2400 5th Avenue S, Suite 200 | Birmingham, Alabama 35233
Tel 205.879.4462 | GMCNETWORK.COM

TRANSMITTAL COVER SHEET

DATE: AUGUST 29, 2023

TO: ALL PLAN HOLDERS OF RECORD

FROM: HUNTER SWATEK, PROJECT MANAGER

PROJECT: ALABAMA COMMUNITY COLLEGE SYSTEM WORKFORCE SKILLS TRAINING CENTER
GMC PROJECT NO. ABHM210048

RE: ADDENDUM NO. 1 AND
ACKNOWLEDGEMENT OF RECEIPT OF ADDENDUM NO. 1

ACKNOWLEDGEMENT OF RECEIPT:

PLEASE PRINT RECIPIENT'S NAME, FIRM, AND DATE RECEIVED.

THEN E-MAIL BACK TO alyssa.martin@gmcnetwork.com FOR OUR RECORDS AND TO ACKNOWLEDGE YOU'RE RECEIPT OF THIS ADDENDUM.

_____
NAME *(PLEASE PRINT)*

_____
FIRM *(PLEASE PRINT)*

_____
DATE RECEIVED *(PLEASE PRINT)*

If there are any problems with this transmittal, please contact sender, at the number listed above.

ADDENDUM NUMBER 01

AUGUST 29, 2023

PROJECT: **ALABAMA COMMUNITY COLLEGE SYSTEM WORKFORCE SKILLS TRAINING CENTER**
GMC PROJECT NO. ABHM210048

AD1-1 GENERAL:

A. The following revisions and/or additions to the Drawings and Project Manual are hereby made a part of same, and shall be incorporated in the Work of the Contract the same as if originally included in the Bid and Construction Documents.

B. Bidders shall acknowledge receipt of this Addendum in writing, as provided on the Proposal Form.

C. When a revision and/or addition is called for to the Drawings or Project Manual, they shall be fully coordinated with and carried through all applicable Drawings and portions of the Project Manual, including in part, all related Civil, Landscaping, Architectural, Structural, Plumbing, Mechanical, Electrical, and other Documents.

AD1-2 PROJECT MANUAL AND SPECIFICATIONS:

1. 32 3413 - FABRICATED PEDESTRIAN BRIDGES:
   A. Reference New Specification Section 32 3413 FABRICATED PEDESTRIAN BRIDGES

AD1-3 DRAWINGS:

2. CIVIL:
   B. Reference Revised Sheet C0.3 - DEMOLITION PLAN
      a. Preserving, protecting and relocating certain light poles rather than removing them.
   C. Reference Revised Sheet C1.0 - SITE LAYOUT PLAN
      a. Changed note regarding the pedestrian bridge.
   D. Reference Revised Sheet C2.0 - SITE UTILITY PLAN
      a. Changed the depth of the wet well for the sanitary sewer pump.
   E. Reference New Sheet C5.3 - CONSTRUCTION DETAILS
      a. Pedestrian bridge details.

2. Architectural:
   A. Reference Revised Sheet A2.03 – REFLECTED CEILING PLAN – LEVEL 2 PART A
      a. Revisions to ceiling heights
   B. Reference Revised Sheet A2.04 – REFLECTED CEILING PLAN – LEVEL 2 PART B
      a. Revisions to ceiling heights
   C. Reference Revised Sheet A4.01 – EXTERIOR ELEVATIONS
      a. Revisions to ACM panel layout and CW mullion layout.
      b. Entry Lobby parapet height adjusted to 29'-8". Wall Section adjustments to follow in AD 02.

C. Reference Revised Sheet A5.33 – VERTICAL CIRCULATION
   a. Revision to cable railing annotation
D. Reference Revised Sheet A6.02 – DOOR DETAILS
   a. Revision to door location in wall assembly to ¾" from face of sheathing.
E. Reference Revised Sheet A6.11 – CW /SF LEGEND AND SCHEDULE
   a. Revisions to mullion alignments to match ACM layout.

3. Mechanical:
   A. Reference Revised Sheet M3.01 - STORM SHELTER - HVAC
      a. Power Revision to Emergency Ventilation Fan

4. Electrical:
   A. Reference Revised Sheet E0.01 – ELECTRICAL SITE PLAN
      a. Revised underground primary design.
   B. Reference Revised Sheet E0.02 – ELECTRICAL SITE LIGHTING PLAN
      a. Revised site lighting at south end of site.
   C. Reference Revised Sheet E0.04 – STORM SHELTER ELECTRICAL PLANS
      a. Revised electrical associated with storm shelter water heater.
   D. Reference Revised Sheet E1.02 – LEVEL 1 LIGHTING PLAN - PART B
      a. Revised layout of mark D15 lights within Aerospace 113. Revised exterior lighting design at overhead door in Cutting 126.
   E. Reference Revised Sheet E2.01 – LEVEL 1 POWER PLAN - PART A
      a. Revised name of one wall heater and added one wall heater in Corridor 101.
   F. Reference Revised Sheet E2.02 – LEVEL 1 POWER PLAN - PART B
      a. Revised receptacle layout near entrance to Aerospace 113.
   G. Reference Revised Sheet E2.04 – LEVEL 2 POWER PLAN - PART B
      a. Revised name of wall heater in Stair 2 ST-1.
   H. Reference Revised Sheet E4.01 – ELECTRICAL EQUIPMENT SCHEDULES
      a. Revised panelboard LP-1B, circuits 11, 12.
   I. Reference Revised Sheet E4.02 – ELECTRICAL EQUIPMENT SCHEDULES
      a. Revised panelboard LP-1A, circuits 10, 11.
   J. Reference Revised Sheet E4.05 – ELECTRICAL EQUIPMENT SCHEDULES
      a. Revised panelboard RP-SS, circuits 11, 12, 13.
   K. Reference Revised Sheet E5.01 – SINGLE LINE DIAGRAM
      a. Added Single Line Diagram Note 5. Revised minimum burial depth of underground primary and added requirement for warning tape.
   L. Reference Revised Sheet E5.06 – ELECTRICAL DETAILS
      a. Removed mark letter Q from Lighting Fixture Schedule.

AD1-4 MISCELLANEOUS:

A. Bidding RFI Log

B. Subject to compliance with requirements of the Bid and Contract Documents, including single source

coordination, the following manufacturer(s) has made proper and timely submittal for consideration of product(s), **or** the following supplier(s) has made proper and timely submittal of its firm(s), and has subsequently been found to be an acceptable manufacturer or supplier:

1. Specification Section 23 6000 – AIR DISTRIBUTION - Titus or Price VAV Model EZT Single Duct Air Terminals shall be **NOT approved**.

AD1-5 ATTACHMENTS:

A. Bidding RFI Log
B. New Specification Section 32 3413
C. Substitution Request - Section 23 6000
D. Revised Sheet C0.3 - DEMOLITION PLAN
E. Revised Sheet C1.0 - SITE LAYOUT PLAN
F. Revised Sheet C2.0 - SITE UTILITY PLAN
G. New Sheet C5.3 - CONSTRUCTION DETAILS
H. Revised Sheet – A2.03 REFLECT CEILING PLAN LEVEL 2 PART A
I. Revised Sheet – A2.04 REFLECT CEILING PLAN LEVEL 2 PART b
J. Revised Sheet – A4.01 EXTERIOR ELEVATIONS
K. Revised Sheet – A5.33 VERTICAL CIRCULATION
L. Revised Sheet – A6.02 DOOR DETAILS
M. Revised Sheet – A6.11 CW / SF LEGEND AND SCHEDULE
N. Revised Sheet M3.01 - STORM SHELTER - HVAC
O. Revised Sheet E0.01 – ELECTRICAL SITE PLAN
P. Revised Sheet E0.02 – ELECTRICAL SITE LIGHTING PLAN
Q. Revised Sheet E0.04 – STORM SHELTER ELECTRICAL PLANS
R. Revised Sheet E1.02 – LEVEL 1 LIGHTING PLAN - PART B
S. Revised Sheet E2.01 – LEVEL 1 POWER PLAN - PART A
T. Revised Sheet E2.02 – LEVEL 1 POWER PLAN - PART B
U. Revised Sheet E2.04 – LEVEL 2 POWER PLAN - PART B
V. Revised Sheet E4.01 – ELECTRICAL EQUIPMENT SCHEDULES
W. Revised Sheet E4.02 – ELECTRICAL EQUIPMENT SCHEDULES
X. Revised Sheet E4.05 – ELECTRICAL EQUIPMENT SCHEDULES
Y. Revised Sheet E5.01 – SINGLE LINE DIAGRAM
Z. Revised Sheet E5.06 – ELECTRICAL DETAILS

END OF ADDENDUM NUMBER 01

PREPARED BY

2400 5th Avenue S, Suite 200 | Birmingham, Alabama 35233
Tel 205.879.4462 | GMCNETWORK.COM
Goodwyn Mills Cawood, LLC.

NO.	Asker	Question	ADD #	Response
	*Questions received during the week of *DATE*			
1	BH	Please reference sheet C1.0. Please provide specs, details etc. for the Contech Pedestrian Bridge.	1	Specification to be provided in AD 01.
2	BH	Has any portion of this project been creating in Revit or any other 3D Modeling software? And if so, can the model be provided to the GCs prior to bid for use during the bidding process? Also, can the model be provided to the GC for use during construction and creation of coordination drawings.	1	3D Models will not be available during bidding, but will be provided during construction as requested.
3	BH	Can CAD files for Civil be provided to GCs?	1	CAD files will not be available during bidding, but will be provided during construction as requested.
4	BH	Please reference sheet A5.31 and spec section 057316 Steel Cable Railing System. Lobby Stair A3/A5.31 states R1 Cable Guardrail per Railing Schedule while details for R1 on A1,A4/A5.33 showing 5/8" diameter bar guardrail system. Please advise which railing system is correct steel cable railing or 5/8" diameter bar guardrail system.	1	Steel cable railing is correct. A5.33 to be amended in AD 01.
5	F	Due to this building only being a 2-stop low rise building, will providing a machine roomless hydraulic elevator be acceptable?	1	A machine roomless hydraulic elevator is not accepted.
6	F	Please see attached for substitution request.	1	Anemostat VAV Not Approved
7	F	Can we use type L copper on 2" pipe and smaller instead of schedule 40 black steel pipe?	1	Approved . Dielectric unions required at all connections of dissimilar metals
8	F	What size pipe is going to each chiller 4" or 6"? M5.01 shows 6" and M2.01B shows 4". Please advise.	1	Install per M2.01B
9	F	Please see attached fpr substitution request.	2	Substitution requests will be outlined in AD 02.
10	F	Please see attached explaining RFI for ACM Panels. The architect has these panels at over 5'-1" ver:cal centers and over 6'-0" horizontal centers. The absolute maximum width for an ACM panel is 4'-11¼" in one direc:on; meaning the panel can exceed the 4'-11" in one direc:on but not both direc:ons. A 4'-11" x 15'-11" is possible, but a 5'-0" x 5'-0" or a 6'-0" x 8'-0", or etc. panel is not possible due to sheet/CNC/fabrication limitations.	1	ACM Panel layout has been modififed on A4.01 to meet industry standards for manufacturing. CW mullion layout has also been revised on A6.11. Joint width on the wall sections can be disregarded. A standard joint width is acceptable to be used throughout.
11				
12				
13				
14				
15				
16				
17				
18				

SECTION 32 3413
FABRICATED PEDESTRIAN BRIDGES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Steel, fully engineered, clear span bridge and foundation system.

1.02 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sectionss apply to the work of this Section.

B. Section 01 3000 - Administrative Requirements: Submittal procedures, project meetings, progress schedules and documentation, reports, coordination.

C. Section 01 4000 - Quality Requirements: Procedures for testing, inspection, mock-ups, reports, certificates; use of reference standards.

D. Section 01 7800 - Closeout Submittals: Project record documents, operation and maintenance (O&M) data, warranties and bonds.

1.03 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Product Data: Provide manufacturer's product data.

C. Shop Drawings: Indicate Section-thru details, mounting methods, typical elevations, key plan layout. Show actual field conditions and true elevation and location after field verification.

D. PRELIMINARY SUBMISSIONS: Prior to the start of fabrication or construction, the Contractor shall submit to the Architect a design package, which shall include but not limited to the following:
   1. DETAILED PLANS:
      a. REGISTRATION / SEAL: Sealed by a licensed Professional Engineer (Alabama).
      b. PLAN VIEW: Full plan view of the bridge deck, foundation and railing system drawn to scale. The plan view must reflect the proposed horizontal alignment as shown on the design plans.
      c. ELEVATION VIEW: Full elevation view of the bridge deck, railing and foundation system drawn to scale which reflect the actual vertical alignment. Elevation views shall indicate the elevation at the top and bottom of the boardwalk and foundation system components, horizontal and vertical break points, and location of the finished grade.
      d. DETAILS: Details of all bridge deck, foundation, and railing system components and their connections such as the length, size and where changes occur; connections; etc.
      e. CODE REFERENCE: Design parameters used along with AASHTO references.

E. DESIGN COMPUTATIONS: computations shall:
   1. Be stamped by a licensed Professional Engineer in the state of Alabama.
   2. Computations shall clearly refer to the applicable AASHTO provisions
   3. Documentation of computer programs including all design parameters.

F. FINAL SUBMISSION: Once a bridge deck, foundation and railing system design has been reviewed and accepted by the Owner, the Contractor shall submit the final plans. The designer of the bridge deck, foundation and railing system is responsible for the review of any drawings prepared for fabrication. One set of all approved shop drawings shall be submitted to the Architect’s permanent records.

1.04 QUALITY ASSURANCE

A. Designer Qualifications: Perform design under direct supervision of a Professional Engineer experienced in design of this type of work and licensed in the State in which the Project is located.

B. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than five years of documented experience and a minimum of five successful bridge projects of similar scale within the last three years.
   1. Components shall be factory fabricated and engineered by single entity.

C. Acceptability Criteria for Concrete Deck (if applicable): The finished visible (in the final installed position) surface shall have no obvious imperfections other than minimal color or texture variations from the approved samples or evidence of repairs when viewed in good typical daylight illumination with the unaided naked eye at a 20 ft. viewing distance. Appearance of the surface shall not be evaluated when light is illuminating the surface from an extreme angle as it tends to accentuate the minor surface irregularities. The following is a list of finish defects that shall be properly repaired, if obvious when viewed at a 20 ft. distance. Patching (by a trained skilled concrete repair person) is an acceptable repair method.
   1. Ragged or irregular surfaces.
   2. Adjacent flat and return surfaces with greater texture and/or color differences than the approved samples or mockups.
   3. Casting and/or aggregate segregation lines evident from different concrete placement lifts and consolidation.
   4. Visible mold joints or irregular surfaces.
   5. Rust stains on exposed surfaces.
   6. Units with excessive variation in texture and/or color from the approved samples, within the unit or compared with adjacent units.
   7. Blocking stains evident on exposed surfaces.
   8. Foreign material embedded in the surface.
   9. Visible repairs at a 20 ft. viewing distance.
   10. Cracks visible at a 20 ft. viewings distance.

1.05 MOCK-UP

A. See Section 01 4000 - Quality Requirements for additional requirements.

B. Mock-Up: Provide, if required by Architect, a mock-up for evaluation of the concrete deck and structural steel showing the surface preparation techniques and application workmanship.
   1. Finish areas designated by Architect / Engineer.
   2. Do not proceed with remaining work until mock-up is accepted by Architect / Engineer.
   3. Refinish mock-up area as required to produce acceptable work.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. Coordinate with fabrication and delivery schedule of handrails.

1.07 WARRANTY

A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.

B. Bridge Manufacturer shall warranty all components against defects in material and workmanship for period of 10 years from date of Substantial Completion.

C. Contractor shall be responsible for installation defects for 12 months from date of Substantial Completion.

PART 2 PRODUCTS

2.01 MANUFACTURER / PRODUCT

A. CONTECH Engineered Solutions LLC; "Continental Pedestrian Bridge": www.contechES.com.

or Approved Equal. Substitutions: See Section 01 6000 - Product Requirements.

2.02 GENERAL FEATURES OF DESIGN

A. Span: Bridge span shall be 70' - 0" from each end of the bridge.

B. Width: Bridge width shall be 6' - 0" measured at the inside face of strucutral elements at the deck level.

C. Bridge System Type:
   1. Bridge shall be designed utilizing an underhung floor beam or an H Section configuration where the floor beams are placed inside the trusses and attached to the truss verticals. The bridge manufacturer shall determine the distance from the top of the deck to the top and bottom truss members based upon structural and/or shipping requirements.
   2. The top of the top chord shall not be less than 54 inches above the deck.

D. Member Components
   1. All members of the vertical trusses (top and bottom chords, verticals, and diagonals) shall be fabricated from square and/or rectangular structural steel tubing. Other structural members and bracing shall be fabricated from structural steel shapes or square and rectangular structural steel tubing.

E. Attachments
   1. Horizontal Safety Rails
      a. Horizontal safety rails shall be placed on the structure up to a minimum height of 48" above the deck surface. Safety rails shall be placed so as to prevent a 4" sphere from passing through the truss. Safety rails shall be placed on the inside or outside of the structure at the bridge fabricator's option. Safety rails placed on the inside of the truss shall have their ends sealed and ground smooth so as to produce no sharp edges.
      b. The safety rail system shall be designed for an infill loading of 200 pounds, applied horizontally at right angles, to a one square foot area at any point in the system.
   2. Toe Plate
      a. The bridge shall be supplied with a steel toe plate mounted to the inside face of both trusses. The toe plate shall be a minimum of 4 inches high. Toe plating will be welded to the truss members at a height adequate to provide a 2" gap between the bottom of the plate and the top of the deck or the top of the bottom chord, whichever is higher. The span of unstiffened flat toe plating (from center to center of supports) shall not exceed 5'-8".

F. In addition to the dead loads of the system, the structure shall be designed for the live loads defined in Article on Materials below.

2.03 MATERIALS

A. Painted Steel: Shall conform to the following
   1. All Blast Cleaning shall be done in a dedicated OSHA approved indoor facility owned and operated by the bridge fabricator. Blast operations shall use Best Management Practices and exercise environmentally friendly blast media recovery systems.

B. Concrete Deck: Shall confirm to the following
   1. The bridge shall be furnished with a galvanized steel form deck suitable for pouring a reinforced concrete slab. The form deck shall be designed to carry the dead load of the wet concrete, weight of the form decking, plus a construction load of 20 PSF uniform load or a 150 pound concentrated load on a 1'-0" wide section of deck. When edge supports are used, deflection is limited to 1/180 of the span or 3/4", whichever is less. Without edge supports, deflection shall be limited to 1/180 of the span or 3/8", whichever is less.

PART 3 EXECUTION

3.01 INSTALLATION

A. FABRICATED PEDESTRIAN BRIDGE
   1. Installation of the bridge system, foundation, and railings, if applicable, shall be performed in accordance with the approved plans and manufacturers installation instructions. Bridge manufacturer shall provide a field representative to review installation instructions with the Contractor and Engineer and to certify that the installation has been performed according to the approved drawings and manufacturer’s instructions.

END OF SECTION

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NOT APPROVED

PRIOR APPROVAL / SUBSTITUTION REQUEST FORM

Date: 08/24/2023

Company Submitting Request: Albireo Energy, LLC
(Name and Address)
1110 Retail Dr. NW Huntsville, AL 35816

Contact Name: Brian Overstreet **Phone:** 512-970-1261 **Fax:** _____

E-Mail: boverstreet@albiereoenergy.com

PROJECT NAME: CCC Workforce Development

SPECIFIED ITEM: 236000 (Section) 2 (Page) Titus or Price VAV (Description)

The undersigned requests consideration of the following product substitution:

PROPOSED SUBSTITUTION: □nem□stat □□T Sing□e Du□t □ir Termina□
Provide Product Name / Model /Manufacturer

1. Attached data includes: __X__ Product Description _____ Performance and Test Data
   _____ Drawings __X__ Specifications _____ Photographs

2. _____ Yes / No changes will be required to the Contract Documents for the proper installation of proposed product substitution. If yes, then attach data that includes description of changes.

The undersigned states that the following paragraphs, unless modified by attachments, are correct:

1. The proposed substitution does not affect dimensions shown on the drawings.
2. No changes to the building design, engineering design, or detailing are required by the proposed substitution.
3. The proposed substitution will have no adverse effect on other trades, the construction schedule, or **specified warranty requirements.**
4. No maintenance is required by the proposed substitution other than that required for originally specified product.
5. Other Information

The undersigned further states that they have read the corresponding specification section in the project manual and confirms that the function, appearance and quality of the proposed substitution are equivalent or superior to the originally specified product. BO initial.

Signature: Brian Overstreet Printed Name: Brian Overstreet

Fax Number: _____

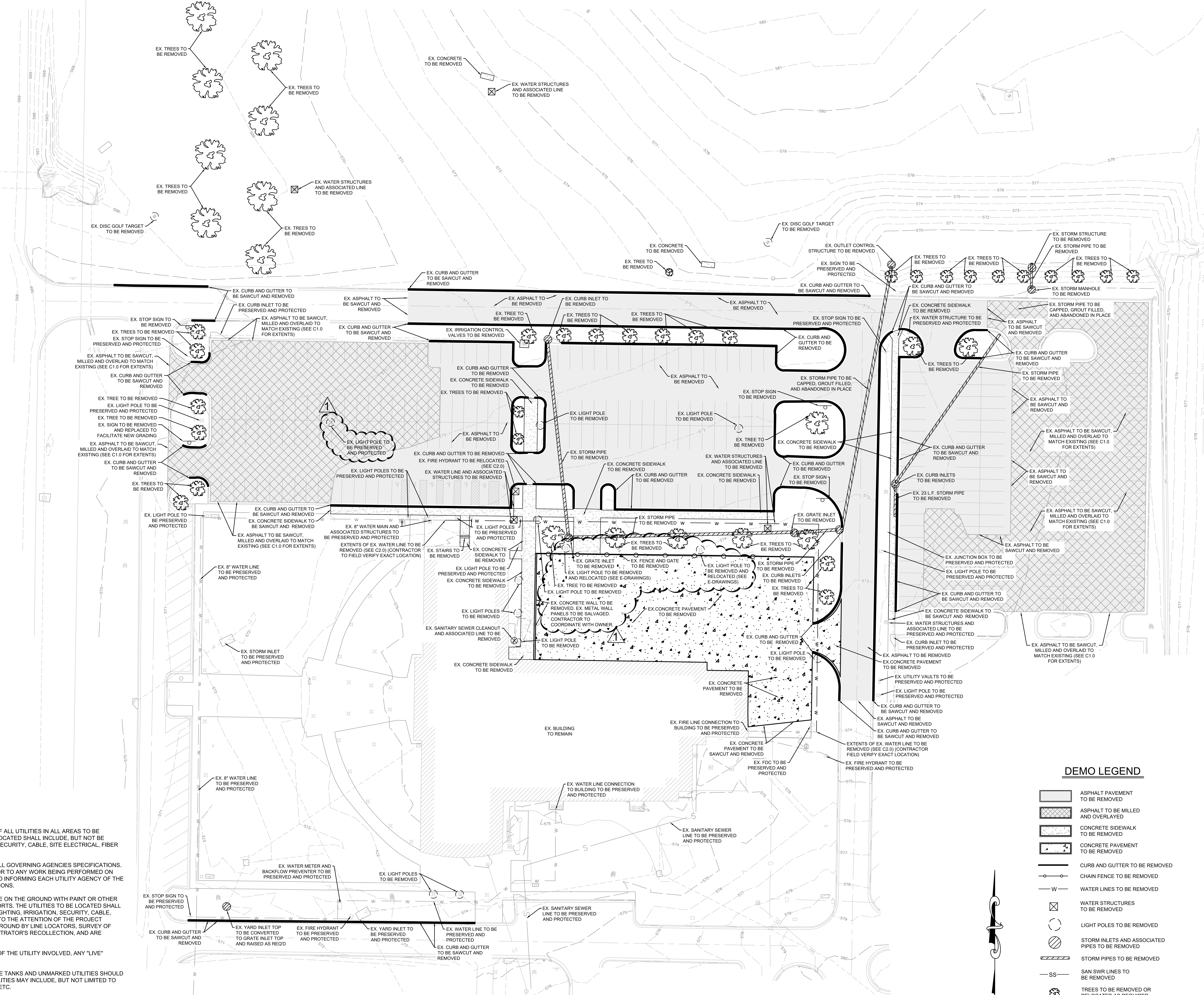
For Architect's Use:

_____ Accepted _____ Accepted As Noted _____ Incomplete Information
_____ Not Accepted _____ Received Too Late _____ No Substitutions Accepted For This Product

Reviewed By / Date: _____

Processed by Addendum No. _____

Comments: _____



DEMOLITION NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF THE LOCATION OF ALL UTILITIES IN ALL AREAS TO BE REMOVED OR DEMOLISHED, PRIOR TO COMMENCEMENT OF WORK. THE UTILITIES TO BE LOCATED SHALL INCLUDE, BUT NOT BE LIMITED TO WATER, GAS, SANITARY SEWER, STORM SEWER, SITE LIGHTING, IRRIGATION, SECURITY, CABLE, SITE ELECTRICAL, FIBER OPTIC, AND TELEPHONE.
2. ALL UTILITIES TO BE REMOVED SHALL BE CUT, REMOVED, CAPPED, ETC. ACCORDING TO ALL GOVERNING AGENCIES SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY AGENCIES PRIOR TO ANY WORK BEING PERFORMED ON THEIR RESPECTIVE LINES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING AND INFORMING EACH UTILITY AGENCY OF THE SCOPE OF WORK AND SCHEDULE OF COMPLETION, AND SHALL COORDINATE ALL INSPECTIONS.
3. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS IN THE FIELD AND SHALL LOCATE ON THE GROUND WITH PAINT OR OTHER EASILY VISIBLE MEANS ALL UNDERGROUND UTILITIES PRIOR TO ANY CONSTRUCTION EFFORTS. THE UTILITIES TO BE LOCATED SHALL INCLUDE, BUT NOT BE LIMITED TO WATER, GAS, SANITARY SEWER, STORM SEWER, SITE LIGHTING, IRRIGATION, SECURITY, CABLE, SITE ELECTRICAL, AND TELEPHONE. CONFLICTS OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER IMMEDIATELY. THE UTILITIES SHOWN ARE ILLUSTRATED AS LOCATED ON THE GROUND BY LINE LOCATORS, SURVEY OF ABOVE GROUND STRUCTURES, AND/OR ACCORDING TO UTILITY MAPS OR UTILITY ADMINISTRATOR'S RECOLLECTION, AND ARE PROVIDED AS INFORMATION ONLY.
4. THE CONTRACTOR SHALL PRESERVE AND PROTECT, ACCORDING TO THE INSTRUCTIONS OF THE UTILITY INVOLVED, ANY "LIVE" UTILITIES LOCATED BY THE UTILITY COMPANY OR THE CONTRACTOR.
5. DEMOLITION ITEMS SHOWN ARE CONSIDERED TO BE A MINIMUM. UNDERGROUND STORAGE TANKS AND UNMARKED UTILITIES SHOULD ALSO BE REMOVED AND BACKFILLED WITH PROPERLY COMPACTED MATERIAL. THESE UTILITIES MAY INCLUDE, BUT NOT LIMITED TO SANITARY SEWER LATERALS, TELEPHONE LINES, CABLE LINES, GAS LINES, WATER LINES, ETC.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND RELOCATION OF ALL UTILITY LINES LOCATED UNDERNEATH THE PROPOSED BUILDINGS.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF ALL CONCRETE, SIDEWALKS, WALLS, ETC. DAMAGED DURING CONSTRUCTION. ALL DISTURBED AREAS SHALL BE RESTORED TO THE ORIGINAL CONDITION OR AS ACCEPTED BY THE OWNER.
8. THE CONTRACTOR SHALL FIELD VERIFY THE EXTENTS AND LOCATIONS OF THE EXISTING WATER SERVICE PIPING. THE CONTRACTOR SHALL REUSE BOTH OF THESE LINES FOR SERVICE TO THE NEW BUILDING. IF THE EXISTING SERVICE LINES ARE LOCATED UNDERNEATH THE PROPOSED BUILDING, THE CONTRACTOR SHALL RE ROUTE THE LINE AROUND THE BUILDING AND TIE INTO EACH LINE WITHIN THE PROPERTY BOUNDARY.

