
Tower Project Name: WVNCC HVAC Controls and Repairs
Tower Project Number: 2020103
Client: WV Community & Technical College System
Prepared By: Tom Valerio
Date: 08/27/2021

Addendum Number: 3

SPECIFICATIONS

Item No. 3.01

Section 00300 - Form of Proposal

DELETE the Form of Proposal in its entirety and replace with the Form of Proposal attached herein.

Item No. 3.02

012200 Unit Prices

ADD article 3.1G as follows:

G: Unit Price No. 6 - Furnish and install RTU BACnet Communication Card:

1. Description: Furnish and install BACnet communication card in existing packaged rooftop heating and air conditioning unit that is compatible with the BAS specified in Section 230900 Automatic Temperature Control for HVAC. Price quoted shall apply to any or all packaged rooftop equipment in service today at any WVNCC building.
2. Unit of Measurement: Numeric quantity.

Item No. 3.03

SECTION 012300 Alternates, Article 3.1 Schedule of Alternates

DELETE Paragraph N. Alternate No. 7.1: Replace Weirton Campus, South Wing VAV Terminal Units in its entirety and replace with the following:

- N. Alternate No. 7.1: Replace Weirton Campus, South Wing VAV Terminal Units.
1. Base Bid: Retain fan-powered and shutoff VAV terminal units serving the Weirton Campus South Wing for continued use. Provide DDC control components to accomplish the sequence described in Section 230993.07 "Weirton Campus - Sequence of Operations for HVAC Control", Articles 3.5 Variable Air Volume (VAV) Terminal Boxes with Electric Reheat Coils and 3.6 Fan Powered Terminal Boxes with Electric Reheat Coils. Replace existing thermostat.

2. Alternate:
 - a. Replace fan-powered and single duct shutoff VAV terminal units with electric reheat coils serving the Weirton Campus South Wing, including related electrical branch circuits as indicated and illustrated on Drawings H7.1 and H7.2, and specified in Section 233600 "Air Terminal Units".
 - b. Furnish and install new thermostat and CO₂ sensors where indicated. Provide DDC control "Testing, Adjusting, and Balancing for HVAC".
 - c. Furnish and install new VAV terminal unit field controllers to serve each new fan-powered terminal unit and each new VAV terminal unit.

Item No. 3.04

SECTION 230993.07 WEIRTON CAMPUS - SEQUENCE OF OPERATIONS FOR HVAC CONTROL

DELETE article 3.7. ELECTRIC DUCT REHEAT COILS in its entirety and replace with the following:

3.7. ELECTRIC DUCT REHEAT COILS

- A. Existing electric duct reheat coils are locally controlled and do not report to the BAS. Maintain control operability of the existing electric reheat coils. Functionally test the operation of each electric duct reheat coil and report findings of inoperability to the owner.

DRAWINGS**Item No. 3.5**

The following drawings are revised as marked and reissued as attached:

DRAWING H7.1 – Weirton Campus First Floor Plan.

DELETE Coded Note 4 in its entirety and replace with the following:

4: Under Alternate 7.1: Replace existing fan-powered VAV Terminal Unit, field controller and electric duct heater with equivalent equipment meeting performance Scheduled on drawings. Balance to evenly distribute airflow among each diffuser served.

DELETE Coded Note 5 in its entirety and replace with the following:

5: Under Alternate 7.1: Replace VAV Terminal Unit and field controller with equivalent equipment meeting performance scheduled on drawings. Balance to evenly distribute airflow among each diffuser served.

DELETE Coded Note 13 in its entirety and replace with the following:

13: Under Alternate 7.1: Replace existing fan-powered VAV Terminal Unit, field controller and electric duct heater with new VAV Terminal Unit with electric reheat equivalent equipment meeting performance Scheduled on drawings. Balance to evenly distribute airflow among each diffuser served.

DELETE Coded Note 26 in its entirety and replace with the following:

26: Existing thermostat and control operability to remain.

