KAOD
K A OLDHAM DESIGN, INC.

ADDENDUM #2

TO:	FROM:
BIDDER	K. A. Oldham Design
COMPANY:	**DATE:** 05/20/26
ADDRESS:	
PHONE NUMBER:	**SENDER'S REFERENCE NUMBER:** 2560.00
RE:	**YOUR REFERENCE NUMBER:**

- Answers to contractors' bid questions
- Mechanical specifications added

☐ URGENT ☐ FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY ■ PLEASE RECYCLE

ENCLOSED

ITEM: **COPIES: 1**

SPECIFICATION SECTION 23 00 10

SPECIAL INSTRUCTIONS:

1. **Please submit bids either via email to bevans@kaod.com or hand-delivered in hard copy to KAOD office by 5:00 PM on 5/29/26**

GENERAL:

1. **Clarification on wall base:**
   a. **Wood wall base on painted walls to be painted with PT-2**
   b. **Wood wall base at stained millwork to be stained with S-1**
2. **Temporary LVP specification:**
   a. **Shaw Boundless 8 Artistic Brown 8-mil x 7-in W x 48-in L Waterproof Luxury Vinyl Plank Flooring**
   b. **If there is a more cost effective LVP, please include as an alternate**
3. **Clarification on emergency lights:**
   a. **Emergency lights shown outside of scope of work area are shown for life safety purposes only; not part of project scope**
4. **Mechanical subcontractor:**
   a. **Ben Ponder**
      Professional HVAC Consultants, Inc.
      678-662-1901
      benponder.bp@gmail.com
   b. **Please include mechanical subcontractor's cost in bid summary**
   c. **We attached general notes for the mechanical scope to be included in the project specifications**

5. **Insurance/ bonds:**
    a. **Liability insurance, payment and performance bond, and bid bond are required only prior to contract; not required with 5/29 bid submission**
6. **Qualifications/ marketing material:**
    a. **Please provide AIA A305 form**
    b. **If you would like to provide information that supports your qualifications to participate in the project, including similar projects or client references, please do so**

This addendum forms a part of the Contract Documents and modifies the original Bid Documents as noted below, and shall be as binding as if incorporated in the original Contract Documents. The proposer shall acknowledge receipt of this Addendum on the Proposal Form.

END OF ADDENDUM # 2

57 Perry Street Newnan, Georgia 30263
p 770.683.9170 / f 770.683.9171
www.kaod.com

SECTION 23 00 10 - MECHANICAL GENERAL

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

A. Specification: This Specification is intended to cover all portions of this building.

B. Reference Codes: This installation shall comply with the following Codes and Regulations.
1. 2024 International Building Code with Georgia Amendments.
2. 2024 International Mechanical Code with Georgia Amendments.
3. 2024 International Fuel Gas Code with Georgia Amendments.
4. 2024 International Energy Conservation Code with Georgia Amendments.
5. 2024 International Fire Code with Georgia Amendments.
6. NFPA 101 - 2024 Life Safety Code.
7. NFPA No. 70 - 2023, "National Electric Code" with Georgia Amendments.
8. State of Georgia Chapter 120-3-3 - 2020, State Minimum Fire Safety Standards.
9. State of Georgia Chapter 120-3-20 - 2015 Accessibility Code / 2020 ADA Standards.

C. Reference Standards: This installation shall comply with the following standards.
1. Manufacturers Standardization Society of the Valve and Fittings Industry (1815 North Ft. Meyer Drive, Arlington, VA 22209) Pipe Hangers and Supports-Materials, Design, Manufacture, Selection, Application and Installation MSS-SP-58-2018, called MSS-SP- 58.
2. American Society of Heating and Ventilating and Air Conditioning Engineers Guide, Fundamentals, 2021 Edition.
3. Sheet Metal and Air Conditioning Contractor National Association (SMACNA) HVAC Duct Construction Standards, Metal & Flexible, 4th Edition, 2020; Fire, Smoke, and Radiation Damper Installation Guide for HVAC Systems, 6th Edition, 2022; and Seismic Restraint Manual Guidelines for Mechanical Systems, 3rd Edition, 2008.
4. American Society of Sanitary Engineers (ASSE) Standards, Latest Editions.
5. North American Insulation Manufacturers Association (NAIMA) Fibrous Glass Duct Liner Standard, Fifth Edition, 2021.
6. ANSI/ASHRAE Standard 62.1-2016 Ventilation for Acceptable Indoor Air Quality.