DRAWING FILE: T:\1 Projects\AL\Alabama Community College System\CBHM220019 - Workforce Development\0 DWG\Calhoun CC\C0.3 Demo.dwg
PLOTTED: Aug 21, 2023 - 1:02pm

DEMO LEGEND

- ASPHALT PAVEMENT TO BE REMOVED
- ASPHALT TO BE MILLED AND OVERLAYED
- CONCRETE SIDEWALK TO BE REMOVED
- CONCRETE PAVEMENT TO BE REMOVED
- CURB AND GUTTER TO BE REMOVED
- CHAIN FENCE TO BE REMOVED
- W — WATER LINES TO BE REMOVED
- WATER STRUCTURES TO BE REMOVED
- LIGHT POLES TO BE REMOVED
- STORM INLETS AND ASSOCIATED PIPES TO BE REMOVED
- STORM PIPES TO BE REMOVED
- SS — SAN SWR LINES TO BE REMOVED
- TREES TO BE REMOVED OR RELOCATED AS REQUIRED

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

GMC

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ISSUE	DATE
ISSUE FOR BID	08.14.2023
AD 01	08.25.2023

DRAWN BY:
CHECKED BY:

CALHOUN COMMUNITY COLLEGE
WOKFORCE DEVELOPMENT
TANNER, ALABAMA

ABCI Project #
GMC Project #CBHM220019
PROJECT #

STATE OF ALABAMA LICENSED No. 38073 PROFESSIONAL ENGINEER COREY ANDREW SHOOP

08-25-2023

DEMOLITION PLAN

C0.3

sheet of

NOTE: CONTRACTOR TO MAKE NOTE OF EXISTING STRIPING LAYOUT, INCLUDING NUMBER OF PARKING SPACES, AND RESTRIPE PARKING LOT TO MATCH EXISTING LAYOUT.

LEGEND

▭	STANDARD DUTY ASPHALT
▩	HEAVY DUTY ASPHALT PAVEMENT
▨	HEAVY DUTY CONCRETE PAVEMENT
▦	CONCRETE SIDEWALK (SEE TYP. SEC.)
⬡	MILL AND OVERLAY ASPHALT
▭	WHEEL STOP (SEE DETAILS)

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

GMC

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ISSUE	DATE
ISSUE FOR BID	08.14.2023
AD 01	08.25.2023
DRAWN BY:	
CHECKED BY:	

CALHOUN COMMUNITY COLLEGE
WOKFORCE DEVELOPMENT
TANNER, ALABAMA

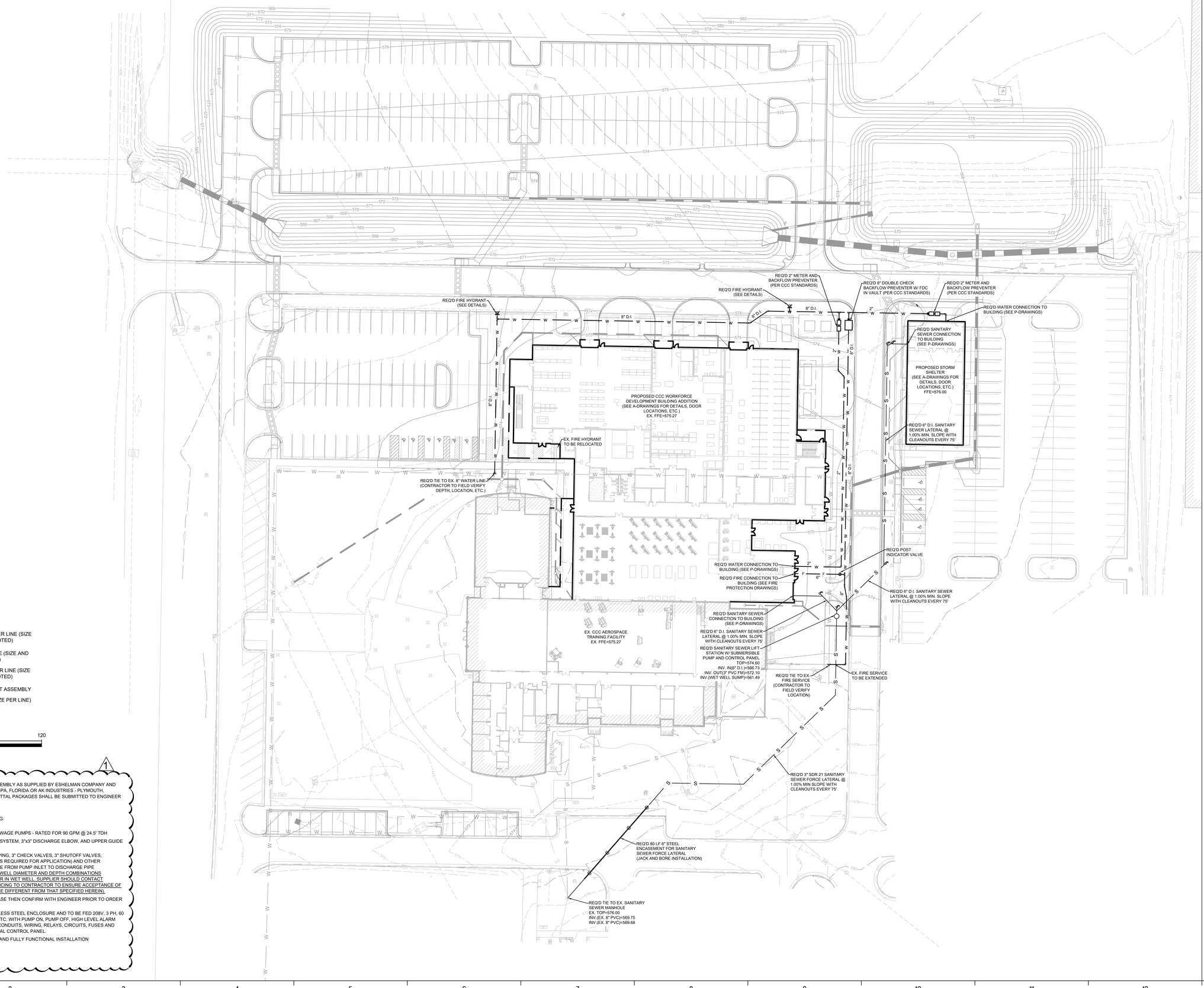
ABCI Project #
GMC Project #CBHM220019
PROJECT #

COREY ANDREW
No. 38073
08-25-2023

SITE LAYOUT PLAN

C1.0

sheet of



LEGEND

- W — DOMESTIC WATER LINE (SIZE AND TYPE AS NOTED)
- F — FIRE WATER LINE (SIZE AND TYPE AS NOTED)
- S — SANITARY SEWER LINE (SIZE AND TYPE AS NOTED)
- 6" FIRE HYDRANT ASSEMBLY
- GATE VALVE (SIZE PER LINE)

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

1

NOTES:
REQUIRED - ONE (1) AK INDUSTRIES PACKAGE WET WELL ASSEMBLY AS SUPPLIED BY ESHELMAN COMPANY AND PRE-PACKAGED BY TECHNICAL SALES CORPORATION - TAMPA, FLORIDA OR AK INDUSTRIES - PLYMOUTH, INDIANA; OR ENGINEER PRE-APPROVED EQUAL. PRE-SUBMITTAL PACKAGES SHALL BE SUBMITTED TO ENGINEER AT LEAST FIFTEEN (15) DAYS PRIOR TO BID DATE.

PRE-PACKAGED PUMP STATION SHALL INCLUDE THE FOLLOWING:

- QTY. TWO (2) - EBARA MODEL 80DLFU61.5 SUBMERSIBLE SEWAGE PUMPS - RATED FOR 90 GPM @ 24.5' TDH
- QTY. TWO (2) - EBARA MODEL LM80 QDC - TO INCUDLE QDC SYSTEM, 3"x3" DISCHARGE ELBOW, AND UPPER GUIDE BRACKETS
- 48" DIAMETER, 13.25' DEPTH, TO INCLUDE 3" DISCHARGE PIPING, 3" CHECK VALVES, 3" SHUTOFF VALVES, ALUMINUM COVER, GUIDE RAILS, FLOAT SWITCHES, ETC. (AS REQUIRED FOR APPLICATION) AND OTHER COMPONENTS REQUIRED TO PROVIDE WASTE CONVEYANCE FROM PUMP INLET TO DISCHARGE PIPE CONNECTION. (ENGINEER MAY CONSIDER DIFFERENT WET WELL DIAMETER AND DEPTH COMBINATIONS PROVIDED REQUIRED STORAGE CAPACITY IS PROVIDED FOR IN WET WELL. SUPPLIER SHOULD CONTACT ENGINEER DIRECTLY TO DISCUSS PRIOR TO PROVIDING PRICING TO CONTRACTOR TO ENSURE ACCEPTANCE OF ANY PROPOSED DIAMETER/DEPTH COMBINATIONS THAT ARE DIFFERENT FROM THAT SPECIFIED HEREIN).
- CONTRACTOR SHALL FIELD VERIFY SITE VOLTAGE AND PHASE THEN CONFIRM WITH ENGINEER PRIOR TO ORDER OF LIFT STATION EQUIPMENT
- PUMP CONTROL PANEL - TO BE HOUSED IN NEMA 4X STAINLESS STEEL ENCLOSURE AND TO BE FED 208V, 3 PH, 60 HZ ELECTRICAL SERVICE. TO INCLUDE EBARA PMRS, PLC, ETC. WITH PUMP ON, PUMP OFF, HIGH LEVEL ALARM AND LOW LEVEL ALARM CONTROLS AND ALL ASSOCIATED CONDUITS, WIRING, RELAYS, CIRCUITS, FUSES AND OTHER ELECTRICAL COMPONENTS FOR A FULLY FUNCTIONAL CONTROL PANEL.
- AND ALL OTHER APPURTENANCES REQUIRED FOR A FINAL AND FULLY FUNCTIONAL INSTALLATION

CONTACT: THE ESHELMAN COMPANY, BESSEMER, ALABAMA
MR. EDWARD SMITH - 205-424-7570

GMC
2400 5th Avenue S, Suite 200
Birmingham, AL 35233
T 205.879.4462
GMCNETWORK.COM

ISSUE	DATE
ISSUE FOR BID	06.14.2023
AD 01	08.25.2023

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CHECKED BY:

CALHOUN COMMUNITY COLLEGE
WORKFORCE DEVELOPMENT
TANNER, ALABAMA

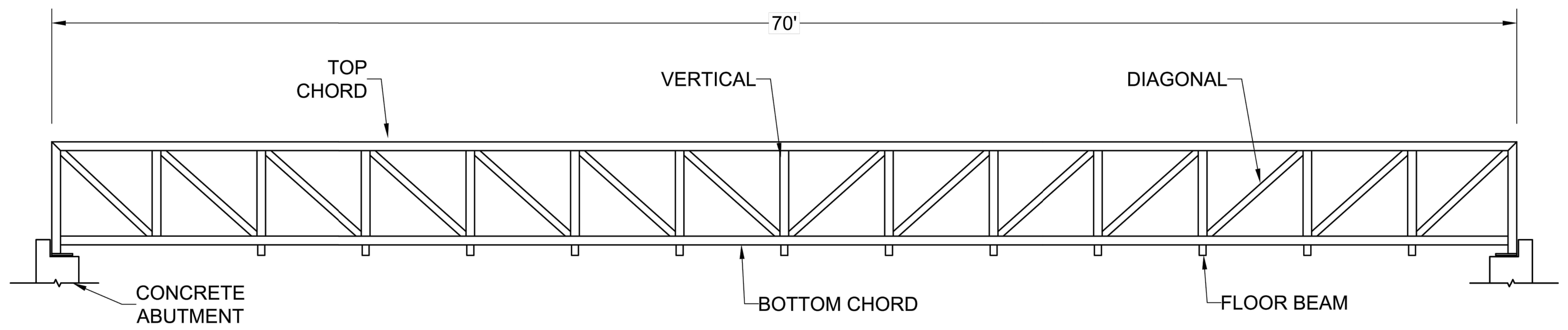
ABCI Project #
GMC Project #CBHM220019
PROJECT #

08-25-2023

SITE UTILITY PLAN

C2.0
sheet of

BRIDGE SUMMARY
Connector Pedestrian Bridge 70' Span x 6' Width
Deck Type: Concrete
Bridge Finish: Painted Black



BRIDGE ELEVATION

The graphic information and details contained in these plans is schematic in nature. The plans, elevations and sections have been developed automatically in a way that demonstrates your current input in a relative and proportional manner. The details included in these plans have been selected to represent commonly built construction assemblies. These are not Engineering drawings, and as such, the details may vary in the final design for your project depending on many variables that are selected in your final scope of work and specifications.

PRELIMINARY NOT FOR CONSTRUCTION

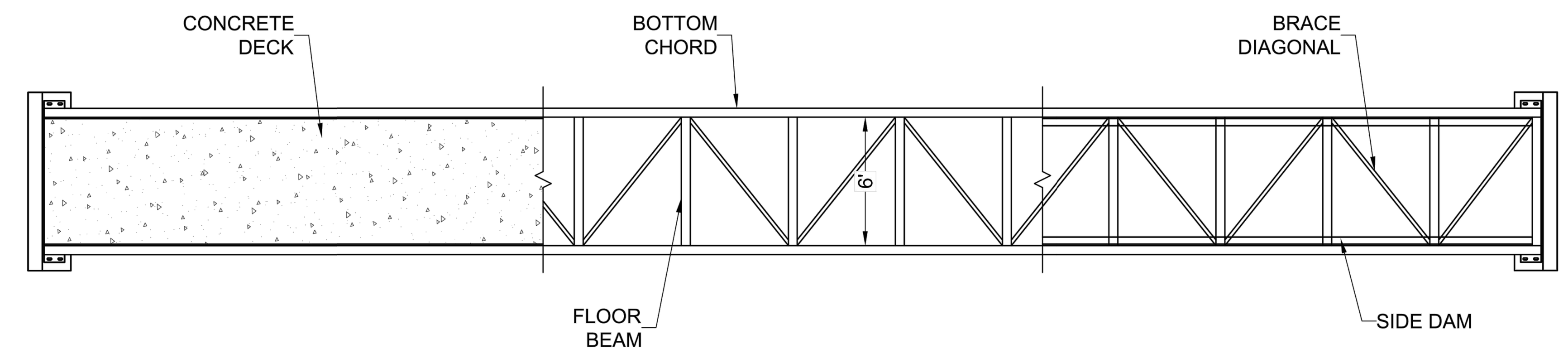
MARK	DATE	REVISION DESCRIPTION	BY

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CONTINENTAL BRIDGE
CONTECH DYOB® DRAWING

Connector® 70' Span x 6' Width
Calhoun Community College
Pedestrian Bridge
Decatur, Alabama

PROJECT NUMBER: 222389 DATE: 8/15/2023
DESIGNED: DYOB DRAWN: DYOB
CHECKED: APPROVED:
SHEET NO.: 1 OF 4



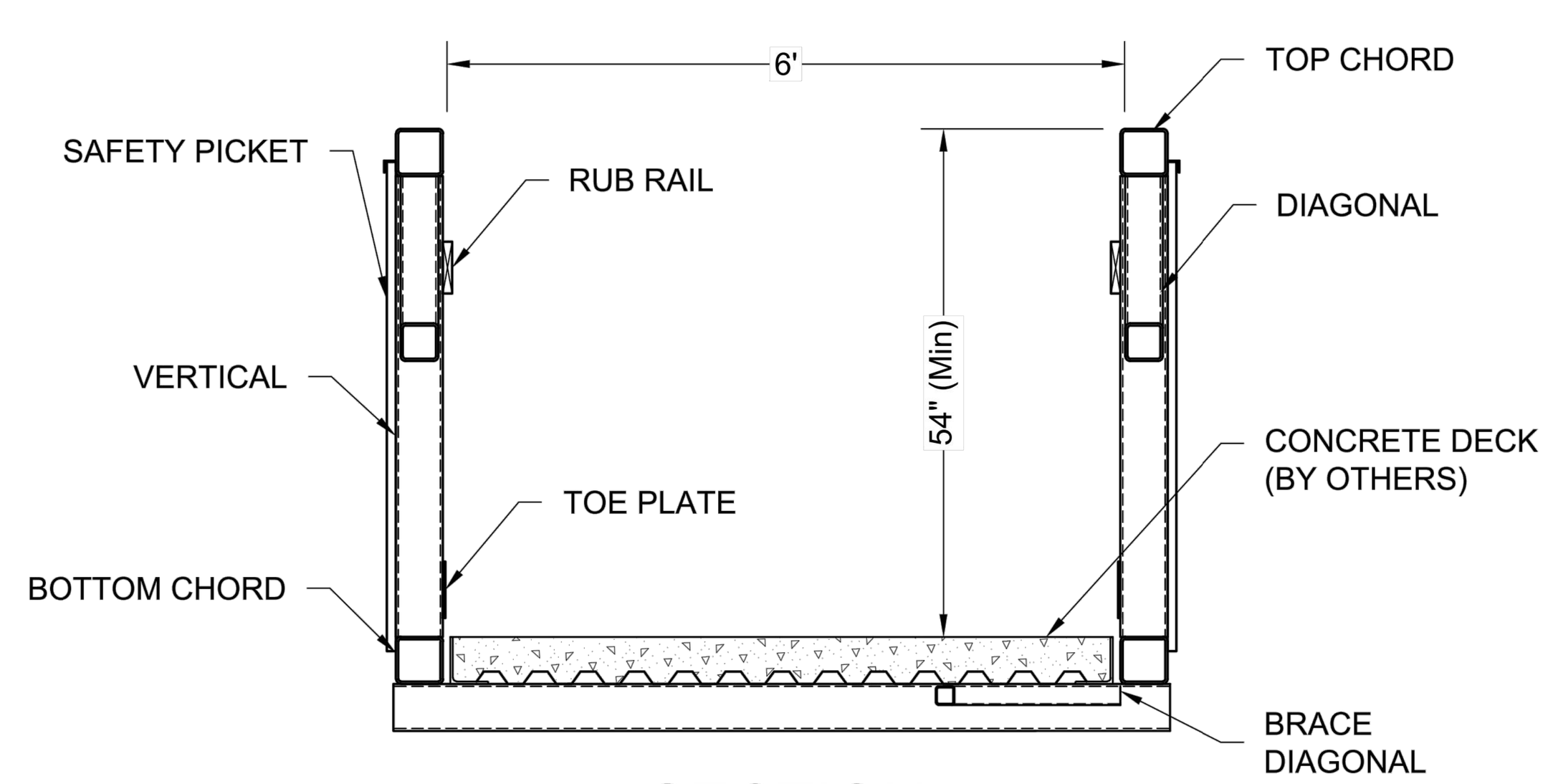
BRIDGE PLAN

The graphic information and details contained in these plans is schematic in nature. The plans, elevations and sections have been developed automatically in a way that demonstrates your current input in a relative and proportional manner. The details included in these plans have been selected to represent commonly built construction assemblies. These are not Engineering drawings, and as such, the details may vary in the final design for your project depending on many variables that are selected in your final scope of work and specifications.

PRELIMINARY NOT FOR CONSTRUCTION

Connector® 70' Span x 6' Width
Calhoun Community College
Pedestrian Bridge
Decatur, Alabama

PROJECT NUMBER: 222389 DATE: 8/15/2023
DESIGNED: DYOB DRAWN: DYOB
SHEET NO.: 2 OF 4



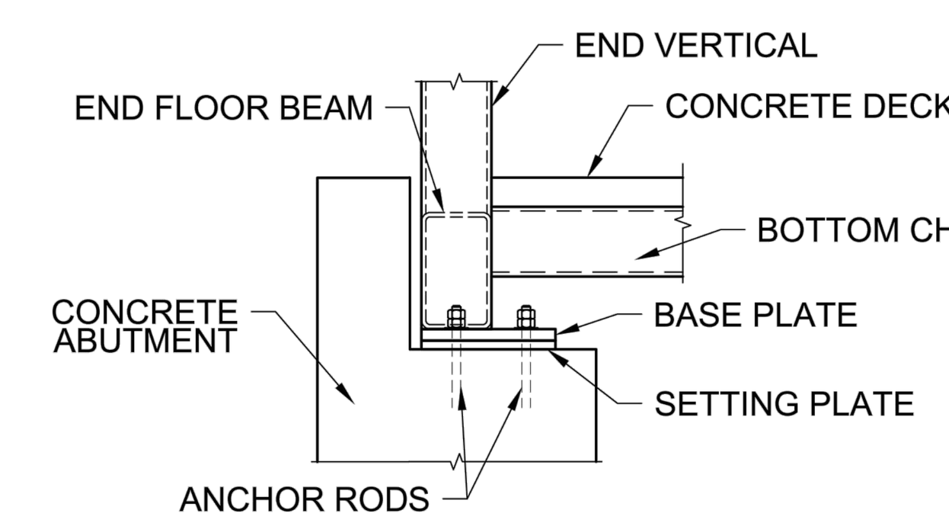
SECTION

The graphic information and details contained in these plans is schematic in nature. The plans, elevations and sections have been developed automatically in a way that demonstrates your current input in a relative and proportional manner. The details included in these plans have been selected to represent commonly built construction assemblies. These are not Engineering drawings, and as such, the details may vary in the final design for your project depending on many variables that are selected in your final scope of work and specifications.