DRAWING H7.2 – Weirton Campus Second Floor Plan.

DELETE Coded Note 9 in its entirety and replace with the following:

9: Under Alternate 7.1: Replace existing fan-powered VAV Terminal Unit, field controller and electric duct heater with equivalent equipment meeting performance Scheduled on drawings. Balance to evenly distribute airflow among each diffuser served.

DELETE Coded Note 10 in its entirety and replace with the following:

10: Under Alternate 7.1: Replace VAV Terminal Unit and field controller with equivalent equipment meeting performance scheduled on drawings. Balance to evenly distribute airflow among each diffuser served.

DELETE Coded Note 24 in its entirety and replace with the following:

24: Existing thermostat and control operability to remain.

CLARIFICATIONS

Item No. 3.06

Where references to Test, Adjust and Balance scope of work are made throughout the construction documents or on any addendum; the intent shall be for the TAB work to be performed by a subcontractor hired by the owner, independently of this contract as specified in Section 230593.01 Testing, Adjusting, And Balancing for HVAC, and for this Contractor to provide supporting services necessary to facilitate TAB work as specified in Section 230593.02 HVAC Support Services for TAB Specialist.

END OF ADDENDUM

SECTION 00300 - FORM OF PROPOSAL

BID TO THE OWNER: Chief Procurement Officer
RFB 22032
WV Community and Technical College System
1018 Kanawha Boulevard, East, Suite 700
Charleston, WV 25301

PROJECT: RFB 22032
WV Northern Community College - HVAC Controls and Repairs

Bidder's Name: _____

The undersigned, hereinafter called "Bidder," being familiar with and understanding the Bidding Documents, and also having examined the site and being familiar with all local conditions affecting the Project, hereby proposes to furnish all labor, material, equipment, supplies and transportation, and to perform all Work in accordance with the Bidding and Contract Documents within the time set forth below for the sum of:

BASE BID: \$ _____

(Amount to be shown in both words and numbers for Base Bid, Alternates and Unit Prices. In the event of a difference between the written amount and the number amount, the written amount shall prevail.)

Substantial Completion: The Bidder, if successful and awarded a Contract, agrees that all Work is to be Substantially Complete on or before July 1, 2022, (includes Base Bid Work, plus Alternates accepted) following receipt of Owner's written Notice to Proceed and agrees to achieve Final Completion within 30 consecutive calendar days thereafter. Notice to Proceed Date is expected to be on or before October 1, 2021.

ALTERNATES:

The following Alternates may be added to the Base Proposal if selected by Owner. All work shown on drawings and/or specified is in Base Bid, except for such work specifically called to be an Alternate. Refer to Section 012300 - Alternates. (NOTE: In event of a discrepancy, amount in words shall govern.)

Alternate No. 1.1: Replace B&O Building AHU-11 and CU-11

Add: \$ _____

(Amount to be shown in both words and numbers)

Alternate No. 1.2: Professionally clean B&O Building AHU-21 interior and coil surfaces.

Add: \$ _____

(Amount to be shown in both words and numbers)

Alternate No. 1.3: *Replace B&O Building CU-21*

Deduct: \$ _____

(Amount to be shown in both words and numbers)

Alternate No. 1.4: *Replace B&O Building VAV Terminal Unit Controllers and HW Control Valves*

Add: \$ _____

(Amount to be shown in both words and numbers)

Alternate No. 1.5: *Professionally Clean B&O Building VAV Terminal Unit HW Coils*

Deduct: \$ _____

(Amount to be shown in both words and numbers)

Alternate No. 2.1: *Correct Education Center Kitchen Area Airflow Imbalance.*

Add: \$ _____

(Amount to be shown in both words and numbers)

Alternate No. 2.2: *Replace Education Center VAV Terminal Unit Controllers and HW Control Valves*

Deduct: \$ _____

(Amount to be shown in both words and numbers)

Alternate No. 2.3: *Professionally Clean Education Center VAV Terminal Unit HW Coils*

Add: \$ _____

(Amount to be shown in both words and numbers)

Alternate No. 2.4: *Repair Education Center Chiller*

Deduct: \$ _____

(Amount to be shown in both words and numbers)

Alternate No. 3.1: Professionally Clean Applied Technology Center VAV Terminal Unit HW Coils

Add: \$ _____

(Amount to be shown in both words and numbers)

Alternate No. 3.2: Professionally clean existing Applied Technology Center RTU

Deduct: \$ _____

(Amount to be shown in both words and numbers)

Alternate No. 4.1: Not Used: No alternates apply to work in the Student Union building.