1.02 REGULATIONS

A. Attention is called to the fact all work shall be done in accordance with all applicable City, County, and State regulations; which regulations shall be considered as minimum requirements and shall not alter the arrangement and pipe sizes indicated on the Drawings, except where they conflict.

1.03 DRAWINGS

A. The work is shown on the Drawings by KAOD.

1.04 PROTECTION OF PUBLIC

A. If Contractor must operate any potentially dangerous devices before all specified safety valves controls and devices are installed, Contractor shall notify the Architect in writing. Contractor shall not operate such devices under these conditions until arrangements for supervision by competent operators have been instituted and Architect's written approval has been issued.

1.05 MOTORS, WIRING, AND ELECTRICAL EQUIPMENT

A. All motors required for this work shall be built in accordance with the latest standards of National Electrical Manufacturer's Association and shall be especially designed for quiet operation. All motors shall be selected for operation within their nameplate amperage. Adjustable bases shall be provided with motors and equipment which have belt drives. Per 2007 Energy Independence & Securities ACT (EISA), 2010 DOE Small Motor Rule (10 CFR Part 31 Energy Conservation Program: Energy Standard for small Electric Motors), and ASHRAE/IES Standard 90.1; all motors over 1 HP shall be NEMA "Premium" efficiency. All motors over 1 HP shall be compatible for use with variable speed drives (VFDs).
   1. All motors controlled by variable speed drives (VFDs) (Pumps, Cooling Tower Fans, AHUs, etc.) shall be inverter-duty-rated, and shall shall be provided with a bearing protection shaft grounding ring. Ring shall be maintenance-free, circumferential, conductive micro-fiber shaft grounding ring, and shall be installed on the AC motor to discharge shaft currents to ground. Basis of Design is Aegis NEMA SGR, or approved product.

B. All electrical materials shall comply with requirements of the National Electric Code. All contactors, starters, relays, and panels used in this work, which are included in Underwriters Label Service, shall be new and bear the National Board of Fire Underwriters inspection label. Material not included in Underwriters Label Service shall be new and conform to NEMA or other applicable industry standard.

C. Division 26, ELECTRICAL, provides for the furnishing of conduit and wire from electrical source to electrical use, called "path of power", and for the installation of certain line voltage devices specified in Division 22 and 23 which lie in the "path of power", including:
   1. Manual switches.
   2. Line voltage thermostats.
   3. Solid-state speed controllers.
   4. Starters.

D. The "path of power" terminates at contactors or control panels of the following listed items of equipment. These control panels contain starters/contactors for the motors or heaters installed on or within the unit and are specified in Division 22 and 23. Any wiring past the point of termination described above is Division 22 and 23 work.
   1. Packaged Rooftop Units.
   2. Condensing and/or Heat Pump Units.
   3. Air Handling Units.
   4. Electric Heaters.

E. Division 26, ELECTRICAL, provides for electrical power to any given item of equipment at the voltage and phase required by the primary use only. If the item of equipment contains devices such as fans, thermostats, motorized dampers, or other controls which require other than primary voltage for their proper function, then transformers shall be furnished under Division 22 and 23 for that purpose.

F. Voltage and phase for Division 22 and 23 equipment shall be as specified by Division 26. Division 22 and 23 Contractor shall submit a list of all mechanical equipment requiring electrical connections to the electrical Contractor, prior to release of any equipment, for coordination with the Division 26 Contractor. A copy of this list that has been reviewed and approved by the General Contractor shall be submitted to the Architect with the submittal for mechanical equipment. Failure to include this list may result in the rejection of the entire mechanical equipment submittal.