PRELIMINARY NOT FOR CONSTRUCTION

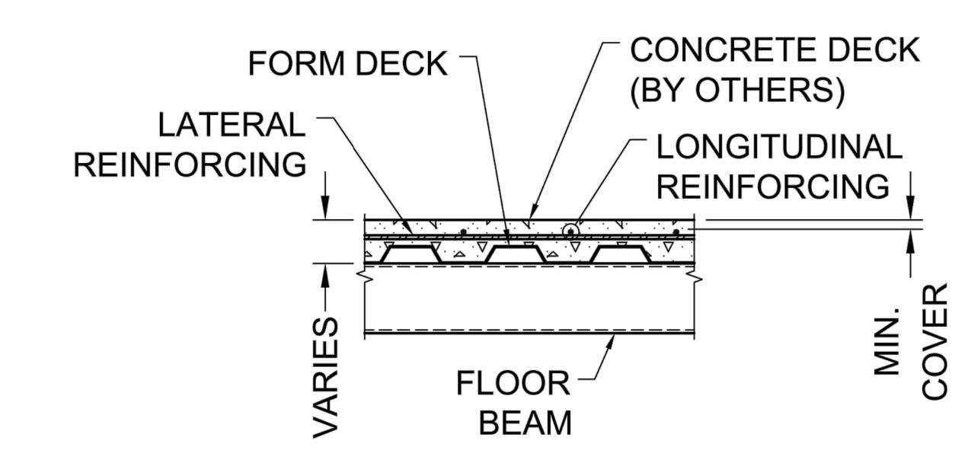
Connector® 70' Span x 6' Width
Calhoun Community College
Pedestrian Bridge
Decatur, Alabama

PROJECT NUMBER: 222389 DATE: 8/15/2023
DESIGNED: DYOB DRAWN: DYOB
SHEET NO.: 3 OF 4

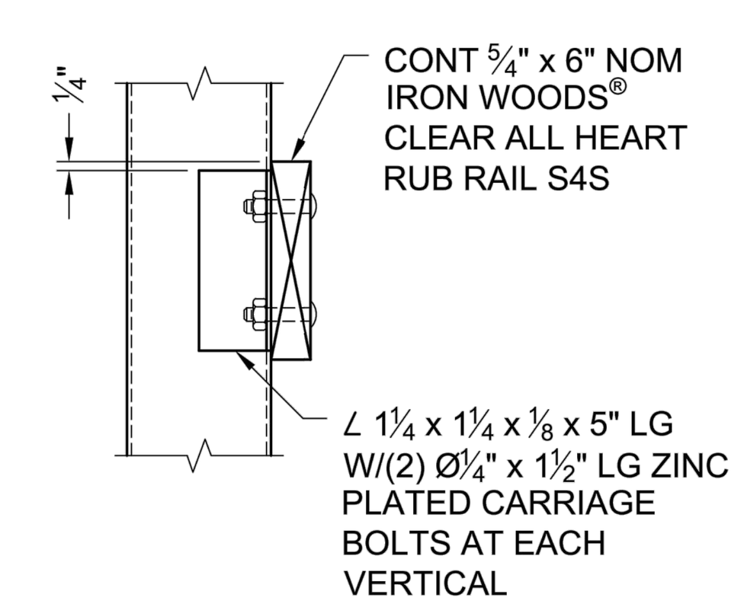


BEARING SIDE VIEW

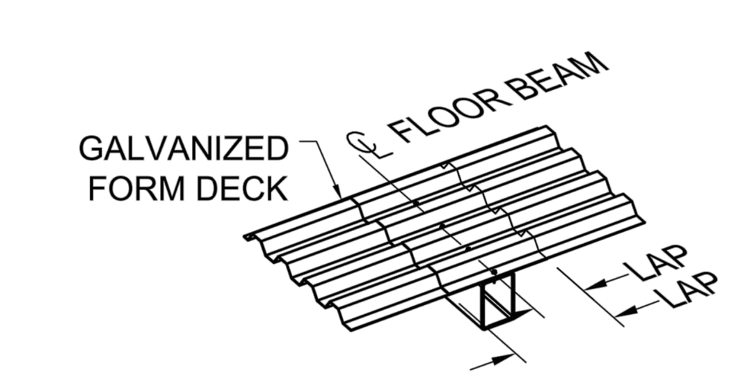
INFORMATION PROVIDED FOR REPRESENTATION ONLY.
ACTUAL BEARING DIAGRAMS TO BE BASED ON FINAL DESIGN.



CONCRETE DECK REINFORCING



RUB RAIL DETAIL



FORM DECK DETAIL

The graphic information and details contained in these plans is schematic in nature. The plans, elevations and sections have been developed automatically in a way that demonstrates your current input in a relative and proportional manner. The details included in these plans have been selected to represent commonly built construction assemblies. These are not Engineering drawings, and as such, the details may vary in the final design for your project depending on many variables that are selected in your final scope of work and specifications.

PRELIMINARY NOT FOR CONSTRUCTION

Connector® 70' Span x 6' Width
Calhoun Community College
Pedestrian Bridge
Decatur, Alabama

PROJECT NUMBER: 222389 DATE: 8/15/2023
DESIGNED: DYOB DRAWN: DYOB
SHEET NO.: 4 OF 4

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2400 5th Avenue S, Suite 200
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WOKFORCE DEVELOPMENT
TANNER, ALABAMA

ABCI Project #
GMC Project #CBHM220019
PROJECT #

CONSTRUCTION DETAILS

C5.3

SPECIALTY EQUIPMENT SCHEDULE

TAG	DESCRIPTION	OFOI/CFCI
S13	120" H X 192" W RECESSED PROJECTION SCREEN - MOTORIZED	CFCI
S16	8' MARKER BOARD	CFCI
S17	12' MARKER BOARD	CFCI
S31	TV - WALL MOUNTED -50"	OFOI
S32	TV - WALL MOUNTED -60"	OFOI

REFLECTED CEILING PLAN LEGEND

CEILING FINISHES:

- LAY-IN ACOUSTICAL CEILING SYSTEM - 2X2'
- LAY-IN ACOUSTICAL CEILING SYSTEM - 2X4'
- GYP BOARD - INTERIOR EIFS SOFFIT - EXTERIOR
- EXPOSED STRUCTURE

MECHANICAL:

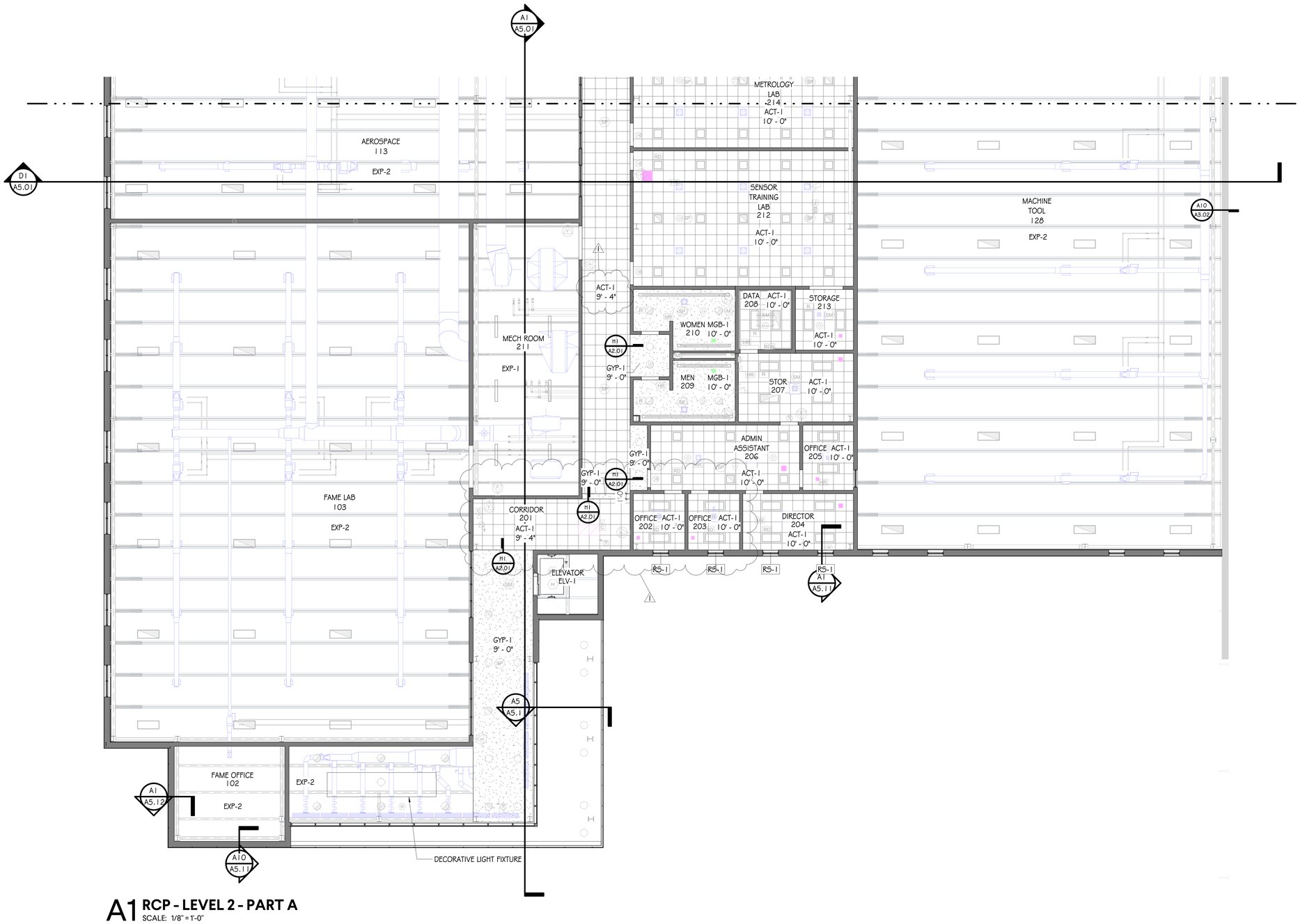
- SUPPLY DIFFUSER
- RETURN AIR GRILLE
- EXHAUST FAN

LIGHTING:

- 2X2 LAY-IN FIXTURE
- 2X4 LAY-IN FIXTURE
- LINEAR SUSPENDED FIXTURE
- LINEAR RECESSED FIXTURE
- LINEAR WALL MT. FIXTURE
- CIRCULAR SURF. MT. FIXTURE
- CIRCULAR PENDANT FIXTURE
- CIRCULAR RECESSED FIXTURE
- CIRCULAR WALL MT.FIXTURE
- EXIT LIGHT

CEILING FINISH LEGEND

NUMBER	TYPE	DETAIL DESCRIPTION
ACT-1	ACOUSTICAL CEILING TILE SYSTEM	MANUFACTURER: ARMSTRONG STYLE: DUNE FIRE GUARD SQAURE LAY-IN 1850 COLOR: WHITE SIZE: 24" X 24" X 5/8" SUSPENSION SYSTEM: 15/16" PRELUDE XL - WHITE
ACT-2	ACOUSTICAL CEILING TILE SYSTEM	MANUFACTURER: ARMSTRONG STYLE: OPTIMA 3161 SQAURE LAY-IN COLOR: WHITE SIZE: 24" X 72" X 3/4" SUSPENSION SYSTEM: 15/16" PRELUDE - WHITE
GYP-1	GYP BOARD CEILING	PAINTED GYP BOARD CEILING COLOR: PNT-3 (U.N.O. ON RCP)
MGB-1	MOISTURE RESISTANT GYP BOARD CEILING	PAINTED GYP BOARD CEILING - MOISTURE RESISTANT COLOR: PNT-3 (U.N.O. ON RCP)
EXP-1	EXPOSED TO STRUCTURE	EXPOSED TO STRUCTURE - WITH NO FINISH
EXP-2	EXPOSED TO STRUCTURE	EXPOSED TO STRUCTURE - AT THESE LOCATIONS PAINT STRUCTURAL STEEL, BAR JOISTS, AND GAS PIPING PNT-5 (DO NOT PAINT ACOUSTICAL DECK)
ACB-1	ACOUSTIC BAFFLES	MANUFACTURER: TURF STYLE: STRAIGHT COLOR: 50% 06 CHARCOAL, 30% 98 STORM, 10% 28 INDIGO, 10% 30 CYAN SIZE: 1" W X 8" D X 9' L SPACING: 9" O.C. SUSPENSION SYSTEM: TBD
RS-1	ROLLER SHADES	TYPE: MANUAL OPENESS: 1% FABRIC: TBD LOCATION: REFER TO RCP



A1 RCP - LEVEL 2 - PART A

SCALE: 1/8" = 1'-0"

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CALHOUN COMMUNITY COLLEGE WORKFORCE SKILLS TRAINING CENTER

GMC ABHM210048

STATE OF ALABAMA — 2407 — ROBERT W. GRAY — BIRMINGHAM, ALABAMA — REGISTERED ARCHITECT

REFLECTED CEILING PLAN - LEVEL 2 - PART A

A2.03

8/29/2023 11:22:59 AM TEMPLATE VERSION: 2022.1

SPECIALTY EQUIPMENT SCHEDULE

TAG	DESCRIPTION	OFOI/CFCI
S13	120" H X 192" W RECESSED PROJECTION SCREEN - MOTORIZED	CFCI
S16	8' MARKER BOARD	CFCI
S17	12' MARKER BOARD	CFCI
S31	TV - WALL MOUNTED -50"	OFOI
S32	TV - WALL MOUNTED -60"	OFOI

REFLECTED CEILING PLAN LEGEND

CEILING FINISHES:

- LAY-IN ACOUSTICAL CEILING SYSTEM - 2X2'
- LAY-IN ACOUSTICAL CEILING SYSTEM - 2X4'
- GYP BOARD - INTERIOR EIFS SOFFIT - EXTERIOR
- EXPOSED STRUCTURE

MECHANICAL:

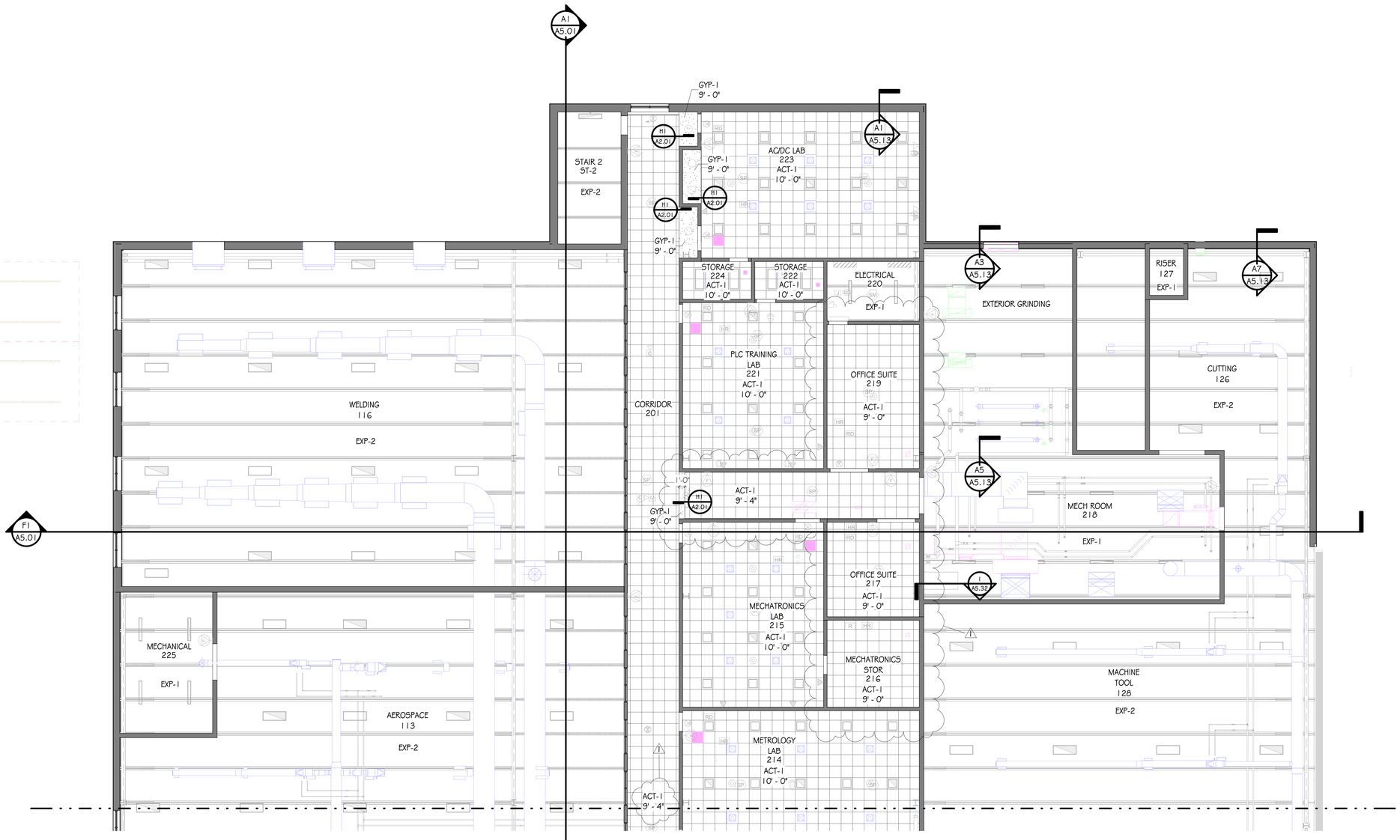
- SUPPLY DIFFUSER
- RETURN AIR GRILLE
- EXHAUST FAN

LIGHTING:

- 2X2 LAY-IN FIXTURE
- 2X4 LAY-IN FIXTURE
- LINEAR SUSPENDED FIXTURE
- LINEAR RECESSED FIXTURE
- LINEAR WALL MT. FIXTURE
- CIRCULAR SURF. MT. FIXTURE
- CIRCULAR PENDANT FIXTURE
- CIRCULAR RECESSED FIXTURE
- CIRCULAR WALL MT.FIXTURE
- EXIT LIGHT

CEILING FINISH LEGEND

NUMBER	TYPE	DETAIL DESCRIPTION
ACT-1	ACOUSTICAL CEILING TILE SYSTEM	MANUFACTURER: ARMSTRONG STYLE: DUNE FIRE GUARD SQAURE LAY-IN 1850 COLOR: WHITE SIZE: 24" X 24" X 5/8" SUSPENSION SYSTEM: 15/16" PRELUDE XL - WHITE
ACT-2	ACOUSTICAL CEILING TILE SYSTEM	MANUFACTURER: ARMSTRONG STYLE: OPTIMA 3161 SQAURE LAY-IN COLOR: WHITE SIZE: 24" X 72" X 3/4" SUSPENSION SYSTEM: 15/16" PRELUDE - WHITE
GYP-1	GYP BOARD CEILING	PAINTED GYP BOARD CEILING COLOR: PNT-3 (U.N.O. ON RCP)
MGB-1	MOISTURE RESISTANT GYP BOARD CEILING	PAINTED GYP BOARD CEILING - MOISTURE RESISTANT COLOR: PNT-3 (U.N.O. ON RCP)
EXP-1	EXPOSED TO STRUCTURE	EXPOSED TO STRUCTURE - WITH NO FINISH
EXP-2	EXPOSED TO STRUCTURE	EXPOSED TO STRUCTURE - AT THESE LOCATIONS PAINT STRUCTURAL STEEL, BAR JOISTS, AND GAS PIPING PNT-5 (DO NOT PAINT ACOUSTICAL DECK)
ACB-1	ACOUSTIC BAFFLES	MANUFACTURER: TURF STYLE: STRAIGHT COLOR: 50% 06 CHARCOAL, 30% 98 STORM, 10% 28 INDIGO, 10% 30 CYAN SIZE: 1" W X 8" D X 9' L SPACING: 9" O.C. SUSPENSION SYSTEM: TBD
RS-1	ROLLER SHADES	TYPE: MANUAL OPENESS: 1% FABRIC: TBD LOCATION: REFER TO RCP



A1 RCP - LEVEL 2 - PART B

SCALE: 1/8" = 1'-0"

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STATE OF ALABAMA
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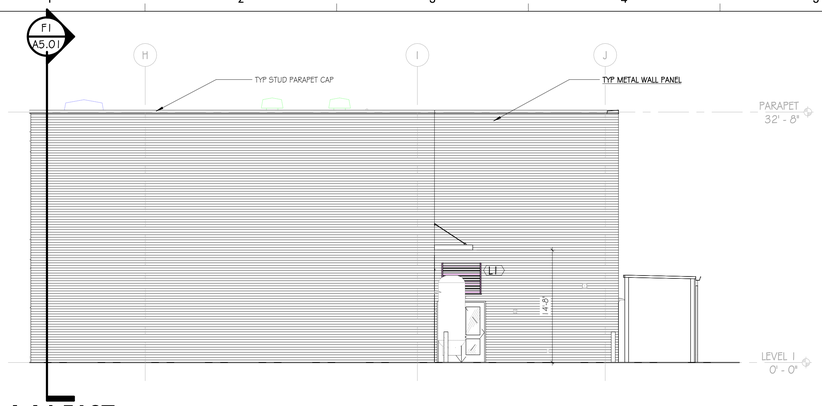
ROBERT W. GRAY
BIRMINGHAM, ALABAMA
REGISTERED ARCHITECT

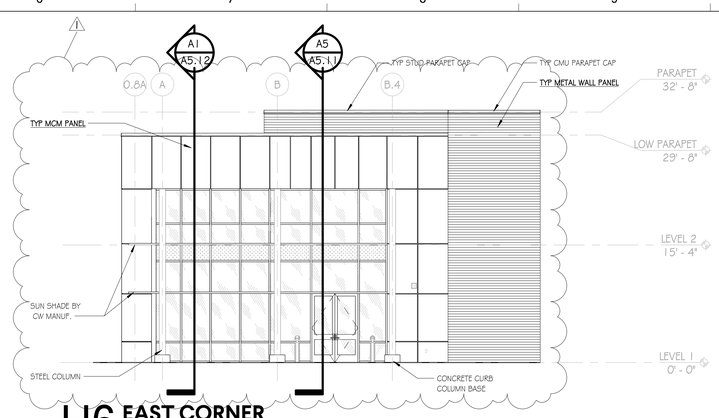
REFLECTED CEILING PLAN - LEVEL 2 - PART B

A2.04

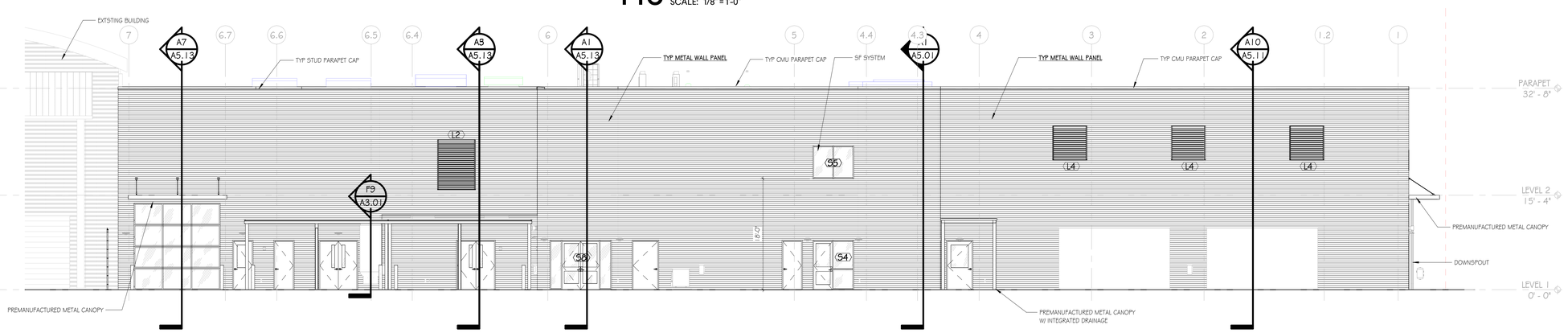
8/29/2023 9:43:59 AM TEMPLATE VERSION: 2022.1



H1 EAST
SCALE: 1/8" = 1'-0"

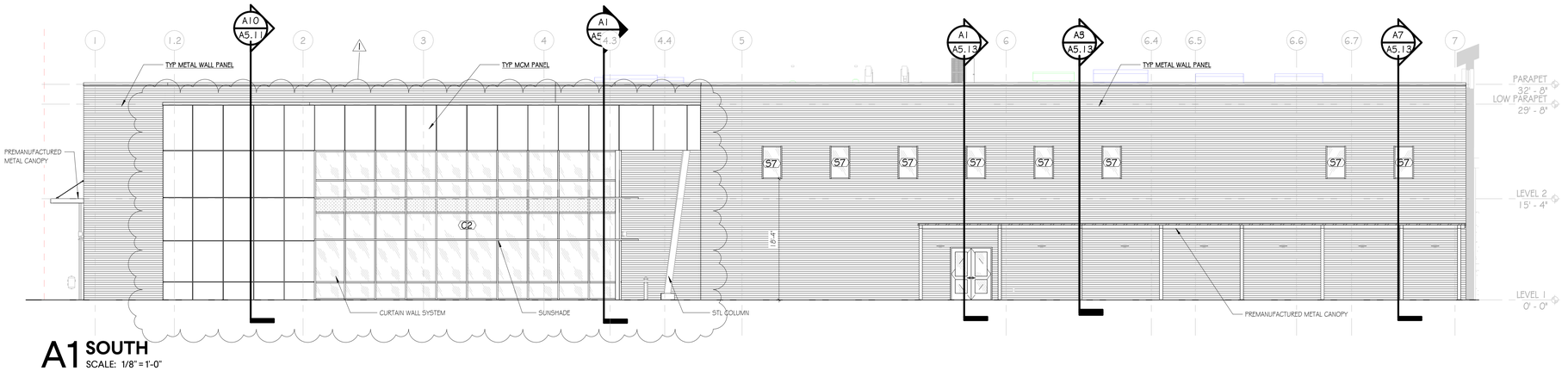


H6 EAST CORNER
SCALE: 1/8" = 1'-0"



F1 NORTH
SCALE: 1/8" = 1'-0"

C1 WEST
SCALE: 1/8" = 1'-0"



A1 SOUTH
SCALE: 1/8" = 1'-0"

SF / CW LEGEND
- TYP GLAZING
- TYP SPANDREL GLASS

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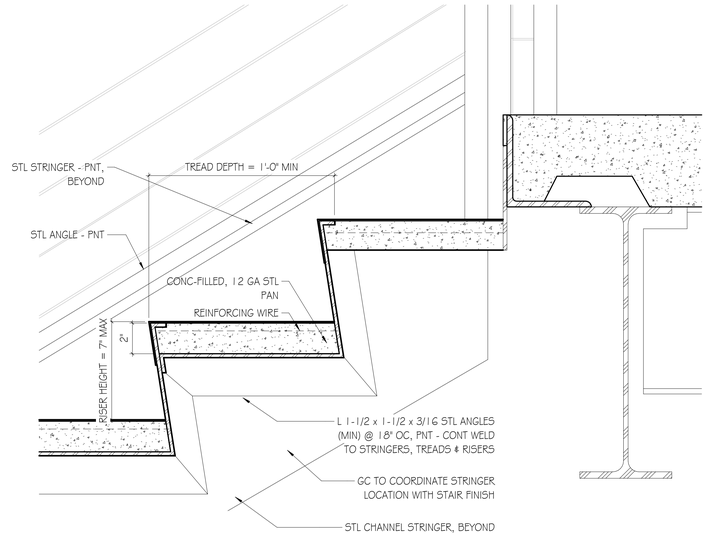
BIRMINGHAM, ALABAMA
REGISTERED ARCHITECT

