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Addendum No. 1, September 20, 2024

Re: Agriculture Technology Innovation Center  
Tennessee Technological University  
Cookeville, TN

From: Upland Design Group, Inc.  
P.O. Box 1026 (38557)  
362 Industrial Blvd.  
Crossville, TN 38555  
Telephone (931) 484 7541  
Fax (931) 484 2351

To: Prospective Bidders



This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated 6-21-24, as noted below. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject Bidder to disqualification.

This Addendum consists of one (1) page and nineteen (19) attachments for a total of twenty (20) pages.

**Clarifications**

1. The Prebid sign in sheet is attached.
2. The existing water service comes from the adjacent building and not from the front of the building to be demolished.
3. TTU will provide a hazardous material survey post bid. Any abatement will be handled through Owner contingency funds.
4. TTU's contact for the project is Bill Lewis; Cell (727)432-2882; [wlewis@tntech.edu](mailto:wlewis@tntech.edu).

**Changes to Specifications:**

5. Refer to Section 00 41 13 Bid Form. Replace with attached 00 41 13 Bid Form.
6. Refer to Section 01 23 00 Alternates. Replace with attached 01 23 00 Alternates.
7. Refer to Section 04 20 00 Unit Masonry. Replace with attached 04 20 00 Unit Masonry.

**Changes to Drawings:**

8. Refer to Architectural Drawings COVER, D1.1, A0.1 and A1.1, Replace with attached drawings COVER, D1.1, A0.1 and A1.1, Revised date 9/20/24. Interior signage types and locations added and existing sidewalk to be demolished and new sidewalk layout have been clarified.
9. Refer to Electrical Drawings E0.1 and E1.1. Replace with attached Drawings E0.1 and E1.1, Revised date 9/20/24.
10. Refer to attached Drawing HBAR-2 for clarification on new fiber cable routing and information.

END OF ADDENDUM

September 18, 2024

Agriculture Technology Innovation Center  
Tennessee Technological University

PRE-BID MEETING SIGN-IN

Name	Representing	Phone	Email Address
1. <u>David Joyce</u>	<u>Mid-States</u>	<u>931-261-2262</u>	
2. <u>Gary Stapleton</u>	<u>EAF demolition</u>	<u>865-203-7198</u>	<u>gstzpletu@ezitn.com</u>
3. <u>Bailey Phillips</u>	<u>Mid-States</u>	<u>931-357-1837</u>	<u>bailey@mid-statesconstruction.com</u>
4. <u>Shawn Banerhoff</u>	<u>Cherry Creek Electric</u>	<u>931 432 8043</u>	<u>asternakng@cherrycreekcc.com</u>
GC 5. <u>William Bennett</u>	<u>WD SERVICES</u>	<u>931-510-8477</u>	<u>WILLIAM BENNETT 141@4ADSO.COM</u>
GC 6. <u>Ethan Jennings</u>	<u>FTM</u>	<u>931-528-1137</u>	<u>ethan@ftmcontracting.com</u>
7. <u>Jacky Dobbs</u>	<u>FTM</u>	<u>931-528-1137</u>	<u>jdobbs@ftmcontracting.com</u>
GC 8. <u>Gippie Rangley</u>	<u>Lee Adcock</u>	<u>931-224-5771</u>	<u>G.rangley@leeadcock.com</u>
9. <u>Jerry Birdwell</u>	<u>Lee Adcock</u>	<u>931-265-2966</u>	<u>Jerry.Birdwell@leeadcock.com</u>
10. <u>Logan Rangley</u>	<u>Lee Adcock</u>	<u>615-785-6811</u>	<u>L.rangley@leeadcock.com</u>
11. <u>Renee Lamb</u>	<u>Lee Adcock</u>	<u>931-684-1771</u>	<u>r.lamb@leeadcock.com</u>
	<u>Clay Van De Voorde</u>	<u>419-551-2629</u>	<u>CVANDEVOORDE@vdeelectric.com</u>
	<u>ADAM THROUGHMORTON</u>		<u>ATHROUGHMORTON@LAKELANDE.COM</u>
	<u>LAKELAND ELECTRIC</u>		

Name	Representing	Phone	Email Address
12.			
13. <u>HARRY PUCKETT</u>	<u>ELUKE GREENE CO</u>	<u>615-631-1808</u>	<u>harry@elukegreene.com</u>
14. <u>JURFIN WILSON</u>	<u>Blalock</u>	<u>615-504-5783</u>	<u>electest@Blalocks.com</u>
15. <u>Wes McKay</u>	<u>Building and Earth</u>	<u>256 819 7051</u>	<u>wmckay@buildingandearth.com</u>
16. <u>Jake Larsen</u>	<u>WBO Construction</u>	<u>931-357-1974</u>	<u>jarsen@woccc.com</u>
17. <u>Gary Loftis</u>	<u>MLE</u>	<u>931-526-5143</u>	<u>gary@maffett-loftis.com</u>
18. <u>Justin Newell</u>	<u>MLE</u>	''	<u>justin@maffett-loftis.com</u>
19. <u>STEVE VICK</u>	<u>CHC</u>	<u>931-260-3553</u>	<u>steve@checompanies.com</u>
20. <u>Jesse Wendig</u>	<u>Action</u>	<u>931-337-7797</u>	<u>jwendig@action-hc.com</u>
21. <u>Chris Red</u>	<u>Action</u>	<u>931-210-3309</u>	<u>Chris@Action-hc.com</u>
22. <u>Seth Hudson</u>	<u>HD</u>	<u>931-544-9312</u>	<u>sethudson475@gmail.com</u>
23. <u>Mike Sullivan</u>	<u>Sain Construction</u>	<u>931-728-7644</u>	<u>msullivan@sainconstruction.com</u>
24. <u>JEREMY WILSON</u>	<u>WHITSON FARMS EXCAVATION CO.</u>	<u>931-510-5505</u>	<u>JEREMY@WFEEXCAVATION.COM</u>
25. <u>Tho Mas Austin</u>	<u>Noah Roberts Contracting</u>	<u>931-235-9886</u>	<u>thomas@austinconstruction.com</u>
26. <u>Dylan Summers</u>	<u>Noah Roberts Contracting</u>	<u>931-316-0781</u>	<u>dbsummers23@gmail.com</u>
27. <u>John Stabbs</u>	<u>Stabbs Const.</u>	<u>931-787-1313</u>	<u>john@stabbshellc.com</u>
	<u>MICHAEL PETTY</u>	<u>KING CONST</u>	<u>931-260-7239</u>
	<u>TOBIN STEVENS</u>	<u>KCGI</u>	<u>931-614-0782 + stevens@kcgis.com</u>

**00 41 13 – BID FORM**

**TO:** State of Tennessee      **FROM BIDDER:** \_\_\_\_\_

**FOR:**

Project Title: Agriculture TechnologyInnovation Center

Project SBC No.: 364/021-01-2022

A. The Bidder hereby acknowledges, attests, certifies, warrants, and assures that:

1. Bidder has received, read and understands the Bidding Documents and this bid is made in accordance therewith.
2. Bidder has visited the site and become familiar with the local conditions under which the Work is to be performed and has correlated all observations with the requirements of the Bidding Documents.
3. Documents identified as "Information Available to Bidders" are prepared solely for the Designer's use in design of this Work and have not been relied upon in the preparation of this bid. The use and interpretation of such information for any purpose is entirely the responsibility of the using party.
4. Bidder shall not utilize the services of a contractor or subcontractor disqualified from participating in State Building Commission projects.
5. Bidder shall not knowingly utilize the services of an illegal immigrant in the performance of this Contract and shall not knowingly utilize the services of any subcontractor or consultant who will utilize the services of an illegal immigrant in the performance of this Contract.
6. In compliance with the Iran Divestment Act the Bidder is not on the list created pursuant to Tennessee Code Annotated (TCA) § 12-12-106 and shall not utilize any subcontractor on that list.
7. Bid Security, in the amount of five percent (5%) of the total amount of bid, including Alternates, is attached hereto.
8. A Drug-Free Workplace Affidavit, in the form of Section 00 45 21, is attached hereto.
9. Failure to complete this Bid Form, provide required attachments, or comply otherwise with instructions to Bidders, may be cause for rejection of bid.
10. The person who signs this bid on behalf of the Bidder is legally empowered to bind the Bidder to a Contract.
11. The following statement is (mark the one that is applicable)  True       False:  
The Bidder and/or any of the Bidder's employees, agents, independent contractors and/or proposed Subcontractors have been convicted of, pled guilty to, or pled nolo contendere to any contract crime involving a public contract.
12. Bidder has received the following addenda:  
Addendum No. \_\_\_\_\_ dated \_\_\_\_\_.      Addendum No. \_\_\_\_\_ dated \_\_\_\_\_.  
Addendum No. \_\_\_\_\_ dated \_\_\_\_\_.      Addendum No. \_\_\_\_\_ dated \_\_\_\_\_.

**00 41 13 – BID FORM**

**PAGE 2 FROM BIDDER:** \_\_\_\_\_

B. The Bidder agrees to:

1. Honor this bid for 45 days following the date of the scheduled opening of bids.
2. Enter into and execute a contract, if presented on the basis of this bid, and to furnish certificates(s) of insurance, bond(s), and other documents related to the contract as required, including, if the initial Contract Sum as awarded exceeds \$100,000, the Contract Bond.
3. Accomplish the Work in accordance with the Contract Documents.
4. Furnish Three Year Roof Bond in the form of Section 00 61 43 in the amount of: \$75,000.
5. Achieve Substantial Completion of the Work in accordance with the number of calendar days Contract Time set forth, allotted from and including the date stipulated in the Notice to Proceed; and, accept the conditions for Liquidated Damages in the amount set forth per calendar day.

Phase	Commencement	Contract Time	Liquidated Damages	
ALL	Notice to Proceed for All Work	420 Days	\$500	Per Day
	Not Applicable	Days	\$	Per Day
	Not Applicable	Days	\$	Per Day
	Not Applicable	Days	\$	Per Day

C. BASE BID: The Bidder agrees to complete the Work of the Base Bid for this project for the lump sum of the following amount (In both words and figures. Figures prevail. Words clarify at Owner's discretion.):

\_\_\_\_\_ and \_\_\_\_\_/100ths Dollars  
 \$ \_\_\_\_\_

D. ALTERNATES: The Bidder agrees to include Work of the following Alternate(s), as specified in Section 01 23 00 Alternates, for the additional lump sum(s) of the following amount(s) (In both words and figures. Figures prevail. Words clarify at Owner's discretion.):

ALTERNATE No.1: Painting Existing Building Exterior Concrete Block Walls  
 \_\_\_\_\_ and \_\_\_\_\_/100ths Dollars  
 \$ \_\_\_\_\_

ALTERNATE No. 2: Replacing Split-Faced CMU with Ground-Faced CMU  
 \_\_\_\_\_ and \_\_\_\_\_/100ths Dollars  
 \$ \_\_\_\_\_

ALTERNATE No. 3: Not Applicable  
 \_\_\_\_\_ and \_\_\_\_\_/100ths Dollars  
 \$ \_\_\_\_\_

ALTERNATE No. 4: Not Applicable  
 \_\_\_\_\_ and \_\_\_\_\_/100ths Dollars  
 \$ \_\_\_\_\_

**00 41 13 – BID FORM**

E. UNIT PRICES: The Bidder agrees to include work in the Base Bid and Alternates as specified for the Quantity Allowance of Unit Price Items and propose, subject to Owner acceptance, the following Unit Prices for inclusion in the Agreement as specified in Section 01 22 13 Unit Prices:

Not Applicable

Item No.	Unit Price per Unit	Unit	Name, Work Included

F. BID SUBMITTAL:

This bid is submitted by:

Authorized Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name, Title: \_\_\_\_\_

On behalf of:

Bidder Name: \_\_\_\_\_

Bidder's Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Bidder's Phone: \_\_\_\_\_

Bidder's Fax: \_\_\_\_\_

Bidder's Email: \_\_\_\_\_

END OF SECTION

## 01 23 00 – ALTERNATES

### PART 1 - GENERAL

#### 1.01 REQUIREMENTS

- A. Section includes identification of each Alternate by number, and describes the basic changes to be incorporated into the Work if a particular Alternate is made a part of the work by specific provisions in the Agreement between the Owner and the Contractor.
- B. Related sections are referenced in the definition of each Alternate.
- C. Coordination of related work and modifications to surrounding work as required to properly integrate each Alternate, and to provide the complete construction required by the Contract Documents, is the responsibility of the Contractor.