Alternate No. 5.1: Not Used: No alternates apply to work in the Industrial Technology Center.

Alternate No. 6.1: Replace RTU-2 and RTU-5 serving the New Martinsville Campus.

Deduct: \$ _____

(Amount to be shown in both words and numbers)

Alternate No. 6.2: Repair New Martinsville Campus RTU-4 and RTU-6 Refrigeration Leaks and Recharge

Deduct: \$ _____

(Amount to be shown in both words and numbers)

Alternate No. 7.1: Replace Weirton Campus, South Wing VAV Terminal Units

Add: \$ _____

(Amount to be shown in both words and numbers)

Alternate No. 7.2: Field investigate issue and repair RTU-9 serving the Weirton Campus.

Deduct: \$ _____

(Amount to be shown in both words and numbers)

Alternate No. 7.3: Field investigate issue and repair RTU-11 serving the Weirton Campus

Add: \$ _____

(Amount to be shown in both words and numbers)

UNIT PRICES:

The following Unit Prices are applicable to various sections of the specifications. Unit Prices will be used if accepted by the Owner in the event of changes to the scope of work involving increases or decreases in the required work and is specified in Section 01240 - Unit Prices.

Unit Price No. 1: VAV Terminal Unit Controller / Actuator (any size)

Add / Deduct: \$ _____ (per SF)

(Amount to be shown in both words and numbers)

Unit Price No. 2: VAV Terminal Unit ¾" HW reheat control valve and piping hook-up assembly.

Add / Deduct: \$ _____ (per SF)

(Amount to be shown in both words and numbers)

Unit Price No. 3: VAV Terminal Unit 1" HW reheat control valve and piping hook-up assembly.

Add / Deduct: \$ _____ (per SF)

(Amount to be shown in both words and numbers)

Unit Price No. 4: Furnish and install BAS thermostat

Add / Deduct: \$ _____ (per SF)

(Amount to be shown in both words and numbers)

Unit Price No. 5: Furnish and install BAS thermostat w/ CO₂ sensor

Add / Deduct: \$ _____ (per SF)

(Amount to be shown in both words and numbers)

Unit Price No. 6: Furnish and install RTU BACnet Communication Card

Add / Deduct: \$ _____ (per SF)

(Amount to be shown in both words and numbers)

RESPECTFULLY SUBMITTED:

SIGNATURE: _____ DATE: _____
Signature in Ink

NAME: _____ *Corporate Seal if Applicable*
Please Type or Print

TITLE: _____

BIDDERS NAME: _____

BIDDERS _____

ADDRESS: _____

TELEPHONE: _____

EMAIL: _____

CONTRACTOR'S _____

LICENSE NO.: _____

CONTRACTOR'S LICENSE

West Virginia Code §21-11-2 requires that all persons desiring to perform contractual work in West Virginia must be duly licensed. The West Virginia Contractor's Licensing Board is empowered to issue the contractor's license. Application for a contractor's license may be made by contacting the West Virginia Department of Labor, 1900 Kanawha Boulevard, East, Charleston, West Virginia 25305. Telephone: (304) 558-7890. West Virginia Code §21-11 requires any prospective Bidder to include the contractor's license number on their Bid. Successful Bidder will be required to furnish a copy of their contractor's license prior to issuance of a Purchase Order/Contract.