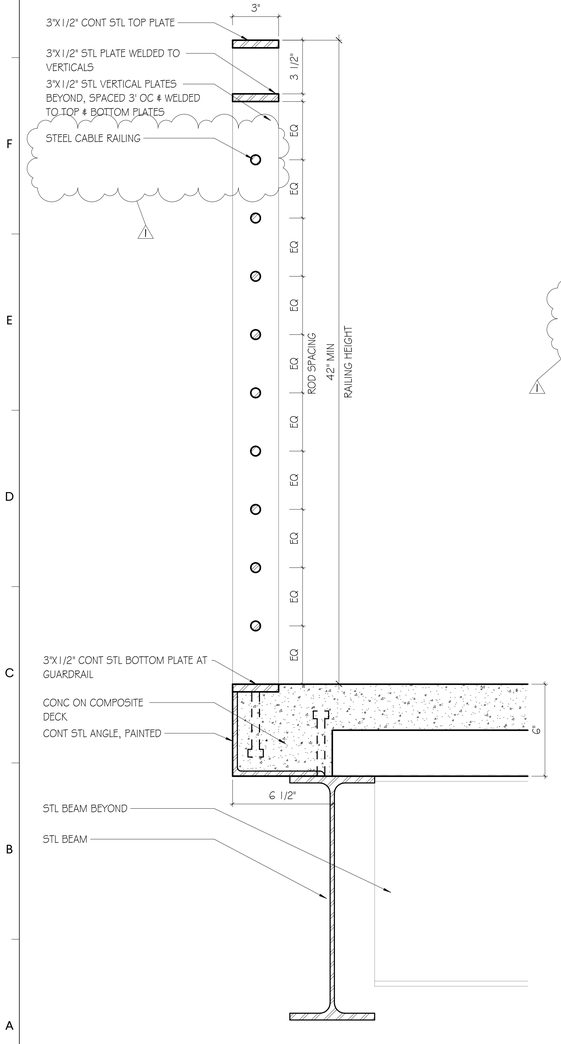
EXTERIOR ELEVATIONS

A4.01

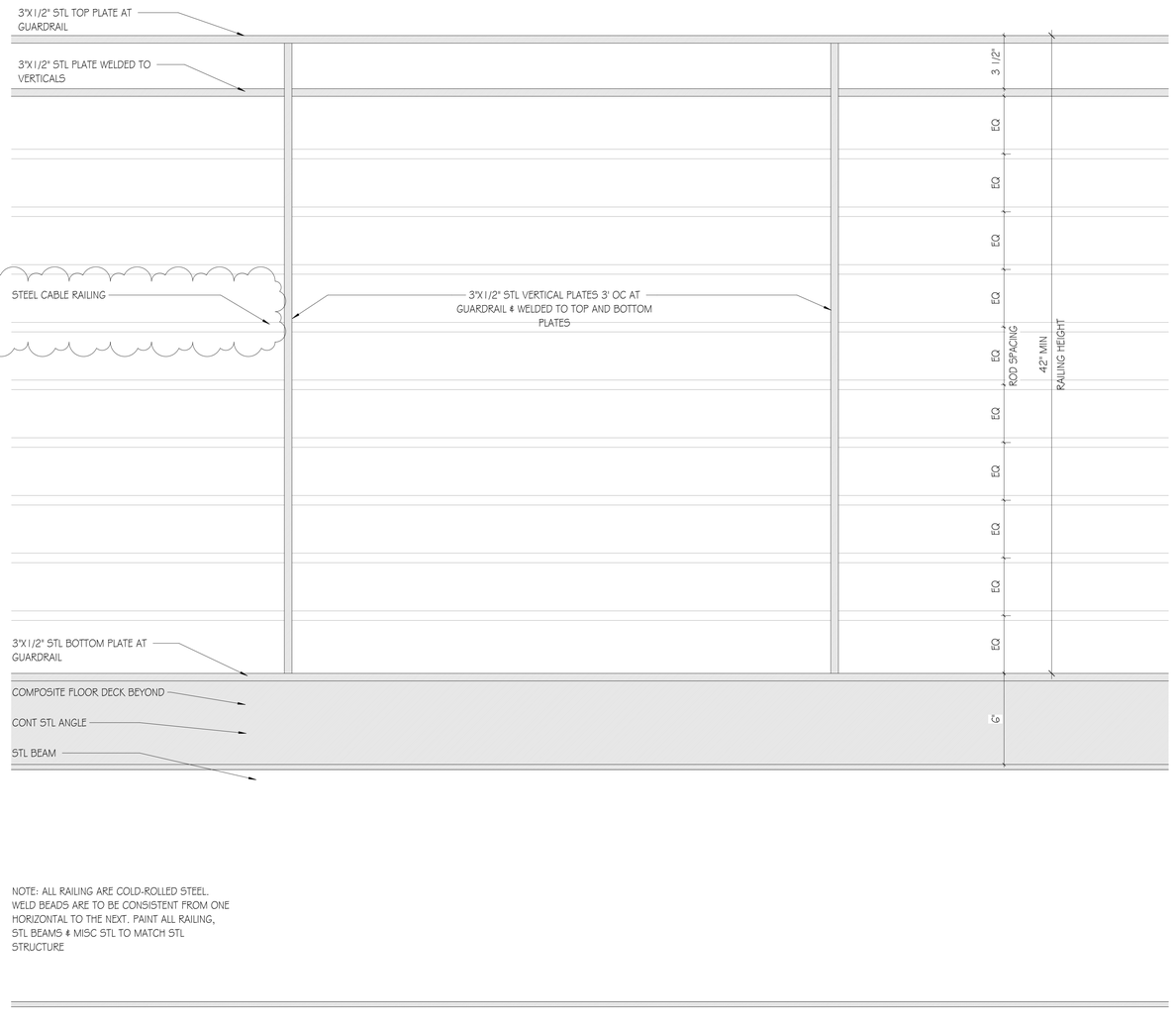
8/29/2023 7:58:44 AM TEMPLATE VERSION: 2022.1



G1 STAIR1 - LANDING TO RUN
SCALE: 3" = 1'-0"

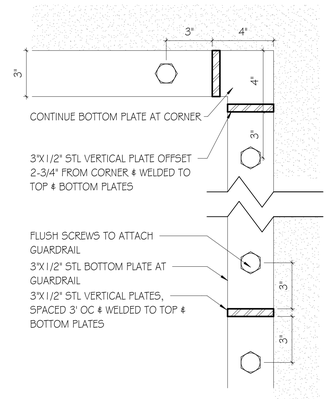


A1 GUARDRAIL SECTION - R1 & R2
SCALE: 3" = 1'-0"

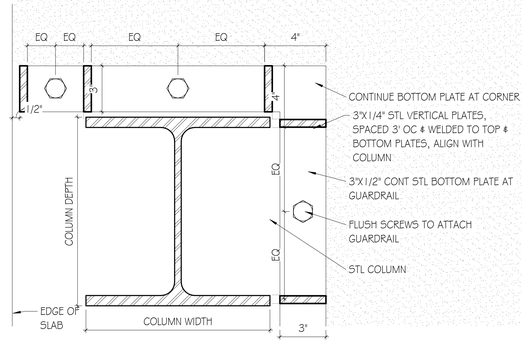


NOTE: ALL RAILING ARE COLD-ROLLED STEEL. WELD BEADS ARE TO BE CONSISTENT FROM ONE HORIZONTAL TO THE NEXT. PAINT ALL RAILING, STL BEAMS & MISC STL TO MATCH STL STRUCTURE

A4 GUARDRAIL ELEVATION - R1 & R2
SCALE: 3" = 1'-0"



C10 GUARDRAIL CORNER - R1 & R2
SCALE: 3" = 1'-0"



A10 LEVEL 2 COLUMN CORNER - R2
SCALE: 3" = 1'-0"

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STATE OF ALABAMA
2407
ROBERT W. GRAY
BIRMINGHAM, ALABAMA
REGISTERED ARCHITECT

VERTICAL CIRCULATION

A5.33

8/29/2023 7:58:44 AM TEMPLATE VERSION: 2022.1

A6.11

CW / SF LEGEND & SCHEDULE

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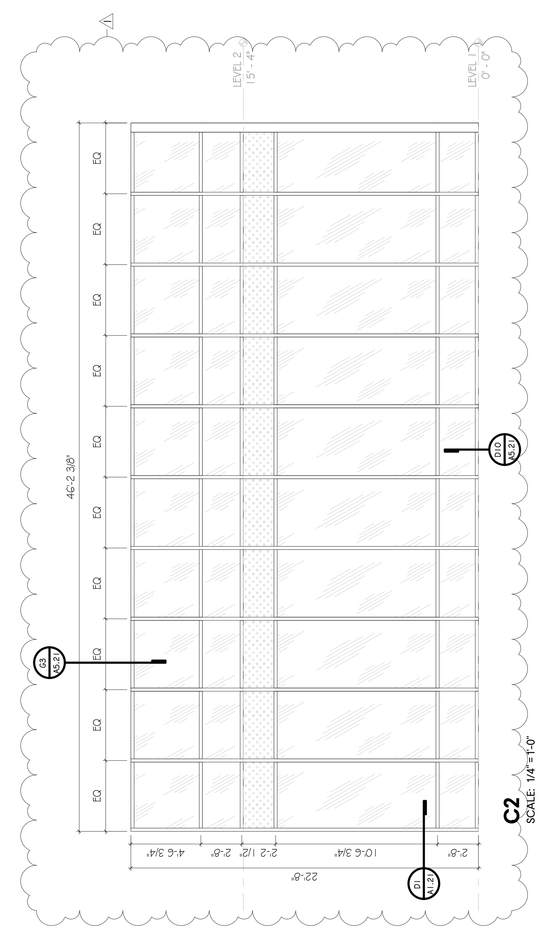
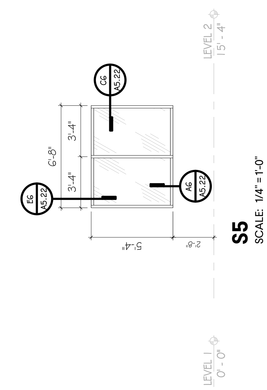
GMC

SF / CW LEGEND	
TYP GLAZING	
TYP SPANDREL GLASS	

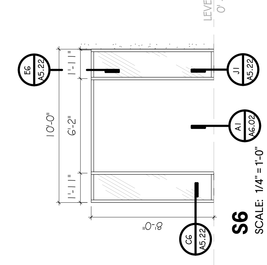


C1 SCALE: 1/4" = 1'-0"

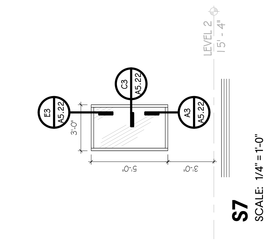
C2 SCALE: 1/4" = 1'-0"



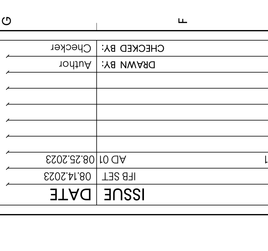
S1 SCALE: 1/4" = 1'-0"



S2 SCALE: 1/4" = 1'-0"



S3 SCALE: 1/4" = 1'-0"

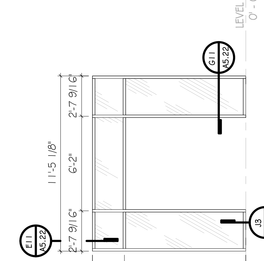


S4 SCALE: 1/4" = 1'-0"

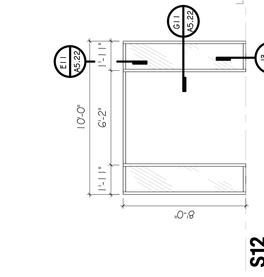
S5 SCALE: 1/4" = 1'-0"

S6 SCALE: 1/4" = 1'-0"

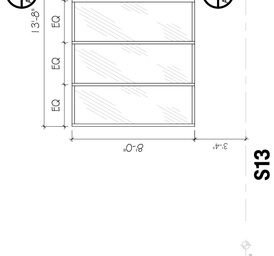
S7 SCALE: 1/4" = 1'-0"



S8 SCALE: 1/4" = 1'-0"



S9 SCALE: 1/4" = 1'-0"



S10 SCALE: 1/4" = 1'-0"

S11 SCALE: 1/4" = 1'-0"

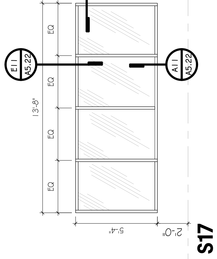
S12 SCALE: 1/4" = 1'-0"

S13 SCALE: 1/4" = 1'-0"

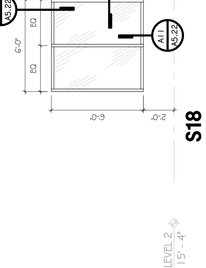
S14 SCALE: 1/4" = 1'-0"

S15 SCALE: 1/4" = 1'-0"

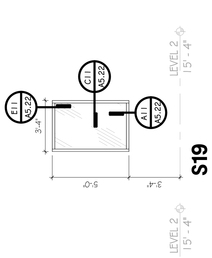
S16 SCALE: 1/4" = 1'-0"



S17 SCALE: 1/4" = 1'-0"



S18 SCALE: 1/4" = 1'-0"



S19 SCALE: 1/4" = 1'-0"

AIR HANDLING UNIT - INDOOR UNIT - STORM SHELTER

MARK	SERVES	UNIT CONFIGURATION	SUPPLY FAN			COOLING PERFORMANCE				MIN. OSA CFM	ELECT. (V/Φ/Hz)	AUX. HEAT		MCA (AMPS)	MOCP (AMPS)	NOMINAL TONS	BASIS OF DESIGN
			CFM	"W.G. E.S.P	HP	TOTAL (MBH)	SENSIBLE (MBH)	AIR ENT. °FDB	AIR ENT. °FWB			kW	STEPS				
AC-SS1	STORM SHELTER	HORIZONTAL	6000	1.5	5.0	198.4	154.7	80	67	1200	480/3/60	49.84	2	81	90	15.0	TRANE TWE180

AIR HANDLING UNIT GENERAL NOTES

1. CAPACITIES BASED ON 95°F(SUMMER), 47°F(WINTER) OUTDOOR CONDITIONS, AHRI STANDARD 210/240 RATING CONDITIONS
2. UL LISTED.
3. MAX FACE VELOCITY = 500 FPM.

ACCESSORIES

1. SINGLE POINT POWER CONNECTION WITH POWER SOURCE KIT.
2. PHASE PROTECTION.
3. 1" THICK THROWAWAY FILTERS MERV 8.
4. AUXILIARY DRAIN PAN WITH WITH FLOAT SWITCH.
5. PROVIDE FACTORY INSTALLED APR VALVE ON ALL STAGES.
6. 7-DAY PROGRAMMABLE SMART THERMOSTAT WITH WIFI CONNECTIVITY.

HEAT PUMP - OUTDOOR UNIT - STORM SHELTER

MARK	SERVES	ELECT. (V/Φ/Hz)	NOMINAL TONS	MCA (AMPS)	MOCP (AMPS)	MINIMUM IEER	MINIMUM COP	BASIS OF DESIGN TRANE
HP-SS1	AC-SS1	480/3/60	15.0	32	40	13.5	3.3	TWA180

HEAT PUMP UNIT GENERAL NOTES

1. MINIMUM UNIT ONLY SEER AT AHRI STANDARD 210/240 RATING CONDITIONS.
2. CONTRACTOR TO COORDINATE/VERIFY ELECTRICAL REQUIREMENTS WITH EQUIPMENT MANUFACTURER AND FIELD CONDITIONS PRIOR TO ORDERING.
3. REFRIGERANT: R-410A
4. UL LISTED

ACCESSORIES

1. PHASE PROTECTION
2. ISOLATION VALVES
3. BI-FLOW LIQUID LINE DRIER
4. ANTI-SHORT CYCLE TIMER
5. CRANKCASE HEATER
6. HIGH/LOW PRESSURE SWITCHES
7. LOW AMBIENT COOLING TO 0°F
8. FROSTSTAT
9. THERMAL EXPANSION VALVE
10. HAIL/VANDAL GUARDS/PANELS

LOUVER SCHEDULE - STORM SHELTER

MARK	MOUNT	SIZE	AREA SERVED	MIN. FREE AREA	MINIMUM PRESSURE DROP IN W.G.	CFM	DESIGN BASIS
IL	SIDEWALL	48X48	STORM SHELTER	25%	0.20	6000	RUSKIN XP500WD
EL	SIDEWALL	48X48	STORM SHELTER	25%	0.20	6000	RUSKIN XP500WD

NOTES:

LOUVER SHALL COMPLY WITH ICC500, FEMA 320, & FEMA 361 STANDARDS.

FANS - STORM SHELTER

MARK	SERVES	TYPE	CFM	E.S.P. (IN. WG)	MIN. WHEEL SIZE (IN.)	MOTOR HP	MOTOR V/Φ/Hz	ACCESSORIES	INTERLOCK W/	DESIGN BASIS	
SF-1	STORM SHELTER	(F)	4000	0.25	16.5	1.5	208/3/60	(5)	EMERGENCY SWITCH	LOREN COOK - 165SQN11D	NOTE TO BE CONNECTED TO EMERGENCY POWER. SEE ELECTRICAL.
EF-SS1	STORM SHELTER	(F)	150	0.2	7	0.167	115/1/60	(5)	EMERGENCY SWITCH	LOREN COOK - 70SQN17D	

FAN TYPES:

- (A) CENTRIFUGAL ROOF EXHAUSTER DIRECT DRIVE
- (B) CENTRIFUGAL ROOF EXHAUSTER BELT DRIVE
- (C) PROPELLER EXHAUST FAN DIRECT DRIVE
- (D) PROPELLER EXHAUST FAN BELT DRIVE
- (E) CENTRIFUGAL VENT SET, BELT DRIVE
- (F) IN-LINE CENTRIFUGAL DIRECT DRIVE
- (G) IN-LINE CENTRIFUGAL BELT DRIVE
- (H) CENTRIFUGAL CEILING EXHAUST FAN
- (J) PROPELLER VENTILATION FAN DIRECT DRIVE

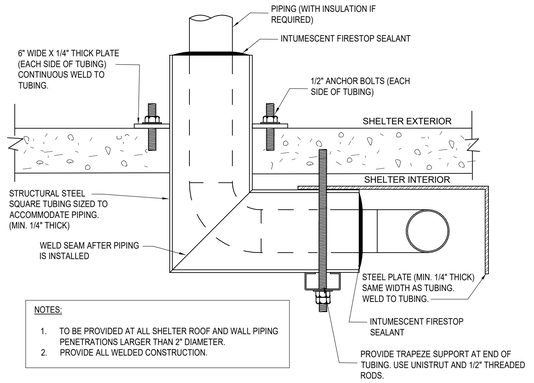
FAN ACCESSORIES:

1. BIRDSCREEN, ROOF CURB (MINIMUM 8" ABOVE INSULATION), BACKDRAFT DAMPER, DISCONNECT SWITCH, SPEED CONTROLLER.
2. MOTOR SIDE GUARD, GRAVITY SHUTTER.
3. SPRING ISOLATORS, TWO SPEED (1800/900 RPM) MOTOR, QUICK OPENING ACCESS DOOR DRAIN, GRAVITY DISCHARGE SHUTTER, MOTOR AND DRIVE WEATHER HOOD.
4. FLEXIBLE CONNECTORS, RUBBER-IN-SHEAR ISOLATORS, SOLID STATE SPEED CONTROL, DISCONNECT SWITCH AND BACKDRAFT DAMPER.
5. FLEXIBLE CONNECTORS, SPRING ISOLATORS, DISCONNECT SWITCH, AND BACKDRAFT DAMPER.
6. REMOVABLE ALUMINUM CEILING GRILLE, BACKDRAFT DAMPER, SPEED CONTROLLER, RUBBER-IN-SHEAR ISLOATORS, DISCONNECT SWITCH.
7. COMBINATION STARTER

ELECTRIC HEATERS (EH) - STORM SHELTER

MARK	QTY.	HEATING CAP. (W)	V/Φ/Hz	AMPS	SERVES	BASIS OF DESIGN
EH-1	1	2000 W	277/1/60	7.2	TLT 902	MARKEL 3420
EH-2	1	2000 W	277/1/60	7.2	TLT 903	MARKEL 3420
EH-3	1	2000 W	277/1/60	7.2	TLT 904	MARKEL 3420

ALL ELECTRICAL COMPONENTS SHALL BE WIRED TO A SINGLE POINT POWER CONNECTION. SUMMER FAN SWITCH, BUILT IN THERMOSTAT.

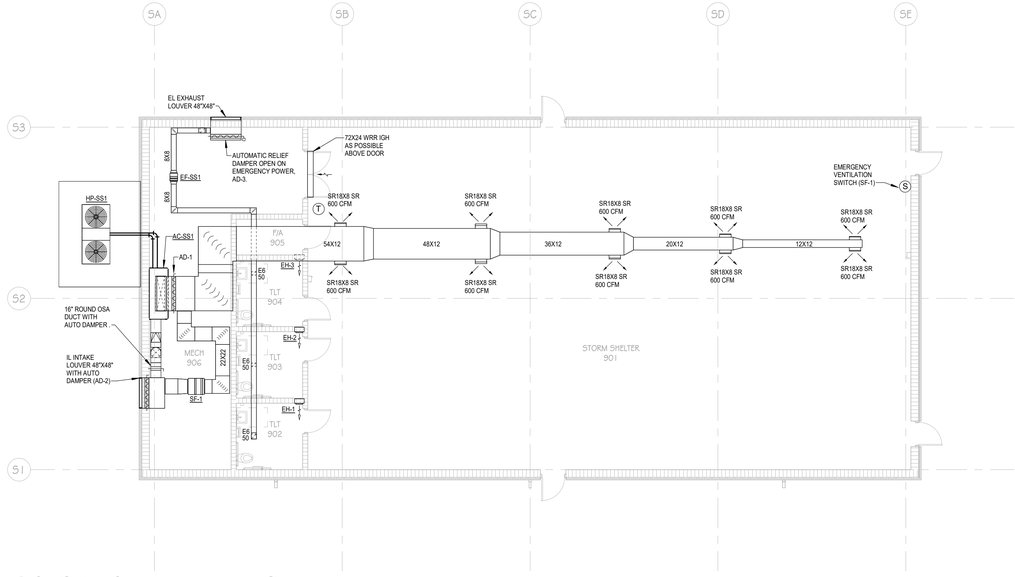


NOTES:

1. TO BE PROVIDED AT ALL SHELTER ROOF AND WALL PIPING PENETRATIONS LARGER THAN 2" DIAMETER.
2. PROVIDE ALL WELDED CONSTRUCTION.

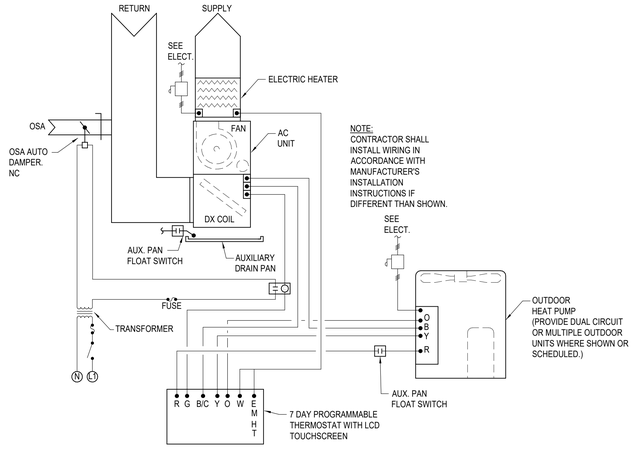
DETAIL OF PIPE PASSING THRU SHELTER WALL OR ROOF

NOT TO SCALE



1 STORM SHELTER - HVAC

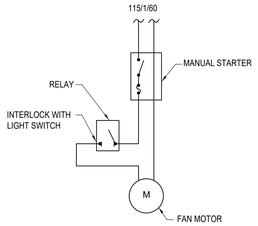
SCALE: 1/8" = 1'-0"



NOTE:
CONTRACTOR SHALL INSTALL WIRING IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS IF DIFFERENT THAN SHOWN.