G. The control power source (point of connection for control power) for major equipment except those single-phase fans which are thermostatically-controlled and those items listed in C above, are provided at the combination starters.

H. The automatic control signal for STOP-START of major equipment is furnished and installed to and from combination starters as part of Division 23.

I. All other conduit and wire, not in "path of power" described above, is included in Division 22 and 23.

J. If any Divisions Contractor makes a change by submittal, by delivery, by wiring rearrangement or power requirements, which results in increased costs, the Contractor initiating the change shall bear all cost increases.

K. All motors 1 HP and larger shall be NEMA "Premium" high efficiency motors with nominal and minimum full load efficiencies equal to or greater than those specified by the State Energy Code. All motors shall be compatible for use with variable frequency drives (VFDs) per NEMA. Specifications shall be submitted for each motor furnished.

L. Starters or contactors shall be furnished in Division 23 for each motor.
   1. Magnetic starters shall be NEMA standard sizes adequate for the load served, Size 00, 1,2,3,4. Half sizes and/or quarter sizes are not acceptable.
   2. Overload relays shall protect all three phases with an adjustable current setting and trip class to allow field adjustment for specific motor FLA. Interchangeable heater elements are not acceptable. Overload relay shall provide phase failure, phase loss, locked rotor and stall protection.
   3. Units shall have NEMA-1 enclosures for dry, indoor mounting and NEMA 3R for weather exposed mounting areas.
   4. Installed accessories shall include Hand-Off-Auto operation switch with 22mm style operator interfaces (unless otherwise noted). Include LED pilot light indicators for Hand, Off, Auto, Run, and Overload conditions. All pilot devices shall be water-tight and dust- tight.
   5. The starter shall provide a provision for Fireman's Override operation. When activated, the starter run the motor in any mode (Hand, Off or Auto) regardless of other inputs or lack of inputs either manual or auto.
   6. Provide a manual reset pushbutton on the starter cover to restore normal operation after a trip or fault condition.
   7. Starters shall consist of a horsepower rated magnetic contactor with a minimum of 2 NO and 2 NC auxiliary contacts

8. Single Phase Motor Starter Control: The single-phase motor starter shall consist of a manually operated quick-make toggle mechanism lockable in the "Off" position which shall also function as the motor disconnect. Starter shall provide adjustable thermal overload protection, run status pilot light and fault pilot light. The starter must include the capability to operate in both manual and automatic control modes. Cerus Industrial, model BAS-1P or approved equivalent.
9. All motor starters shall include a 5-year factory warranty as standard.
10. All motor starters shall be of the same manufacturer and shall be Cerus Industrial, or equivalent by General Electric, Square-D, Westinghouse, Allen-Bradley, Furnas, Mitsubishi, Siemens, or Cutler-Hammer subject to full compliance with all criteria.

M. Where power wiring to Division 23 equipment is not within the equipment curb, roof curb and boots shall be provided under Division 26. The portal location shall be coordinated with Division 23 equipment power inlet requirements and located not to block access for equipment servicing.

1.06 ACCESS PANELS

A. Shall be provided to permit operation of concealed valves, dampers, or equipment. The following table lists types of Milcor access frames and doors. Panels of equivalent construction by Titus, Hohmann and Barnard, or Zurn are acceptable.

B. B. Wall or Ceiling, exposed to view:
1. Sheetrock Style M, Architectural Grade

C. Wall or Ceiling, not exposed to view:
1. Sheetrock Style K, Standard

D. Fire Rated Wall or Ceiling: Style BIT, U.L. Listed

E. Sizes shall be: Small valves - 12" x 12". Multiple valves, dampers, duct smoke detectors - 24" x 24".

F. Access panels shall be insulated for sound barrier equivalent to wall in which it is installed.

G. Acoustical Tile: Coordinate with tile installed to provide a removal tile at access point. Install a colored thumb tack to mark the access panel of above ceiling equipment, control instrument, valves, or relay.

1.07 WARRANTY

A. Contractor shall operate the air conditioning, heating, and ventilating systems; and plumbing systems for a period of one week to the satisfaction of the Architect. Thereafter, the Contractor shall guarantee and be responsible for all materials and workmanship (parts and labor) for a period of one (1) year following the date of acceptance by the Architect.