**AFFIDAVITS (on the following pages) – TO BE SUBMITTED WITH BID OR AS OTHERWISE
PERSCRIBED BY LAW**

- PURCHASING AFFIDAVIT: West Virginia code §5A-3-10A states that no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than \$1,000 in the aggregate. The Bidder (vendor) shall execute and submit with its bid, or as otherwise prescribed by West Virginia Code, the Purchasing Affidavit provided in the Bidding Documents.

- **DRUG-FREE WORKPLACE CONFORMANCE AFFIDAVIT:** West Virginia Code §21-1D-5 requires each contractor that submits a bid for the work to submit an affidavit that the contractor has a written plan for a drug-free workplace policy prior to being awarded a contract. The contractor (bidder/vendor) shall execute and submit with its bid, or as otherwise prescribed by West Virginia Code, the Drug-Free Workplace Conformance Affidavit provided in the Bidding Documents.

CERTIFIED DRUG-FREE WORKPLACE REPORT

In accordance with West Virginia Code §21-1D-7b, no less than once per year, or upon completion of the project, every contractor shall provide a certified report to the public authority which let the contract. That report must include each of the items identified in the Required Report Content section of the Certified Drug-Free Workplace Report Coversheet.

DISCLOSURE OF INTERESTED PARTIES TO CONTRACTS

Pursuant to West Virginia Code §6D-1-2, a state agency may not enter into a contract, or a series of related contracts, that has/have an actual or estimated value of \$1 million or more until the business entity submits to the contracting state agency a Disclosure of Interested Parties to the applicable contract. In addition, the business entity awarded a contract is obligated to submit a supplemental Disclosure of Interested Parties reflecting any new or differing interested parties to the contract within 30 days following the completion or termination of the applicable contract.

The Disclosure Form is available at the following URL: <http://www.ethics.wv.gov/Pages/forms.aspx>

VENDOR REGISTRATION AND DISCLOSURE STATEMENT

The successful Bidder must be a registered vendor with the West Virginia Department of Administration, Purchasing Division, prior to receiving a contract/purchase order. Vendor registration information is available at the following URL: <http://www.state.wv.us/admin/purchase/vrc/wv1.pdf>

LIQUIDATED DAMAGES

The Owner will suffer financial loss if the Work is not Substantially Complete within the Contract Time following the date established for commencement of the Work in the notice to proceed and/or purchase order. As liquidated damages, and not as a penalty, the Contractor and the Contractor's surety shall be liable for and shall pay the Owner the sum of \$500 per day until Substantial Completion is achieved.

Allowances may be made for delays due to shortages of materials and/or energy resources, subject to proof by documentation, and for delays due to strikes or other delays beyond the control of the Contractor. All delays and any claim for extension of Contract Time must be properly documented in accordance with the General Conditions of the Contract for Construction, AIA Document A201-2017, and the State of West Virginia Supplementary Conditions to AIA Document A201-2017.

ADDENDA ACKNOWLEDGMENT

The undersigned hereby acknowledges receipt of the following Addenda and has taken the information contained therein into full consideration in the formulation of this Bid.

Addenda No. 1 _____
 No. 2 _____
 No. 3 _____

Failure to acknowledge receipt of each Addendum may be cause for rejection of the Bid.