#### 1.02 DESCRIPTION OF ALTERNATES

Add Alternate #1: Paint Existing Building Exterior Concrete Block

- A. Refer to applicable Section 09 91 00 and Drawing A3.1.

The work of this Alternate includes of painting the existing building exterior concrete block walls.

Add Alternate #2: Ground Faced Concrete Block

- A. Refer to applicable Section 04 20 00 and applicable Drawings.

The work of this Alternate consists of replacing the Base Bid split-faced concrete CMU skirt with ground faced CMU.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION

## **Section 04 20 00 Unit Masonry**

### **Part 1 General**

#### **1.1 General**

Applicable provisions found in the Bid/Contract Requirements and Division 1, General Requirements apply to the Work under this Section.

#### **1.2 Scope**

This Specification applies to all masonry work shown on the Drawings and specified herein including masonry materials, erection, pointing, cleaning, and sealing. Specific requirements applying to masonry accessories and mortar are given in previous sections within this DIVISION. **THIS SECTION IS SUBJECT TO ALTERNATE #2.**

#### **1.3 Related Work**

- A. Masonry Mortaring is specified in Section 04 05 13.
- B. Masonry Anchorage is specified in Section 04 05 19.
- C. "Sealants" as specified in Division 7.

#### **1.4 Submittals**

- A. Cleaning compounds or processes, other than those specified, shall be submitted with complete data to the Architect for approval before work is commenced.
- B. Samples
  - 1. Three full size sample units, selected at random, of each type of masonry material specified herein shall be submitted to the Architect for approval before work is started.
  - 2. Prior to starting masonry work, a sample wall panel shall be built to show required range of color and type of color of mortar joints. This sample shall include brick, block, reinforcing and all elements to be included in the wall. A separate wall panel shall be built for each exterior wall profile. Approved sample walls shall be representative of proposed material, method of laying and workmanship. Build panels approximately 4 x 5 feet in a location where the sun will strike finish face of same. Provide a vertical control joint in the panel. Control joint shall be caulked as a sample of caulk color and installation workmanship. After approval, the panels shall be kept intact until the work is completed and shall be the established standard for the balance of the work.
- C. Test Data
  - 1. Upon the Architects request, certified test data compiled by an approved testing laboratory shall be furnished certifying conformance of materials, actually delivered for incorporation in the work, with all specified requirement. All associated costs for this work will be paid by the Contractor.
  - 2. The block supplier shall supply a letter from an independent testing laboratory certifying that the proposed block meets or exceeds a A.S.T.M. C-90 and that the aggregates meet or exceed the A.S.T.M. C-331. No block shall be provided to the job prior to meeting this certification requirement.

## Part 2 Products

### 2.1 Concrete Block

- A. The manufacturer of the structural concrete block shall be subject to the approval of the Architect. At Contractor's option equal products of standard weight concrete block may be used in lieu of that specified below.
- B. Lightweight concrete blocks shall be made of lightweight aggregate, Portland Cement, and water. The average percentage of moisture in the units at the time of setting shall not exceed 40% of their total absorption. After the blocks have been formed, they shall be cured in kilns at atmospheric pressure for a minimum of 12 hours at a temperature of 180 degrees F., to 200 degrees F. This heat shall be produced by live steam only. Blocks must then be stored for a minimum period of 10 days before shipment to the job. Also, all units must comply with the compressive strength requirements before shipment.
  1. Blocks must be true to size; without cracks, chips, spawls, splits, foreign matter or other defects, which may impair their strength or durability and shall not exceed the following weights:
    - a) 12 x 8 x 16-2 Core Air Dry-Not over 42 lbs.
    - b) 8 x 8 x 16-3 Core Air Dry -Not over 30 lbs.
    - c) 6 x 8 x 16-3 Core Air Dry -Not over 24 lbs.
    - d) 4 x 8 x 16-Solid-Not over 19 lbs.
  2. Loadbearing, lightweight concrete blocks shall conform to ASTM C 90-75 and to Federal Specification SS-C-621 for loadbearing units, except that the aggregate shall be Shalite or Lalite. Special blocks shall be provided as necessary for bonding out or at opening.
  3. Non-load bearing, lightweight concrete blocks shall conform to ASTM C 129-71 and to Federal Specifications SS-C-621 for non-load bearing units, except that the aggregate shall be Shalite or Lalite. Special blocks shall be provided as necessary for bonding at openings.
  4. All concrete masonry units 8" or more in thickness shall have a minimum equivalent thickness, as defined in the Southern Standard Building Code, of 3.8" and shall conform to the SSBC requirements for 2-hour fire resistance rating.
  5. Where indicated on the Drawings 12" masonry walls indicated as "2HR" shall be supplied bearing U.L. label or manufacture complying to 2HR fire rating requirement.
  6. Bond beam blocks, which may be identified on the Drawings as spandrel or bolster block, shall be similar to Tennessee Concrete Industries Association (TCIA) Shape No. 79 or No. 86 as applicable for wall thickness indicated on the Drawings. Bond beam blocks shall be manufactured as specified of load bearing, lightweight concrete blocks.

### 2.2 Split Face Concrete Block Veneer – Base Bid

- A. Pre-colored split face block shall be 8" x 8" x 16". Color to be as selected from standard colors by Architect as manufactured by ACME Brick and Block, Crossville, Tennessee; or equal color as manufactured by Fentress Co. Block, Jamestown, Tennessee; Sequatchie Concrete Services, South Pittsburgh, Tennessee; or prior approved equal.
- B. Block shall comply with ASTM C-578.
- C. Aggregate shall be normal weight and conform to ASTM C-33. Block shall comply with ASTM C90-7 for all load bearing applications.

- D. Blocks shall have integral lime proof color with 10% pigment by weight of cement. Blocks shall include efflorescence reduction admix of calcium stearate at a rate of six fluid ounces per bag of cement, or W. R. Grace equivalent.
- E. Blocks shall have integral water repellent admixture such as W.R. Grace "Dry-Block", Acme shield, or approved equal added at time of manufacture.
- F. Provide block with matching ends for corner and jamb applications.
- G. Unit color shall be selected from manufacturers standard colors.

### **2.3 Ground Face Masonry Units – Add Alternate #2**

Ground face masonry units shall be Treadstone Plus filled and polished masonry units, 7 5/8" x 15 5/8" in size. Equal products from Oldcastle and DecraStone or approved equal.

### **2.4 Masonry Grout**

- A. Grout for filling bond beams, cores, etc. shall be in accordance with ASTM C-476, and have a minimum compressive strength of 3,000 psi at 28 days.
- B. Aggregate for grout shall be in accordance with ASTM C-404. Where area to be grouted is 3" or less in any dimension, use "fine" grout; otherwise use "coarse".
- C. Slump for grout is to be between 9" and 11".
- D. Grout may contain water reducing or plasticizing admixture to achieve slump noted above.
- E. Field mix grout may be used with the approval of the architect for quantities less than one yard and upon the submittal and approval of the contractor's field mix design and quality control criteria.

## **Part 3 Execution**

### **3.1 Handling and Storage of Materials**

- A. All materials on the job, including mortar aggregate and masonry units shall be stored and handled to preclude the inclusion of foreign materials in the work, and to prevent breaking, staining or damage from the weather of the ground. Masonry units shall be stacked on waterproof paper laid over a timber platform at least four inches above the ground, or on pallets if so delivered from the manufacturer.
- B. A waterproof paper or other suitable cover shall be provided over all masonry materials in storage where exposed to the weather.

### **3.2 Equipment**

- A. Adequate equipment shall be furnished and maintained in good, safe working order to permit satisfactory and prompt completion of the work.
- B. Scaffolding shall be erected in a substantial manner and shall be maintained safe in accordance with applicable codes and ordinances.

### **3.3 Erection**

- A. General: Masonry shall be laid plumb, true to line, with level courses accurately spaced with a story pole and, unless otherwise shown, with each course breaking joints with the course next below. Each unit shall be adjusted to its final position in the wall while mortar is still soft and plastic. Any unit that is disturbed after mortar has stiffened shall be removed and re-laid with fresh mortar. Bond pattern shall be plumb throughout. Corners and reveals shall be plumb and true. Courses shall be so spaced that backing masonry will level off

flush with the face work at all bonding courses of masonry bond. Partitions that abut walls or columns shall be anchored thereto on two-foot centers. Anchors to be built in with masonry shall be installed as the work progresses. The size of any two adjacent units shall be within permitted tolerances so that the difference between the vertical faces of such units shall not exceed 1/8 inch. No unit having a film of water or frost on its surface shall be laid in the walls and no frozen work shall be built upon.

1. Work required to be built into masonry, including anchors, frames, bolts, sleeves, inserts, compressible fillers, expansion joints, and flashings shall be built in as erection progresses. Hollow units into which anchor bolts will be installed, and the spaces around metal door- frames and other built-in items shall be solidly filled with mortar.
2. Unfinished work: Unfinished work shall be stepped back for joining with new work. All masonry work shall be continuous from control joint to control joint or to inside corner. Tothing may be resorted to only when specifically approved by the Architect. All loose mortar shall be removed and the exposed joint shall be thoroughly cleaned before laying new work. Surfaces of masonry not being worked on shall be properly protected at all times during construction operations. Adequate provisions shall be made during construction to prevent damage by wind.
3. Joint Reinforcement: Reinforcement shall be installed in horizontal joints as shown on the drawings, or if not shown, in alternate joints. Corners and laps shall be lapped not less than the width of the reinforcing. Face units shall be bonded to back up with joint reinforcement.
4. Joints: Joints shall be tooled slightly concave with a device of as long length as practicable and so that the mortar will be thoroughly compacted and pressed against the edges of the units. Tooling shall not be done until after the mortar has taken its initial set. Note that masonry may be exposed in the interior of the building, in that event, interior and exterior workmanship are to be equal superior quality.

B. Concrete Units:

1. Layout of work: All concrete work shall be laid out with uniform joints approximately 3/8" thick and shall be bonded at corners where possible and as consistent with good appearance in the judgment of the Architect. Where cutting is required, the cuts shall be made symmetrical about openings and as general rule with no cuts less than 4". Corners shall be made using half blocks in order to maintain head joints centered over block in adjoining courses above and below. Where for appearance it is inadvisable to bond intersecting walls, wall ties shall be used. All cutting shall be done with high- speed masonry saws.
2. Lintels: All openings in masonry walls shall be provided with lintels whether or not detailed or specifically called out on the Drawings. Lintels are to be bond beam / U-block type constructed in place according to lintel schedule on the Drawings, unless specifically detailed otherwise. Lintels shall be 16" longer than the masonry width of the openings over which they occur, except for special conditions where the length shall be as shown / directed. All lintels shall be 7-5/8" deep, unless noted otherwise, and shall be reinforced with one #5 top and bottom for each 4" of lintel width. Concrete fill for bond beams shall be as specified in Division 3.
3. Control joints: Control joints shall be provided in concrete block partitions at door heads where masonry extends above the door frame, where partitions abut exterior walls, at 30' c/c, and elsewhere as noted on the Drawings. Joints shall be raked out

3/8 inch deep and caulked as specified in Division 7.

### 3.4 Cold Weather Procedures

The following procedures shall be implemented when either the ambient temperature falls below 40°F (4°C) or the temperature of masonry units is below 40°F (4°C).

#### A. Preparation

1. Temperatures of masonry units shall not be less than 40°F (-7°C) when laid in the masonry. Masonry units containing frozen moisture, visible ice or snow on their surface shall not be laid.
2. Visible ice and snow shall be removed from the top surface of existing foundations and masonry to receive new construction. These surfaces shall be heated to above freezing, using methods that do not result in damage.

