressable Devices: Individually identifiable by addressable FACU; suitable for connection to FACU SLCs.
 - b. Conventional/Nonaddressable Devices: Provide addressable interface modules as indicated or as required for connection to addressable FACU. Unless devices are explicitly permitted to be connected together as one zone, provide separate addressable monitoring point for each device in order to be individually identifiable by addressable FACU.
 2. Provide devices and associated accessories suitable for intended application and location to be installed. Unless otherwise indicated, use addressable devices and addressable interface modules only in clean, dry, indoor, nonhazardous locations.
 3. Surface-Mounted Devices: Provide manufacturer's accessory surface mount backboxes or suitable outlet/device box.
 4. Devices for Outdoor and Damp/Wet Locations: Weatherproof, suitable for outdoor use; provide manufacturer's accessory backboxes or enclosures in accordance with product listing.
 5. Devices for Hazardous/Classified Locations: Listed and labeled as suitable for classification of installed location.
- B. Manual Fire Alarm Boxes/Pull Stations:

1. Description: Noncoded manual signaling boxes listed and labeled as complying with UL 38.
2. Alarm Initiation: Configured for general alarm initiation unless otherwise indicated; presignal stations (where indicated) require use of key to initiate general alarm.
3. Operation: Dual-action unless otherwise indicated or required.
 - a. Dual-Action Operation: First requires pushing, pulling, or lifting, then pulling of lever.
4. Color: Red, in accordance with NFPA 72.
5. Station Reset: Requires use of key or tool.
- C. Spot-Type Detectors:
 1. Utilize plug-in mounting to separate base with tamper-resistant feature; provide bases as indicated or as required.
 2. Addressable Detectors:
 - a. Provide LED indication of normal operation and regular communication with FACU and alarm condition.
 3. Smoke Detectors:
 - a. Listed and labeled as complying with UL 268.
 - b. Provide sensor type (e.g., photoelectric, ionization) as indicated.
 4. Thermal/Heat Detectors:
 - a. Listed and labeled as complying with UL 521.
 - b. Provide sensor type (e.g., fixed temperature, rate-of-rise) and rating as indicated.
- D. Duct Smoke Detectors:
 1. Listed and labeled as complying with UL 268A.
 2. Ratings: Compatible with air velocity, temperature, and humidity requirements for installed duct.
 3. Housing: Select as required for application.
 4. Sampling Tubes: Select as required for installation in duct to be monitored.

2.4 Fire Alarm System Notification Appliances

- A. General Requirements:
 1. Provide signaling notification appliances listed for fire-protective service and intended operating mode, public or private; suitable for connection to FACU notification appliance circuits.
 2. Provide notification appliances and associated accessories suitable for intended application and location to be installed. Use notification appliances only according to listed mounting (e.g. ceiling, wall).
 3. Surface-Mounted Notification Appliances: Provide manufacturer's accessory surface mount backboxes or suitable outlet/device box.
 4. Exterior Notification:
 - a. In addition to required occupant notification, provide notification appliances on exterior of building.
 - b. Outdoor and Damp/Wet Locations: Weatherproof, suitable for outdoor use; provide manufacturer's accessory backboxes or enclosures in accordance with product listing.
 - c. Visible Notification: Provide strobe beacon with red lens; interface to dedicated NAC or addressable control module, 24 VDC, supervised.
 5. Notification Appliance Derating: Include device derating adjustments in accordance with listing where applicable, including the following.
 - a. Where accessory protective guards or enclosures are utilized.
 - b. Where required by field conditions (e.g., ambient temperature and sound).
 6. Notification Appliance Color:
 - a. Wall-Mounted: Red.
 - b. Ceiling-Mounted: White.
 - c. See drawings for mounting configuration indicated by symbols on floor plans, system interconnection diagrams, and details.
- B. Visible Notification Appliances:

1. Public Mode Operation: Listed and labeled as complying with UL 1971.
2. Strobes: Clear or nominal white lens with flash rate of 1 Hz unless otherwise indicated or required; xenon or LED light source with maximum pulse duration of 0.02 seconds; candela rating as indicated.
 - a. Where field-selectable candela strobes are specified, substitution of fixed candela strobes is not permitted.
- C. Audible Notification Appliances:
 1. Listed and labeled as complying with UL 464.
 2. Rated Sound Pressure Level: As required to achieve design sound pressure levels, but not less than 75 dBA at 10 feet (3.1 m) for public mode operation or 45 dBA at 10 feet (3.1 m) for private mode operation in accordance with UL 464.
 3. Horns: Selectable tone, including at minimum NFPA 72 temporal 3 pattern and continuous; minimum of two selectable volume levels.
- D. Speakers for ECS:
 1. Listed and labeled as complying with UL 1480.
 2. Rated Sound Pressure Level: As required to achieve design sound pressure levels, but not less than 75 dBA at 10 feet (3.1 m) in accordance with UL 1480.
 3. Frequency Range: 400 to 4,000 Hz minimum in accordance with UL 1480; listed for producing 520 Hz low frequency alarm signal for sleeping areas in accordance with NFPA 72.
 4. Speaker Voltage: Field configurable, matched to audio distribution circuit voltage.
 5. Provide minimum of four field-selectable power taps.
- E. Combination Notification Appliances: Comply with respective requirements for each signaling method.
- F. Accessories:
 1. Notification Appliance Bases: White, unless otherwise indicated.
 2. Provide guards to protect notification appliances where subject to mechanical damage; listed for use with notification appliance.