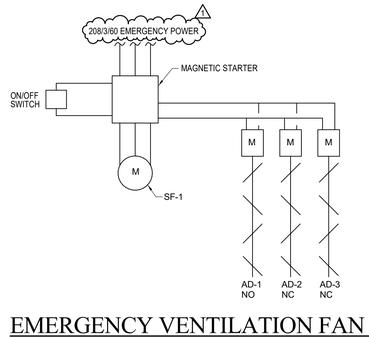
TYPICAL SPLIT SYSTEM HEAT PUMP CONTROLS DIAGRAM

NOT TO SCALE



EF-SS1 STORM SHELTER

NOT TO SCALE



EMERGENCY VENTILATION FAN SF-1

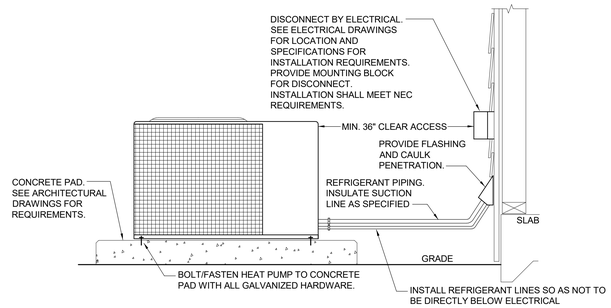
STORM SHELTER - NOT TO SCALE

WHEN SF-1 IS STARTED BY EMERGENCY VENTILATION SWITCH AUTO DAMPER AD-1 SHALL CLOSE, AUTO DAMPER AD-2 AND AUTO DAMPER AD-3 SHALL OPEN.

ON A LOSS OF NORMAL POWER TURN SWITCH "ON" FOR EMERGENCY VENTILATION

EMERGENCY SWITCH NAMEPLATE

STORM SHELTER - NOT TO SCALE



HEAT PUMP MOUNTING DETAIL

NOT TO SCALE

MW / Davis Dumas & Associates, Inc.
CONSULTING ENGINEERS
4500 Southlake Park, Suite 200
Hoover, Alabama 35244
Phone: (205) 252-0246
www.mwdda.com
Project # 222029

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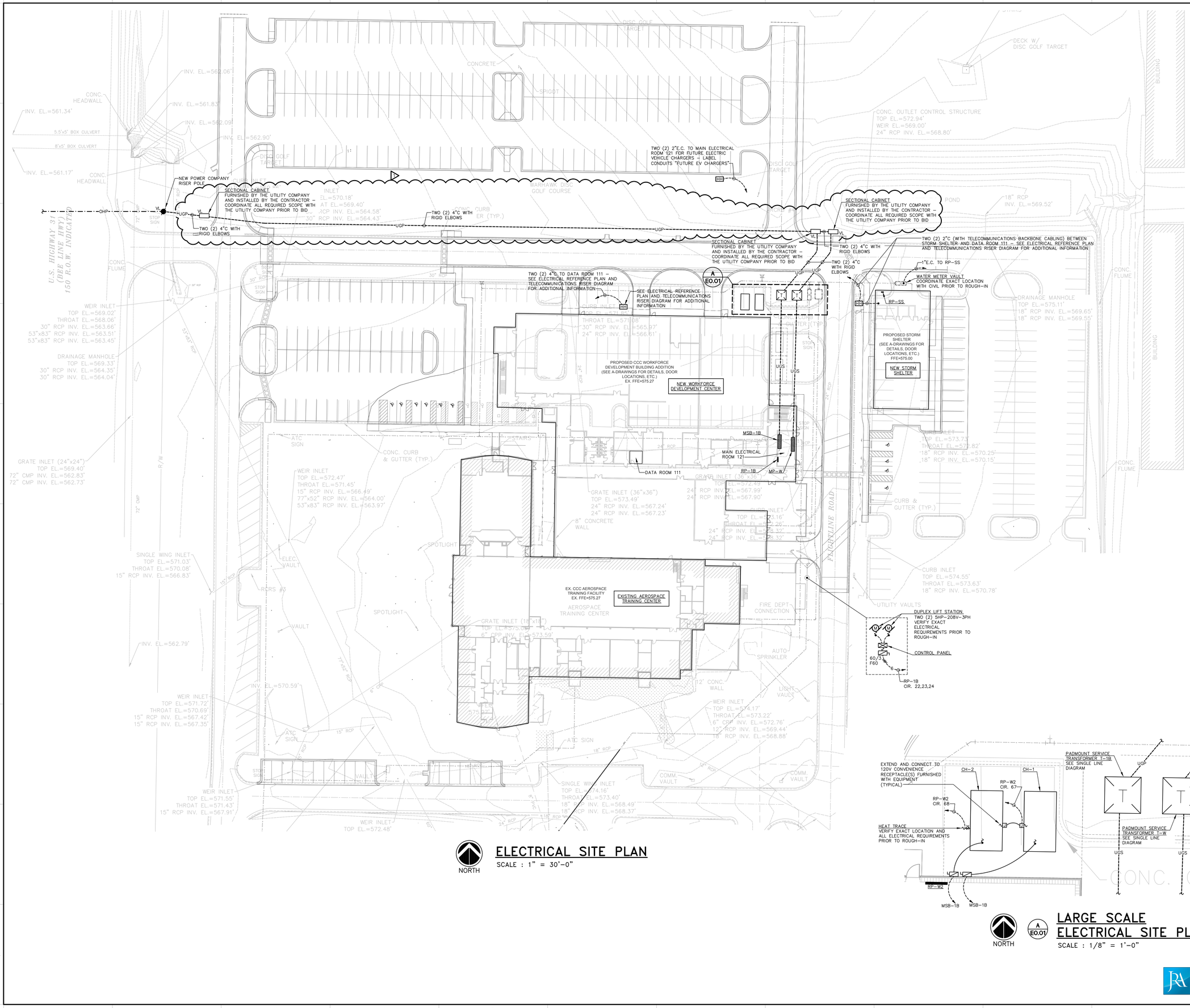
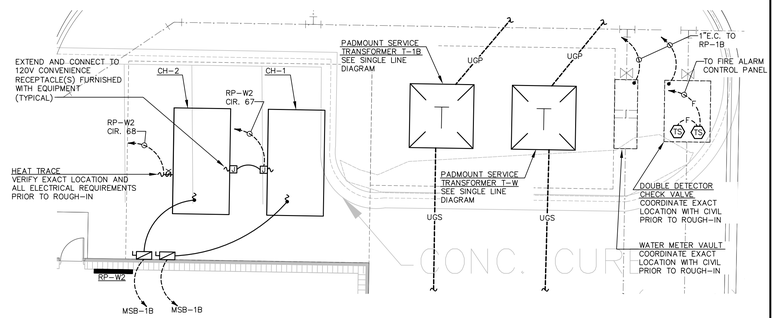
ALABAM... No. 14178 PROFESSIONAL ENGINEER JAMES S. DAVIS, JR.
8/14/2023
222029

STORM SHELTER - HVAC

M3.01

8/21/2023 9:14:58 AM TEMPLATE VERSION: 2022.1





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ALABAMA LICENSED PROFESSIONAL ENGINEER ROBERT C. RENFRO No. 24463
08/25/2023

ELECTRICAL SITE PLAN

E0.01

JACKSON, RENFRO & ASSOCIATES, INC.
ELECTRICAL ENGINEERING & DESIGN
17 INVERNESS CENTER PKWY • SUITE 320 • BIRMINGHAM, AL • 35242
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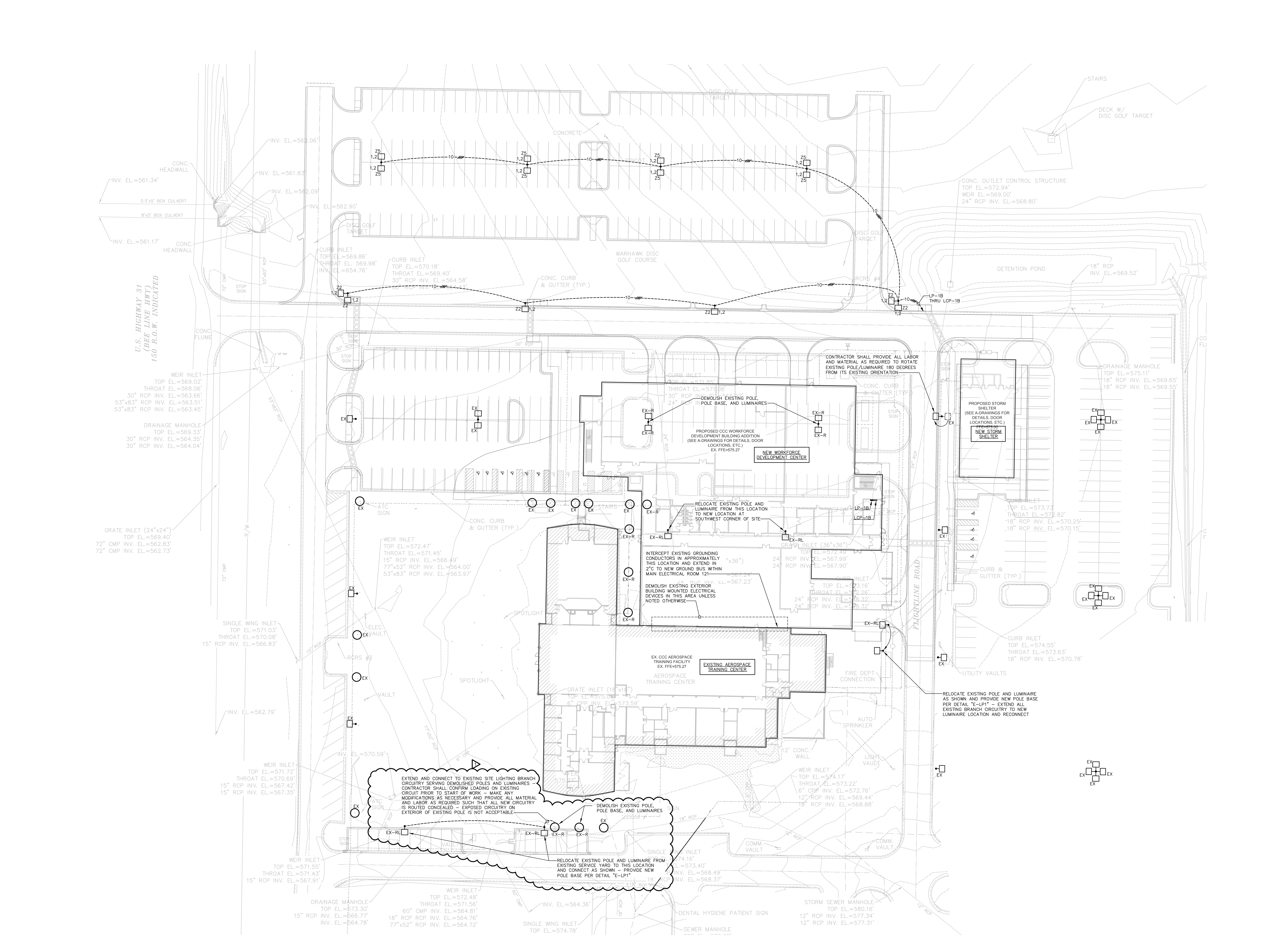
bobby@jraee.com
(O) 205.536.7114
(F) 205.995.1078
JRA JOB NO. 222141

8/24/2023 1:15:20 PM TEMPLATE VERSION: 2022.1



ELECTRICAL SITE LIGHTING PLAN

SCALE : 1" = 30'-0"

8/24/2023 1:15:44 PM TEMPLATE VERSION: 2022.1

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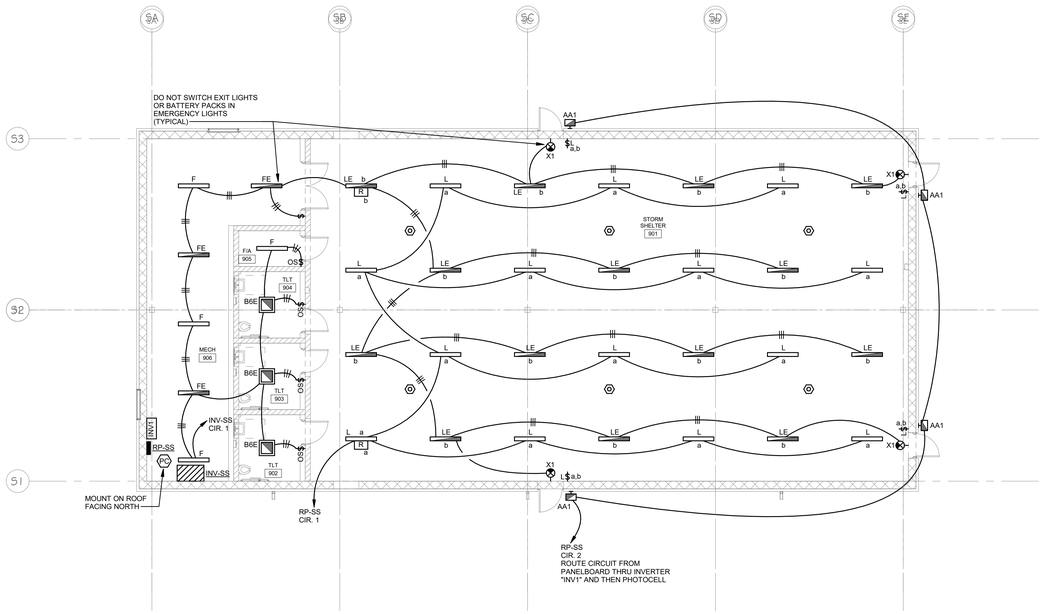
ALABAMA LICENSED PROFESSIONAL ENGINEER No. 24463 ROBERT C. RENFRO 08/25/2023

JACKSON, RENFRO & ASSOCIATES, Inc. ELECTRICAL ENGINEERING & DESIGN

ELECTRICAL SITE LIGHTING PLAN

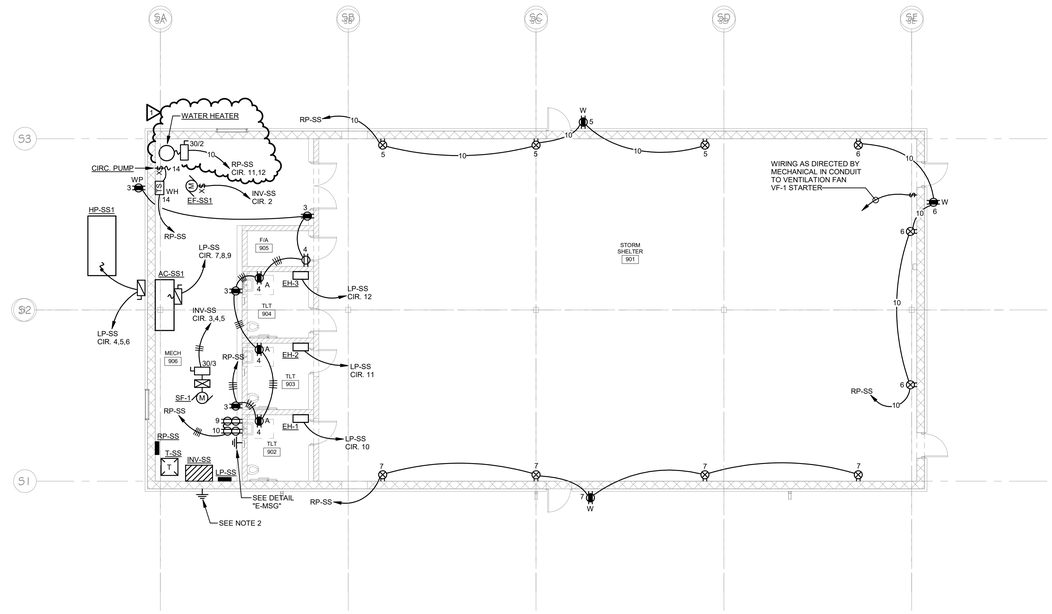
E0.02



STORM SHELTER LIGHTING PLAN

SCALE: 1/8" = 1'-0"

NORTH



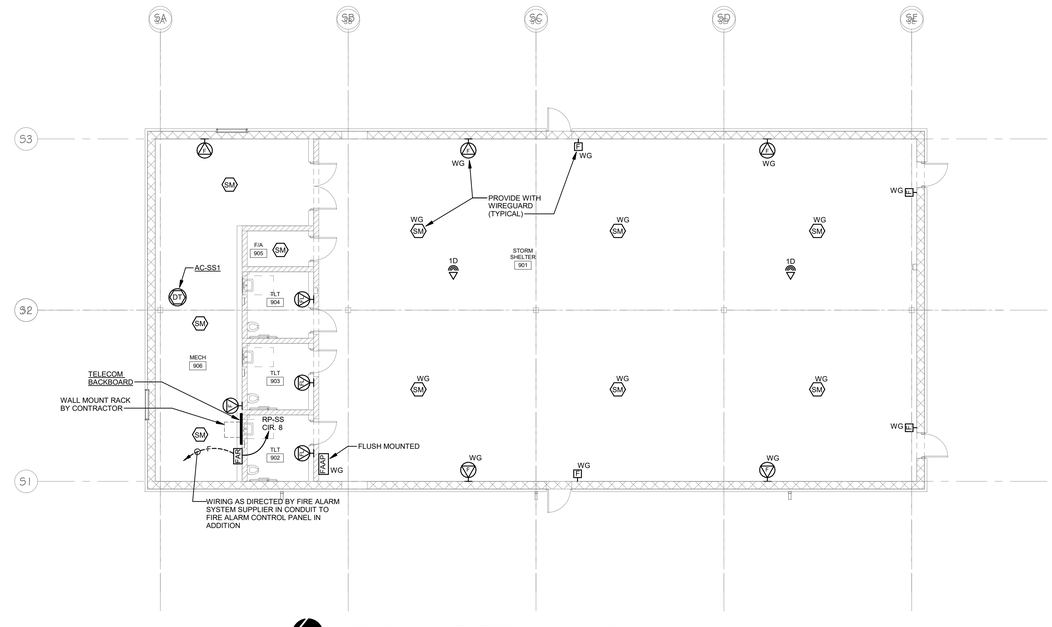
STORM SHELTER POWER PLAN

SCALE: 1/8" = 1'-0"

NORTH

NOTES THIS SHEET ONLY

1. STORM SHELTER BUILDING SHALL BE IN ACCORDANCE WITH ALL 2020 ICC-500 REQUIREMENTS. THERE SHALL BE NO ELECTRICAL PENETRATIONS OF THE STORM SHELTER ENVELOPE LARGER THAN 3.5 SQUARE INCHES (FOR RECTANGULAR PENETRATIONS) OR 2.5 INCHES IN DIAMETER (FOR CIRCULAR PENETRATIONS).
2. THE CONTRACTOR SHALL PROVIDE A COMPLETE GROUNDING ELECTRODE SYSTEM FOR THE STORM SHELTER BUILDING AS PER DETAIL "E-MSG" (EXCEPT THAT A NEUTRAL TO GROUND BOND SHALL NOT BE MADE AT THE MAIN BREAKER WITHIN PANELBOARD LP-SS). PROVIDE ALL MATERIAL AND LABOR REQUIRED TO BOND ALL GROUNDING ELECTRODES PRESENT AT THE STORM SHELTER BUILDING TOGETHER TO FORM A COMPLETE GROUNDING ELECTRODE SYSTEM. BOND THE GROUNDING ELECTRODE SYSTEM TO THE GROUND BUS WITHIN PANELBOARD LP-SS.



STORM SHELTER AUXILIARY PLAN

SCALE: 1/8" = 1'-0"

NORTH

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ELECTRICAL ENGINEERING & DESIGN
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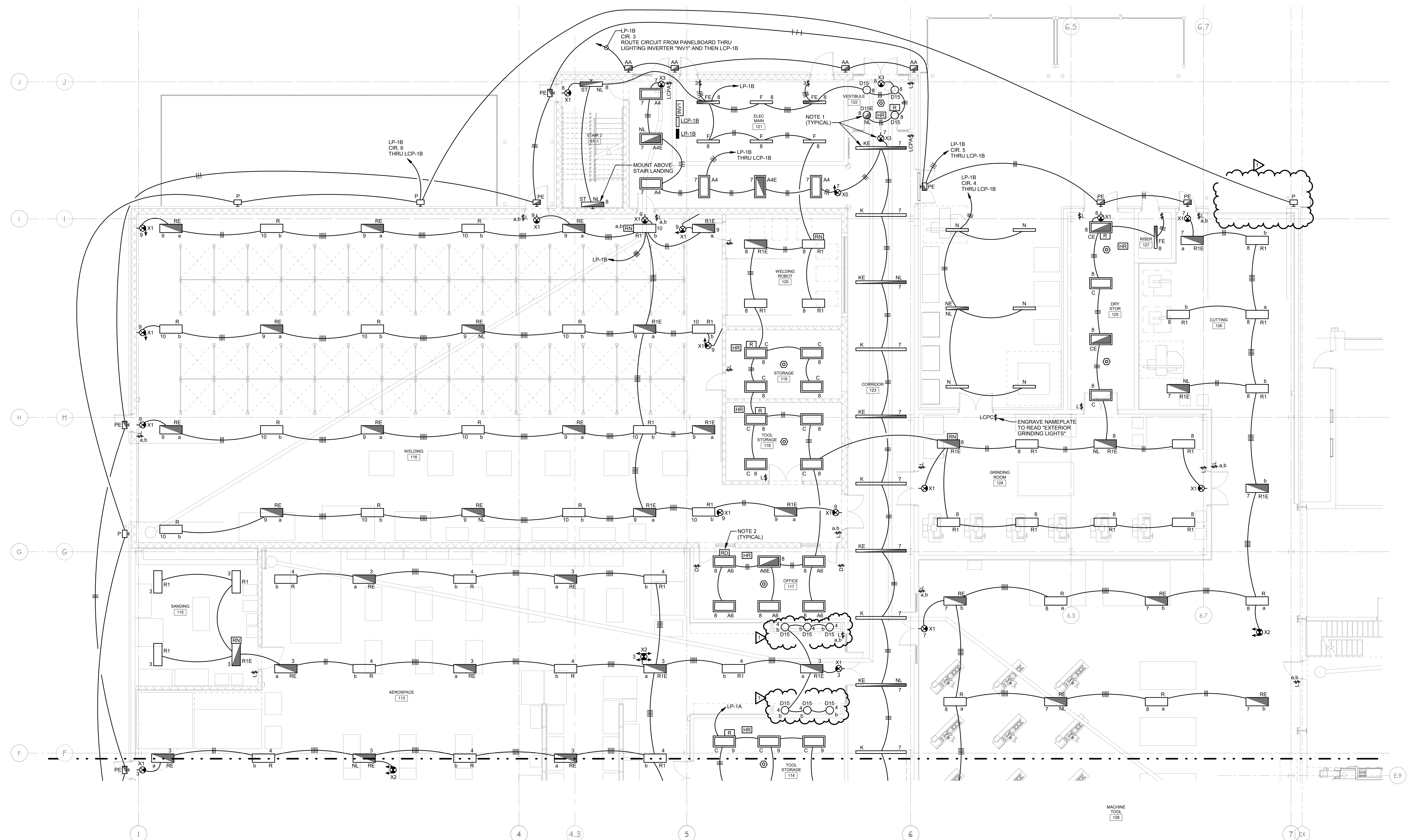
ALABAMA LICENSED PROFESSIONAL ENGINEER ROBERT C. RENFRO No. 24463
08/25/2023

STORM SHELTER
ELECTRICAL PLANS

E0.04

8/24/2023 1:34:48 PM TEMPLATE VERSION: 2022.1



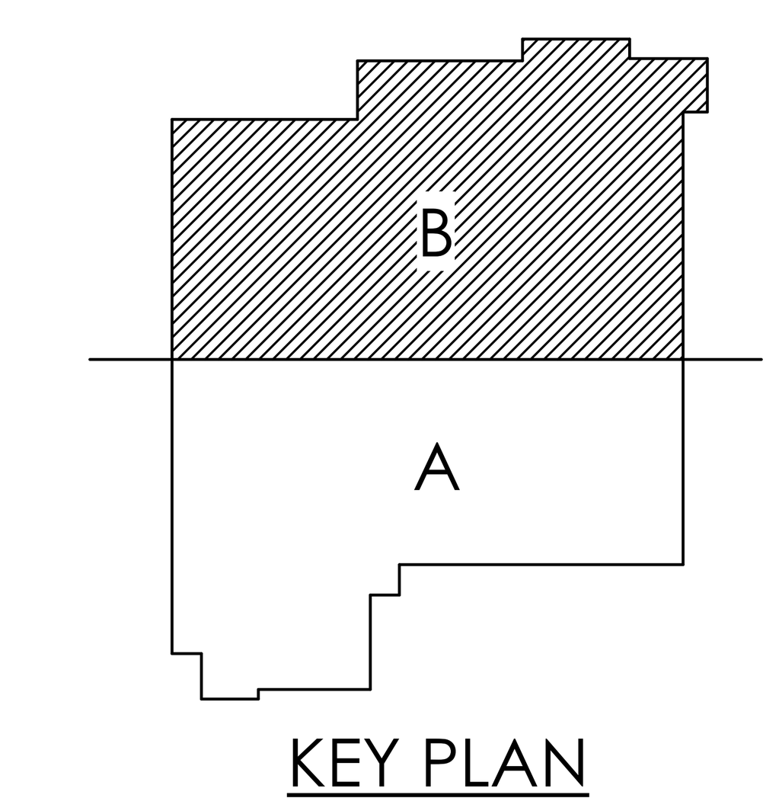
LEVEL 1 LIGHTING PLAN - PART B

SCALE: 1/8" = 1'-0"

NORTH

NOTES THIS SHEET ONLY

1. DO NOT SWITCH NIGHT LIGHTS, EXIT LIGHTS, OR BATTERY PACKS IN EMERGENCY LIGHTING FIXTURES (TYPICAL).
2. PROVIDE ALL LOW VOLTAGE CABLING AS REQUIRED FOR DIMMING CONTROL OF ALL 0-10V DIMMED LIGHTING FIXTURES. TYPICAL FOR ALL DIMMING ROOM CONTROLLERS.