B. The following construction requirements shall be met when the ambient temperature is between 40°F (4°C) and 32°F (0°C):

1. Water and aggregates used in mortar and grout shall not be heated above 140°F (60°C).
2. Mortar sand or mixing water shall be heated to produce mortar temperatures between 40°F (4°C) and 120°F (49°C) at the time of mixing. When water and aggregates for grout are below 32°F (0°C), they shall be heated.

C. The following construction requirements shall be met when the ambient temperature is between 32°F (0°C) and 25°F (-4°C):

1. The mortar temperature shall be maintained above freezing until used in masonry.
2. Aggregates and mixing water for grout shall be heated to produce grout temperature between 70°F (21°C) and 120°F (49°C) at the time of mixing. Grout temperature shall be maintained above 70°F (21°C) at the time of grout placement.

D. The following construction requirements shall be met when the ambient temperature is between 25°F (-4°C) and 20°F (-7°C):

1. Masonry surfaces under construction shall be heated to 40°F (4°C).
2. Wind breaks or enclosures shall be provided when the wind velocity exceeds 15 miles per hour (mph) (24 km/h).
3. Prior to grouting, masonry shall be heated to a minimum of 40°F (4°C).

E. The following construction requirement shall be met when the ambient temperature is below 20°F (-7°C): Enclosures and auxiliary heat shall be provided to maintain air temperature within the enclosure to above 32°F (0°C).

#### F. Protection

1. When the temperature is between 40°F (4°C) and 25°F (-4°C), newly constructed masonry shall be covered with a weather-resistive membrane for 24 hours after being completed.
2. When the temperature is between 25°F (-4°C) and 20°F (-7°C), newly constructed masonry shall be completely covered with weather-resistive insulating blankets, or equal protection for 24 hours after being completed. The time period shall be extended to 48 hours for grouted masonry, unless the only cement in the grout is Type III Portland cement.

3. When the temperature is below 20°F (-7°C), newly constructed masonry shall be maintained at a temperature above 32°F (0°C) for at least 24 hours after being completed by using heated enclosures, electric heating blankets, infrared lamps or other acceptable methods. The time period shall be extended to 48 hours for grouted masonry, unless the only cement in the grout is Type III Portland cement.

### **3.5 Protection of Work in Place**

- A. **Masonry Work:** The work shall be done with reasonable care to avoid spilling mortar on the faces of exposed masonry units in place. Should such occur, the faces should be cleaned immediately to prevent setting of mortar or permanent staining. Use clean burlap on wood blocks and stiff brushes with water. When work is stopped for any reason, the top of all unfinished work shall be covered with a waterproof covering if exposed to the weather.
- B. **Work of Other Trades:** The work of other trades which will be exposed to view in the completed project or surfaces which are to receive finishes such as resilient flooring shall be protected from mortar droppings or other damage which would impair satisfactory completion, or would cause other trades undue labor or difficulty in preparing such surfaces to receive their work.

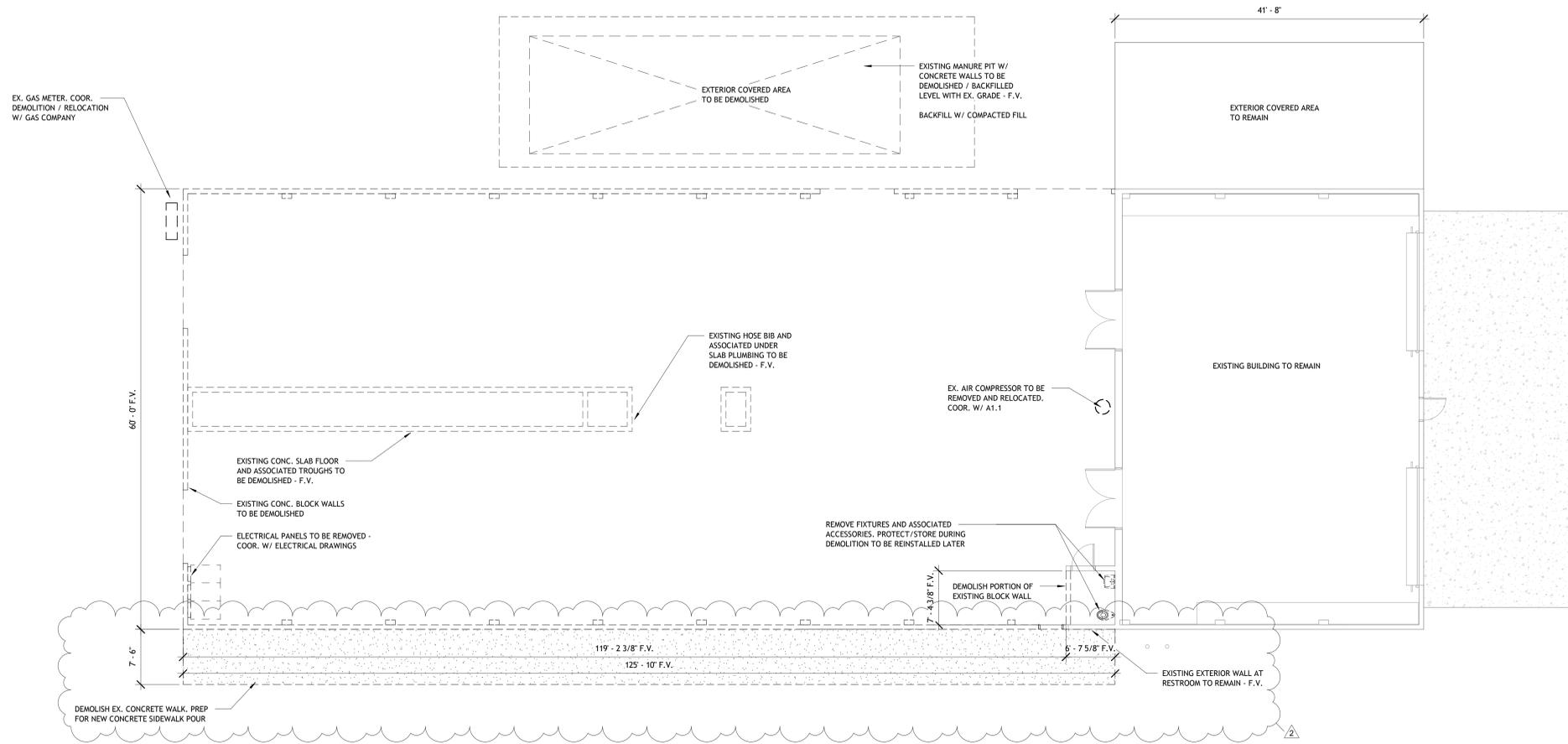
### **3.6 Pointing**

- A. After masonry is erected, point up all exposed masonry. All loose mortar shall be removed and defective joints cut out. All such joints, holes, or other defects shall then be carefully filled with mortar and tooled to match adjacent joints.
- B. All block walls to receive paint shall be rubbed with an abrasive stone to remove mortar spatter, droppings, and "slobber" (excess mortar that extends out past the face of the block, sometimes created during tooling of joints) so that no mortar protrudes past the plane of the block face.

Finished pointed, rubbed wall shall present a smooth, even, true to plane surface.

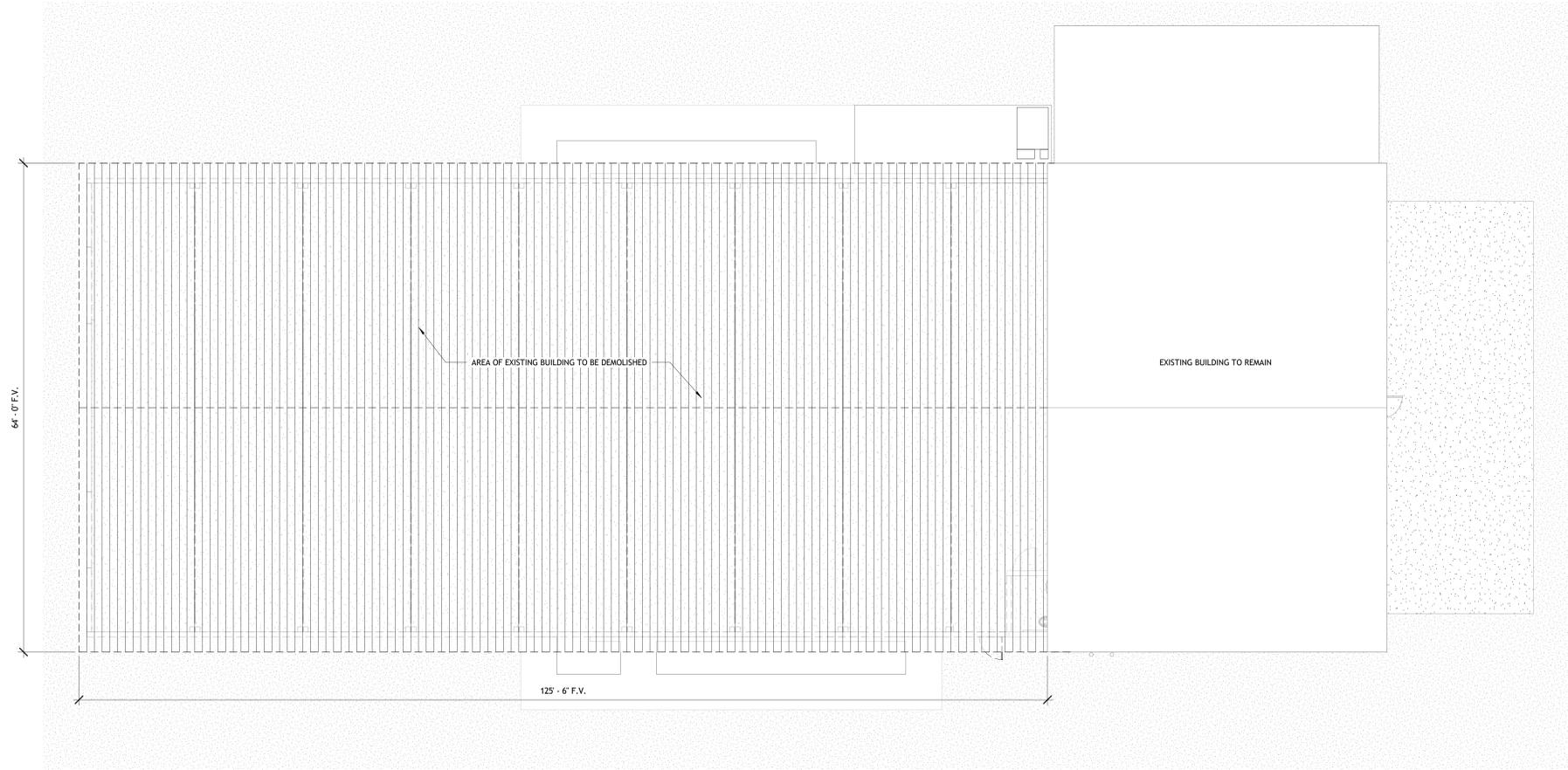
End Of Section





FLOOR PLAN - DEMOLITION

1/8" = 1'-0"



ROOF LEVEL - DEMOLITION

1/8" = 1'-0"

### DEMOLITION WALL LEGEND

EXISTING WALLS TO REMAIN. PATCH AND PREPARE EXISTING WALLS TO REMAIN EXPOSED TO RECEIVE NEW FINISHES. COORDINATE WITH RENOVATION PLANS AND FINISH SCHEDULES. FIELD VERIFY EXISTING CONDITION, THICKNESS AND MATERIAL.

REMOVE EXISTING WALL. COORDINATE RELOCATION OF ANY ELECTRICAL SWITCHES OR OUTLETS IN EXISTING WALL WITH ELECTRICAL DRAWINGS. PATCH AND PREPARE EXISTING EDGES TO REMAIN TO RECEIVE NEW FINISHES, WALLS, DOORS, OR WINDOWS (COORDINATE WITH RENOVATION PLANS AND FINISH SCHEDULE). PATCH AND PREPARE FLOOR AS REQUIRED TO RECEIVE NEW FINISH WHERE SHOWN ON THE FINISH SCHEDULE. ROUT AREA UNDER WALL AND FILL WITH LEVELING COMPOUND AS REQUIRED TO PROVIDE SMOOTH TRANSITION FOR NEW FLOOR.