2.5 Wire and Cable

- A. General Requirements:
 1. Comply with NFPA 70 listing and marking requirements for cables.
 2. Substitution of fire alarm listed cables for communication wiring, in accordance with NFPA 70, is not permitted.
 3. Provide cables as indicated or as required for connections between system components.

2.6 Accessories

- A. Provide components as indicated or as required for connection of fire alarm system to devices and other systems indicated.
- B. Provide EoL resistors as required for wiring supervision.
- C. Protective Covers for Fire Alarm Devices:
 1. Listed to same standard as device being protected.
 2. Outdoor Covers: Weather resistant, suitable for outdoor use; use only with outdoor-rated devices.
 3. Provide guards to protect devices where subject to mechanical damage; listed for use with detector.
 - a. Protective Covers for Manual Pull Stations:
 - 1) Provide protective covers with hinged access for manual pull stations where indicated.
 - 2) Listed and labeled as complying with UL 38.
 - 3) Outdoor Covers: Weather resistant, suitable for outdoor use; use only with outdoor rated devices.
- D. Surge Protection:
 1. Line Voltage Surge Protection:

- a. Provide for each line voltage circuit serving fire alarm system control units and related equipment (e.g., FACU, field booster panels, nodes, and transponders).
- b. Listed and labeled as complying with UL 1449.

PART 3 EXECUTION

3.1 Examination

- A. Verify that mounting surfaces are ready to accept components and equipment, with suitable support frames and anchors installed where required.
- B. Verify ratings, configurations, and characteristics of system components.
- C. Verify rough-ins for field connections.
- D. Verify that work likely to damage fire alarm system has been completed.
- E. Verify that interior of building has been protected from weather.
- F. Perform preinstallation tests and inspections per manufacturer's instructions and in accordance with NECA 305.
- G. Verify that system bonding is in accordance with Section 260526.
- H. Do not energize system until deficiencies have been corrected.
- I. Verify that branch circuit wiring installation is completed, tested, and ready for connection to fire alarm system. Overcurrent protection ratings are consistent with circuit voltage and manufacturer's recommendations and nameplate data for equipment.

3.2 Installation

- A. Install field-devices, components, FACU and related equipment, and accessories in accordance with the following:
- B. Field Locations:
 1. Obtain Owner's approval of locations of devices and notification appliances before installation.
 2. Arrange equipment to provide minimum operational clearances and required maintenance access in accordance with manufacturer's instructions and NFPA 70.
 3. Conceal wiring, conduit, outlet boxes, and supports where installed in finished areas; maintain code-required access.
- C. Raceways and Supports:
 1. Coordinate locations of outlet boxes as required for installation. Only install boxes and equipment at locations based on application standards indicated in NFPA 72.
 2. Secure and support raceways at intervals complying with NFPA 70. Provide supports where vertical rise exceeds permissible limits.
 3. Provide minimum of six spare 1-inch (27 mm) trade size conduits out of each fire alarm panel stubbed into accessible space above ceiling.
 4. Install firestopping to preserve fire resistance rating of partitions and other elements.
- D. Wiring and Connections:
 1. Maintain separation of Class 1, Class 2, Class 3 remote-control, signaling, fire alarm circuits, and power-limited circuits in accordance with cable insulation class and NFPA 70.
 2. Maintain circuit pathway and class designations in accordance with NFPA 72 for configuration, separation, and survivability.
 3. Comply with permitted and not permitted installations for wires, cables, cable routing assemblies, communications circuits, and fire alarm circuits in accordance with NFPA 70.
 4. Secure and support conductors and cables in accordance with NFPA 70 using suitable supports and methods approved by AHJ. Provide independent support from building structure and suspended ceiling systems. Do not provide support from raceways, piping, ductwork, or other systems.

5. Provide grounding and bonding in accordance with Section 260526.
6. Comply with manufacturer's minimum cable sizes or ratings.
7. Do not exceed manufacturer's recommended maximum power, signal, or network cable lengths between components.
8. Provide network wiring in accordance with NFPA 70.
9. Neatly train and bundle conductors inside boxes, wireways, and cabinets.
10. See manufacturer's instructions for batteries.
- E. Fire Alarm System Components:
 1. Install field-installed devices, components, relays, notification appliances, accessories, and when applicable EoL resistors.
 - a. Install wiring to supervisory devices and associated EoL resistors as required for supervision of hardwired connections
 2. Install Wall-Mounted Equipment: Assemble component hardware within (e.g., card bays, sub-bays, expansion bays, signal cards, other card frames, networking, signal transmission, application modules, tamper monitoring devices, interconnecting modules, and auxiliary power supplies), including space for required spare capacity, and configure settings.
 3. Install Interconnect Wiring: Connect system cabinets, install processor and cards, cabling, connectors, terminations, and bonding.
- F. Branch Power:
 1. After installation confirmations, follow manufacturer instructions to connect branch circuit power cables to premises fire alarm system components; comply with NFPA 70.
 2. Where accessories require auxiliary power, provide control power source and monitoring as indicated or as required to complete installation.
 3. Install auxiliary power supplies, including indicated monitoring, and connections necessary for remote equipment.
- G. System Identification:
 1. Identify devices, notification appliances, components, cables, and equipment in accordance with approved submittals. See Section 260553.
 2. Confirm fire alarm system programming meets requirements of SOO and sub-system SOOs.
 3. Mark location of disconnecting means for NPFLA circuits.
 4. Coordinate to provide red branch power circuit protective devices or identify them accordingly as required by NFPA 72 and NFPA 70.
 5. Mark date of batteries installed on inside cover of panels and formal maintenance logs.
- H. Troubleshooting and Installer Checks:
 1. Field test connectivity periodically during installation process to avoid unexpected troubleshooting.
 2. Check system operation for notification, FACU functions, circuit supervision, alarm initiating devices, supervisory initiating devices, dress panels/doors/covers, and programming before performing field tests.
- I. Fire Alarm System Tests:
 1. Perform required tests of NFPA 72. Record measured values during operational checks.
 2. Confirm functional testing of fire alarm system is as indicated in Contract Documents.