KEY PLAN

JACKSON, RENFRO & ASSOCIATES, INC.
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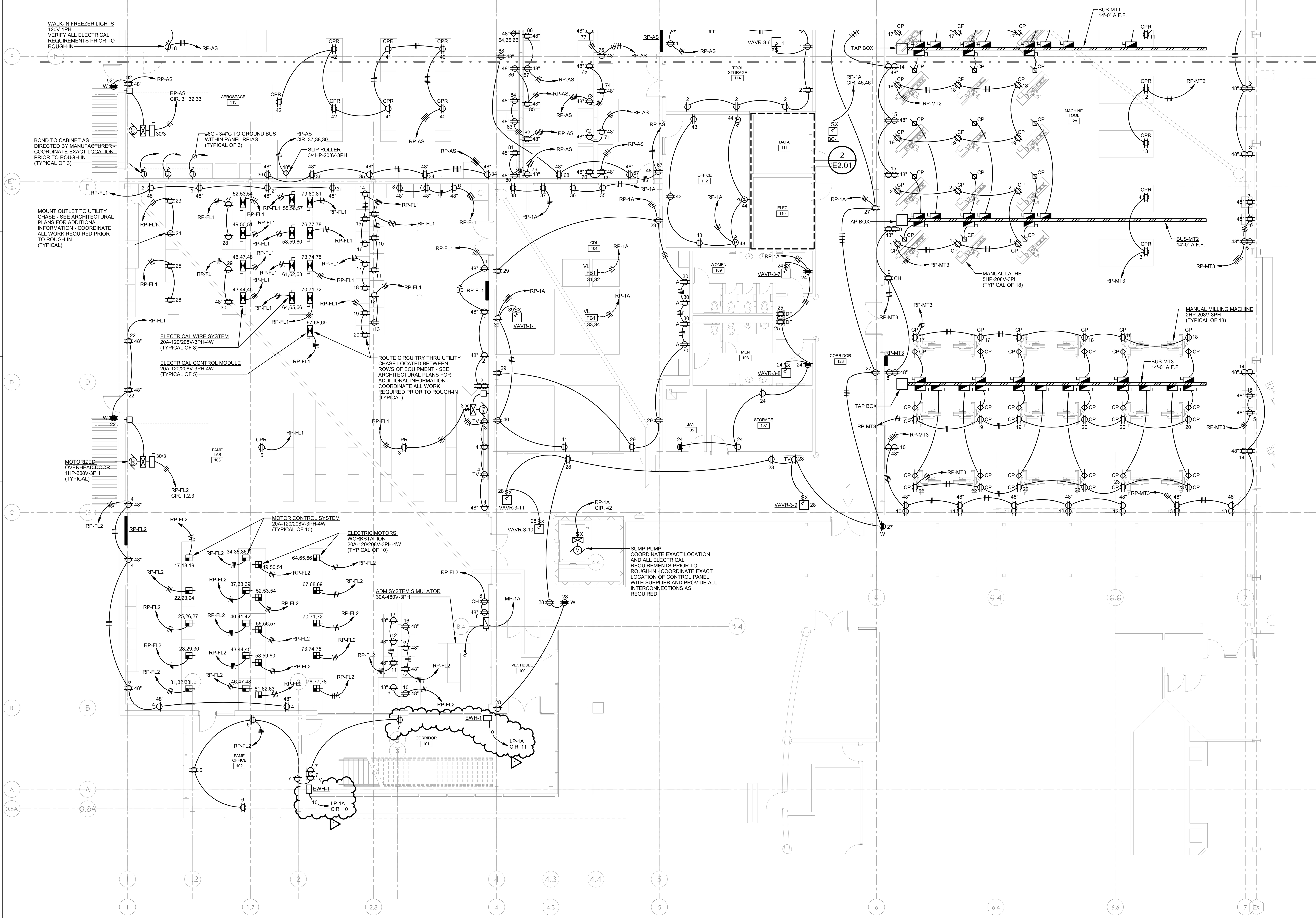
ALABAMA LICENSED No. 24463 PROFESSIONAL ENGINEER ROBERT C. RENFRO 08/25/2023

LEVEL 1 LIGHTING PLAN - PART B

E1.02

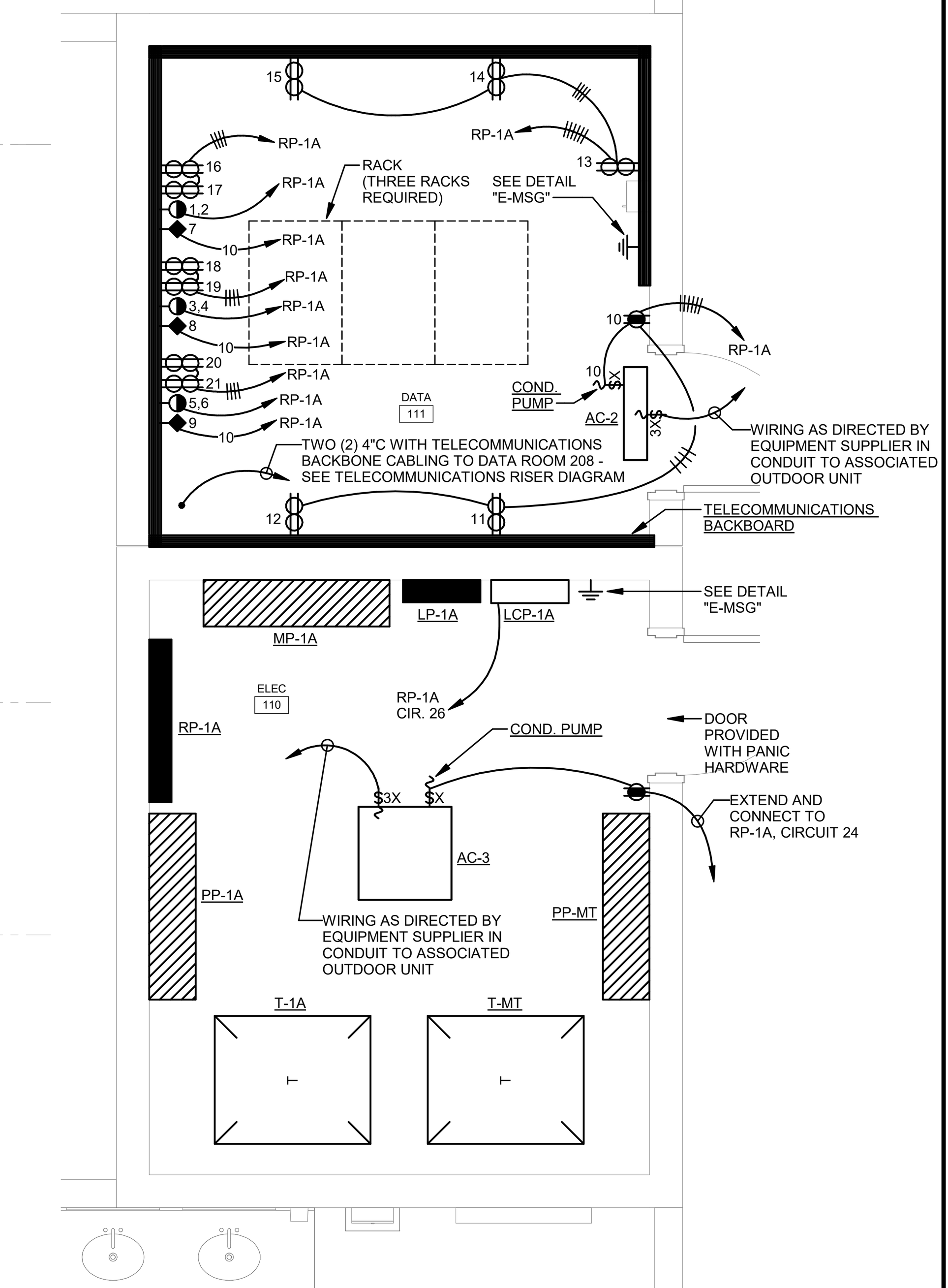
8/24/2023 1:34:53 PM TEMPLATE VERSION: 2022.1



LEVEL 1 POWER PLAN - PART A

SCALE: 1/8" = 1'-0"

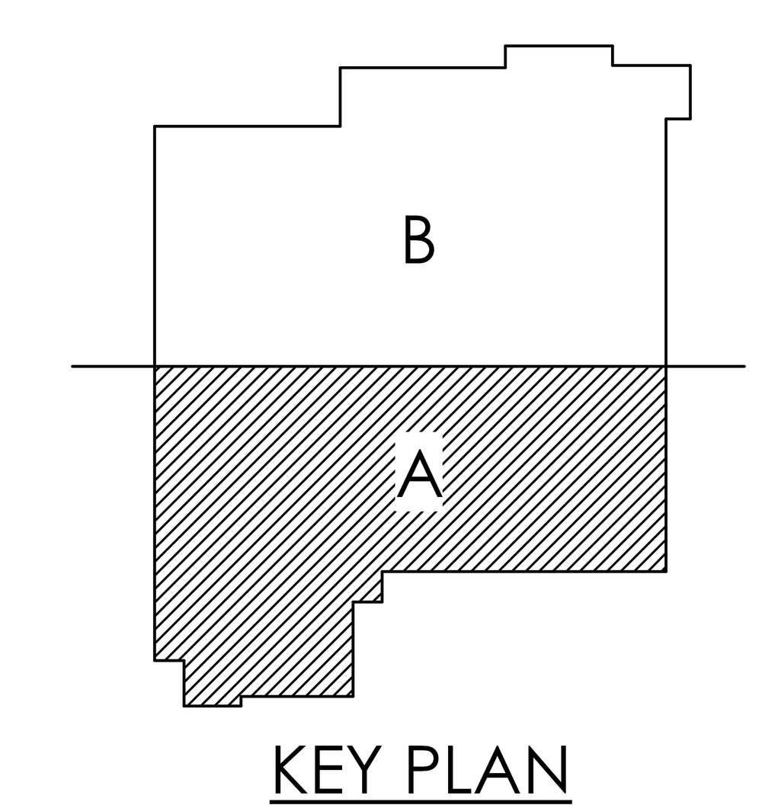
NORTH



2 E2.01 DATA 111 & ELECTRICAL 110 LARGE SCALE PLAN

SCALE: 3/8" = 1'-0"

NOTES THIS SHEET ONLY
1. ALL OUTLETS INSTALLED IN CORRUGATED METAL WALL PANELS SHALL BE PROVIDED WITH A TRIM AROUND THE FACEPLATE. REFER TO ARCHITECTURAL PLANS FOR WALL LOCATIONS WITH CORRUGATED METAL WALL PANELS AND ARCHITECTURAL DETAILS FOR ADDITIONAL INFORMATION ON REQUIRED TRIM.



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STATE OF ALABAMA LICENSED PROFESSIONAL ENGINEER No. 24463 ROBERT C. RENFRO 08/25/2023

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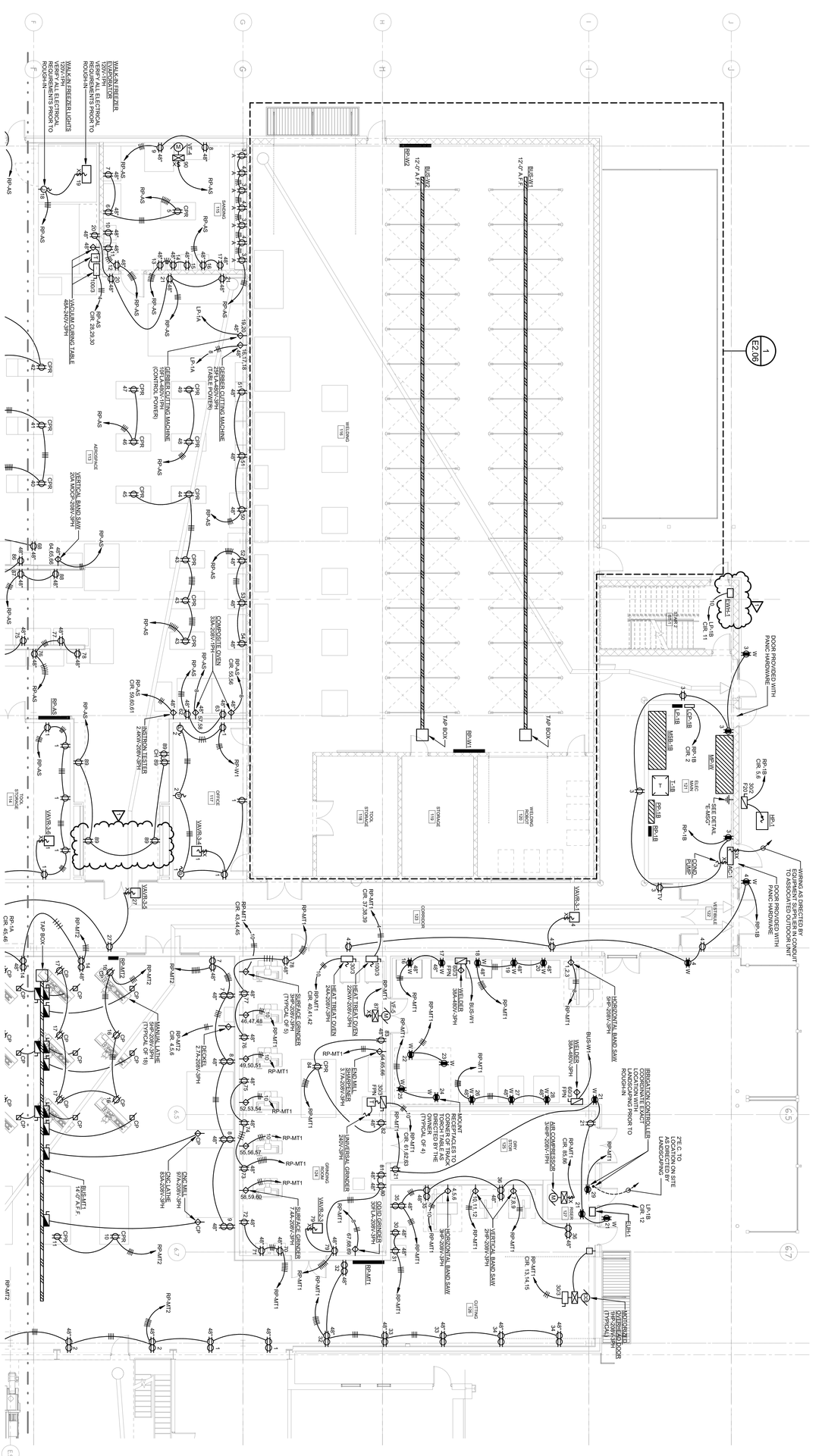
LEVEL 1 POWER PLAN - PART A

E2.01

8/24/2023 1:35:01 PM TEMPLATE VERSION: 2022.1



LEVEL 1 POWER PLAN - PART B

SCALE: 1/8" = 1'-0"

NORTH

NOTES THIS SHEET ONLY

1. ALL OUTLETS INSTALLED IN CORRUGATED METAL WALL PANELS SHALL BE PROVIDED WITH A TRIM AROUND THE FACEPLATE. REFER TO ARCHITECTURAL PLANS FOR WALL LOCATIONS WITH CORRUGATED METAL WALL PANELS AND ARCHITECTURAL DETAILS FOR ADDITIONAL INFORMATION ON REQUIRED TRIM.

KEY PLAN

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CALHOUN COMMUNITY COLLEGE WORKFORCE SKILLS TRAINING CENTER

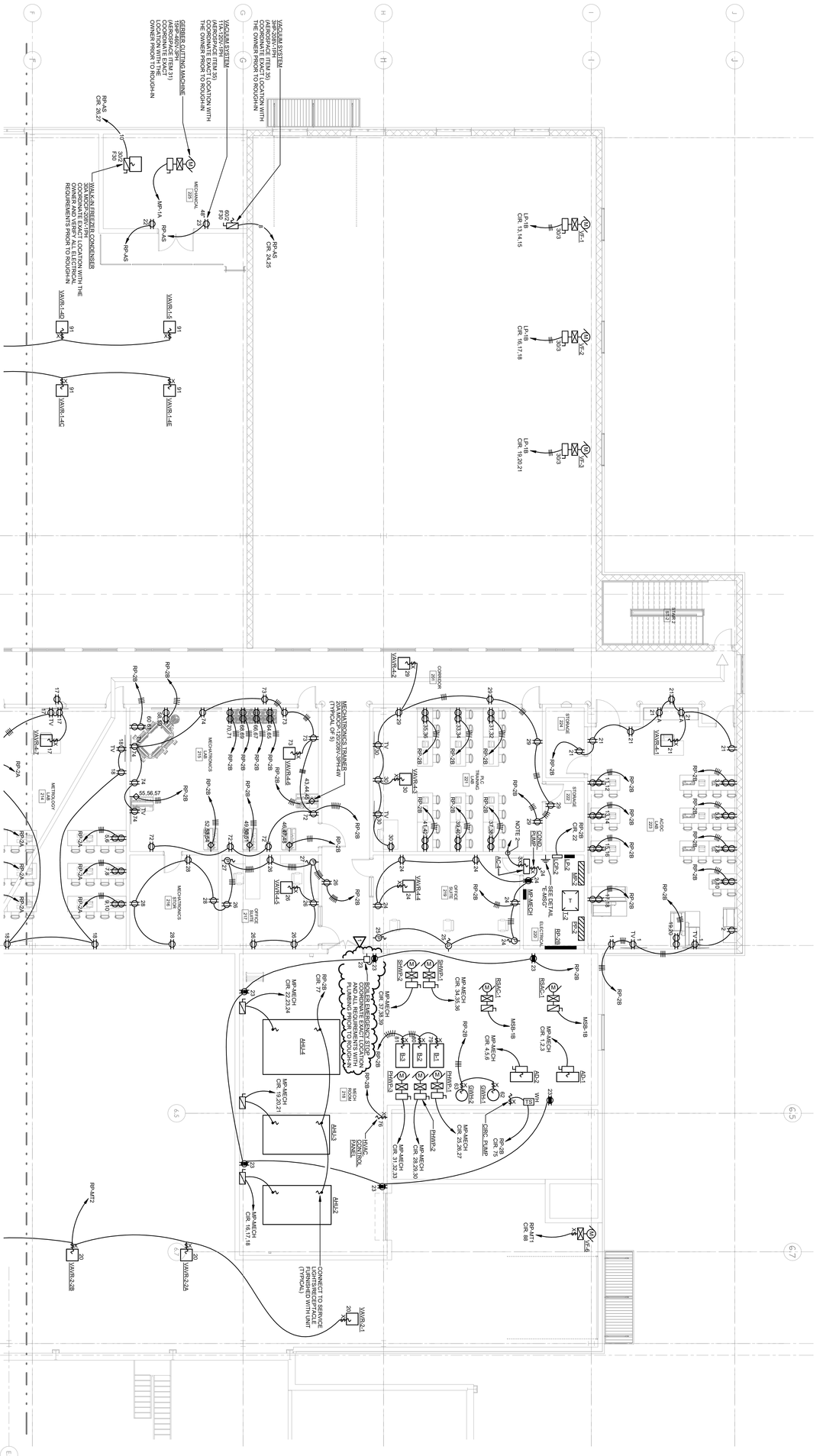
GMC ABHM210048

No. 24463
ROBERT C. RENFRO
08/25/2023

LEVEL 1 POWER PLAN - PART B

E2.02

8/24/2023 1:35:06 PM TEMPLATE VERSION: 2022.1



LEVEL 2 - POWER PLAN - PART B

SCALE: 1/8" = 1'-0"

NORTH

NOTES THIS SHEET ONLY

1. ALL OUTLETS INSTALLED IN CORRUGATED METAL WALL PANELS SHALL BE PROVIDED WITH A TRIM AROUND THE FACEPLATE. REFER TO ARCHITECTURAL PLANS FOR WALL LOCATIONS WITH CORRUGATED METAL WALL PANELS AND ARCHITECTURAL DETAILS FOR ADDITIONAL INFORMATION ON REQUIRED TRIM.
2. WIRING AS DIRECTED BY EQUIPMENT SUPPLIER IN CONDUIT TO ASSOCIATED OUTDOOR UNIT.

KEY PLAN

Jackson,
Renfro
& Associates, Inc.
ELECTRICAL ENGINEERING & DESIGN
31 INVERNESS CENTER PKWY • SUITE 300 • BIRMINGHAM, AL • 35242

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ISSUE	DATE
IFB SET	08.14.2023
AD 01	08.25.2023

1

DRAWN BY: KRR
CHECKED BY: RCR

CALHOUN COMMUNITY COLLEGE WORKFORCE SKILLS TRAINING CENTER

GMC ABHM210048

No. 24463
ROBERT C. RENFRO
08/25/2023

LEVEL 2 POWER PLAN - PART B

E2.04

TEMPLATE VERSION: 2022.1
8/24/2023 1:35:11 PM

EQUIPMENT SCHEDULE - BUS-W1

PANEL TYPE:	SQUARE 'D' I-LINE PLUG-IN BUSWAY						AIC RATING:	42KAIC (MINIMUM)	
VOLTAGE:	277/480V-3P-4W						MOUNTING:	SUSPENDED AT 12'-0" A.F.F.	
AMPS & TYPE:	800 AMP - MLO						LOCATION:	WELDING	
FED FROM:	MP-W						FEEDER:	SEE PANELBOARD SCHEDULE - MP-W	

CIR. NO.	DESCRIPTION	VOLTS	P	HP	KW OR KVA	AMPS	FUSIBLE BUS PLUG RATING	WIRE AND COND. SIZE	REMARKS
1	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
2	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
3	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
4	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
5	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
6	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
7	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
8	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
9	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
10	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
11	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
12	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
13	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
14	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
15	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
16	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
17	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
18	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
19	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
20	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
21	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
22	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
23	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
24	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
25	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
26	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
27	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
28	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
29	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
30	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
31	WELDER (FLOOR)	460	3			38.0	60/3 - F60	3#6 & 1#10G - 1"C	
32	WELDER (FLOOR)	460	3			38.0	60/3 - F60	3#6 & 1#10G - 1"C	
33	WELDER (EXTERIOR GRINDING)	460	3			38.0	60/3 - F60	3#6 & 1#10G - 1"C	
34	WELDER (EXTERIOR GRINDING)	460	3			38.0	60/3 - F60	3#6 & 1#10G - 1"C	
35	WELDER (ROBOT ROOM)	460	3			38.0	60/3 - F60	3#6 & 1#10G - 1"C	
36	WELDER (ROBOT ROOM)	460	3			38.0	60/3 - F60	3#6 & 1#10G - 1"C	
37							-		
38							-		
39							-		
40							-		

TOTAL CONNECTED LOAD:	614.4 KVA	
	768.0 AMPS	
TOTAL DEMAND LOAD:	430.1 KVA	
	537.6 AMPS	
TOTAL COMPUTED LOAD:	430.1 KVA	
	537.6 AMPS	

NOTES:
1. BUSWAY SHALL BE COPPER WITH INTEGRAL GROUND BUS.

EQUIPMENT SCHEDULE - BUS-W2

PANEL TYPE:	SQUARE 'D' I-LINE PLUG-IN BUSWAY						AIC RATING:	42KAIC (MINIMUM)	
VOLTAGE:	277/480V-3P-4W						MOUNTING:	SUSPENDED AT 12'-0" A.F.F.	
AMPS & TYPE:	800 AMP - MLO						LOCATION:	WELDING	
FED FROM:	MP-W						FEEDER:	SEE PANELBOARD SCHEDULE - MP-W	

CIR. NO.	DESCRIPTION	VOLTS	P	HP	KW OR KVA	AMPS	FUSIBLE BUS PLUG RATING	WIRE AND COND. SIZE	REMARKS
1	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
2	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
3	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
4	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
5	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
6	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
7	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
8	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
9	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
10	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
11	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
12	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
13	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
14	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
15	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
16	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
17	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
18	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
19	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
20	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
21	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
22	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
23	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
24	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
25	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
26	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
27	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
28	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
29	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
30	WELDER (BOOTH)	480	3			18.0	30/3 - F30	3#10 & 1#10G - 3/4"C	
31	WELDER (FLOOR)	460	3			38.0	60/3 - F60	3#6 & 1#10G - 1"C	
32	WELDER (FLOOR)	460	3			38.0	60/3 - F60	3#6 & 1#10G - 1"C	
33	WELDER (FLOOR)	460	3			38.0	60/3 - F60	3#6 & 1#10G - 1"C	
34	PLASMA TABLE	460	3			29.0	60/3 - F40	3#8 & 1#10G - 1"C	
35	PLASMA TORCH	460	3			9.0	30/3 - F15	3#12 & 1#12G - 3/4"C	
36							-		
37							-		
38							-		
39							-		
40							-		

TOTAL CONNECTED LOAD:	553.6 KVA	
	692.0 AMPS	
TOTAL DEMAND LOAD:	387.5 KVA	
	484.4 AMPS	
TOTAL COMPUTED LOAD:	387.5 KVA	
	484.4 AMPS	

NOTES:
1. BUSWAY SHALL BE COPPER WITH INTEGRAL GROUND BUS.