REMOVE EXISTING DOOR. COORDINATE WITH DOOR SCHEDULES. TURN EXISTING HARDWARE OVER TO OWNER. COORDINATE ANY DOORS NOT REUSED TO BE TURNED OVER TO OWNER. IF THE OWNER DOES NOT WANT HARDWARE, DOORS, AND/OR FRAMES, CONTRACTOR TO DISPOSE OF DOORS AND FRAMES.

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**Agriculture Technology Innovation Center**  
SBC Project No. 364/021-01-2022  
**Tennessee Technological University**

OWNER  
Tennessee Tech University

LOCATION  
Cookeville, Tennessee

SEAL

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NO.	DESCRIPTION	DATE
2	ADDENDUM 1	9/20/24

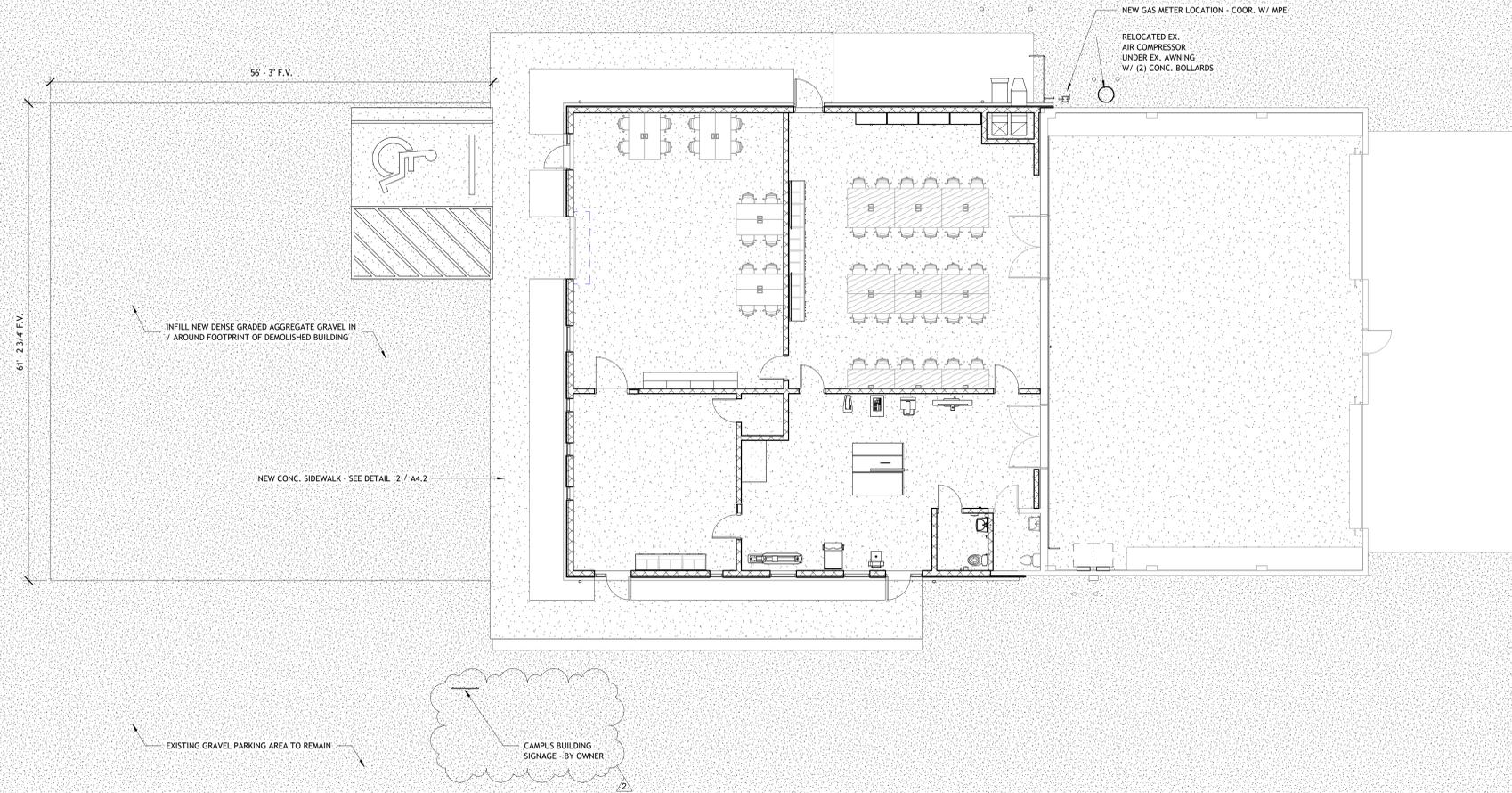
JOB NO.  
**2235**

ISSUE DATE  
06/21/24

SHEET TITLE  
DEMOLITION FLOOR PLAN

DRAWN	KTC
REVIEW	KAC

**D1.1**



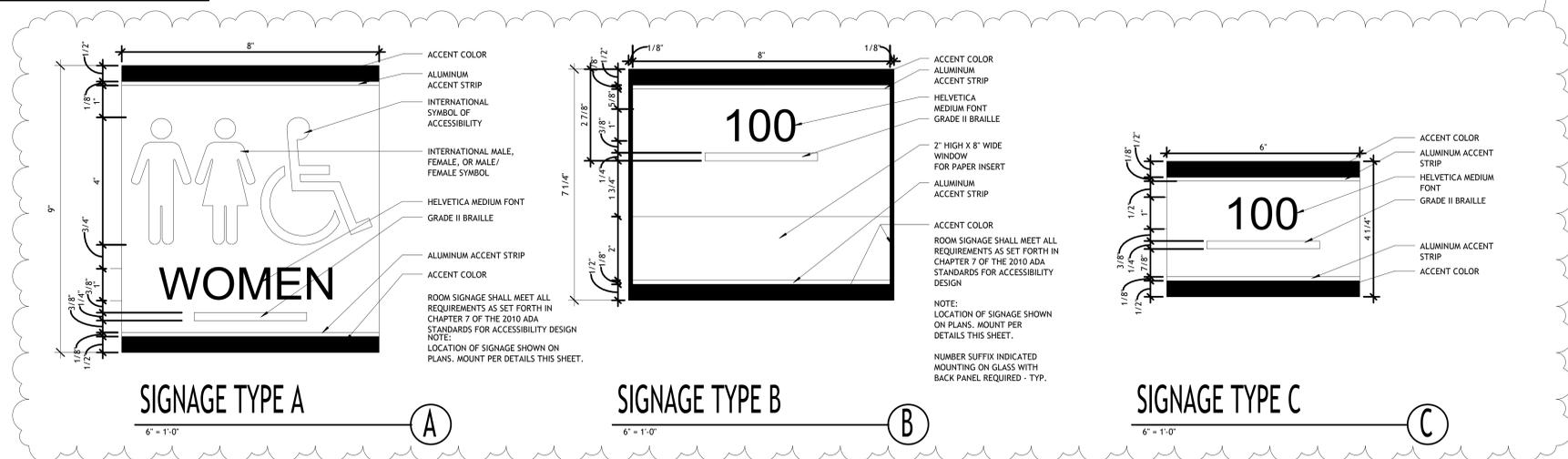
**SITE PLAN**

1/8" = 1'-0"

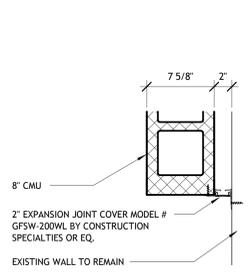


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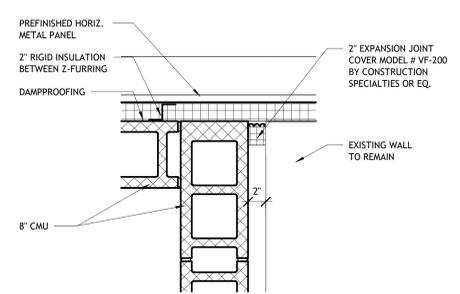
REVISIONS		
NO.	DESCRIPTION	DATE
2	ADDENDUM 1	9/20/24



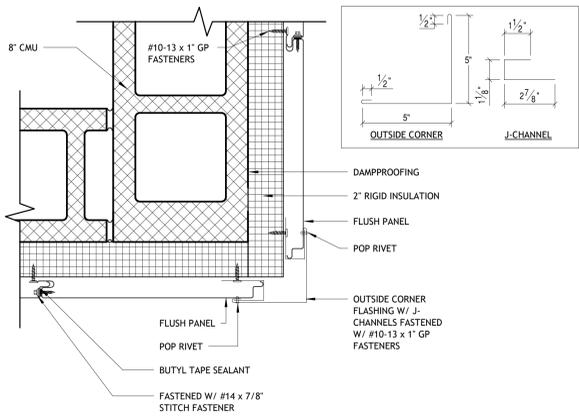
JOB NO.	2235
ISSUE DATE	06/21/24
SHEET TITLE	ARCHITECTURAL SITE PLAN
DRAWN	KTC
REVIEW	KAC
	<b>A0.1</b>



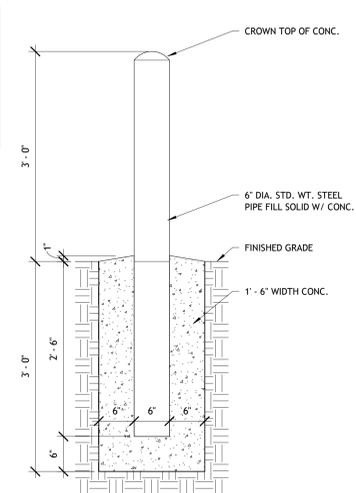
**PLAN DETAIL**  
1  
1 1/2" = 1'-0"



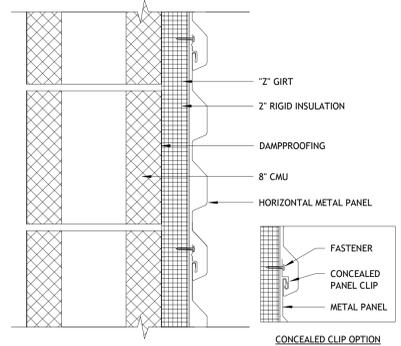
**PLAN DETAIL**  
2  
1 1/2" = 1'-0"



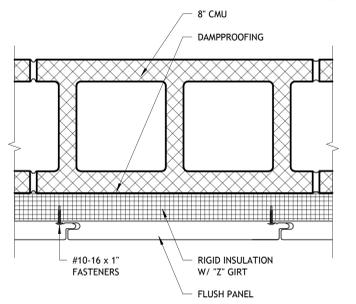
**FLUSH MTL PANEL DETAIL**  
3  
3" = 1'-0"