3.3 Field Quality Control

- A. See Section 014000 - Quality Requirements for additional requirements.
- B. Provide services of manufacturer's authorized representation to observe installation and assist in inspection, testing, and adjusting. Include manufacturer's detailed testing procedures and field reports and with submittals.
- C. Provide equipment, two-way radios for testing personnel use, tools, and supplies required to accomplish inspection and testing.
- D. Notify Owner and Architect at least two weeks prior to scheduled inspections and tests.
- E. Inspect and test in accordance with manufacturer's instructions.

- F. Inspect wiring and components for damage and defects.
- G. Batteries and Power Supplies: Perform inspections and tests listed in manufacturer installation instructions.
- H. Perform additional requirements related to testing and inspection during system startup.
- I. Test for interface with other systems.
- J. Test shunt trips to verify operation.
- K. Correct defective work, adjust for operation, and retest until entire system complies with Contract Documents.
- L. Submit detailed reports indicated inspection and testing results, corrective actions taken, and as-found and final adjusted settings.

3.4 System Startup

- A. Obtain Owner approval prior to performing system startup.
- B. Manufacturer Services: Provide services of manufacturer's authorized representation to systems startup. Include manufacturer's detailed startup procedures with submittals.

3.5 Adjusting

- A. Adjust tightness of mechanical and electrical connections to manufacturer's recommended torque settings.
- B. Adjust initiating device and notification appliance settings to achieve desired operation as indicated in submittals.
- C. Measure power supply primary and secondary voltages, log values for records, and make appropriate adjustments.
- D. Adjust alignment of equipment covers and doors. Provide keys and spare keys to Owner.
- E. Reprint and reinstall damaged or misinstalled labels; maintain neat and square to installed location good workmanship - see NECA 1; maintain consistent placements for identification on products of similar type.
- F. Adjust devices or notification appliances and associated bases to be flush and level.
- G. Program system parameters according to requirements of Owner.

3.6 Cleaning

- A. See Section 017000 - Execution and Closeout Requirements for additional requirements.
- B. See Section 017419 - Construction Waste Management and Disposal for field-generated construction waste requirements.
- C. Check tightness of electrical connections. Replace damaged components and provide closure plates for vacant positions. Provide circuit directory updates for related power branch circuits.
- D. Clean and repair existing materials and equipment that remain or are indicated for reuse.
- E. Clean dirt, debris, plaster, and other foreign materials from outlet boxes and fire alarm system equipment and components.
- F. Clean fire alarm system equipment and components according to manufacturer's instructions and NECA 305.
- G. Clean surfaces and interiors of boxes and device cover plates in accordance with manufacturer's instructions to remove dirt, fingerprints, debris, plaster, and other foreign materials.
- H. Repair scratched or marred exposed surfaces to match original factory finish.
- I. Comply with federal (EPA), state, and local regulations for battery handling and disposal. Do not spill battery fluids down plumbing drains. Only use containers safe for transportation marked 'nonspillable.'

3.7 Inspection and Testing for Completion

- A. Notify Owner 7 days prior to beginning completion inspections and tests.
- B. Notify AHJ and comply with their requirements for scheduling inspections and tests and for observation by their personnel.
- C. Provide services of installer's supervisor or person with equivalent qualifications to supervise inspection and testing, correction, and adjustments.
- D. Prepare for testing by ensuring that work is complete and correct; perform preliminary tests as required.
- E. Provide tools, software, and supplies required to accomplish inspection, testing, and document results.
- F. Perform inspection and testing in accordance with NFPA 72 and requirements of AHJ; document each inspection and test.
- G. Correct defective work, adjust for operation, and retest until entire system complies with Contract Documents.

3.8 Closeout Activities

- A. See Section 017800 - Closeout Submittals for additional submittals.
- B. See Section 017900 - Demonstration and Training for additional requirements.
- C. Closeout Demonstration: Demonstrate operation of all functions to Owner.
 - 1. Be prepared to conduct any of required tests.
 - 2. Have minimum one copy of operation and maintenance data, preliminary copy of project record drawings, input/output matrix, and operator instruction chart(s) available during demonstration.
 - 3. Have authorized technical representative of FACU manufacturer present during demonstration.
 - 4. Demonstration may be combined with inspection and testing required by AHJ; notify AHJ with enough time to schedule demonstration.
 - 5. Repeat demonstration until successful.

3.9 Protection

- A. Protect installed fire alarm system from subsequent construction operations.

