

ADDENDUM NO. 01

Issued: April 5, 2018

To Plans and Specifications dated March 23, 2018

Prairie View A&M University

New Military ROTC Building

1315 E.N. Norris Road, Prairie View, Texas

PVAMU Project No. PV-0579/OC+A Project No. 1705



April 5, 2018

NOTICE TO PROPOSERS

- A. Receipt of this Addendum shall be acknowledged on the Proposal Form.
 - B. This Addendum forms part of the Contract documents for the above referenced project and shall be incorporated integrally therewith.
 - C. Each proposer shall make necessary adjustments and submit his proposal with full knowledge of all modifications, clarifications, and supplemental data included therein. Where provisions of the following supplemental data differ from those of the original Contract Documents, this Addendum shall govern.
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SPECIFICATIONS:

- Item No. S01 Section 00 00 10, Table of Contents, add Section 23 82 43 Electric Duct Heaters.
- Item No. S02 Section 01 21 00, Allowances, Paragraph 3.3, Item A, delete in its entirety and replace with the following:
- A. Graphics Allowance \$12,000.00
 1. Contractor shall include the allowance amount above to furnish graphics [super graphics on wall, metal armed forces seals on building exterior, and film applied to glass]. Designs for graphics will be furnished by the Owner.
- Item No. S03 Section 10 43 00, Exterior Signage, Paragraph 2.2, Item C, Cast Metal Letters, include in proposal, thirty (30) 12" high capital letters. Letter font shall match PVAMU Campus Standard "Letterform"; actual letters to be selected by Owner.
- Item No. S04 Section 10 43 00, Exterior Signage, Paragraph 2.2, Item D, Subitem 1, add the following:
- b. Traffic Sign:
 - 1) Stop Sign: Shall be compliant to Federal/State Standards. Provide and install at new drive intersection at E.N. Norris. The back of the sign shall be painted black, sign shall be bolted to post.
- Subitem 2, Post Materials, revise post to 2" x 2" x 1/4" galvanized steel tube powder coated with black finish.
- Item No. S05 Specification Section 23 82 43, Electric Duct Heaters add the attached Section 23 82 43 Electric Duct Heaters.
- Item No. S06 Specification Section 32 92 13, Hydromulch Seeding, add the attached Section 32 92 13, Hydromulch Seeding, this section was missing in the set issued March 23, 2018.

PLANS:

- Item No. P01 Plan Sheet A2.00, A7.00, and A9.00, delete plan sheets A2.00, A7.00, and A9.00 and replace with the attached plan sheets A2.00, A7.00, and A9.00. Revisions are marked with revision clouds.

- Item No. P02 Plan Sheet M2.01, delete this plan sheet and replace with the attached plan sheet M2.01. Revisions are clouded, including:
- A. Removed temperature sensor shown in Conference 114.
 - B. Relocated temperature sensor in Navigation lab 122.
 - C. Relocated OAI notes to intake at DOAS-1.
 - D. Indicated sensor connection to FCU-11.
- Item No. P03 Plan Sheet E0.06, delete this plan sheet and replace with the attached plan sheet E0.06. Revisions are clouded, including:
- A. Revised pole specification for fixture S1.
 - B. Revised specification for fixture S2.
 - C. Added 15A/3P circuit on HL for EDH-1.
- Item No. P04 Plan Sheet E1.01, delete this plan sheet and replace with the attached plan sheet E1.01. Revisions are clouded, including:
- A. Added conduit from second S1 pole per keyed note 9.
 - B. Revised keyed note 9.
 - C. Added 120V circuit at S1 poles for future cameras.
- Item No. P05 Plan Sheet EF2.01, delete this plan sheet and replace with the attached plan sheet EF2.01. Revisions are clouded, including:
- A. Revised location of exterior device at building entry.
- Item No. P06 Plan Sheet EP2.01, delete this plan sheet and replace with the attached plan sheet EP2.01. Revisions are clouded, *including*:
- A. Revised outlet and data rough-in location and height for digital signage at entry.
 - B. Added rough-in for data in Office 137.
 - C. Added rough-in for data in Army Logistics Center 117.
 - D. Added rough-in for data in Navy Logistics Center 118.
 - E. Added receptacles and data rough-in for monitor in Navigation Lab 122.
 - F. Added rough-in for data in security closet plan south of Study 115.
 - G. Added circuit for EDH-1.
 - H. *Add rough-in for data at the fire alarm panel.*
 - I. *Add rough-in for two POT lines at the fire alarm panel.*
- Item No. P07 Plan Sheet P2.01, delete this plan sheet and replace with the attached plan sheet P2.01. Revisions are clouded, including:
- A. Add trap primers TP-1 and TP-2 in locations shown.
 - B. Add keynote 14.
 - C. Rename shower drain designation from 2"TD-1 to 2"FD-1.
 - D. Add hose bibbs HB-1 and HB-2 in locations shown.
 - E. Revise note 10.
- Item No. P08 Plan Sheet P4.01, delete this plan sheet and replace with the attached plan sheet P4.01. Revisions are clouded, including:
- A. Remove TD-1, WMB-1.
 - B. Add Trap primers TP-1 and TP-2.
 - C. Add note, trap primer and hose bibbs to riser diagram.
- Item No. P09 Plan Sheet P4.02, delete this plan sheet and replace with the attached plan sheet P4.02. Revisions are clouded, including:
- A. Remove detail 15.