PANELBOARD SCHEDULE - MP-W

PANEL TYPE:	SQUARE 'D' SWITCHBOARD						AIC RATING:	50KAIC (MINIMUM)	
VOLTAGE:	277/480V-3P-4W						MOUNTING:	SURFACE	
AMPS & TYPE:	1600/3 MAIN BKR (SEE NOTES 4 & 5)						LOCATION:	MAIN ELECTRICAL ROOM	
FED FROM:	UTILITY						FEEDER:	5 SETS OF 4-400MCM - 3 1/2"C	

CIR. NO.	DESCRIPTION	VOLTS	P	HP	KW OR KVA	AMPS	BKR SIZE	LOCAL SAFETY SW. RATING	WIRE AND COND. SIZE	REMARKS
1	BUS-W1	277/480	3		430.1		800/3	-	3 SETS OF 4-300MCM & 1#1/0G - 3"C	
2	BUS-W2	277/480	3		387.5		800/3	-	3 SETS OF 4-300MCM & 1#1/0G - 3"C	
3	SPACE	277/480	3				-/3			400/3 SPACE
4	SPACE	277/480	3				-/3			400/3 SPACE
5	SPACE	277/480	3				-/3			400/3 SPACE
6	SPACE	277/480	3				-/3			250/3 SPACE
7	SPACE	277/480	3				-/3			250/3 SPACE
8	SPACE	277/480	3				-/3			250/3 SPACE
9	SPACE	277/480	3				-/3	-		250/3 SPACE
10	SPACE	277/480	3				-/3	-		250/3 SPACE
11	SPACE	277/480	3				-/3	-		250/3 SPACE
12	SPACE	277/480	3				-/3	-		250/3 SPACE

TOTAL CONNECTED LOAD:	1,168.0 KVA	
	1,460.0 AMPS	
TOTAL DEMAND LOAD:	817.6 KVA	
	1,022.0 AMPS	
TOTAL COMPUTED LOAD:	817.6 KVA	
	1,022.0 AMPS	

NOTES:
1. EQUIPMENT SHALL BE SERVICE-ENTRANCE RATED.
2. SWITCHBOARD SHALL BE FRONT-ACCESSIBLE ONLY
3. PROVIDE INTEGRAL 240KA (PER PHASE) SURGE PROTECTION DEVICE.
4. PROVIDE ARC-FLASH ENERGY REDUCTION MAINTENANCE SWITCH (TO ADJUST BREAKER TRIP SETTINGS TO LOWER LEVELS WHEN SWITCH IS IN "MAINTENANCE MODE") PER NEC 2020 ARTICLE 240.87 REQUIREMENTS.
5. MAIN BREAKER SHALL BE GROUND-FAULT TYPE

PANELBOARD SCHEDULE - MSB-1B

PANEL TYPE:	SQUARE 'D' SWITCHBOARD						AIC RATING:	65KAIC (MINIMUM)	
VOLTAGE:	277/480V-3P-4W						MOUNTING:	SURFACE	
AMPS & TYPE:	2500/3 MAIN BKR (SEE NOTES 4 & 5)						LOCATION:	MAIN ELECTRICAL ROOM	
FED FROM:	UTILITY						FEEDER:	7 SETS OF 4-500MCM - 3 1/2"C	

CIR. NO.	DESCRIPTION	VOLTS	P	HP	KW OR KVA	AMPS	BKR SIZE	LOCAL SAFETY SW. RATING	WIRE AND COND. SIZE	REMARKS
1	MP-2	277/480	3		300.3		600/3	-	2 SETS OF 4-350MCM & 1#1G - 3"C	
2	LP-1B	277/480	3		37.9		100/3	-	4#3 & 1#8G - 1 1/2"C	
3	PP-1B (225 KVA X-FORMER)	480	3		98.1		400/3	-	2 SETS OF 3#3/0 & 1#3G - 2"C	
4	MP-1A	277/480	3		544.7		1000/3	-	3 SETS OF 4-400MCM & 1#2/0G - 3 1/2"C	
5	RSAC-1	480	3	75			225/3	400/3 - F150	3#2/0 & 1#4G - 2"C	
6	RSAC-2	480	3	75			225/3	400/3 - F150	3#2/0 & 1#4G - 2"C	
7	CH-1	480	3			205.0	300/3	400/3 - F300	3-350MCM & 1#4G - 3"C	
8	CH-2	480	3			205.0	300/3	400/3 - F300	3-350MCM & 1#4G - 3"C	
9	LP-SS	277/480	3		118.6		225/3	-	4#4/0 & 1#4G - 2 1/2"C	
10	WELDING EXHAUST SYSTEM	480	3	60			175/3	200/3 - F125	3#1 & 1#4G - 1 1/2"C	
11	WELDING EXHAUST SYSTEM	480	3	60			175/3	200/3 - F125	3#1 & 1#4G - 1 1/2"C	
12	SPACE	277/480	3				-/3	-		400/3 SPACE
13	SPACE	277/480	3				-/3	-		400/3 SPACE
14	SPACE	277/480	3				-/3	-		400/3 SPACE
15	SPACE	277/480	3				-/3	-		400/3 SPACE
16	SPACE	277/480	3				-/3	-		250/3 SPACE
17	SPACE	277/480	3				-/3	-		250/3 SPACE
18	SPACE	277/480	3				-/3	-		250/3 SPACE
19	SPACE	277/480	3				-/3	-		250/3 SPACE
20	SPACE	277/480	3				-/3	-		250/3 SPACE
21	SPACE	277/480	3				-/3	-		250/3 SPACE

TOTAL CONNECTED LOAD:	2,119.2 KVA	
	2,649.0 AMPS	
TOTAL DEMAND LOAD:	1737.5 KVA	
	2,171.8 AMPS	
TOTAL COMPUTED LOAD:	1768.2 KVA	
	2,210.2 AMPS	

NOTES:
1. EQUIPMENT SHALL BE SERVICE-ENTRANCE RATED.
2. SWITCHBOARD SHALL BE FRONT-ACCESSIBLE ONLY
3. PROVIDE INTEGRAL 240KA (PER PHASE) SURGE PROTECTION DEVICE.
4. PROVIDE ARC-FLASH ENERGY REDUCTION MAINTENANCE SWITCH (TO ADJUST BREAKER TRIP SETTINGS TO LOWER LEVELS WHEN SWITCH IS IN "MAINTENANCE MODE") PER NEC 2014 ARTICLE 240.87 REQUIREMENTS.
5. MAIN BREAKER SHALL BE GROUND-FAULT TYPE

PANELBOARD SCHEDULE - LP-1B

PANEL TYPE:	SQUARE 'D' TYPE NF						AIC RATING:	65KAIC (MINIMUM)	
VOLTAGE:	277/480V-3P-4W						MOUNTING:	SURFACE	
AMPS & TYPE:	100 AMP - MLO						LOCATION:	MAIN ELECTRICAL ROOM	
FED FROM:	MSB-1B						FEEDER:	SEE PANELBOARD SCHEDULE - MSB-1B	

CKT. NO.	NOTES	BKR	DESCRIPTION	WATTS	PHASE	WATTS	DESCRIPTION	BKR	NOTES	CKT NO.
1	LCP	20/1	PARKING LOT LIGHTING	1,250	A		SPARE	20/1	-	22
2	LCP	20/1	PARKING LOT LIGHTING	1,250	B		SPARE	20/1	-	23
3	INV1, LCP	20/1	EXTERIOR EMERGENCY LIGHTS	80	C		SPARE	20/1	-	24
4	LCP	20/1	LIGHTS - EXTERIOR GRINDING	400	A		SPARE	20/1	-	25
5	LCP	20/1	EXTERIOR SECURITY LIGHTS	150	B		SPARE	20/1	-	26
6	LCP	20/1	EXTERIOR LIGHTS	150	C		SPARE	20/1	-	27
7	LCP	20/1	LIGHTS - CORRIDOR	1,850	A		SPARE	20/1	-	28
8	-	20/1	LIGHTS	2,550	B		SPARE	20/1	-	29
9	-	20/1	LIGHTS - WELDING	2,500	C		-		-	30
10	-	20/1	LIGHTS - WELDING	2,500	A		-		-	31
11	-	25/1	EWH-1 (STAIR)	5,000	B		-		-	32
12	-	20/1	EUH-1 (RISER ROOM)	3,300	C		-		-	33
13	-	15/3	VF-1	1,300	A		-		-	34
14	-	|	|	1,300	B		-		-	35
15	-	|	|	1,300	C		-		-	36
16	-	15/3	VF-2	1,300	A		-		-	37
17	-	|	|	1,300	B		-		-	38
18	-	|	|	1,300	C		-		-	39
19	-	15/3	VF-3	1,300	A		-		-	40
20	-	|	|	1,300	B		-		-	41
21	-	|	|	1,300	C		-		-	42

	PH. A:	PH. B:	PH. C:
	9,900	12,850	9,930

TOTAL CONNECTED LOAD:	32.7 KVA	
	40.9 AMPS	
TOTAL DEMAND LOAD:	32.7 KVA	
	40.9 AMPS	
TOTAL COMPUTED LOAD:	37.9 KVA	
	47.4 AMPS	

NOTES:
1. PROVIDE INTEGRAL 160KA (PER PHASE) SURGE PROTECTION DEVICE.
2. "LCP" INDICATES THAT CIRCUIT SHALL BE ROUTED THRU LIGHTING CONTROL PANEL.
3. "INV1" INDICATES THAT CIRCUIT SHALL BE ROUTED THRU LIGHTING INVERTER "INV1".

PANELBOARD SCHEDULE - PP-1B

PANEL TYPE:	SQUARE 'D' I-LINE SERIES						AIC RATING:	18KAIC (MINIMUM)	
VOLTAGE:	120/208V-3P-4W						MOUNTING:	SURFACE	
AMPS & TYPE:	800/3 MAIN BKR						LOCATION:	MAIN ELECTRICAL ROOM	
FED FROM:	MSB-1B						FEEDER:	3 SETS OF 4-300MCM & 1#2/0G - 3"C	

CIR. NO.	DESCRIPTION	VOLTS	P	HP	KW OR KVA	AMPS	BKR SIZE	LOCAL SAFETY SW. RATING	WIRE AND COND. SIZE	REMARKS
1	RP-1B	120/208	3		18.4		100/3	-	4#3 & 1#8G - 1 1/2"C	
2	RP-W1	120/208	3		43.5		225/3	-	4#4/0 & 1#4G - 2 1/2"C	
3	RP-W2	120/208	3		42.6		225/3	-	4#4/0 & 1#4G - 2 1/2"C	
4	SPACE	120/208	3				-/3	-		400A SPACE
5	SPACE	120/208	3				-/3	-		225A SPACE
6	SPACE	120/208	3				-/3	-		225A SPACE
7	SPACE	120/208	3				-/3	-		225A SPACE
8	SPACE	120/208	3				-/3	-		225A SPACE
9	SPACE	120/208	3				-/3	-		225A SPACE
10	SPACE	120/208	3				-/3	-		225A SPACE
11	SPACE	120/208	3				-/3	-		225A SPACE
12	SPACE	120/208	3				-/3	-		225A SPACE
13	SPACE	120/208	3				-/3	-		225A SPACE
14	SPACE	120/208	3				-/3	-		225A SPACE

TOTAL CONNECTED LOAD:	168.7 KVA	
	468.7 AMPS	
TOTAL DEMAND LOAD:	98.1 KVA	
	272.6 AMPS	
TOTAL COMPUTED LOAD:	98.1 KVA	
	272.6 AMPS	

NOTES:
1. PROVIDE INTEGRAL 160KA (PER PHASE) SURGE PROTECTION DEVICE.

PANELBOARD SCHEDULE - RP-1B

PANEL TYPE:	SQUARE 'D' TYPE NQ						AIC RATING:	18KAIC (MINIMUM)	
VOLTAGE:	120/208V-3P-4W						MOUNTING:	SURFACE	
AMPS & TYPE:	100 AMP - MLO						LOCATION:	MAIN ELECTRICAL ROOM	
FED FROM:	PP-1B						FEEDER:	SEE PANELBOARD SCHEDULE - PP-1B	

CKT. NO.	NOTES	BKR	DESCRIPTION	WATTS	PHASE	WATTS	DESCRIPTION	BKR	NOTES	CKT NO.
1	LO	20/1	FIRE ALARM CONTROL PANEL	500	A	4,000	DUPLEX LIFT STATION	60/3	-	22
2	-	20/1	LIGHTING CONTROL PANEL LCP-1B	500	B	4,000	|	|	-	23
3	-	20/1	OUTLETS - ELEC ROOM & CORRIDOR	1,200	C	4,000	|	|	-	24
4	-	20/1	OUTLETS - CORRIDOR	1,000	A		-		-	25
5	-	20/2	HP-1	1,600	B		-		-	26
6	-	|	|	1,600	C		-		-	27
7	-	20/1	SPARE		A		-		-	28
8	-	20/1	SPARE		B		-		-	29
9	-	20/1	SPARE		C		-		-	30
10	-	20/1	SPARE		A		-		-	31
11	-	20/1	SPARE		B		-		-	32
12	-	20/1	SPARE		C		-		-	33
13	-	20/1	SPARE		A		-		-	34
14	-	20/1	SPARE		B		-		-	35
15	-	20/1	SPARE		C		-		-	36
16	-	20/1	SPARE		A		-		-	37
17	-	20/1	SPARE		B		-		-	38
18	-	20/1	SPARE		C		-		-	39
19	-	20/1	SPARE		A		-		-	40
20	-	20/1	SPARE		B		-		-	41
21	-	20/1	SPARE		C		-		-	42

	PH. A:	PH. B:	PH. C:
	5,500	6,100	6,800

TOTAL CONNECTED LOAD:	18.4 KVA	
	51.1 AMPS	
TOTAL DEMAND LOAD:	18.4 KVA	
	51.1 AMPS	
TOTAL COMPUTED LOAD:	18.4 KVA	
	51.1 AMPS	

NOTES:
1. PROVIDE INTEGRAL 160KA (PER PHASE) SURGE PROTECTION DEVICE.
2. "GFI" INDICATES THAT BREAKER(S) SHALL BE GFI-TYPE (5mA TRIP).
3. "LO" INDICATES THAT BREAKER SHALL BE FURNISHED WITH RED LOCK-ON HARDWARE.

GMC
Goodwyn Mills Cawood, LLC
2400 5th Avenue South, Suite 200
Birmingham, AL 35233
T 205.879.4462
GMCNETWORK.COM

ISSUE | DATE
1 | 08.14.2023
IFB SET | 08.25.2023
AD 01

DRAWN BY: KRR
CHECKED BY: RCR

CALHOUN COMMUNITY COLLEGE WORKFORCE SKILLS TRAINING CENTER

GMC ABHM210048

ALABAMA LICENSED PROFESSIONAL ENGINEER ROBERT C. RENFRO No. 24463
08/25/2023

ELECTRICAL EQUIPMENT SCHEDULES

E4.01

JACKSON, RENFRO & ASSOCIATES, INC.
ELECTRICAL ENGINEERING & DESIGN
31 INVERNESS CENTER PKWY • SUITE 300 • BIRMINGHAM, AL • 35242
ROBERT RENFRO, PE
bobby@jrapec.com
(O) 205.536.7114
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JRA JOB NO. 223141

8/24/2023 1:15:57 PM TEMPLATE VERSION: 20221

PANELBOARD SCHEDULE - RP-W1 (SECT. 1)

PANEL TYPE:	SQUARE 'D' TYPE NQ	AIC RATING:	14KAIC (MINIMUM)
VOLTAGE	120/208V-3P-4W	MOUNTING:	SURFACE
AMPS & TYPE:	225 AMP - MLO	LOCATION:	WELDING
FED FROM:	PP-1B	FEEDER:	SEE PANELBOARD SCHEDULE - PP-1B

CKT. NO.	NOTES	BKR	DESCRIPTION	WATTS	PHASE	WATTS	DESCRIPTION	BKR	NOTES	CKT NO.
1	-	20/1	OUTLETS - OFFICE 117	1,000	A	500	OUTLETS - WELDING ROBOT	20/1	GFI	22
2	-	20/1	OUTLETS - OFFICE 117	1,000	B	500	OUTLETS - WELDING ROBOT	20/1	GFI	23
3	-	20/1	OUTLETS - TOOL STORAGE	800	C	500	OUTLETS - WELDING ROBOT	20/1	GFI	24
4	-	20/1	OUTLETS - TOOL STORAGE	1,200	A	500	OUTLETS - WELDING ROBOT	20/1	GFI	25
5	-	20/1	OUTLETS - TOOL STORAGE	800	B	500	OUTLETS - WELDING ROBOT	20/1	GFI	26
6	-	20/1	OUTLETS - STORAGE	800	C	500	OUTLETS - WELDING	20/1	GFI	27
7	-	15/3	OVERHEAD DOOR	600	A	500	OUTLETS - WELDING	20/1	GFI	28
8	-	|	|	600	B	500	OUTLETS - WELDING	20/1	GFI	29
9	-	|	|	600	C	500	OUTLETS - WELDING	20/1	GFI	30
10	GFI	20/1	OUTLETS - WELDING ROBOT	500	A	500	OUTLETS - WELDING	20/1	GFI	31
11	GFI	20/1	OUTLETS - WELDING ROBOT	500	B	500	OUTLETS - WELDING	20/1	GFI	32
12	GFI	20/1	OUTLETS - WELDING ROBOT	500	C	500	OUTLETS - WELDING	20/1	GFI	33
13	-	15/3	ROBOT	700	A	500	OUTLETS - WELDING	20/1	GFI	34
14	-	|	|	700	B	500	OUTLETS - WELDING	20/1	GFI	35
15	-	|	|	700	C	500	OUTLETS - WELDING	20/1	GFI	36
16	-	15/3	ROBOT	700	A	1,500	PIPE ROTATOR	20/1	GFI	37
17	-	|	|	700	B	500	CORD REEL	20/1	GFI	38
18	-	|	|	700	C	500	CORD REEL	20/1	GFI	39
19	-	15/3	ROBOT	700	A	500	CORD REEL	20/1	GFI	40
20	-	|	|	700	B	500	CORD REEL	20/1	GFI	41
21	-	|	|	700	C	3,100	BEVEL TABLE	35/1	-	42

RP-W1 (SECT. 2)

CKT. NO.	NOTES	BKR	DESCRIPTION	WATTS	PHASE	WATTS	DESCRIPTION	BKR	NOTES	CKT NO.
43	GFI	20/1	OUTLETS - WELDING	500	A	1,000	OUTLETS - WELDING BOOTH	20/1	GFI	64
44	GFI	20/1	OUTLETS - WELDING	500	B	1,000	OUTLETS - WELDING BOOTH	20/1	GFI	65
45	GFI	20/1	OUTLETS - WELDING	500	C	1,000	OUTLETS - WELDING BOOTH	20/1	GFI	66
46	GFI	20/1	OUTLETS - WELDING	500	A	1,000	OUTLETS - WELDING BOOTH	20/1	GFI	67
47	GFI	20/1	OUTLETS - WELDING	500	B	1,000	OUTLETS - WELDING BOOTH	20/1	GFI	68
48	GFI	20/1	OUTLETS - WELDING	500	C	1,000	OUTLETS - WELDING BOOTH	20/1	GFI	69
49	GFI	20/1	OUTLETS - WELDING	500	A	1,000	OUTLETS - WELDING BOOTH	20/1	GFI	70
50	GFI	20/1	OUTLETS - WELDING	500	B	1,000	OUTLETS - WELDING BOOTH	20/1	GFI	71
51	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	C	1,000	OUTLETS - WELDING BOOTH	20/1	GFI	72
52	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	A	1,000	OUTLETS - WELDING BOOTH	20/1	GFI	73
53	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	B	1,000	OUTLETS - WELDING BOOTH	20/1	GFI	74
54	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	C	1,000	OUTLETS - WELDING BOOTH	20/1	GFI	75
55	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	A	1,000	OUTLETS - WELDING BOOTH	20/1	GFI	76
56	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	B	1,000	OUTLETS - WELDING BOOTH	20/1	GFI	77
57	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	C	1,000	OUTLETS - WELDING BOOTH	20/1	GFI	78
58	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	A	1,000	OUTLETS - WELDING BOOTH	20/1	GFI	79
59	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	B	500	OUTLETS - WELDING	20/1	GFI	80
60	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	C	1,500	PIPE BENDER	20/1	GFI	81
61	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	A	1,800	WELDING EXHAUST ARC/DAMPERS	20/1	GFI	82
62	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	B	1,800	WELDING EXHAUST ARC/DAMPERS	20/1	GFI	83
63	GFI	20/1	SPARE	1,000	C	1,800	WELDING EXHAUST ARC/DAMPERS	20/1	GFI	84

RP-W1 (SECT. 3)

CKT. NO.	NOTES	BKR	DESCRIPTION	WATTS	PHASE	WATTS	DESCRIPTION	BKR	NOTES	CKT NO.
85	-	20/1	WELDING EXHAUST ARC/DAMPERS	1,800	A		-		-	106
86	-	20/1	WELDING EXHAUST ARC/DAMPERS	1,800	B		-		-	107
87	-	20/1	WELDING EXHAUST ARC/DAMPERS	1,800	C		-		-	108
88	GFI	20/1	SPARE		A		-		-	109
89	GFI	20/1	SPARE		B		-		-	110
90	GFI	20/1	SPARE		C		-		-	111
91	GFI	20/1	SPARE		A		-		-	112
92	GFI	20/1	SPARE		B		-		-	113
93	GFI	20/1	SPARE		C		-		-	114
94	GFI	20/1	SPARE		A		-		-	115
95	GFI	20/1	SPARE		B		-		-	116
96	GFI	20/1	SPARE		C		-		-	117
97	GFI	20/1	SPARE		A		-		-	118
98	-	20/1	SPARE		B		-		-	119
99	-	20/1	SPARE		C		-		-	120
100	-	20/1	SPARE		A		-		-	121
101	-	20/1	SPARE		B		-		-	122
102	-	20/1	SPARE		C		-		-	123
103	-	20/1	SPARE		A		-		-	124
104	-	20/1	SPARE		B		-		-	125
105	-	20/1	SPARE		C		-		-	126

PH. A:	PH. B:	PH. C:
25,000	23,100	27,000

TOTAL CONNECTED LOAD:	75.1 KVA	208.6 AMPS
TOTAL DEMAND LOAD:	43.5 KVA	120.7 AMPS
TOTAL COMPUTED LOAD:	43.5 KVA	120.7 AMPS

NOTES:

1. PROVIDE INTEGRAL 160KA (PER PHASE) SURGE PROTECTION DEVICE.
2. "GFI" INDICATES THAT BREAKER(S) SHALL BE GFI-TYPE (5mA TRIP).

PANELBOARD SCHEDULE - RP-W2 (SECT. 1)

PANEL TYPE:	SQUARE 'D' TYPE NQ	AIC RATING:	10KAIC (MINIMUM)
VOLTAGE	120/208V-3P-4W	MOUNTING:	SURFACE
AMPS & TYPE:	225 AMP - MLO	LOCATION:	WELDING
FED FROM:	PP-1B	FEEDER:	SEE PANELBOARD SCHEDULE - PP-1B

CKT. NO.	NOTES	BKR	DESCRIPTION	WATTS	PHASE	WATTS	DESCRIPTION	BKR	NOTES	CKT NO.
1	-	15/3	OVERHEAD DOOR	600	A	500	OUTLETS - WELDING	20/1	GFI	22
2	-	|	|	600	B	500	OUTLETS - WELDING	20/1	GFI	23
3	-	|	|	600	C	500	OUTLETS - WELDING	20/1	GFI	24
4	-	20/1	OUTLETS - EXTERIOR	800	A	500	OUTLETS - WELDING	20/1	GFI	25
5	GFI	20/1	OUTLETS - WELDING	500	B	2,000	BAND SAW	40/3	-	26
6	GFI	20/1	OUTLETS - WELDING	500	C	2,000	|	|	-	27
7	GFI	20/1	OUTLETS - WELDING	500	A	2,000	|	|	-	28
8	GFI	20/1	OUTLETS - WELDING	500	B	1,300	LIGHT DUTY SHEAR	25/3	-	29
9	GFI	20/1	OUTLETS - WELDING	500	C	1,300	|	|	-	30
10	GFI	20/1	OUTLETS - WELDING	500	A	1,300	|	|	-	31
11	GFI	20/1	OUTLETS - WELDING	500	B	2,000	IRON WORKER	30/3	-	32
12	GFI	20/1	OUTLETS - WELDING	500	C	2,000	|	|	-	33
13	GFI	20/1	OUTLETS - WELDING	500	A	2,000	|	|	-	34
14	GFI	20/1	OUTLETS - WELDING	500	B	1,000	OUTLETS - WELDING BOOTH	20/1	GFI	35
15	GFI	20/1	OUTLETS - WELDING	500	C	1,000	OUTLETS - WELDING BOOTH	20/1	GFI	36
16	GFI	20/1	OUTLETS - WELDING	500	A	1,000	OUTLETS - WELDING BOOTH	20/1	GFI	37
17	GFI	20/1	CORD REEL	500	B	1,000	OUTLETS - WELDING BOOTH	20/1	GFI	38
18	GFI	20/1	CORD REEL	500	C	1,000	OUTLETS - WELDING BOOTH	20/1	GFI	39
19	GFI	20/1	CORD REEL	500	A	1,000	OUTLETS - WELDING BOOTH	20/1	GFI	40
20	GFI	20/1	OUTLETS - WELDING	500	B	1,000	OUTLETS - WELDING BOOTH	20/1	GFI	41
21	GFI	20/1	OUTLETS - WELDING	500	C	1,000	OUTLETS - WELDING BOOTH	20/1	GFI	42

RP-W2 (SECT. 2)

CKT. NO.	NOTES	BKR	DESCRIPTION	WATTS	PHASE	WATTS	DESCRIPTION	BKR	NOTES	CKT NO.
43	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	A	1,000	OUTLETS - WELDING BOOTH	20/1	GFI	64
44	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	B	1,000	OUTLETS - WELDING BOOTH	20/1	GFI	65
45	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	C	1,000	OUTLETS - WELDING BOOTH	20/1	GFI	66
46	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	A	400	CHILLER OUTLETS	20/1	-	67
47	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	B	500	CHILLER HEAT TRACE	20/1	GFI-E	68
48	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	C	180	REALWELD TRAINER	15/3	-	69
49	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	A	180	|	|	-	70
50	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	B	180	|	|	-	71
51	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	C	500	WELDING EXHAUST PLC	20/1	-	72
52	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	A	500	WELDING EXHAUST CONTROL PANEL	20/1	-	73
53	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	B	500	WELDING EXHAUST PLC	20/1	-	74
54	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	C	500	WELDING EXHAUST CONTROL PANEL	20/1	-	75
55	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	A	1,800	WELDING EXHAUST ARC/DAMPERS	20/1	-	76
56	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	B	1,800	WELDING EXHAUST ARC/DAMPERS	20/1	-	77
57	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	C	1,800	WELDING EXHAUST ARC/DAMPERS	20/1	-	78
58	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	A	1,800	WELDING EXHAUST ARC/DAMPERS	20/1	-	79
59	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	B	1,800	WELDING EXHAUST ARC/DAMPERS	20/1	-	80
60	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	C	1,800	WELDING EXHAUST ARC/DAMPERS	20/1	-	81
61	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	A		SPARE	20/1	GFI	82
62	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	B		SPARE	20/1	GFI	83
63	GFI	20/1	OUTLETS - WELDING BOOTH	1,000	C		SPARE	20/1	GFI	84

RP-W2 (SECT. 3)

CKT. NO.	NOTES	BKR	DESCRIPTION	WATTS	PHASE	WATTS	DESCRIPTION	BKR	NOTES	CKT NO.
85	GFI	20/1	SPARE		A		-		-	106
86	GFI	20/1	SPARE		B		-		-	107
87	GFI	20/1	SPARE		C		-		-	108
88	GFI	20/1	SPARE		A		-		-	109
89	GFI	20/1	SPARE		B		-		-	110
90	GFI	20/1	SPARE		C		-		-	111
91	GFI	20/1	SPARE		A		-		-	112
92	GFI	20/1	SPARE		B		-		-	113
93	GFI	20/1	SPARE		C		-		-	114
94	GFI	20/1	SPARE		A		-		-	115
95	GFI	20/1	SPARE		B		-		-	116
96	-	20/1	SPARE		C		-		-	117
97	-	20/1	SPARE		A		-		-	118
98	-	20/1	SPARE		B		-		-	119
99	-	20/1	SPARE		C		-		-	120
100	-	20/1	SPARE		A		-		-	121
101	-	20/1	SPARE		B		-		-	122
102	-	20/1	SPARE		C		-		-	123
103	-	20/1	SPARE		A		-		-	124
104	-	20/1	SPARE		B		-		-	125
105	-	20/1	SPARE		C		-		-	126

PH. A:	PH. B:	PH. C:
24,880	25,180	25,180

TOTAL CONNECTED LOAD:	75.2 KVA	209.0 AMPS
TOTAL DEMAND LOAD:	42.6 KVA	118.4 AMPS
TOTAL COMPUTED LOAD:	42.6 KVA	118.4 AMPS

NOTES:

1. PROVIDE INTEGRAL 160KA (PER PHASE) SURGE PROTECTION DEVICE.
2. "GFI" INDICATES THAT BREAKER(S) SHALL BE GFI-TYPE (5mA TRIP).
3. "GFI-E" INDICATES THAT BREAKER(S) SHALL BE GFI-EPD TYPE (30mA TRIP).