END OF SECTION 284600

Bid Division: 230000 – HVAC Systems

Bid to Include:

Total Responsibility for Specification Sections:

Section 230500 – Common work results for HVAC
Section 230553 – Identification for HVAC systems and equipment
Section 230593 – Testing, Adjusting, and Balancing for HVAC
Section 230713 – Duct Insulation
Section 231126 – Facility liquid-petroleum gas piping
Section 233100 – HVAC ducts and castings
Section 233300 – Air duct accessories
Section 233423 – HVAC power ventilators
Section 233700 – Air outlets and inlets
Section 235400 – Furnaces

Limited Responsibility for Specification Sections (as it relates to work in this Bid Division):

Section 02070 – Selective Demolition (Disconnect and isolate gas lines prior to demolition)

Provide all labor, materials, tools, and equipment necessary to perform the work of the specified bid sections. The contractor must also furnish, deliver, unload, store, protect, erect and install all items required for the completion of the work of this bid division in compliance with all drawings and specifications for a complete operational system including but not limited to:

Plumbing, heating, ventilating, air conditioning, balancing, temperature control, etc., for a complete operational system.

General Inclusions:

1. There is no general contractor associated with this project; any and all reference to a “general contractor” related to the work of this bid division shall be understood to mean the contractor of this bid division.
2. The contractor for this bid division work is required to include but is not limited to all items, services, tasks, materials, personnel, equipment, etc. identified in this bid division description regardless of the presence of language in other bid division descriptions that is the same or is similar to that found in this contractor’s bid division description.
3. Coordination of the work of this bid division with any and all work of other bid division contractors for the scheduling and integration of the work of this contractor.
4. All contractors are responsible for the complete set of plans and specifications; including tables, schedules, and notes.
5. Provide continuous housekeeping and clean-up, and proper legal off-site disposal of any debris generated by this Bid Division’s work.
6. The construction manager will be responsible for project dumpsters and disposal charges thereof with the following exceptions. All earthwork, concrete, site, and masonry items are the responsibility of that trade contractor. Initial demolition removal and disposal of the existing building materials is the responsibility of the general trades contractor.
7. All Contractors are required to inspect the existing project components and are to include all work necessary to complete the work to deliver a fully operational system in compliance with all governing codes.
8. This Contractor shall be responsible for performing all work in full compliance with all health and safety standards including Asbestos Awareness and Notification, Lead Paint Abatement, and all MIOSHA Standards. This Contractor shall also be responsible for satisfying all safety violations and/or fines resulting from the actions or lack of action by this Contractor at the sole expense of this Contractor.

Bid Division: 230000 – HVAC Systems

9. Any contractor who compounds a mistake by installing their product on another Contractor's obvious faulty work will assume responsibility for repair of said work.
10. This contractor shall repair and restore any damaged area to an original or better condition with no detectable evidence that the area has been repaired. Repairs must be done by personnel qualified in the execution of the work skilled and licensed in that trade. Whenever possible, repairs to work shall be done by the original installer of the work.
11. Submittal of all insurance, unit pricing, schedule of values, required product data and shop drawings within (2) two weeks of Owner's Notice to commence work.
12. Must provide all submittals within 20 working days of contract award or sooner, unless specifically clarified with the construction manager prior to contract award.
13. Provide all layout and measurements required to perform the work of this Bid Division.
14. The Owner reserves the right to salvage any materials removed from the site during the duration of the project.
15. Coordinate delivery of materials with Construction Manager (48 hours) in advance of the delivery, and provide proper personnel and equipment to perform the unloading.
16. Contractor shall submit to the field construction manager a complete written daily field report stating the work being done on site and the number of employees performing the work for each day the Contractor has representatives on site.
17. Contractor shall have a supervisor on site at all times when a crew is present on the job.
18. On Friday, or last workday of each week, the Contractor must update the Master Copy of As-Builts, as it applies to the work of their Bid Division.
19. **Wolgast uses a web-based construction software. Please note: We will upload all drawings, and drawing revisions as they are approved, to the Drawings tool. However, it is each contractor's responsibility to verify that they are working from the most up-to-date, approved, drawings.**
20. Review the milestone schedules. This bid division's work will be required to be completed at multiple locations and concurrently for some of the work. Prepare your bid proposal accordingly to allow for sufficient manpower and resources to meet the completion date. If overtime work is required to keep the project on schedule, this contractor shall include any overtime or premium rates in their bid proposal as necessary. Note that the timing of all tasks may change as required to stay on schedule and no contractor shall cause a delay in meeting their own or any other contractor's obligations as it pertains to the milestone schedule. The milestone schedule will be used as a template to create the construction schedule once input has been received from all awarded contractors, however the completion dates as listed in milestone schedule will need to be achieved.
21. **Mandatory response to ALL Bulletins issued within time frame given, to include "no cost change".**
22. **Mandatory attendance at all required pre-construction meetings.**
23. Completion of all punch list work within 5 working days or less upon receipt of punch list items, unless specific circumstances occur that are out of control of this bid division contractor dictate otherwise.
24. **Provide required manpower along with required work hours (including weekends if required) to meet the indicated schedule. There will be no cost compensation to meet schedule, if this contractor is behind the published milestone schedule.**

Division Inclusions:

1. Review the milestone schedules. Prepare your bid proposal accordingly to allow for sufficient manpower and resources.
2. Concrete Patching for mechanical and electrical trades by Bid Division 060000
3. Selective Demolition to include capping and isolation of gas line prior to demolition by other trades.
4. Provide all blocking required for plumbing fixture mounting.
5. Perform all connections between site utilities and building, coordinate with site contractor on utilities.
6. Removal of all HVAC fixtures per demolition plans.
7. Provide proper repair of all ceilings, walls, floors, etc., when installing new piping fixtures and hangers.
8. Furnish and install all fixtures in cabinetry as required.