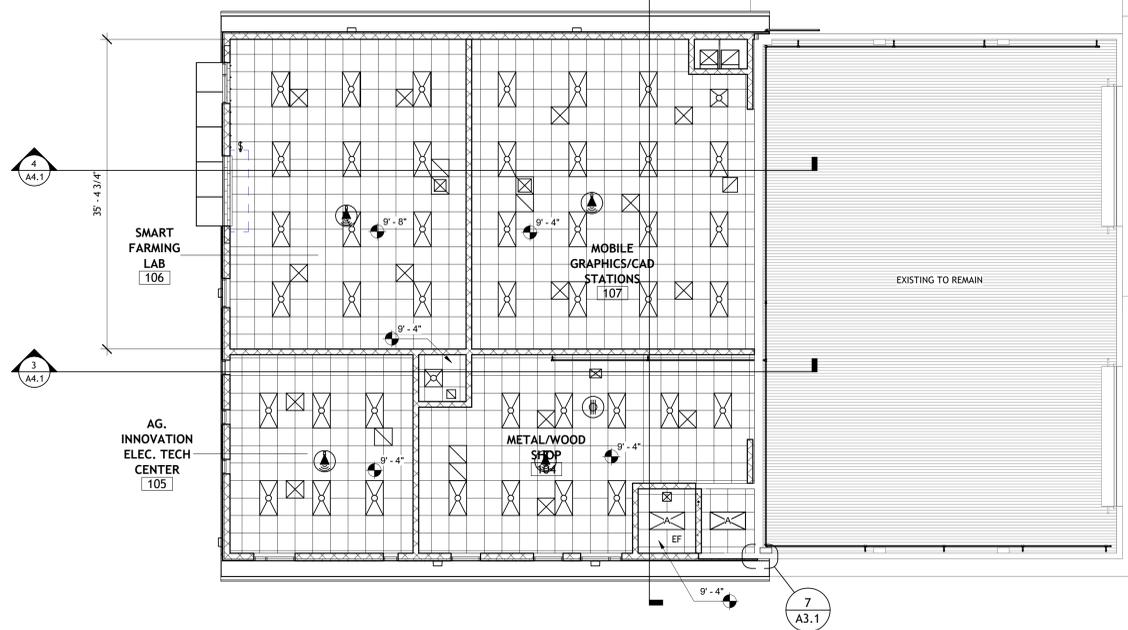
**BOLLARD DETAIL**  
4  
1" = 1'-0"



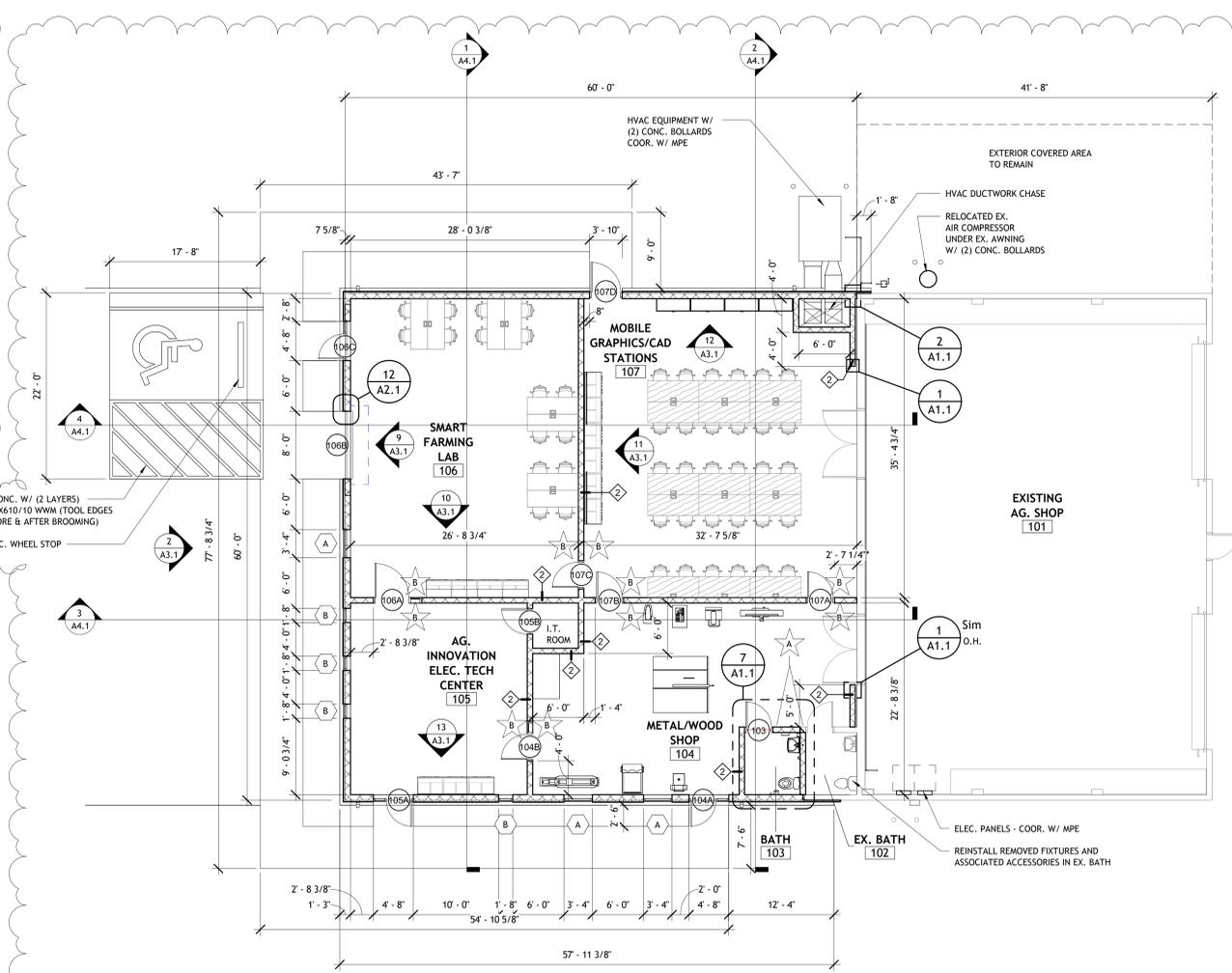
**HORIZ. METAL PANEL**  
5  
3" = 1'-0"



**FLUSH METAL PANEL**  
6  
3" = 1'-0"



**GROUND FLOOR - RCP**  
1/8" = 1'-0"



**FLOOR PLAN - NEW CONSTRUCTION**  
1/8" = 1'-0"

### WALL TYPE LEGEND

2 7/8" 8" CONCRETE BLOCK WALL

**GENERAL NOTES:**  
1. ALL DIMENSIONED WALL WIDTHS ARE NOMINAL.  
2. REFER TO ARCHITECTURAL AND STRUCTURAL WALL SECTIONS AND DETAILS FOR MORE DETAILED DESCRIPTIONS OF EACH WALL TYPE'S CONSTRUCTIONS.  
3. ALL EXISTING WALLS WITH DAMAGED AREAS TO BE REPAIRED BY G.C.

### TOILET ACCESSORIES LEGEND

A MIRROR - BOBRICK B-290 24" X 36" - REFER TO ELEVATIONS FOR MOUNTING.  
B 36" GRAB BAR - BOBRICK B6806X36 MOUNT CENTERLINE 34" A.F.F. - SEE MOUNTING HEIGHT DETAILS.  
C 42" GRAB BAR - BOBRICK B6806X42 MOUNT CENTERLINE 34" A.F.F. - SEE MOUNTING HEIGHT DETAILS.  
D 12 X 48" GRAB BAR - BOBRICK B6861. SEE MOUNTING HEIGHT DETAILS.  
E TOILET TISSUE DISPENSER BOBRICK B2892 - SEE MOUNTING HEIGHT DETAILS.  
F SURFACE MOUNTED SOAP DISPENSER - BOBRICK B2111 - SEE MOUNTING HEIGHT DETAILS.  
G SURFACE MOUNTED PAPER TOWEL DISPENSER - BOBRICK B262 - SEE MOUNTING HEIGHT DETAILS.  
H SURFACE MOUNTED SANITARY NAPKIN DISPOSAL - BOBRICK B270 - SEE MOUNTING HEIGHT DETAILS.

SEE SPECIFICATIONS FOR APPROVED EQUAL MANUFACTURERS FOR EACH PRODUCT LISTED ABOVE

### GENERAL NOTES - TOILETS

1. GRAB BARS SHALL BE FIELD TESTED AFTER INSTALLATION TO DEMONSTRATE PROPER INSTALLATION. THE GRAB BARS SHALL RESIST A LATERAL FORCE OF 100 LBS / LIN. FT. AND A LATERAL AND VERTICAL FORCE OF 250 LBS. AT ANY SINGLE POINT.

### LEGEND OF SYMBOLS

2' x 2' LAY-IN CEILING GRID    SUPPLY DIFFUSER  
2' x 4' SURFACE MOUNT OR SUSPENDED LIGHT FIXTURE    EXHAUST FAN  
2' x 2' SURFACE MOUNT OR SUSPENDED LIGHT FIXTURE    RETURN GRILLE  
EXTERIOR WALL PACK LIGHT FIXTURE

### GENERAL NOTES

1. LIGHTS, HVAC DIFFUSERS AND EXHAUST VENTS ARE SHOWN FOR REFERENCE ONLY AND MAY NOT BE ALL INCLUSIVE. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL ITEMS.

NOTE: FURNITURE AND EQUIPMENT IS OWNER FURNISHED AND SHOWN FOR REFERENCE ONLY

### SIGNAGE LEGEND

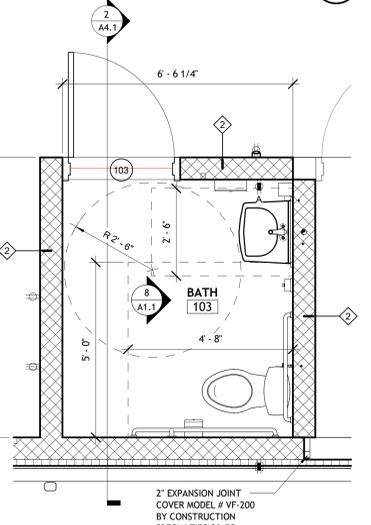
☆ SIGN TYPE "A" - INTERIOR SIGN - SEE DETAIL A / A0.1  
★ SIGN TYPE "B" - INTERIOR SIGN - SEE DETAIL B / A0.1  
★ SIGN TYPE "C" - INTERIOR SIGN - SEE DETAIL C / A0.1

MOUNTING HEIGHT BASED ON THE BASE LINE OF THE LOWEST TACTILE CHARACTER IS 48" A.F.F AND THE BASE LINE OF THE HIGHEST TACTILE CHARACTER IS 60" A.F.F. PROVIDE AN 18" CLEAR WIDTH IN FRONT OF THE SIGN PER THE ADAAG FIGURE 703.4.2.

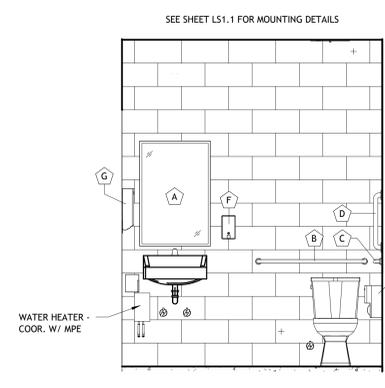
WHERE POSSIBLE\*    \*WHERE SIGN IS MOUNTED ON GLASS - CENTER SIGN HORIZONTALLY IN GLAZED OPENING

### SIGNAGE MOUNTING

3/8" = 1'-0"



**RESTROOM PLAN**  
7  
1/2" = 1'-0"



**RESTROOM ELEVATION**  
8  
1/2" = 1'-0"

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REVISIONS	NO.	DESCRIPTION	DATE
	2	ADDENDUM 1	9/20/24

JOB NO. 2235  
ISSUE DATE 06/21/24  
SHEET TITLE FLOOR AND REFLECTED CEILING PLANS  
DRAWN KTC  
REVIEW KAC  
A1.1

## ELECTRICAL LEGEND

<b>GENERAL</b>		
	PANEL	
	HOT LEG	
	HOT LEG WITH NEUTRAL	
	HOT LEG WITH GROUND	
	SWITCH LEG	
	THREE-WAY CIRCUIT	
	CIRCUIT HOME RUN	
<b>POWER</b>		
	NON-FUSED DISCONNECT	
	TRANSFORMER	
	120V DUPLEX RECEPTACLE	
	120V QUAD RECEPTACLE	
	240V RECEPTACLE	
	RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTER	
	RECEPTACLE, IN-FLOOR BOX & COVER	
	WEATHER-RESISTANT RECEPTACLE, IN-USE, METAL, HEAVY-DUTY, WITH GROUND FAULT CIRCUIT INTERRUPTER	
	ABOVE COUNTER RECEPTACLE, COORDINATE WITH ARCHITECTURE	
	UNDER COUNTER RECEPTACLE, COORDINATE WITH ARCHITECTURE	
	JUNCTION BOX	
<b>LIGHTING</b>		
	2x4" RECESS MOUNTED LINEAR FIXTURE - HATCHING ON PLANS INDICATES 247 LIGHT WIRED HOT TO CIRCUIT INDICATED ON PLANS	
	2x2" RECESS MOUNTED LINEAR FIXTURE - HATCHING ON PLANS INDICATES 247 LIGHT WIRED HOT TO CIRCUIT INDICATED ON PLANS	
	2x4" SURFACE MOUNTED LINEAR FIXTURE - HATCHING ON PLANS INDICATES 247 LIGHT WIRED HOT TO CIRCUIT INDICATED ON PLANS	
	EXTERIOR WALL PACK FLOOD LIGHT	
	EMERGENCY LIGHT	
	EXIT / EMERGENCY COMBO LIGHT - HATCHING ON PLANS INDICATES ILLUMINATED SIDES OF LIGHT - SEE PLANS FOR DIRECTIONAL ARROWS	
	SWITCH	
	3 - 4 WAY SWITCH	