SIGNATURE: _____ DATE: _____
Signature in Ink

**LIST OF PROPOSED SUBCONTRACTORS
(To Be Completed and Submitted with Bid)**

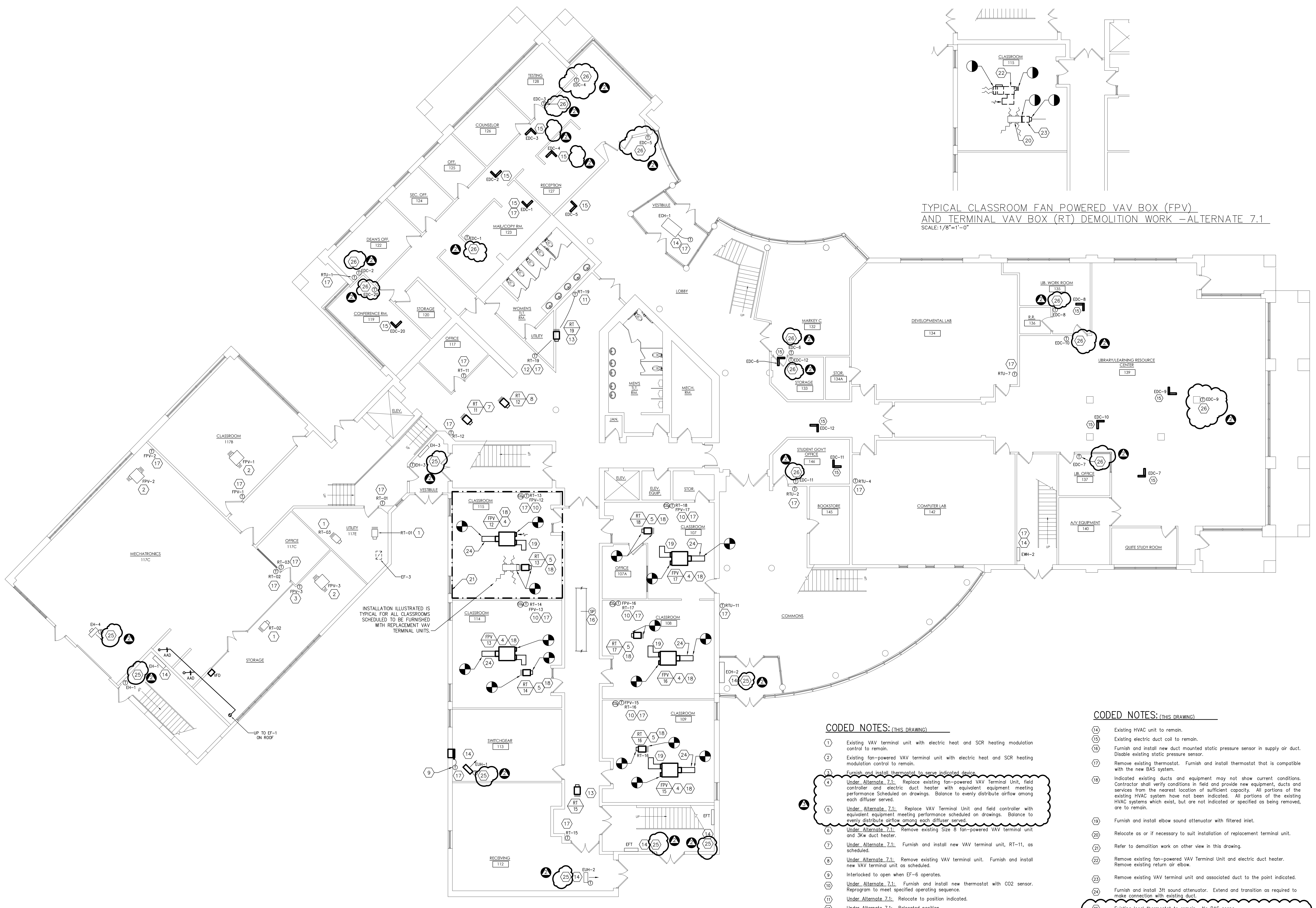
List as designated below the proposed subcontractor for each major branch of work for this bid. Also, provide the subcontractor's license number as required by the West Virginia Contractors Licensing Act. If the branch of work is to be completed solely by the Bidder/Contractor, so indicate. If the acceptance of an alternate bid changes a subcontractor, indicate by notation below. The Bidder/Contractor may be requested to change an unsatisfactory subcontractor. The Bidder/Contractor is responsible for selecting or changing subcontractors. The Owner and Architect/Engineer may indicate their concerns about any entity listed which they have reason to believe past experience indicates that poor performance may be expected. The Bidder/Contractor has full responsibility for satisfactory execution of all work in accordance with the Contract Documents. Any change of proposed subcontractors shall be at no additional cost to the Owner, as the Bidder/Contractor has full responsibility for execution of the work. Bidder/Contractor shall have up to two hours after the bid opening to make adjustments if necessary. Owner will suffer loss should Contractor change from those listed beyond the two-hour time stipulated. Please email adjustments/modifications to Chief Procurement Officer at rich.donovan@wvhepc.edu.