B. Contractor shall also provide maintenance for the one (1) year period by providing four (4) periodic inspections at approximately three-month intervals, which shall include the following.
1. Check all bearings, align, and oil, or grease.
2. Check belt tensions and pulley adjustments and adjust as necessary.

3. Check filters and advise Owner when change is necessary.
4. Check refrigerant charges and oil levels and replenish as necessary.
5. Check and re-calibrate controls as necessary.

C. Any required maintenance for the above shall be performed and materials needed shall be furnished by the Contractor. Not included in the materials to be furnished by the Contractor are natural gas, electricity, water, and filters. Provide the Owner with four (4) copies of the inspection reports indicating all items checked and adjustment or repairs performed.

D. All equipment compressors shall be guaranteed for five years; parts.

1.08 CUTTING AND PATCHING

A. Contractor shall set sleeves for pipes, ducts, and equipment accurately before the concrete walls and floors are poured.

B. Should the Contractor neglect to perform this preliminary work and should cutting and patching be required in order to install the piping, ductwork, or equipment; the expense of the cutting and restoring of surfaces to their original condition shall be borne by the Contractor.

1.09 AS-BUILT DRAWINGS

A. Per the Georgia State Energy Code, the Contractor shall produce and submit to the Architect, "As-Built" Drawings, four (4) copies, as described below.

B. As work progresses, neatly and clearly record on four (4) sets of mechanical plans (in red) all changes and deviations from the contract drawings in size, locations, etc., of all piping, ductwork terminal units and other equipment. Record (in red) final location of piping, ductwork, starters, valves, thermostats, etc., by dimensions to adjacent walls and floors. Make sufficient measurement to accurately locate all equipment. Locate underground lines by dimension from building walls.

1.10 OPERATION AND MAINTENANCE MANUALS

A. Operation and Maintenance manuals (4 sets) shall be provided to the Owner or the Owners designated representative. Manuals shall be in accordance with the Georgia State Energy Code for Buildings.
   1. Manuals shall include as a minimum the following:
      a. Final, corrected submittal data with equipment sizes and selected options for each piece of equipment, including Engineer's submittal review comments.
      b. Current manufacturer's published operation and maintenance manuals for each piece of equipment.
      c. Name, address, email, and phone number of at least one LOCAL service agency for each type equipment.
      d. HVAC controls system maintenance and calibration information including wiring diagrams, schematics, and control drawings.
      e. Complete narrative of how each system is intended to operate, including suggested setpoints.
      f. Copy of the final Test & Balance report.
      g. Copy of the final As-Built Drawings.

h. Controls certification letter. See Section 23 0900.
i. Copy of Engineer's final punch list items, with each item checked off when completed or an explanation of why the item was not completed.

1.11 INTERFACES WITH OTHER WORK

A. There are many interfaces between the work involved with Division 22 and 23 and the work involved with other Sections and Divisions, particularly with Division 26. Contractor shall be aware of the requirements of these other Sections or Divisions and Contractor's responsibilities at the interfaces.

B. Mechanical equipment, piping, or ductwork shall not be placed within 42" of switchboards and/or panel boards. Water piping (domestic, storm, sanitary, etc., except sprinkler piping when required) shall not be located above electrical switchboards and/or panel boards. When sprinklers are required, shields shall be provided over the panels. Mechanical equipment is shown on the Drawings in general locations. Contractor shall be responsible for field-coordination with other trades and installing equipment so as to maintain published service and operating clearances and providing the design intent. If in doubt, direct clarifications to the Architect.