## WIRING COLOR CODE

CONDUCTOR	COLOR
120/208 (240)	
PHASE A	BLACK
PHASE B	RED
PHASE C (3Ø ONLY)	BLUE
NEUTRAL	WHITE
GROUND	GREEN
277/480	
PHASE A	BROWN
PHASE B	ORANGE
PHASE C (3Ø ONLY)	YELLOW
NEUTRAL	GRAY
GROUND	GREEN

## COMMUNICATIONS LEGEND

<b>DATA DEVICES</b>	
	DATA BOX - (2) OUTLETS IN BOX UON VIA NUMBER IN BOX
	WIRELESS ACCESS POINT

<b>SECURITY DEVICES</b>	
	DOOR ACCESS CONTROL

## CALL BEFORE YOU DIG

www.call811.com

THE CONTRACTOR SHALL NOTIFY ALL UTILITIES INCLUDING AND NOT LIMITED TO GAS, WATER, ELECTRIC, CABLE, AND TELEPHONE COMPANIES PRIOR TO ANY EXCAVATION. THE CONTRACTOR SHALL NOTIFY ONE, CALL SERVICE (CALL 811) SEVENTY-TWO (72) HOURS AS REQUIRED BY LAW BEFORE ANY EXCAVATION, AT ANY LOCATION.



## SURGE PROTECTION DEVICE SCHEDULE

LABEL	MODEL	PART #	AMP RATING
SPD-1	SQUARE-D	TVS2EBA24	240,000

NOTES:  
1. USE SPECIFIED DEVICE, SIEMENS, OR INNOVATIVE TECHNOLOGIES  
2. INSTALL PER MANUFACTURER'S REQUIREMENTS AND SPD DETAIL

## ELECTRICAL ABBREVIATIONS

A / AB	ABOVE
AF	AMPERE FRAME
AFG	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFI	ARC FAULT INTERRUPTER
AHJ	AUTHORITY HAVING JURISDICTION
AIC	AVAILABLE FAULT CURRENT
AMP	AMPERE
AP	ANNUNCIATOR PANEL
AT	AMPERE TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
BFG	BELOW FINISHED GRADE
BOO	BASIS OF DESIGN
C	CONTRACTOR
CKT	CIRCUIT
COM	COMMUNICATION
CT	CURRENT TRANSFORMER
DACT	DIGITAL ALARM COMMUNICATION RECEIVER
DET	DUAL ELEMENT TIME DELAY
DOWN	DOWN
DWG	DRAWING
ECT	ELECTRICAL CONTRACTOR
ECB	ENCLOSED CIRCUIT BREAKER
EDP	ELECTRICAL DATUM PLANE
EMG	EMERGENCY
EQUIP	EQUIPMENT
ETB	ELECTRONIC TRIP BREAKER
FACP	FIRE ALARM CONTROL PANEL
FAP	FIRE ALARM PANEL
FAS	FIRE ALARM SYSTEM
GAL	GALLON
GAP	GENERATOR ANNUNCIATOR PANEL
GD	GARBAGE DISPOSAL
GFCI	GROUND-FAULT CIRCUIT INTERRUPTER
GFM	GROUND FAULT MONITOR
GPPE	GROUND-FAULT PROTECTION OF EQUIPMENT
GPH	GALLONS PER HOUR
HACR	HEATING, AIR CONDITIONING, REFRIGERATION HORSEPOWER
HP	HERTZ
HZ	HERTZ
IPC	INTEGRATED POWER CENTER
KVA	KILOVOLT-AMPERE
KW	KILOWATT
LC	LIGHTING CONTACTOR
LEUD	LOCAL ELECTRICAL AND UTILITY DEPARTMENT
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MCS	MOLDED CASE SWITCH
MDP	MAIN DISTRIBUTION PANEL
MFG	MANUFACTURING
MFR	MANUFACTURER
MIN	MINIMUM
MLB	MICROLOGIC BREAKER
MLO	MAIN LUG ONLY
MOCP	MAIN OVERCURRENT PROTECTION
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
OCP	OVERCURRENT PROTECTION
OH	OVERHEAD
PB	PUSH BUTTON
PH / Ø	PHASE
PNL	PANEL
PPC	PORTABLE POWER CABLE
RECIRC	RECIRCULATING / RECIRCULATION
RECPCT	RECEPTACLE
SCH	SCHEDULE
SER	SERVICE ENTRANCE CONDUCTOR
SPD	SURGE PROTECTIVE DEVICE
ST	SHUNT TRIP
TEL	TELEPHONE
TMB	THERMAL MAGNETIC BREAKER
TYP	TYPICAL
U / UC	UNDER / UNDER CABINET
UG	UNDERGROUND
UNLESS	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
US	UNDERSLAB
UW	UNDERWATER
V	VOLT
VA	VOLT-AMPERE
W	WATT
WR	WEATHER-RESISTANT
WRI	WEATHER-RESISTANT, IN-USE

## ELECTRICAL GENERAL NOTES

- INSTALLATION SHALL COMPLY WITH ALL APPLICABLE CURRENTLY ADOPTED CODES AT THE TIME OF THE PLAN DATE, INCLUDING (BUT NOT LIMITED TO) THE FOLLOWING:
  - NFA TO NATIONAL ELECTRIC CODE (NEC)
  - NFA 77 NATIONAL FIRE ALARM CODE
  - INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
  - INTERNATIONAL BUILDING CODE (IBC)
  - APPROVED INDEPENDENT TESTING LABORATORY
  - NEMA
- ELECTRICAL SYSTEM(S) SHALL BE INSTALLED COMPLETE WITH ALL WORK, MATERIALS, AND EQUIPMENT CUSTOMARILY CONSIDERED PART OF SUCH WORK FOR A FULLY OPERATIONAL, COMPLETE, AND CODE COMPLIANT SYSTEM.
- PLANS ARE DIAGRAMMATIC AND ARE PROVIDED ONLY TO SHOW GENERAL SYSTEM. CONTRACTOR SHALL CONSIDER ACTUAL FIELD CONDITIONS DURING INSTALLATION. ANY GROSS INTERFERENCE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE CONTINUING.
- COMPLETE ELECTRICAL SYSTEMS SHALL BE TESTED FOR COMPLIANCE AND FUNCTION IN ACCORDANCE WITH LOCAL INSPECTIONS AND NATIONAL CODES.
- PROVIDE COMPLETE AND COMPLIANT EQUIPMENT AND SYSTEM GROUNDING THROUGHOUT ELECTRICAL INSTALLATION. INSTALL BONDING JUMPERS TO OUTLET BOXES IN METALLIC CONDUIT SYSTEMS.
- ALL 3Ø CIRCUITS SHALL HAVE A-B-C PHASE ROTATION. ALL 3Ø ELECTRICAL SWITCHGEAR, SWITCHBOARDS, MCC'S, AND SIMILAR EQUIPMENT SHALL HAVE A-B-C PHASE ROTATION FROM LEFT TO RIGHT. REFER TO THE POWER WIRING COLOR CODE ON THIS SHEET.
- WITH ALL LIGHTING AND MOTOR LOADS OPERATING, CONTRACTOR SHALL VERIFY THAT THE PHASE BALANCE IN EACH PANEL IS WITHIN 5%.
- VERIFY AVAILABLE CIRCUIT CURRENT WITH ELECTRICAL POWER SUPPLIER.
- VERIFY ALL ELECTRICAL REQUIREMENTS WITH EQUIPMENT MANUFACTURERS. COORDINATE WITH MECHANICAL, PLUMBING, AND GENERAL CONTRACTORS.
- ALL EXTERIOR EQUIPMENT SHALL BE NEMA 3R RAINIGHT.
- FIRE-STOPPING SYSTEM SHALL BE INSTALLED AT ALL PIPING PENETRATIONS THROUGH FIRE-RATED WALLS, CEILINGS, OR CONSTRUCTION. CONTRACTOR SHALL FIELD VERIFY THAT ALL RUNS OF SERVICE ENTRANCE OR FEEDER CONDUCTORS FOR EACH CIRCUIT FOLLOW THE SAME PATH AND ARE OF EQUAL LENGTH.
- CONDUIT SUBJECT TO THERMAL EXPANSION OF MORE THAN 1/4" OVER A TEMPERATURE RANGE OF 100' F SHALL BE INSTALLED WITH AN EXPANSION FITTING. ALL SUPPORTS SHALL BE LOOSE ENOUGH TO ALLOW THE CONDUIT TO EXPAND AND CONTRACT WITH TEMPERATURE CHANGE. CAREFUL CONSIDERATION SHALL BE MADE TO THE TEMPERATURE AT THE TIME OF INSTALLATION AND THE POSITION OF THE EXPANSION FITTING. FOR EXAMPLE:
  - IF THE TEMPERATURE IS 30° F, THEN THE EXPANSION FITTING SHOULD BE INSTALLED IN THE CLOSED POSITION.
  - IF THE TEMPERATURE IS 85° F, THEN THE EXPANSION FITTING SHOULD BE INSTALLED MORE IN THE OPEN POSITION. FOR PVC CONDUIT, REFER TO NEC ARTICLE 352.44 FOR EXPANSION CHARACTERISTICS.
- WHERE A20 BRANCH CIRCUIT HOME RUNS ARE LONGER THAN 50', USE A30 WIRE FROM PANEL TO FIRST OUTLET OR FIXTURE.
- THE DESIGN INTENT OF THE ENGINEER IS FOR EACH CIRCUIT TO BE INSTALLED IN A SINGLE CONDUIT OR RACEWAY. IT SHALL BE PERMITTED TO INSTALL MULTIPLE CIRCUITS CONSISTING OF #10 OR SMALLER IN A SINGLE CONDUIT OR RACEWAY, CONTINGENT UPON THE CODE COMPLIANCE OF THE INSTALLATION.
- LOCATE DEVICE BOXES ON OPPOSITE SIDES OF FIRE WALLS A MINIMUM HORIZONTAL DISTANCE OF 24" APART. IF MOUNTED CLOSER, FIRE RATINGS SHALL BE MAINTAINED.
- CONTRACTOR SHALL LABEL ALL RECEPTACLES WITH THE PANEL AND CIRCUIT NUMBER POWERING THE DEVICE. USE THE FORMAT " [PANEL NAME] - [CIRCUIT #] ". THE LABEL SHALL BE PLACED ON THE FACEPLATE AS PRACTICAL.
- COORDINATE FINAL LOCATIONS OF ALL SWITCHES AND OUTLETS WITH OWNER. OWNER SHALL RETAIN RIGHT TO MAKE MINOR LOCATION ADJUSTMENTS PRIOR TO EQUIPMENT INSTALLATION WITHOUT ADDITIONAL COST.
- LOCATE ALL LIGHT FIXTURES ACCORDING TO REFLECTED CEILING PLAN. COORDINATE MOUNTING REQUIREMENTS WITH CEILING TYPE SPECIFIED BY ARCHITECT. MAINTAIN ALL WALL AND CEILING FIRE RATINGS.
- ELECTRICAL WORK SHALL INSTALL CIRCUITS TO HVAC CONTROLLERS AND HVAC EQUIPMENT. MECHANICAL WORK SHALL TERMINATE CONDUCTORS WITHIN HVAC EQUIPMENT.
- THE AMPACITY, VOLTAGE, AND PHASE OF ALL DISCONNECTS SHALL BE RATED PER THE SPECIFIED CIRCUIT AND UPSTREAM OVERCURRENT PROTECTION UON. THE ENCLOSURE NEMA RATING SHALL BE COORDINATED AS REQUIRED BY THE ENVIRONMENT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITY FEES AND CHARGES FOR INSTALLATION AND UTILITY UPGRADES FOR PROJECT. CONTRACTOR SHALL COORDINATE AND PAY FOR ALL PERMITS, INSPECTION FEES, UTILITY FEES, AND UTILITY CHARGES FOR THIS PROJECT.
- IF DISCREPANCIES EXIST WITHIN THE PLANS AND/OR SPECIFICATIONS, THE MOST STRINGENT SHALL APPLY AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BRING IT TO THE ATTENTION OF THE ENGINEER BEFORE WORK IS STARTED OR MATERIAL/EQUIPMENT IS ORDERED.
- THE PLANS AND SPECIFICATIONS FOR THIS WORK HAVE BEEN PREPARED WITH THE INTENT TO BE AS ACCURATE AND COMPLETE AS PRACTICAL, BUT ERRORS, OMISSIONS, AND CONFLICTS MAY EXIST. PRIOR TO SUBMITTING A BID FOR CONSTRUCTING THE WORK, THE CONTRACTOR SHALL REVIEW THE PLANS AND SPECIFICATIONS IN DETAIL. ANY QUESTIONS OR COMMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO SUBMITTING A BID. BY SUBMITTING A BID FOR THE WORK, THE CONTRACTOR ACKNOWLEDGES THAT HE HAS REVIEWED THE PLANS AND SPECIFICATIONS, UNDERSTANDS THE DESIGN INTENT, AND DOES NOT HAVE ANY FURTHER QUESTIONS OR COMMENTS.
- CONTRACTOR SHALL WARRANT ALL SYSTEMS FOR PARTS, EQUIPMENT, MATERIAL, AND LABOR FOR A MINIMUM PERIOD OF ONE YEAR FROM THE DATE OF SUBstantial COMPLETION UNLESS OTHERWISE NOTED IN THE PLANS AND/OR SPECIFICATIONS.
- THE OWNER AND/OR OWNER'S REPRESENTATIVE SHALL INSPECT THE INSTALLATION AT SUBstantial COMPLETION AND AT ONE YEAR FROM SUBstantial COMPLETION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CORRECTIONS THAT DO NOT CONFORM TO THE CODE AND/OR THE CONTRACT DOCUMENTS.
- LABEL REQUIREMENTS:
  - A. ALL ELECTRICAL EQUIPMENT SHALL BE AFFIXED WITH A PERMANENT LABEL STATING THE EQUIPMENT NAME, VOLTAGE AND PHASE CLASS, AMPACITY, AND WHERE THE EQUIPMENT IS FED FROM.
  - B. PANEL DIRECTORIES SHALL BE TYPED SHOWING EACH BRANCH BREAKER DESCRIPTION AS SHOWN IN THE PANEL SCHEDULES.
- SUBMITTAL REQUIREMENTS. CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ENGINEER FOR REVIEW AND APPROVAL DETAILED PRODUCT INFORMATION ON ALL EQUIPMENT INCORPORATED IN THE PROJECT RELATED TO THE SPECIFIC CONTRACTOR TRADE. SUBMITTAL SHALL BE PROVIDED, AND ENGINEER SHALL REVIEW AND APPROVE, PRIOR TO EQUIPMENT PURCHASE. FOUR COPIES OF SUBMITTALS SHALL BE PROVIDED TO THE ENGINEER. TWO COPIES SHALL BE RETURNED TO THE CONTRACTOR PRIOR TO SUBMITTAL. CONTRACTOR SHALL REVIEW AND CERTIFY BY SIGNATURE THE SUBMITTED EQUIPMENT MEETS SPECIFICATION. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DIMENSIONS, FITTINGS, AND CONSTRUCTION FEATURES RELATIVE TO EQUIPMENT. APPROVAL OF SUBMITTAL INFORMATION BY THE ENGINEER ONLY REFERS TO MATERIALS, DESIGN, AND ADHERENCE TO SPECIFICATIONS. "APPROVED EQUAL" MEANS THE CONTRACTOR SHALL SUBMIT A REQUEST FOR ALTERNATE EQUIPMENT AND/OR MATERIAL FOR ENGINEER'S REVIEW AND APPROVAL. THE CONTRACTOR SHALL NOT ASSUME THE ALTERNATE WILL BE APPROVED.