Branch of Work/Material Category	Subcontractor/Supplier	Contractor License No.
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____
6. _____	_____	_____
7. _____	_____	_____
8. _____	_____	_____
9. _____	_____	_____

END OF FORM OF PROPOSAL

END OF SECTION 00300

NO. 2	ADDENDUM	8/27/21
NO. 3	ADDENDUM	8/27/21



TYPICAL CLASSROOM FAN POWERED VAV BOX (FPV)
AND TERMINAL VAV BOX (RT) DEMOLITION WORK -ALTERNATE 7.1
SCALE: 1/8"=1'-0"

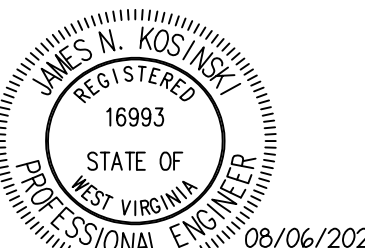
CODED NOTES: (THIS DRAWING)

- 1 Existing VAV terminal unit with electric heat and SCR heating modulation control to remain.
- 2 Existing fan-powered VAV terminal unit with electric heat and SCR heating modulation control to remain.
- 3 Furnish and install thermostat to serve indicated device.
- 4 Under Alternate 7.1: Replace existing fan-powered VAV Terminal Unit, field controller and electric duct heater with equivalent equipment meeting performance Scheduled on drawings. Balance to evenly distribute airflow among each diffuser served.
- 5 Under Alternate 7.1: Replace VAV Terminal Unit and field controller with equivalent equipment meeting performance scheduled on drawings. Balance to evenly distribute airflow among each diffuser served.
- 6 Under Alternate 7.1: Remove existing Size 8 fan-powered VAV terminal unit and 3kw duct heater.
- 7 Under Alternate 7.1: Furnish and install new VAV terminal unit, RT-11, as scheduled.
- 8 Under Alternate 7.1: Remove existing VAV terminal unit. Furnish and install new VAV terminal unit as scheduled.
- 9 Interlocked to open when EF-6 operates.
- 10 Under Alternate 7.1: Furnish and install new thermostat with CO2 sensor. Reprogram to meet specified operating sequence.
- 11 Under Alternate 7.1: Relocate to position indicated.
- 12 Under Alternate 7.1: Relocated position.
- 13 Under Alternate 7.1: Replace existing fan-powered VAV Terminal Unit, field controller and electric duct heater with new VAV Terminal Unit with electric reheat equivalent equipment meeting performance Scheduled on drawings. Balance to evenly distribute airflow among each diffuser served.

CODED NOTES: (THIS DRAWING)

- 14 Existing HVAC unit to remain.
- 15 Existing electric duct coil to remain.
- 16 Furnish and install new duct mounted static pressure sensor in supply air duct. Disable existing static pressure sensor.
- 17 Remove existing thermostat. Furnish and install thermostat that is compatible with the new BAS system.
- 18 Indicated existing ducts and equipment may not show current conditions. Contractor shall verify conditions in field and provide new equipment, ducts and services from the nearest location of sufficient capacity. All portions of the existing HVAC systems which exist, but are not indicated or specified as being removed, are to remain.
- 19 Furnish and install elbow sound attenuator with filtered inlet.
- 20 Relocate as or if necessary to suit installation of replacement terminal unit.
- 21 Refer to demolition work on other view in this drawing.
- 22 Remove existing fan-powered VAV Terminal Unit and electric duct heater. Remove existing return air elbow.
- 23 Remove existing VAV terminal unit and associated duct to the point indicated.
- 24 Furnish and install 3ft sound attenuator. Extend and transition as required to make connection with existing duct.
- 25 Existing local thermostat to remain. No BAS scope.
- 26 Existing thermostat and control operability to remain.