DIVISION 21 - FIRE PROTECTION

21 00 00 - Fire Protection	01 - 03
21 05 29 - Hangers and Supporters for Fire Suppression Piping & Equipment	01 - 06
21 13 13 - Wet Pipe Sprinkler System	01 - 06

DIVISION 22 - PLUMBING

22 00 00 - Plumbing	01 - 04
22 02 00 - Basic Materials and Methods	01 - 22
22 05 16 - Expansion Fittings and Loops for Plumbing Piping	01 - 04
22 05 29 - Hangers and Support for Plumbing Piping and Equipment	01 - 06
22 05 48 - Vibration and Seismic Controls for Plumbing Piping	01 - 02
22 05 53 - Identification for Plumbing Piping and Equipment	01 - 03
22 07 19 - Plumbing Piping Insulation	01 - 05
22 10 00 - Plumbing Piping	01 - 15
22 11 19 - Plumbing Specialties	01 - 10
22 30 00 - Plumbing Equipment	01 - 05
22 40 00 - Plumbing Fixtures	01 - 08

DIVISION 23 - HEATING, VENTILATION, AND AIR CONDITIONING (HVAC)

23 00 00 - Heating, Ventilating, and Air Conditioning (HVAC)	01 - 03
23 02 00 - Basic Materials and Methods	01 - 14
23 02 01 - Coordination Drawings	01 - 02
23 05 13 - Common Motor Requirements for HVAC Equipment	01 - 05
23 05 16 - Expansion Fittings and Loops for HVAC Piping	01 - 04
23 05 26 - Variable Frequency Motor Speed Control for HVAC Equipment	01 - 06
23 05 29 - Hangers and Support for Piping and Equipment	01 - 05
23 05 48 - Vibration and Seismic Controls for HVAC Piping and Equipment	01 - 02
23 05 53 - Identification for HVAC Piping and Equipment	01 - 02
23 05 93 - Testing, Adjusting and Balancing	01 - 06
23 07 13 - Duct Insulation	01 - 02
23 07 19 - HVAC Piping Insulation	01 - 04
23 08 00 - Commissioning of HVAC Systems	01 - 07
23 09 00 - Building Automation and Controls System	01 - 11
23 21 13 - Above Ground Hydronic Piping	01 - 04
23 23 00 - Refrigerant Piping	01 - 02
23 31 13 - Metal Ductwork	01 - 05
23 33 00 - Ductwork Accessories	01 - 04
23 34 00 - HVAC Fans	01 - 03
23 37 13 - Air Distribution Devices	01 - 03
23 62 13 - Air Cooled Condensing Units	01 - 03
23 81 43 - Variable Refrigerant Flow (VRF) for HVAC	01 - 17
23 82 19 - Fan Coil Unit	01 - 07
23 82 43 - Electric Duct Heaters	01 - 03

SECTION 23 82 43

ELECTRIC DUCT HEATERS

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

- A. The requirements of the General Conditions and Supplementary Conditions apply to all work herein.
- B. The Basic Materials and Methods, Section 23 02 00, are included as a part of this Section as though written in full in this document.