## LIGHTING FIXTURE SCHEDULE

NOTES:  
A. HATCHING ON PLANS INDICATES ILLUMINATED SIDES OF LIGHT - SEE PLANS FOR CHEVRONS

LABEL	MANUFACTURER	MODEL	MOUNTING	LAMP	DESCRIPTION	NOTES	WATTS	VOLTS
A	DAY-BRITE	2FPZ42B840-4-D5-UNV	RECESSED	LED	2x4" LINEAR FIXTURE		40	120
B	DAY-BRITE	2FPZ38B840-2-D5-UNV	RECESSED	LED	2x2" LINEAR FIXTURE		33	120
D	HE WILLIAMS	WVP-HL30-740-T5-PC	WALL	LED	WALL PACK - 8" AFF UON W/ INTEGRATED PHOTOCELL BUTTON		74	120
D1	HE WILLIAMS	WVP-HL30-740-T3-EM4W-PC	WALL	LED	WALL PACK - 8" AFF UON W/ INTEGRATED PHOTOCELL BUTTON W/ INTEGRAL BATTERY BACKUP		74	120
X1	CHLORIDE	CLUNW	WALL	LED	EMERGENCY LIGHT W/ INTEGRATED BATTERY BACKUP		5	120
X2	CHLORIDE	CLGNW	WALL	LED	EXIT / EMERGENCY COMBO LIGHT W/ INTEGRATED BATTERY BACKUP	A	5	120

## FLOOR BOX SCHEDULE

EQUIPMENT NOTES:  
• USE SPECIFIED EQUIPMENT.  
• COORDINATE EXACT LOCATIONS WITH ARCHITECTURAL PLANS AND OTHER TRADES.  
• COORDINATE FLOOR BOX FINISH WITH ARCHITECT.  
• CONTRACTOR SHALL PROVIDE AND INSTALL ALL DEVICE PLATES.  
• FLOOR BOX COVER SHALL BE METAL.

LABEL	TYPE	MANUFACTURER	MODEL	ELECTRICAL	TELECOM AND AV
FB	SLAB-ON-GRADE	LEGRAND	RFB42R300G	(1) DUPLEX OUTLET	--

## SERVICE ENTRANCE CONDUCTOR & CONDUIT LEGEND

ALL WIRE SIZED FOR THWN COPPER  
ALL CONDUIT SIZED FOR RIGID PVC, SCHEDULE 40; RESIZE FOR DIFFERENT CONDUIT AS REQUIRED

LABEL	GROUNDING ELECTRODE CONDUCTOR	CONDUCTORS PER CONDUIT	NUMBER OF RUNS	MINIMUM CONDUIT	CONDUCTOR AMPACITY 75 °C	Ø	VOLTAGE RANGE
1S60	#8	(3) #8	1	2"	65	1	208 - 480
1S100	#8	(3) #3	1	3"	100	1	208 - 480
1S150	#6	(3) #1/0	1	3"	150	1	208 - 480
1S200	#4	(3) #3/0	1	3"	200	1	208 - 480
1S225	#2	(3) #4/0	1	3"	220	1	208 - 480
1S400	#1/0	(3) #3/0	2	3"	400	1	208 - 480
1S400	#1/0	(3) #600 KCM	1	4"	420	1	208 - 480
1S600	#3/0	(3) #3/0	3	3"	600	1	208 - 480
1S600	#3/0	(3) #350 KCM	2	3"	620	1	208 - 480
1S800	#3/0	(3) #3/0	4	3"	800	1	208 - 480
1S800	#3/0	(3) #300 KCM	3	3"	855	1	208 - 480
1S1000	#3/0	(3) #250 KCM	4	3"	1020	1	208 - 480
3S100	#8	(4) #3	1	3"	100	3	208 - 480
3S200	#4	(4) #3/0	1	3"	200	3	208 - 480
3S225	#2	(4) #4/0	1	3"	230	3	208 - 480
3S400	#1/0	(4) #3/0	2	3"	400	3	208 - 480
3S600	#3/0	(4) #350 KCM	2	3"	620	3	208 - 480
3S800	#3/0	(4) #300 KCM	3	3"	855	3	208 - 480
3S1000	#3/0	(4) #400 KCM	3	3"	1020	3	208 - 480
3S1000	#3/0	(4) #250 KCM	4	3"	1020	3	208 - 480
3S1200	#3/0	(4) #300 KCM	4	3"	1240	3	208 - 480
3S1400	#3/0	(4) #500 KCM	4	4"	1520	3	208 - 480
3S1600	#3/0	(4) #400 KCM	5	3"	1675	3	208 - 480
3S2000	#3/0	(4) #600 KCM	5	4"	2100	3	208 - 480
3S2500	#3/0	(4) #600 KCM	8	4"	2520	3	208 - 480
3S3000	#3/0	(4) #500 KCM	8	4"	3040	3	208 - 480
3S3500	#3/0	(4) #700 KCM	8	4"	3680	3	208 - 480
3S3500	#3/0	(4) #600 KCM	9	4"	3780	3	208 - 480
3S4000	#3/0	(4) #600 KCM	10	4"	4200	3	208 - 480

## BRANCH CIRCUIT AND FEEDER LEGEND W/ EQUIP. GND.

ALL WIRE SIZED FOR THWN COPPER  
ALL CONDUIT SIZED FOR RIGID PVC, SCHEDULE 40; RESIZE FOR DIFFERENT CONDUIT AS REQUIRED  
FEEDER LABEL WITH " IN THE PLANS INDICATES NEUTRAL IS NOT REQUIRED

LABEL	CONDUCTORS PER CONDUIT	NUMBER OF RUNS	MINIMUM CONDUIT	CONDUCTOR AMPACITY 75 °C	Ø	VOLTAGE RANGE
A20	(2) #12 & (1) #12 GND.	1	1 1/2"	20	1	120 QR 277
A30	(2) #10 & (1) #10 GND.	1	3/4"	30	1	120 QR 277
A50	(2) #8 & (1) #10 GND.	1	3/4"	50	1	120 QR 277
B20	(3) #12 & (1) #12 GND.	1	1 1/2"	20	1	208 - 480
B30	(3) #10 & (1) #10 GND.	1	3/4"	30	1	208 - 480
B50	(3) #8 & (1) #10 GND.	1	3/4"	50	1	208 - 480
B60	(3) #6 & (1) #10 GND.	1	3/4"	65	1	208 - 480
B80	(3) #4 & (1) #8 GND.	1	1"	85	1	208 - 480
B100	(3) #3 & (1) #8 GND.	1	1 1/2"	100	1	208 - 480
B110	(3) #2 & (1) #8 GND.	1	1 1/2"	115	1	208 - 480
B125	(3) #1 & (1) #8 GND.	1	1 1/2"	130	1	208 - 480
B150	(3) #1/0 & (1) #8 GND.	1	2"	150	1	208 - 480
B175	(3) #2/0 & (1) #8 GND.	1	2"	175	1	208 - 480
B200	(3) #3/0 & (1) #8 GND.	1	2"	200	1	208 - 480
B225	(3) #4/0 & (1) #4 GND.	1	2 1/2"	230	1	208 - 480
B250	(3) #250 KCM & (1) #4 GND.	1	2 1/2"	255	1	208 - 480
B275	(3) #300 KCM & (1) #4 GND.	1	2 1/2"	285	1	208 - 480
B300	(3) #350 KCM & (1) #4 GND.	1	3"	310	1	208 - 480
B350	(3) #500 KCM & (1) #3 GND.	1	3"	380	1	208 - 480
B400	(3) #3/0 & (1) #3 GND.	2	2"	400	1	208 - 480
B450	(3) #4/0 & (1) #2 GND.	2	2 1/2"	460	1	208 - 480
B500	(3) #250 KCM & (1) #2 GND.	2	2 1/2"	510	1	208 - 480
B600	(3) #350 KCM & (1) #1 GND.	2	2 1/2"	620	1	208 - 480
B800	(3) #300 KCM & (1) #1/0 GND.	3	2 1/2"			