WEIRTON CAMPUS BUILDING FIRST FLOOR PLAN
SCALE: 1/8"=1'-0"



08/06/2021
James N. Kostick

ISSUED FOR
BIDS

REVISIONS

NO. 2	ADDENDUM	8/27/21
NO. 3	ADDENDUM	8/27/21

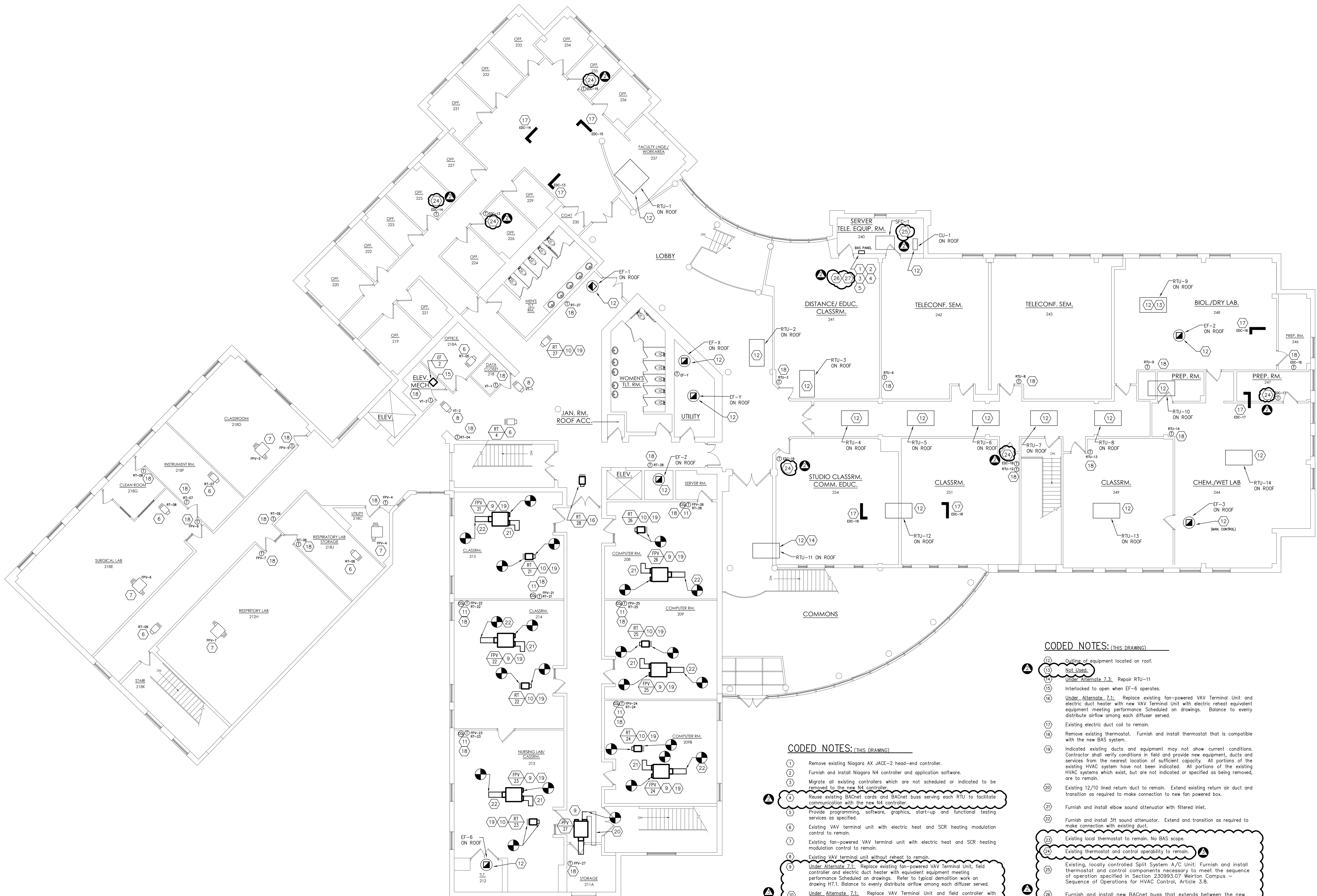
KEY PLAN

SCALE: 1/8" = 1'-0"
DRAWN BY: MC
CHECKED BY: TRV

DATE: 08/06/2021

**WEIRTON
CAMPUS
SECOND FLOOR
HVAC PLAN**

H7.2



WEIRTON CAMPUS BUILDING SECOND FLOOR PLAN
SCALE: 1/8" = 1'-0"

CODED NOTES: (THIS DRAWING)

- (12) Outline of equipment located on roof.
- (13) Not Used.
- (14) Under Alternate 7.3, Repair RTU-11
- (15) Interlocked to open when EF-6 operates.
- (16) Under Alternate 7.1, Replace existing fan-powered VAV Terminal Unit and electric duct heater with new VAV Terminal Unit with electric reheat equivalent equipment meeting performance Scheduled on drawings. Balance to evenly distribute airflow among each diffuser served.
- (17) Existing electric duct coil to remain.
- (18) Remove existing thermostat. Furnish and install thermostat that is compatible with the new BAS system.
- (19) Indicated existing ducts and equipment may not show current conditions. Contractor shall verify conditions in field and provide new equipment, ducts and services from the nearest location of sufficient capacity. All portions of the existing HVAC system have not been indicated. All portions of the existing HVAC systems which exist, but are not indicated or specified as being removed, are to remain.
- (20) Existing 12/10 lined return duct to remain. Extend existing return air duct and transition as required to make connection to new fan powered box.
- (21) Furnish and install elbow sound attenuator with filtered inlet.
- (22) Furnish and install 3ft sound attenuator. Extend and transition as required to make connection with existing duct.
- (23) Existing local thermostat to remain. No BAS scope.
- (24) Existing thermostat and control operability to remain.