1.12 EQUIPMENT IDENTIFICATION

A. Equipment Identification:
1. All items of equipment shall be identified with engraved tags. Tags shall be 1/8" thick plastic stock with adhesive backing and shall be permanently secured to the equipment that they identify.
2. All tags shall be of uniform 2" high x 4" wide with 1" high letters and numbers. Tags can be wider if required to accommodate the equipment number. All tags shall be black with white lettering.
3. Equipment Identification numbers shall be the same as those scheduled on the Contract Drawings. Identification shall be located where it can be conveniently read and shall be located in the same relative position on like equipment.
4. In addition to the above ID tags, all scheduled equipment shall be provided with permanent factory-installed engraved nameplate labels listing complete model and serial numbers, unit voltage, motor sizes, etc.
5. For equipment located in public spaces, identification shall be inside control boxes or covers, and not in public view.
6. Identify all disconnect switches that are not directly attached to the equipment that they serve, with identical ID tags as specified above for the equipment.

1.13 PIPE IDENTIFICATION

A. All piping systems shall be identified.
1. All piping systems within the building except as noted herein shall be identified with clear block letters and numbers stenciled on the outside surface of the pipe or insulation, indicating the system contents by abbreviated letters and direction of the flow. Pre-printed label/wraps shall be acceptable.

2. This identification marking shall be applied to the pipe systems where pipe enters or leaves a wall or floor, and item of equipment such as pumps, fan coil units and tanks, and at tees. Identification shall be applied no less than 50 feet apart on horizontal pipe; and one identification per floor on vertical pipe.
3. Letters and numbers shall be 3/4" high on pipe 2" and smaller.
4. Letters and numbers shall be 1-1/2" high on pipe 3" and larger.
5. Directional arrows shall be 4" long and 1/2" wide.
6. Letters and numbers shall be black on white pipe or insulation.
7. Letters and numbers shall be white on dark pipe or insulation.
8. Pipe identification symbols shall be the same as shown on the drawings.
9. Soil, vent, and refrigerant piping shall not be identified.
10. Per Mechanical Code; each length of pipe and tubing and each pipe fitting utilized in a mechanical system shall bear the identification of the manufacturer.

1.14 PERMITS AND INSPECTIONS

A. Contractor shall secure and pay for all permits, fees, inspections, and utility connection costs.

B. BOILER TEST CERTIFICATES: It shall be the Contractor's responsibility to have each boiler, large (greater than 120 gallon and/or 200,000 Btuh capacity) water heater, and pressure vessel inspected by a State of Georgia certified inspector upon installation. Each inspection report shall be submitted to the Office of Insurance and Safety Fire Commissioner, Safety Engineering Section, 2 Martin Luther King Jr. Drive, Suite 920, West Tower, Atlanta, GA 30334 to the attention of Director of Engineering, PLUS a copy of each report transmitted to the Architect. ONE additional copy of each report shall be included in EACH of the FOUR Close-Out Manuals.

1.15 EQUIPMENT & MATERIAL PROTECTION

A. All equipment and material shall be kept clean and free of debris as construction progresses. Closures shall be provided over duct, piping, and major equipment openings during storage, erection, and prior to connection. Material finishes shall be protected by covers to prevent impingement of corrosive, abrasive, and disfiguring foreign matter. Accidental finish damage shall be repaired equivalent to original finish.

1.16 TEST, BALANCE, AND REPORT

A. Systems shall be tested, balanced, and adjusted by an independent firm certified by either AABC or NEBB, and results reported, six copies. Pipe pressure/leak testing shall be performed by the Contractor; see section 22 1000. Duct and pipe systems may be tested in sections in order to permit construction to proceed. Report shall include a diagram of each system showing all devices in the system. Architect shall be furnished preliminary deficiency punch list. All systems shall be adjusted to deliver or remove to within plus or minus 10% of design airflow rates, as described herein.

B. Two separate Tests and Balance procedures shall be performed and reported on the system: a summer TAB when the outside air temperature is above 88 deg. F db/ 70 deg. F wb, and a winter TAB when the outside temperature is below 50 deg.F db. Record outside dry bulb and wet bulb at each TAB. Each TAB shall be scheduled with the Owner, performed and reported to the Architect, and shall be done to the satisfaction of the Owner and Architect.