Bid Division: 230000 – HVAC Systems

9. Provide all final connections and hook-ups for kitchen equipment.
10. Furnish all louvers and access panels to masonry and drywall contractors for installation.
11. Provide shop drawings to State Fire Marshall for Plan Review (allowing sufficient time for changes that may be made and must be completed prior to beneficial occupancy).
12. Patch all demolished areas and items affected by HVAC & plumbing demolition to a condition ready to receive finishes and finish materials (finish materials by others, i.e. carpet, tile paint, etc.).
13. Perform all excavating, backfill, and compaction required for any work of this bid division.
14. Furnish and install duct detectors, back draft dampers, etc. as shown and specified, and/or required by Code.
15. Perform all demolition necessary for the completion of the work of this Bid Division as shown and specified.
16. Provide coordination with roofing and metal contractors for roof penetrations, equipment rails and pipe boots including layouts.
17. Maintain fire rating in all walls penetrated.
18. Remove spoils from site.
19. Provide all required layout and verify that no conflict occurs with other trades.
20. Furnish operating and maintenance manuals.
21. Provide record and as-built drawings.
22. Provide all necessary connection between temperature control and instrumentation devices and equipment to be controlled.
23. Provide roof curbs for rooftop equipment.
24. Provide all permits required.
25. Provide all required work to prepare each piece of equipment to receive and allow for proper installation and operation of the temperature control modules and related automatic temperature control devices.
26. Provide all State Certification for equipment (boilers, etc.).
27. Refer to all equipment schedules for additional equipment to be furnished and installed (including kitchen equipment and kitchen equipment schedules).
28. Furnish test and balance reports.
29. Contractor shall coordinate phased delivery of all pre-purchased equipment with supplier.
30. Contractor shall furnish and install temporary insulated weather-tight closures of openings created as a result of the work in this scope in exterior surfaces to provide acceptable working conditions and protection for materials, to allow temporary heating, and building security.
31. Remove, clean and reinstall all existing grids, vents, registers and diffusers including those mounted in metal ceiling grid systems as required by plan.
32. All HVAC equipment is to be completed with all motor starters, disconnects or other items to allow for the proper operation of the system.
33. Disconnect all roof top units to allow roofing contractor to raise and replace flashings as required.
34. Provide start-up training with Owner Representative, Architect and Construction Manager for all equipment installed.
35. Final installation and all work by this bid division must comply with governing building and life safety codes.

Project Inclusions:

1. Disconnect gas lines per demo plans prior to general demolition by bid division 060000
2. This contractor to coordinate with other trades for any HVAC ceiling and roof penetrations.
3. Refer to Mechanical drawings for all HVAC Schedules and equipment requirements.
4. Gas line to be routed overhead to unit heater in live stock area from furnace room.
5. Provide test and balance to ensure proper air exchange for live stock, feed storage, and staff areas.
6. Coordinate with general trades contractor for mechanical equipment to remain for any specific requirements per drawings.
7. Coordinate with general trades contractor for steel ceiling panels be installed in livestock areas before HVAC work to be installed.
8. Provide cleaning of existing ductwork and grilles to remain per drawings.

9. This contractor is required to contract with CCS (Commercial Controls Systems) for all controls work on this project, and any and all fee associated with controls are to included in the base bid.

Wolgast Corporation – Construction Management

Bid Division: 230000 – HVAC Systems

Consideration for award:

The ability to begin as soon as areas of work become available. To have proper equipment and responsible personnel to complete the above list of work. To repair any adjacent materials damaged in the execution of the above listed work. Close cooperation with the Construction Manager and other bid divisions to provide input to develop a working schedule. An approved schedule of values will be required before approval is granted for the first payment request. Expediting communication and follow-up as required.

END OF BID DIVISION 230000

Bid Division: **260000 – Electrical** **Revised via addendum #1**

Bid to Include:

Total Responsibility for Specification Sections:

Section 260505 – Selective Demolition for Electrical
Section 260519 – Low-Voltage electrical power conductors and cable
Section 260526 – Grounding and Bonding for electrical systems
Section 260529 – Hangers and supports for electrical systems
Section 260533.13 – Conduit for electrical systems
Section 260533.16 – Boxes for electrical systems
Section 260533 – Identification for electrical systems
~~Section 260573 – Power system studies~~ **removed from scope via Addendum 1**
Section 260923 – Lighting control devices
Section 262100 – Low-voltage electrical service entrance
Section 262416 – Panelboards
Section 262726 – Wiring devices
Section 262813 – Fuses
Section 262816.16 – Enclosed switches
Section 264300 – Surge protective devices
Section 265100 – Interior Lighting
Section 265600 – Exterior Lighting

Section 284600 - RIB Fire Detection and Alarm - added via Addendum 1

Limited Responsibility for Specification Sections (as it relates to work in this Bid Division):

Section 02070 – Selective Demolition (Disconnect All power per electrical demolition plan)

Provide all labor, materials, tools, and equipment necessary to perform the work of the specified bid sections. The contractor must also furnish, deliver, unload, store, protect, erect and install all items required for the completion of the work of this bid division in compliance with all drawings and specifications for a complete operational system including but not limited to:

All conduit, boxes, switches, etc., for a complete operational system.