- (25) Existing, locally controlled Split System A/C Unit: Furnish and install thermostat and control components necessary to meet the sequence of operation specified in Section 230993.07 Weirton Campus - Sequence of Operations for HVAC Control, Article 3.8.
- (26) Furnish and install new BACnet buss that extends between the new JACE and each new field controller.
- (27) Retain use and connectivity of existing LON buss serving field controllers of equipment that is scheduled or indicated to remain.

CODED NOTES: (THIS DRAWING)

- (1) Remove existing Niagara AX JACE-2 head-end controller.
- (2) Furnish and install Niagara N4 controller and application software.
- (3) Migrate all existing controllers which are not scheduled or indicated to be removed to the new N4 controller.
- (4) Reuse existing BACnet cards and BACnet buss serving each RTU to facilitate communication with the new N4 controller.
- (5) Provide programming, software, graphics, start-up and functional testing services as specified.
- (6) Existing VAV terminal unit with electric heat and SCR heating modulation control to remain.
- (7) Existing fan-powered VAV terminal unit with electric heat and SCR heating modulation control to remain.
- (8) Existing VAV terminal unit without reheat to remain.
- (9) Under Alternate 7.1, Replace existing fan-powered VAV Terminal Unit, field controller and electric duct heater with equivalent equipment meeting performance Scheduled on drawings. Refer to typical demolition work on drawing H7.1. Balance to evenly distribute airflow among each diffuser served.
- (10) Under Alternate 7.1, Replace VAV Terminal Unit and field controller with equivalent equipment meeting performance scheduled on drawings. Refer to typical demolition work on drawing H7.1. Balance to evenly distribute airflow among each diffuser served.
- (11) Under Alternate 7.1, Furnish and install new thermostat w/002 sensor. Reprogram to meet operation sequence specified.