C. Air Systems:
   1. Contractor shall clean the inside of all the ductwork with a vacuum cleaning system immediately prior to test and balance.
   2. Examine the air handling systems to see they are free from obstructions. Determine that all dampers and registers are open, or in normal positions; that moving equipment is lubricated; that filters are installed and clean; and perform other inspection and maintenance activities to ensure that the operation of the systems is as specified.
   3. Demonstrate the air handling systems perform as specified. Record entering and leaving temperatures of medium in cooling and/or heating modes. Adjust variable type pulleys, or motor speeds, and/or volume and control dampers for all scheduled air moving equipment.
   4. Adjust dampers at the take-off fitting to distribute or exhaust the design air quantity. Do not balance with the damper at diffuser or register neck (where take-off dampers are provided), leave fully-open for Owner seasonal adjustment only. Each grille, register, and diffuser shall deliver or remove the designed CFM in the proper pattern.
   5. Perform this work in accordance with the procedures and standards described in the SMACNA Balancing and Adjusting Manual. Reports are to be made on SMACNA forms or facsimiles thereof.
   6. Reports shall include, but not be limited to, the following:
      a. Recorded and design air flow CFM at each piece of scheduled mechanical equipment: supply air CFM, return air CFM, outside air minimum CFM as scheduled, relief air CFM, exhaust air CFM. Mechanical equipment airflow shall be measured and recorded at the inlet/outlet duct directly upstream/downstream (at non-turbulent location) of the fan utilizing a duct traverse, not by just summing all air distribution devices. Provide a duct traverse report for each system in the final TAB report. Test and record outside airflow through all packaged rooftop equipment intake hoods. Provide engraved tag on intake hood as specified in Section 23 3000.
      b. Recorded and design air flow CFM at each diffuser, register, or grille shown on the Drawings, and the percent variance between the two (recorded and design).
      c. Each piece of scheduled equipment: Check-off list for satisfaction status of filters, equipment inlet/outlet thermal conditions (dry & wet bulb temps) in heating and cooling mode, OA damper closing in night setback, unoccupied, and morning warmup modes of operation, proper heat/cooling function, recycle timer, proper relief air function, and proper economizer operation if specified.
      d. Record temperature and humidity in a representative space (space with thermostat is preferred) for each system at the time of the test & balance. Indicate the space where the reading is taken, and thermostat setpoint (if present).

1.17 PROHIBITED MATERIALS

A. All products, materials, or assemblies which contain asbestos or polychlorinated Biphenyl (PCB) in any form or in any concentration whatsoever, are expressly forbidden from being used on this project. Products that off-gas formaldehyde (HCHO) shall be forbidden.

1.18 SITE VISIT AND FAMILIARIZATION

A. Contractors proposing to undertake work under this Division shall visit the site of the work and fully inform themselves of all conditions that effect the work or cost thereof; examine the Drawings and Specifications as related to the site conditions; acquaint themselves with the utility companies from whom services will be supplied; and verify locations of utility services and determine requirements for connections.

B. Consideration shall not be granted for any alleged misunderstanding of the amount of work to be performed. Tender of proposal shall convey full agreement to all items and conditions specified, indicated on the Drawings, and/or required by nature of the site.

C. Attention is called to the fact this scope of work includes renovation to an existing facility and/or an addition to an existing building. When the work is finished, the mechanical systems shall be complete in every respect, and completely integrated with all affected mechanical and control systems. Some existing systems may have to be relocated and reconnected as required by the new work, such as existing ductwork, sprinkler piping, electrical conduit and wiring, misc. supports, etc. The Contractor shall be fully responsible for identifying these areas of conflict during his inspection as noted above and including any relocation and reconnection of systems in his price.

D. Existing mechanical systems in the existing facility shall not be interrupted without prior approval of the Owner or Architect.

1.19 DEMOLITION

A. Renovation work is indicated where required and includes demolition work scope as well as new construction required.

B. The demolition scope shall include the timely and scheduled removal of items associated with the system for the existing building, as indicated specifically on the drawings. If there is any doubt about what is or is not to be removed, Contractor shall ask the Architect in writing prior to commencing with any work.

C. Contractor shall first make any demolished equipment available to the Owner before removing from job site.

END OF SECTION