1.02 SCOPE

- A. Scope of the Work shall include the furnishing and complete installation of the equipment covered by this Section, with all auxiliaries, ready for owner's use.

1.03 OPERATIONS PERSONNEL TRAINING

- A. Provide a training session for the owner's operations personnel. Training session shall be performed by a qualified person who is knowledgeable in the subject system/equipment. Submit a training agenda two (2) weeks prior to the proposed training session for review and approval. Training session shall include at the minimum:
 - 1. Purpose of equipment.
 - 2. Principle of how the equipment works.
 - 3. Important parts and assemblies.
 - 4. How the equipment achieves its purpose and necessary operating conditions.
 - 5. Most likely failure modes, causes and corrections.
 - 6. On site demonstration.

PART 2 - PRODUCTS

2.01 ELECTRIC DUCT HEATER

- A. Provide open coil, electric heating coils as listed in the schedule.
- B. Three phase heaters shall have balanced three phase steps unless specified otherwise.
- C. All heaters to be UL listed for zero clearance to combustible surfaces and bear the UL label.
- D. All heaters shall meet the requirements of the National Electrical Code.
- E. Standard terminal box, with 1/2 inch insulation, as well as element housing and racks wall to be made of heavy gauge galvanized steel. All contactors shall be silent type

operation mercury contactors.

- F. All heating coils to be made of high grade nickel/chromium resistance wire and terminated by means of a loop of wire being sandwiched between stainless steel or nickel plated washers and terminal hardware. All terminal hardware to be insulated from the heater by a two piece ceramic bushing.
- G. Safety Controls:
 - 1. Positive air pressure switch to prevent heater from energizing until air flow is proven.
 - 2. Primary over temperature protection shall be provided by built-in disc type automatic reset thermal cutouts.
 - 3. Secondary over-temperature protection shall consist of a sufficient number of load carrying manual reset controls to deenergize the elements if the primary system fails; one pilot duty manual reset and back up contactors.
- H. Wiring Diagrams:
 - 1. A separate, complete and specific wiring diagram shall be permanently attached to each heater. Typical wiring diagrams are not acceptable.
 - 2. Control and line terminals in each heater shall be marked identical to the wiring diagram.
 - 3. Additional diagrams instructions, etc., to be firmly held in position by a metallic snap clip or pocket inside the cover.
- I. Overcurrent protection incorporating fuses or circuit or breakers must be provided for all heaters rated more than 48 amperes, factory installed, within the heater enclosure, or provide as a separate assembly by the heater manufacturer. Heaters exceeding 48 amperes total line current must be divided into subcircuits (as allowed by stages) of less than 48 amperes and be protected at not more than 60 amperes. The main conductors supplying these overcurrent protective devices are considered branch circuit conductors and are subject to the 125% ampere rating rule of NEC.
- J. Units as manufactured by Nailor, Indeeco, Markel, Warren or Brasch Manufacturing shall be considered "as equal" provided they comply with the schedule and specifications.
- K. All units shall include an integral disconnect switch to meet the NEC requirements for a disconnecting means within sight of the heater. Disconnect switch shall be located inside of heater control cabinet and shall be interlocked with control cabinet door. Disconnect switch shall have labeled "on" and "off" positions. If any other external sources of control voltage are required, a separate toggle switch shall be provided.

PART 3 - EXECUTION

- 3.01 All HVAC equipment shall be installed as per manufacturers printed installation instructions.
- 3.02 All items required for a complete and proper installation are not necessarily indicated on the plans

or in the specifications. Provide all items required as per manufacturer's requirements.

END OF SECTION

SECTION 32 92 13

HYDROMULCH SEEDING

PART 1 - GENERAL

1.1 SECTION INCLUDES

Seeding, fertilizing, mulching, and maintenance of areas indicated on Drawings.