General Inclusions:

1. There is no general contractor associated with this project; any and all reference to a “general contractor” related to the work of this bid division shall be understood to mean the contractor of this bid division.
2. The contractor for this bid division work is required to include but is not limited to all items, services, tasks, materials, personnel, equipment, etc. identified in this bid division description regardless of the presence of language in other bid division descriptions that is the same or is similar to that found in this contractor’s bid division description.
3. Coordination of the work of this bid division with any and all work of other bid division contractors for the scheduling and integration of the work of this contractor.
4. All contractors are responsible for the complete set of plans and specifications; including tables, schedules, and notes.
5. Provide continuous housekeeping and clean-up, and proper legal off-site disposal of any debris generated by this Bid Division’s work.
6. The construction manager will be responsible for project dumpsters and disposal charges thereof with the following exceptions. All earthwork, concrete, site, and masonry items are the responsibility of that trade contractor. Initial demolition removal and disposal of the existing building materials is the responsibility of the general trades contractor.

Wolgast Corporation – Construction Management

Bid Division: 260000 – Electrical

7. All Contractors are required to inspect the existing project components and are to include all work necessary to complete the work to deliver a fully operational system in compliance with all governing codes.
8. This Contractor shall be responsible for performing all work in full compliance with all health and safety standards including Asbestos Awareness and Notification, Lead Paint Abatement, and all MIOSHA Standards. This Contractor shall also be responsible for satisfying all safety violations and/or fines resulting from the actions or lack of action by this Contractor at the sole expense of this Contractor.
9. Any contractor who compounds a mistake by installing their product on another Contractor's obvious faulty work will assume responsibility for repair of said work.
10. This contractor shall repair and restore any damaged area to an original or better condition with no detectable evidence that the area has been repaired. Repairs must be done by personnel qualified in the execution of the work skilled and licensed in that trade. Whenever possible, repairs to work shall be done by the original installer of the work.
11. Submittal of all insurance, unit pricing, schedule of values, required product data and shop drawings within (2) two weeks of Owner's Notice to commence work.
12. Must provide all submittals within 20 working days of contract award or sooner, unless specifically clarified with the construction manager prior to contract award.
13. Provide all layout and measurements required to perform the work of this Bid Division.
14. The Owner reserves the right to salvage any materials removed from the site during the duration of the project.
15. Coordinate delivery of materials with Construction Manager (48 hours) in advance of the delivery, and provide proper personnel and equipment to perform the unloading.
16. Contractor shall submit to the field construction manager a complete written daily field report stating the work being done on site and the number of employees performing the work for each day the Contractor has representatives on site.
17. Contractor shall have a supervisor on site at all times when a crew is present on the job.
18. On Friday, or last workday of each week, the Contractor must update the Master Copy of As-Built, as it applies to the work of their Bid Division.
19. **Wolcast uses a web-based construction software. Please note: We will upload all drawings, and drawing revisions as they are approved, to the Drawings tool. However, it is each contractor's responsibility to verify that they are working from the most up-to-date, approved, drawings.**
20. Review the milestone schedules. This bid division's work will be required to be completed at multiple locations and concurrently for some of the work. Prepare your bid proposal accordingly to allow for sufficient manpower and resources to meet the completion date. If overtime work is required to keep the project on schedule, this contractor shall include any overtime or premium rates in their bid proposal as necessary. Note that the timing of all tasks may change as required to stay on schedule and no contractor shall cause a delay in meeting their own or any other contractor's obligations as it pertains to the milestone schedule. The milestone schedule will be used as a template to create the construction schedule once input has been received from all awarded contractors, however the completion dates as listed in milestone schedule will need to be achieved.
21. **Mandatory response to ALL Bulletins issued within time frame given, to include "no cost change".**
22. **Mandatory attendance at all required pre-construction meetings.**
23. Completion of all punch list work within 5 working days or less upon receipt of punch list items, unless specific circumstances occur that are out of control of this bid division contractor dictate otherwise.
24. **Provide required manpower along with required work hours (including weekends if required) to meet the indicated schedule. There will be no cost compensation to meet schedule, if this contractor is behind the published milestone schedule.**

Division Inclusions:

1. Contractor shall maintain existing electrical systems in fully functional order in all areas of the building during the duration of the project.
2. Contractor shall coordinate with utility company for purchase and installation of exterior transformers and associated work, if required.

Bid Division: 260000 – Electrical

3. Contractor shall coordinate with concrete contractor for locations of housekeeping pads and transformer pads. Concrete is by concrete contractor, layout and coordination is by electrical contractor.
4. Contractor shall furnish and install temporary insulated weather-tight closures of openings created as a result of the work in this scope in exterior surfaces to provide acceptable working conditions and protection for materials, to allow temporary heating, and building security.
5. Contractor is responsible for disconnecting, removing and legal and proper off site disposal of all indicated existing light fixtures including ballasts and bulbs. Ballasts shall be assumed to contain PCB's. Provide Owner with appropriate documentation of disposal.
6. Remove, clean and reinstall light fixtures where indicated.
7. Concrete Patching for mechanical and electrical trades by Bid Division 060000.
8. Selective Demolition.
9. Provide hook-up, final connection and interlocks for all HVAC equipment as needed
10. Provide all permits required.
11. Supply and install exterior lights. (Including parking lot light bases.)
12. Remove spoils from site.
13. Provide all means necessary to provide temporary transformers to keep the school in operation before the final power turnover is complete.
14. Provide all cutting and patching required for existing tie-ins.
15. Maintain fire rating at all walls penetrated.
16. All excavation, backfill, compaction, and disposal of spoil for any electrical work placed below finish grade.
17. Coordinate with other trades for rough-in locations.
18. Provide temporary lighting and power distribution. A minimum of 100 watts of temporary lighting per 250 SF of floor area.
19. Provide all plywood or nailers required for mounting of electrical, audio, fire alarm or phone equipment.
20. Furnish any access hatches to mason and drywall contractors for installation required for electrical work.
21. Final hook-up of all equipment for other disciplines of work.
22. Patch all demolished areas affected by the electrical demolition to a condition ready to receive finish materials (finish materials by others, i.e. tile, carpet, etc.).
23. Perform all required demolition required for this trade as shown and specified.
24. Furnish and install all light and power fixtures in cabinetry.
25. Provide all final connection for kitchen equipment.
26. Supply and install a complete & operational fire protection alarm system.
27. Contractor is responsible for complete code compliance of Fire Alarm System.
28. Provide "As Built" Drawings for work.
29. Provide shop drawings to State Fire Marshal Plan Review or governing authority (allowing sufficient time for changes that may be made and must be completed prior to beneficial occupancy.)
30. Provide proper repair of all damaged ceilings, walls, floors, etc., when installing new fixtures.
31. Install pull box and chase conduit for temp control.
32. Provide Owner with training of new equipment.