# ELECTRICAL NOTES

NUMBERED NOTES

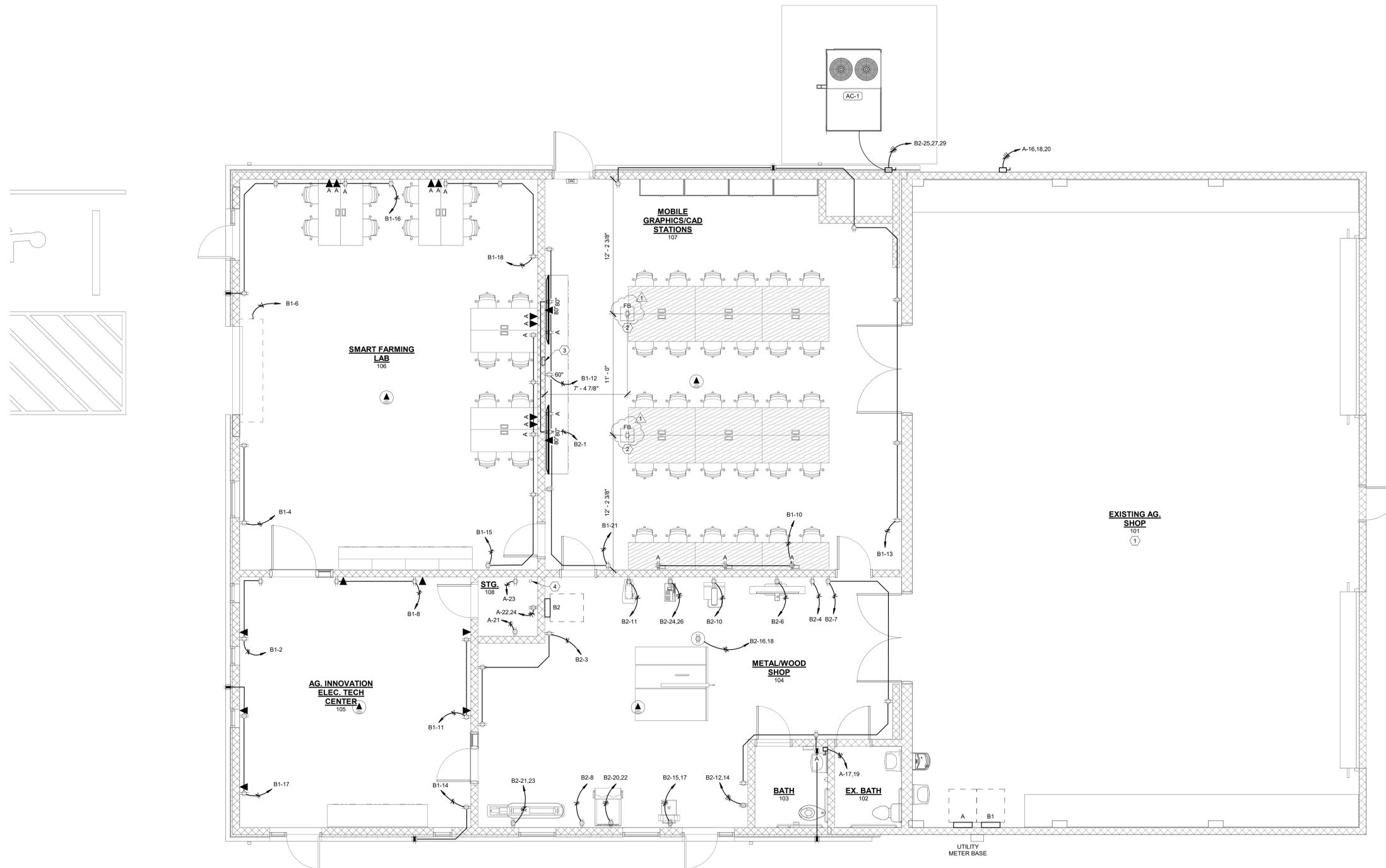
- 1 REWORK ALL EXISTING CIRCUITS IN THIS SPACE TO NEW PANEL LOCATIONS. REUSE EXISTING PANELS AND BREAKERS AS REQUIRED.
- 2 DIMENSIONS HAVE BEEN SHOWN TO CENTER OF FLOOR BOX LOCATION. COORDINATE EXACT LOCATION WITH ARCHITECTURE AND TTU PRIOR TO ROUGH-IN.
- 3 1/2" CONDUIT ROUTED IN WALL TO CABINET ABOVE CEILING.
- 4 3" CONDUIT FOR FIBER OPTIC CABLING ROUTED FROM HYDER-BURKS PAVILION IT SPACE STUBBED UP INTO STORAGE 108.



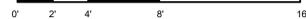
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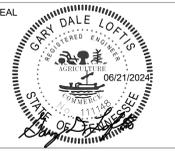


1 POWER PLAN  
E1.1 SCALE: 1/4" = 1'-0" (WHEN PRINTED FULL SCALE ON 30"x42")



Agriculture Technology Innovation Center  
SBC Project No. 364/021-01-2022  
Tennessee Technological University

OWNER  
Tennessee Tech University  
LOCATION  
Cookeville, Tennessee



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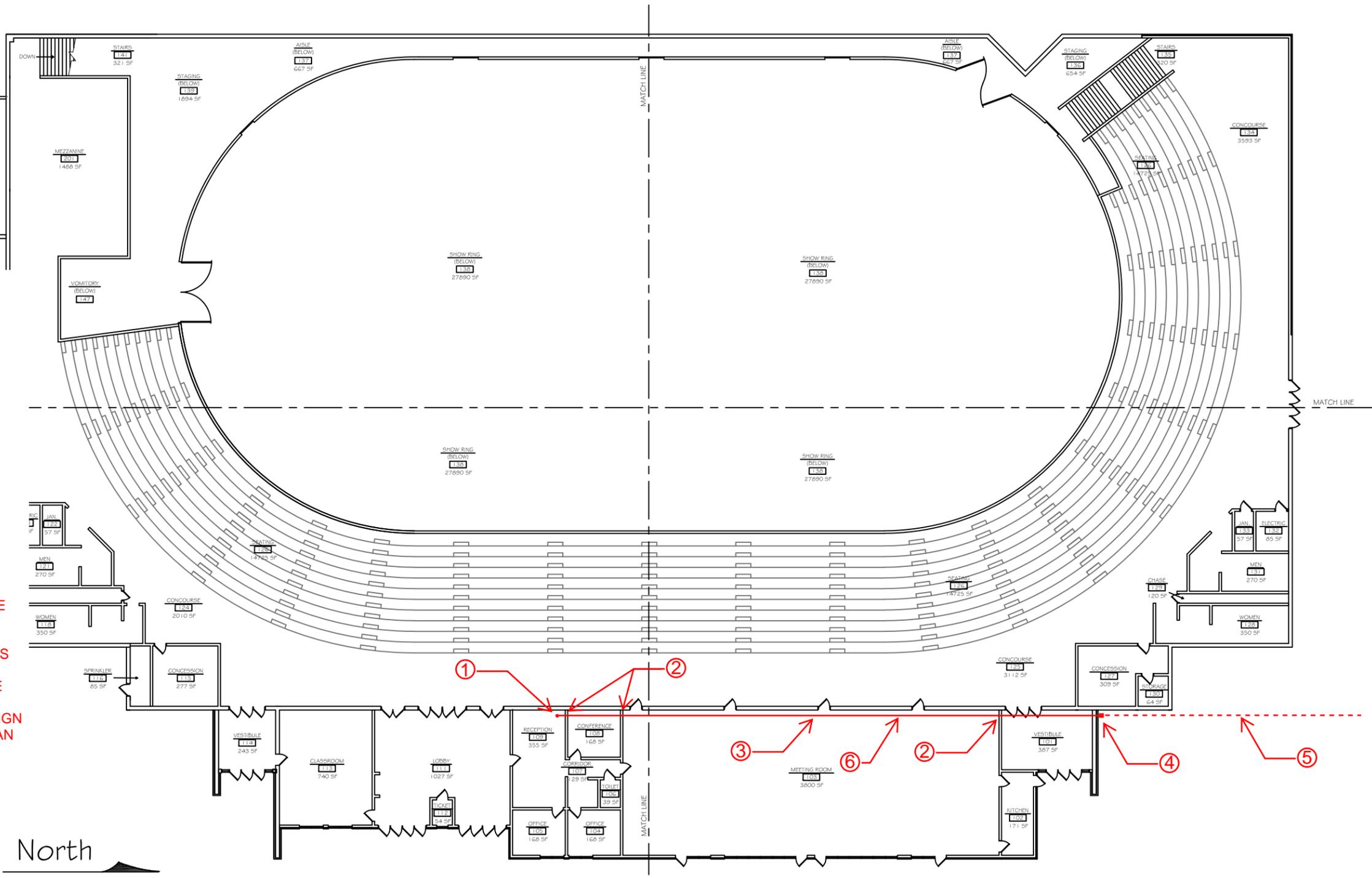
REVISIONS		
NO.	DESCRIPTION	DATE
1	ADDENDUM 1	9/20/24

JOB NO.  
2235  
MLE JOB NO. 22067  
ISSUE DATE  
06/21/2024  
SHEET TITLE  
ELECTRICAL POWER PLAN

DRAWN SHEET NO.  
JGR  
REVIEW  
GDL  
E1.1

**NUMBERED NOTES:**

- 1 INSTALL AN EMT SWEEP DOWN INTO SPACE 109 BELOW EXISTING CEILING. ENDS OF EMT SHALL HAVE SCUFF GUARDS. SUPPORT CONDUIT SECURELY.
- 2 4" EMT SLEEVE THROUGH WALL WITH SCUFF GUARDS ON EACH END
- 3 INSTALL FIBER CABLE ABOVE CEILING. INSTALL 2" VINYL COATED J-HOOKS ON 3' CENTERS TO SUPPORT FIBER CABLE.
- 4 STUB OUT OF BUILDING WITH 3" PVC LB, DOWN OUTSIDE OF BUILDING WITH SCH 80 3" PVC, LONG PVC SWEEP UNDERGROUND, THEN SCH 40 PVC UNDERGROUND TO THE NEW IT SPACE IN THE NEW BUILDING.
- 5 SEE ELECTRICAL SITE PLAN FOR GENERAL UNDERGROUND ROUTING. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO COORDINATE WITH EXISTING SITE CONDITIONS AND UNDERGROUND UTILITIES SUCH AS ELECTRIC, WATER, ETC.
6. CABLE SHALL BE (6) STRAND SINGLE MODE (OS2) FIBER. CABLE SHALL BE RATED FOR OUTDOOR USE IN CONDUIT. BASIS OF DESIGN IS CORNING FREEDM 006E8F-31131-29 OR AN APPROVED EQUAL. COORDINATE EXACT TERMINATION REQUIREMENTS WITH EXISTING CONDITIONS AND OWNER.



**GENERAL NOTES:**  
**A CONTRACTOR SHALL BE RESPONSIBLE FOR FIBER TERMINATION AT BOTH ENDS**

**UPPER FLOOR PLAN**  
 SCALE: NONE

<b>HYDER BURKS PAVILION-ARENA</b>		
TTU CAPITAL PROJECTS AND PLANNING		
DRAWN BY: LEVI BOUTON	DATE: 12-20-06	<b>HBAR-2</b> SHEET 2 OF 2
LATEST REVISION BY: NINA SCOTT	DATE: 01-28-20	