1.2 SUBMITTALS

- A. Submittals shall conform to requirements of these contract documents.
- B. Submit certification from supplier that each type of seed conforms to these specification requirements and the requirements of the Texas Seed Law. Certification shall accompany seed delivery.
- C. Submit a certificate stating that fertilizer complies with these specification requirements and the requirements of the Texas Fertilizer Law.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Seed:
 - 1. Conform to U.S. Department of Agriculture rules and regulations of the Federal Seed Act and the Texas Seed Law. Seed shall be certified 90 percent pure and furnish 80 percent germination and meet the following requirements:
 - a. Rye:
 - 1.) Fresh, clean, Italian rye grass seed (*lollium multi-florum*), mixed in labeled proportions. As tested, minimum percentages of impurities and germination must be labeled. Deliver in original unopened containers.
 - b. Bermuda:
 - 1.) Extra-fancy, treated, lawn type common bermuda (*Cynodon dactylon*). Deliver in original, unopened container showing weight, analysis, name of vender, and germination test results.
 - c. Wet, moldy, or otherwise damaged seed will not be accepted.

d. Seed requirements, application rates and planting dates are:

<u>Type</u>	<u>Application Rate</u> <u>Pounds/A</u>	<u>Planting Date</u>
Hulled Common Bermuda Grass 98/88	40	Jan 1 to Mar 31
Unhulled Common Bermuda Grass 98/88	40	
Hulled Common Bermuda Grass 98/88	40	Apr 1 to Sep 30
Hulled Common Bermuda Grass 98/88	40	Oct 1 to Dec 31
Unhulled Common Bermuda Grass 98/88	40	
Annual Rye Grass (Gulf)	30	

B. Fertilizer:

1. Dry and free flowing, inorganic, water soluble commercial fertilizer, which is uniform in composition. Deliver in unopened containers which bear the manufacturers guaranteed analysis. Caked, damaged, or otherwise unsuitable fertilizer will not be accepted. Fertilizer shall contain minimum percentages of the following elements:

Nitrogen:	10 Percent
Phosphoric Acid:	20 Percent
Potash:	10 Percent

C. Mulch:

1. Virgin wood cellulose fibers from whole wood chips having a minimum of 20 percent fibers 0.42 inches (10.7 mm) in length and 0.01 inches (0.27 mm) in diameter. Mulch shall be dyed green for coverage verification purposes.

D. Soil Stabilizer:

1. "Terra Tack" 1 or approved equal.

E. Weed Control Agent: Pre-emergent herbicide for grass areas, "Benefin" or approved equal.

PART 3 - EXECUTION

3.1 PREPARATION

Place and compact topsoil in accordance with requirements of Section 32 91 19.

3.2 APPLICATION

- A. Seed:
 - 1. Apply uniformly at rates given in Paragraph 2.01 A for type of seed and planting date.
- B. Fertilizer:
 - 1. Apply uniformly at a rate of 500 pounds per acre.
- C. Mulch:
 - 1. Apply uniformly at a rate of 50 pounds per 100 square feet.
- D. Soil Stabilizer:
 - 1. Apply uniformly at a rate of 40 pounds per acre.
- E. Weed Control Agent:
 - 1. Apply at manufacturer's recommended rate prior to hydromulching.
- F. Suspend all operations under conditions of drought, excessive moisture, high winds, or extreme or prolonged cold. Obtain Engineer approval before resuming operations.

3.3 MAINTENANCE

- A. Maintain grassed areas as required to establish an acceptable lawn. For areas seeded in the fall, continue maintenance the following spring until an acceptable lawn is established.
- B. Maintain grassed areas by watering, fertilizing, weeding, and trimming.
- C. The contractor shall be responsible for watering and maintaining the seeded areas until substantial completion unless otherwise specified and approved by Prairie View A&M University (PVAMU).
- D. Playing, practice and competition fields, seeded with Bermuda grass, shall be established early in the construction project.
- E. The Contractor shall install protective fencing around the field with acceptable access by PVAMU.
- F. Once established and punched out, PVAMU shall maintain the fields.
- G. Repair areas damaged by erosion by re-grading, rolling and replanting.

END OF SECTION