Project Inclusions:

1. Disconnect all power per electrical demo plan prior to general demo by Bid division 060000
 - a. Power to below units to be disconnected prior to demolition by general trades:
 - i. Fire alarm control panel.
 - ii. Security panel back to source.
 - iii. Power to meters. Feeders to remain for reuse.
 - iv. Feeder to barn (to be reworked to new panel)
2. This contractor to include power connection to all new HVAC units in drawings.
3. This contractor to install conduits with pull strings in all locations requiring access control per drawings.
4. This contractor responsible for all low voltage wiring. Cameras to be installed by owner this contractor to include low voltage wiring pulled to each location. Coordinate with district for locations of cameras.

St. Louis Public Schools Bid Pack 9 Camp Monroe**Building Renovations****Bid Division Descriptions**

5. This contractor to coordinate with fire alarm contractor for all low voltage wire per drawings.
6. Power to be ran for new parking lot poles (coordinate with site contractor if alternate is chosen)
7. Emergency lighting to be installed per lighting plan.
8. Coordinate with Fire Alarm company for low voltage wiring.
9. Bathroom exhaust fan power to be ran through room lighting control.
10. Provide well pump feeder wire per plans.
11. Three way programmable switch with override for livestock areas per plan.

Consideration for award:

The ability to begin as soon as areas of work become available. To have proper equipment and responsible personnel to complete the above list of work. To repair any adjacent materials damaged in the execution of the above listed work. Close cooperation with the Construction Manager and other bid divisions to provide input to develop a working schedule. An approved schedule of values will be required before approval is granted for the first payment request. Expediting communication and follow-up as required.

END OF BID DIVISION 260000

CLARIFICATION REQUEST FORM

Date: 10-24-25

To: Wolgast Corporation
Clinton Clark or **Christie Bigelow-Huver**
4835 Towne Centre Road, Suite 203
Saginaw, MI 48604
Phone (989) 790-9120, Fax (989) 790-9063

Wolgast Clarification Request
#: RFI-1

Bid Division # and Name: 2600000 Electrcial

CSI Code (If Applicable): _____

Drawing #: ED0.1 and ES0.1 Detail or Item #: _____

Reason for Request: ☒ More Detail Needed ☐ Engineering Clarification ☐ Alternate Proposal ☐ Other

Project: St. Louis Public Schools Bond Projects

Site Location: Camp Monroe

ITEM(S) FOR CLARIFICATION OF BID: (Please use one form for each item)

Please review and respond to the following item(s) for clarification:

Electrical contractor is to only make electrical items safe for demo correct? Other contractor
will remove raceways, wiring, light fixtures and misc electrical items?

RESPONSE: ☐ **ITEM TO BE INCLUDED IN ADDENDUM**

Electrical contractor to disconnect all mechanical units and any electrical items fed
through conduit under exiting concrete. Demolition and disposal of all items by General
Trades Contractor.

Construction Manager: _____
Signature Date

Architect: _____
Signature Date

END OF SECTION 00310

Meeting agenda

Meeting 1: CM Pre-Bid Meeting Agenda



Date: Oct 23, 2025

Time: 11:00 AM - 12:00 PM EDT

Meeting location: Camp Monroe - 600 E Jackson Rd. St. Louis, MI

Invitees & Attendance

Organizers

-  Jodie McKelvey (WOLGAST CORPORATION)

Description

This meeting has no description

Meeting Discussion

Introductions

1. Owner Rep:

Jennifer McKittrick, Superintendent
Scott Dennison, Director Custodial/Maintenance





Created on Oct 21, 2025 by Jodie McKelvey (WOLGAST CORPORATION)

Last updated on Oct 21, 2025 by Jodie McKelvey (WOLGAST CORPORATION)

2. Construction Manager:

Clinton D. Clark, Wolgast Corporation - Project Manager
Jason McDonald, Wolgast Corporation - Project Manager
TBD, Wolgast Corporation - Field Manager





Created on Oct 21, 2025 by Jodie McKelvey (WOLGAST CORPORATION)

Last updated on Oct 21, 2025 by Jodie McKelvey (WOLGAST CORPORATION)

3. Architect:

Tim Lichtenwald, Forest Trail Design - Project Architect





Created on Oct 21, 2025 by Jodie McKelvey (WOLGAST CORPORATION)

Last updated on Oct 21, 2025 by Jodie McKelvey (WOLGAST CORPORATION)

Project Scope

1. Camp Monroe

 Open

Bid Divisions included in the project:

02000 - Site Construction
060000 - General Trades
091000 - Drywall, Insulation, & Acoustical
099000 - Painting
10000 - Fire Protection Specialties
220000 - Plumbing
230000 - HVAC Systems
260000 - Electrical
321200 - Asphalt Paving

 Created on Oct 21, 2025 by Jodie McKelvey (WOLGAST CORPORATION)

Last updated on Oct 21, 2025 by Jodie McKelvey (WOLGAST CORPORATION)

Contractor Bid Proposals

1. Sealed bids for this project are due no later than **November 6, 2025 @ 10:00 am**

 Open

Proposals may be sent electronically or mailed or hand delivered in person to:

Jennifer McKittrick, Superintendent
St. Louis Public Schools Administration Building
113 East Saginaw Street
St. Louis, MI 48880

Electronically Sealed Bid Proposals must be uploaded to BuildingConnected by 10:00 AM. You must be invited to the project through BuildingConnected in order to electronically submit. If you have not received an invitation, reach out to chuver@wolgast.com

All bids will be opened and read aloud @ 10:15 AM virtually & TSN Middle School Cafeteria. **Link to virtual bid openings is in BuildingConnected files. You can also request the link via email at chuver@wolgast.com**

1. The successful bidder will be "prime" contractor having a contract directly with the Owner.
2. Familial Relationship Affidavit - Section 00306 of Spec Book
3. Iran Economic Sanctions Act - Section 00307 of Spec Book

 Created on Oct 21, 2025 by Jodie McKelvey (WOLGAST CORPORATION)

Last updated on Oct 21, 2025 by Jodie McKelvey (WOLGAST CORPORATION)

Addenda

1. The Architect will issue any and all addenda.

 Open

Last day to submit contractor questions is October 28, 2025 by 12:00 pm.

Last addendum will be issued October 31, 2025 by 12:00 pm.

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Milestone Schedule

1. Post Bid Interviews: TBD

 Open

Award of Contracts: It is the intention of the **St. Louis Public School District** to award contracts on or about **November 17th, 2025**

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Bonds

1. A five percent (5%) bid security must accompany each bid. Personal or Company checks do not satisfy the bid bond requirement and may be grounds for disqualification of that bid.
All bidders must have the ability to provide Performance Bonds and Labor and Material Payment Bonds. These bonds may or may not be requested by the Owner if the awarded proposal amount is less than \$50,000.00, but all bids must include the cost of the PLM bond regardless of the bid amount. All awarded proposal amounts exceeding \$50,000.00 must be secured by both performance and payment bonds as required by State Law.
The Performance Bond and Labor and Material Payment Bond are to be submitted to the Construction Manager before construction begins.

 Open

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Inquiries

1. All questions regarding the design, the drawings, and the specifications are to be faxed or emailed to: Wolgast Corporation, Attn: **Clinton Clark**. Project Manager, via email: **cclark@wolgast.com & Jason McDonald @ jmcdonald@wolgast.com**. This will be forwarded to the architect for clarification. The Construction Manager **will make no** interpretations of the construction documents.
All questions regarding the bidding procedures (what to bid, how to fill out the proposal form, construction schedules, ect) are to be directed to Wolgast Corporation, Attn: **Christie Bigelow-Huwer**, @chuwer@wolgast.com.

 Open

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Post Bid Procedures

1. Post-Bid interviews will be conducted with the low bidder and in some cases the second low bidder. The interviews will be conducted by the Construction Manager and the Architect. The Owner may elect to be present at the interviews.
The Construction Manager will contact all low bidders to schedule their post-bid interview.
Bid results will be made available from the Construction Manager.

 Open

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Questions

Meeting Summary

This meeting has no summary

St. Louis Public Schools BP 9 - Camp Monroe Pre-Bid Meeting & Walk-Through

October 23rd, 2025

11:00 AM

Wolgast Corporation / Forest Trail Design

Company	Name	Phone	Email
CSR Electric	Jack Buerer	989-621-1191	jack@campmoe.com
Thumb Cooling & Heating	Mike Merriman	810 404 4182	mike.m@thumbmep.com
Block Elect. Co	Cory Block	989 644 8883	Cory@blockelectriccompany.com
Fixed Construction Co	Kevin Thomas	989 463-8111	fixedconstruction@uspsa.net
SMITH F/H	Tom Van Tavis	989-737-5678	tom.vanTavis@smithf.us
Town Country Group	Jeff Rookberry	813-481-9831	Jeff.Rookberry@Tcgroupinc.com
Thermiline Inc.	Audrey Catherine	616-498-5156	Audrey@thermline.com
Nelson Elec.	Jason Rivette	989-752-7184	Jason@Nelson.com
Metal Arts	Matt Browne	989-772-0782	mbrowne@metalartsconstruction.com
JE Johnson	Garvin Stevens	989-615-0583	denya@JEJohnson.com
Mark Gander	Gar Gander	989 912-9154	Gar@GarGander.com
PATRICK MULBURN	Rockford Cousi	616 293 1545	Puliteam@Rockford.com
HICKY ELECTRIC	Zane Belsion	269 858 1305	Zane@hicky-electric.com
SEAN SKRAGA	Bry Sky	810-358-043	SKRAGA@BryskyServices.com
Steve Block	Revelation Electric	989 621 3899	RevelationElectric@uspsa.net

Case

Pre-Bid Meeting & Walk-Through

October 23rd, 2025

11:00 AM

Wolgast Corporation / Forest Trail Design

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