PANELBOARD SCHEDULE - PP-1A

PANEL TYPE:	SQUARE 'D' I-LINE SERIES	AIC RATING:	18KAIC (MINIMUM)
VOLTAGE:	120/208V-3P-4W	MOUNTING:	SURFACE
AMPS & TYPE:	1200/3 MAIN BKR (SEE NOTE 2)	LOCATION:	ELECTRICAL ROOM
FED FROM:	MP-1A	FEEDER:	4 SETS OF 4-350MCM & 1#4/0G - 3 1/2"C

CIR. NO.	DESCRIPTION	VOLTS	P	HP	KW OR KVA	AMPS	BKR SIZE	LOCAL SAFETY SW. RATING	WIRE AND COND. SIZE	REMARKS
1	RP-1A	120/208	3		26.7		100/3	-	4#3 & 1#8G - 1 1/2"C	
2	RP-AS	120/208	3		76.6		400/3	-	2 SETS OF 4#3/0 & 1#3G - 2 1/2"C	
3	RP-FL1	120/208	3		49.0		225/3	-	4#4/0 & 1#4G - 2 1/2"C	
4	RP-FL2	120/208	3		57.0		225/3	-	4#4/0 & 1#4G - 2 1/2"C	
5	RP-MT2	120/208	3		13.7		225/3	-	4#4/0 & 1#4G - 2 1/2"C	
6	RP-MT3	120/208	3		17.0		225/3	-	4#4/0 & 1#4G - 2 1/2"C	
7	SPACE	120/208	3				-/3	-		400A SPACE
8	SPACE	120/208	3				-/3	-		225A SPACE
9	SPACE	120/208	3				-/3	-		225A SPACE
10	SPACE	120/208	3				-/3	-		225A SPACE
11	SPACE	120/208	3				-/3	-		225A SPACE
12	SPACE	120/208	3				-/3	-		225A SPACE
13	SPACE	120/208	3				-/3	-		225A SPACE
14	SPACE	120/208	3				-/3	-		225A SPACE

TOTAL CONNECTED LOAD:	386.4 KVA	1,073.2 AMPS
TOTAL DEMAND LOAD:	214.9 KVA	596.9 AMPS
TOTAL COMPUTED LOAD:	214.9 KVA	596.9 AMPS

NOTES:

1. PROVIDE INTEGRAL 160KA (PER PHASE) SURGE PROTECTION DEVICE.
2. PROVIDE ARC-FLASH ENERGY REDUCTION MAINTENANCE SWITCH (TO ADJUST BREAKER TRIP SETTINGS TO LOWER LEVELS WHEN SWITCH IS IN "MAINTENANCE MODE") PER NEC 2020 ARTICLE 240.87 REQUIREMENTS.

PANELBOARD SCHEDULE - RP-AS (SECT. 1)

PANEL TYPE:	SQUARE 'D' TYPE NQ	AIC RATING:	18KAIC (MINIMUM)
VOLTAGE	120/208V-3P-4W	MOUNTING:	SURFACE
AMPS & TYPE:	400 AMP - MLO	LOCATION:	AEROSPACE
FED FROM:	PP-1A	FEEDER:	SEE PANELBOARD SCHEDULE - PP-1A

CKT. NO.	NOTES	BKR	DESCRIPTION	WATTS	PHASE	WATTS	DESCRIPTION	BKR	NOTES	CKT NO.
1	-	20/1	OUTLETS - TOOL STORAGE	1,000	A	400	OUTLETS - MEZZANINE	20/1	-	22
2	-	20/1	OUTLETS - TOOL STORAGE	800	B	1,500	VACUUM SYSTEM	20/1	-	23
3	-	20/1	OUTLETS - SANDING	800	C	1,950	VACUUM SYSTEM	45/2	-	24
4	-	20/1	OUTLETS - SANDING	600	A	1,950	|	|	-	25
5	-	20/1	DOWN DRAFT TABLE	1,000	B	2,000	WALK-IN CONDENSOR	30/2	-	26
6	-	20/1	DOWN DRAFT TABLE	1,000	C	2,000	|	|	-	27
7	-	20/1	DOWN DRAFT TABLE	1,000	A	6,650	VACUUM CURING TABLE	70/3	-	28
8	-	20/1	BLASTING CABINET	1,000	B	6,650	|	|	-	29
9	-	20/1	TABLE SAW	1,000	C	6,650	|	|	-	30
10	-	20/1	SANDER	1,000	A	600	OVERHEAD DOOR	15/3	-	31
11	-	20/1	SANDER	1,000	B	600	|	|	-	32
12	-	20/1	OUTLETS - SANDING	1,000	C	600	|	|	-	33
13	-	20/1	DRILL PRESS	1,000	A	400	OUTLETS	20/1	-	34
14	-	20/1	DISC SANDER	1,000	B	1,000	TORQUE STAND	20/1	-	35
15	-	20/1	WOOD BANDSAW	1,000	C	400	OUTLETS	20/1	-	36
16	-	20/1	COMPOSITE BANDSAW	1,000	A	400	SLIP ROLLER	15/3	-	37
17	-	20/1	OUTLETS - SANDING	1,000	B	400	|	|	-	38
18	-	20/1	WALK-IN FREEZER LIGHTS	200	C	400	|	|	-	39
19	-	20/1	WALK-IN FREEZER EVAPORATOR	1,000	A	400	CORD REEL	20/1	-	40
20	-	20/1	OUTLETS	400	B	400	CORD REEL	20/1	-	41
21	-	20/1	OUTLETS	400	C	400	CORD REEL	20/1	-	42

RP-AS (SECT. 2)

CKT. NO.	NOTES	BKR	DESCRIPTION	WATTS	PHASE	WATTS	DESCRIPTION	BKR	NOTES	CKT NO.
43	-	20/1	CORD REEL	1,000	A	1,900	VERTICAL BAND SAW	20/3	-	64
44	-	20/1	CORD REEL	1,000	B	1,900	|	|	-	65
45	-	20/1	CORD REEL	1,000	C	1,900	|	|	-	66
46	-	20/1	CORD REEL	1,000	A	400	OUTLETS	20/1	-	67
47	-	20/1	CORD REEL	1,000	B	400	OUTLETS	20/1	-	68
48	-	20/1	CORD REEL	1,000	C	1,000	OUTLETS	20/1	-	69
49	-	20/1	CORD REEL	1,000	A	1,000	OUTLETS	20/1	-	70
50	-	20/1	MIXING TABLE	1,000	B	1,000	OUTLETS	20/1	-	71
51	-	20/1	OUTLETS	400	C	1,000	OUTLETS	20/1	-	72
52	-	20/1	OTW WELDER	1,000	A	1,000	OUTLETS	20/1	-	73
53	-	20/1	OTW WELDER	1,000	B	1,000	OUTLETS	20/1	-	74
54	-	20/1	OTW WELDER	1,000	C	1,000	OUTLETS	20/1	-	75
55	-	50/2	COMPOSITE OVEN	3,500	A	1,000	OUTLETS	20/1	-	76
56	-	|	|	3,500	B	1,000	OUTLETS	20/1	-	77
57	-	50/2	COMPOSITE OVEN	3,500	C	1,000	OUTLETS	20/1	-	78
58	-	|	|	3,500	A	1,000	OUTLETS	20/1	-	79
59	-	15/3	INSTRON TESTER	800	B	1,000	OUTLETS	20/1	-	80
60	-	|	|	800	C	1,000	OUTLETS	20/1	-	81
61	-	|	|	800	A	1,000	OUTLETS	20/1	-	82
62	-	20/1	COMPOSITE OVEN (CONTROLS)	500	B	1,000	OUTLETS	20/1	-	83
63	-	20/1	COMPOSITE OVEN (CONTROLS)	500	C	1,000	OUTLETS	20/1	-	84

RP-AS (SECT. 3)

CKT. NO.	NOTES	BKR	DESCRIPTION	WATTS	PHASE	WATTS	DESCRIPTION	BKR	NOTES	CKT NO.
85	-	20/1	OUTLETS	1,000	A		SPARE	20/1	-	106
86	-	20/1	OUTLETS	1,000	B		SPARE	20/1	-	107
87	-	20/1	OUTLETS	1,000	C		SPARE	20/1	-	108
88	-	20/1	OUTLETS	1,000	A		SPARE	20/1	-	109
89	-	20/1	OUTLETS	800	B		SPARE	20/1	-	110
90	-	20/1	VF-4	500	C		SPARE	20/1	-	111
91	-	20/1	VAV'S	500	A		SPARE	20/1	-	112
92	-	20/1	OUTLETS	400	B		SPARE	20/1	-	113
93	-	20/1	SPARE		C		SPARE	20/1	-	114
94	-	20/1	SPARE		A		SPARE	20/1	-	115
95	-	20/1	SPARE		B		SPARE	20/1	-	116
96	-	20/1	SPARE		C		SPARE	20/1	-	117
97	-	20/1	SPARE		A		SPARE	20/1	-	118
98	-	20/1	SPARE		B		SPARE	20/1	-	119
99	-	20/1	SPARE		C		SPARE	20/1	-	120
100	-	20/1	SPARE		A		SPARE	20/1	-	121
101	-	20/1	SPARE		B		SPARE	20/1	-	122
102	-	20/1	SPARE		C		SPARE	20/1	-	123
103	-	20/1	SPARE		A		SPARE	20/1	-	124
104	-	20/1	SPARE		B		SPARE	20/1	-	125
105	-	20/1	SPARE		C		SPARE	20/1	-	126

PH. A:	PH. B:	PH. C:
39,000	37,050	35,400

TOTAL CONNECTED LOAD:	111.5 KVA	309.6 AMPS
TOTAL DEMAND LOAD:	76.6 KVA	212.6 AMPS
TOTAL COMPUTED LOAD:	76.6 KVA	212.6 AMPS

NOTES:

1. PROVIDE INTEGRAL 160KA (PER PHASE) SURGE PROTECTION DEVICE.

PANELBOARD SCHEDULE - MP-1A

PANEL TYPE:	SQUARE 'D' I-LINE SERIES	AIC RATING:	50KAIC (MINIMUM)
VOLTAGE:	277/480V-3P-4W	MOUNTING:	SURFACE
AMPS & TYPE:	1000 AMP - MLO	LOCATION:	ELECTRICAL ROOM
FED FROM:	MSB-1B	FEEDER:	SEE PANELBOARD SCHEDULE - MSB-1B

CIR. NO.	DESCRIPTION	VOLTS	P	HP	KW OR KVA	AMPS	BKR SIZE	LOCAL SAFETY SW. RATING	WIRE AND COND. SIZE	REMARKS
1	LP-1A	277/480	3		59.6		100/3	-	4#3 & 1#8G - 1 1/2"C	
2	PP-1A (300 KVA X-FORMER)	480	3		214.9		500/3	-	2 SETS OF 3-250MCM & 1#2G - 2 1/2"C	
3	PP-MT (300 KVA X-FORMER)	480	3		234.4		500/3	-	2 SETS OF 3-250MCM & 1#2G - 2 1/2"C	
4	GERBER CUTTING MACHINE	460	3	15			50/3	60/3	3#8 & 1#10G - 1"C	
5	ADM SYSTEM SIMULATOR	460	3			30.0	40/3	60/3 - F40	3#8 & 1#10G - 1"C	
6	SPACE	277/480	3				-/3	-		400A SPACE
7	SPACE	277/480	3				-/3	-		225A SPACE
8	SPACE	277/480	3				-/3	-		225A SPACE
9	SPACE	277/480	3				-/3	-		225A SPACE
10	SPACE	277/480	3				-/3	-		225A SPACE
11	SPACE	277/480	3				-/3	-		225A SPACE
12	SPACE	277/480	3				-/3	-		225A SPACE
13	SPACE	277/480	3				-/3	-		225A SPACE
14	SPACE	277/480	3				-/3	-		225A SPACE

TOTAL CONNECTED LOAD:	831.8 KVA	1,039.7 AMPS
TOTAL DEMAND LOAD:	537.9 KVA	672.4 AMPS
TOTAL COMPUTED LOAD:	544.7 KVA	680.9 AMPS

NOTES:

1. PROVIDE INTEGRAL 160KA (PER PHASE) SURGE PROTECTION DEVICE.

PANELBOARD SCHEDULE - LP-1A

PANEL TYPE:	SQUARE 'D' TYPE NF	AIC RATING:	42KAIC (MINIMUM)
VOLTAGE	277/480V-3P-4W	MOUNTING:	SURFACE
AMPS & TYPE:	100 AMP - MLO	LOCATION:	ELECTRICAL ROOM
FED FROM:	MP-1A	FEEDER:	SEE PANELBOARD SCHEDULE - MP-1A

CKT. NO.	NOTES	BKR	DESCRIPTION	WATTS	PHASE	WATTS	DESCRIPTION	BKR	NOTES	CKT NO.
1	INV2, LCP	20/1	EXTERIOR EMERGENCY LIGHTS	120	A	6,900	GERBER CUTTING MACHINE (POWER	35/3	-	16
2	LCP	20/1	EXTERIOR LIGHTS	100	B	6,900	|	|	-	17
3	-	20/1	LIGHTING - AEROSPACE	2,250	C	6,900	|	|	-	18
4	-	20/1	LIGHTING - AEROSPACE	2,250	A	2,400	GERBER CUTTING MACHINE (CNTRL)	15/2	-	19
5	-	20/1	LIGHTING - FAME LAB	2,250	B	2,400	|	|	-	20
6	-	20/1	LIGHTING - FAME LAB	2,250	C		-	20/1	-	21
7	-	20/1	LIGHTING - MACHINE TOOL	3,000	A		-	20/1	-	22
8	-	20/1	LIGHTING - MACHINE TOOL	3,000	B		-	20/1	-	23
9	-	20/1	LIGHTING	2,050	C		-	20/1	-	24
10	-	25/1	EWH-1 (LOBBY)	5,000	A		-	20/1	-	25
11	-	25/1	EWH-1 (LOBBY)	5,000	B		-	20/1	-	26
12	-	20/1	SPARE		C		-	20/1	-	27
13	-	20/1	SPARE		A		-	20/1	-	28
14	-	20/1	SPARE		B		-	20/1	-	29
15	-	20/1	SPARE		C		-	20/1	-	30

1

PH. A:	PH. B:	PH. C:
19,670	19,650	13,450

TOTAL CONNECTED LOAD:	52.8 KVA	66.0 AMPS
TOTAL DEMAND LOAD:	52.8 KVA	66.0 AMPS
TOTAL COMPUTED LOAD:	59.6 KVA	74.5 AMPS

NOTES:

1. PROVIDE INTEGRAL 160KA (PER PHASE) SURGE PROTECTION DEVICE.
2. "LCP" INDICATES THAT CIRCUIT SHALL BE ROUTED THRU LIGHTING CONTROL PANEL.
3. "INV2" INDICATES THAT CIRCUIT SHALL BE ROUTED THRU LIGHTING INVERTER "INV2".

JACKSON,
RENFRO
& ASSOCIATES, INC.
ELECTRICAL ENGINEERING & DESIGN
31 INVERNESS CENTER PKWY • SUITE 300 • BIRMINGHAM, AL • 35242

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ISSUE	DATE
IFB SET	08.14.2023
1 AD 01	08.25.2023

DRAWN BY: KRR
CHECKED BY: RCR

CALHOUN COMMUNITY COLLEGE WORKFORCE SKILLS TRAINING CENTER

GMC ABHM210048

ALABAMA LICENSED PROFESSIONAL ENGINEER
No. 24463
ROBERT C. RENFRO
08/25/2023

ELECTRICAL EQUIPMENT SCHEDULES

E4.02

8/24/2023 1:16:13 PM
TEMPLATE VERSION: 2022.1

PANELBOARD SCHEDULE - RP-2A (SECT. 1)

PANEL TYPE:	SQUARE 'D' TYPE NQ				AIC RATING:	10KAIC (MINIMUM)					
VOLTAGE	120/208V-3P-4W				MOUNTING:	FLUSH					
AMPS & TYPE:	225 AMP - MLO				LOCATION:	STORAGE 207					
FED FROM:	PP-2				FEEDER:	SEE PANELBOARD SCHEDULE - PP-2					
CKT. NO.	NOTES	BKR	DESCRIPTION	WATTS	PHASE	WATTS	DESCRIPTION	BKR	NOTES	CKT NO.	
1	-	20/1	ELEVATOR CAB LIGHTS	500	A	1,500	OUTLETS - SENSOR TRAINING LAB	20/1	-	22	
2	-	20/1	ELEVATOR HOISTWAY LIGHTS	500	B	1,500	OUTLETS - SENSOR TRAINING LAB	20/1	-	23	
3	LO	20/1	EM RESPONDER RADIO SYSTEM	500	C	1,500	OUTLETS - SENSOR TRAINING LAB	20/1	-	24	
4	LO	20/1	EM RESPONDER RADIO SYSTEM	500	A	1,500	OUTLETS - SENSOR TRAINING LAB	20/1	-	25	
5	-	20/1	OUTLETS - METROLOGY LAB	1,500	B	1,500	OUTLETS - SENSOR TRAINING LAB	20/1	-	26	
6	-	20/1	OUTLETS - METROLOGY LAB	1,500	C	1,500	OUTLETS - SENSOR TRAINING LAB	20/1	-	27	
7	-	20/1	OUTLETS - METROLOGY LAB	1,500	A	1,500	OUTLETS - SENSOR TRAINING LAB	20/1	-	28	
8	-	20/1	OUTLETS - METROLOGY LAB	1,500	B	1,500	OUTLETS - SENSOR TRAINING LAB	20/1	-	29	
9	-	20/1	OUTLETS - METROLOGY LAB	1,500	C	1,500	OUTLETS - SENSOR TRAINING LAB	20/1	-	30	
10	-	20/1	OUTLETS - METROLOGY LAB	1,500	A	1,500	OUTLETS - SENSOR TRAINING LAB	20/1	-	31	
11	-	20/1	OUTLETS - METROLOGY LAB	1,500	B	1,500	OUTLETS - SENSOR TRAINING LAB	20/1	-	32	
12	-	20/1	OUTLETS - METROLOGY LAB	1,500	C	1,500	OUTLETS - SENSOR TRAINING LAB	20/1	-	33	
13	-	20/1	OUTLETS - METROLOGY LAB	1,500	A	800	OUTLETS - MECH ROOM 207	20/1	-	34	
14	-	20/1	OUTLETS - METROLOGY LAB	1,500	B	1,400	OUTLETS - ADMIN ASSIST/RR'S	20/1	-	35	
15	-	20/1	OUTLETS - METROLOGY LAB	1,500	C	1,000	OUTLETS - MECH 211 & CORR.	20/1	-	36	
16	-	20/1	OUTLETS - METROLOGY LAB	1,500	A	1,200	OUTLETS - ADMIN ASSIST	20/1	-	37	
17	-	20/1	OUTLETS - METROLOGY LAB	800	B	800	OUTLETS - OFFICE 205	20/1	-	38	
18	-	20/1	OUTLETS - METROLOGY LAB	800	C	1,400	OUTLETS - DIRECTOR	20/1	-	39	
19	-	20/1	OUTLETS - SENSOR TRAINING LAB	1,000	A	800	OUTLETS - OFFICE 203	20/1	-	40	
20	-	20/1	OUTLETS - SENSOR TRAINING LAB	800	B	800	OUTLETS - OFFICE 202	20/1	-	41	
21	GFI	20/1	DRINKING FOUNTAIN	500	C	500	HVAC CONTROL PANEL	20/1	-	42	

RP-2A (SECT. 2)

43	-	20/2	OUTLET - DATA ROOM	1,500	A		SPARE	20/1	-	64
44	-	|	|	1,500	B		SPARE	20/1	-	65
45	-	20/2	OUTLET - DATA ROOM	1,500	C		SPARE	20/1	-	66
46	-	|	|	1,500	A		SPARE	20/1	-	67
47	-	30/1	OUTLET - DATA ROOM	2,000	B		SPARE	20/1	-	68
48	-	30/1	OUTLET - DATA ROOM	2,000	C		SPARE	20/1	-	69
49	-	20/1	OUTLET - DATA ROOM	800	A		SPARE	20/1	-	70
50	-	20/1	OUTLET - DATA ROOM	800	B		SPARE	20/1	-	71
51	-	20/1	OUTLET - DATA ROOM	800	C		SPARE	20/1	-	72
52	-	20/1	OUTLET - DATA ROOM	800	A		SPARE	20/1	-	73
53	-	20/1	OUTLET - DATA ROOM	800	B		SPARE	20/1	-	74
54	-	20/1	OUTLET - DATA ROOM	800	C		SPARE	20/1	-	75
55	-	20/1	OUTLET - DATA ROOM	800	A		SPARE	20/1	-	76
56	-	20/1	OUTLET - DATA ROOM	800	B		SPARE	20/1	-	77
57	-	20/1	OUTLET - DATA ROOM	800	C		SPARE	20/1	-	78
58	-	20/1	OUTLET - DATA ROOM	800	A		SPARE	20/1	-	79
59	-	20/1	AIR HANDLER LIGHTS/RECEPT.	600	B		SPARE	20/1	-	80
60	-	20/1	EF-1 & EF-2	1,000	C		SPARE	20/1	-	81
61	-	20/2	HP-4	1,600	A		SPARE	20/1	-	82
62	-	|	|	1,600	B		SPARE	20/1	-	83
63	-	20/1	OUTLETS - ROOF	400	C		SPARE	20/1	-	84

	PH. A:	PH. B:	PH. C:		
	24,600	25,200	24,000	TOTAL CONNECTED LOAD:	73.8 KVA
					205.0 AMPS
				TOTAL DEMAND LOAD:	44.5 KVA
					123.6 AMPS
				TOTAL COMPUTED LOAD:	44.8 KVA
					124.3 AMPS

NOTES:
1. PROVIDE INTEGRAL 160KA (PER PHASE) SURGE PROTECTION DEVICE.
2. "GFI" INDICATES THAT BREAKER(S) SHALL BE GFI-TYPE (5mA TRIP).
3. "LO" INDICATES THAT BREAKER SHALL BE FURNISHED WITH RED LOCK-ON HARDWARE.

PANELBOARD SCHEDULE - LP-SS

PANEL TYPE:	SQUARE 'D' TYPE NF					AIC RATING:	25KAIC (MINIMUM)		
VOLTAGE:	277/480V-3P-4W					MOUNTING:	SURFACE		
AMPS & TYPE:	225/3 MAIN BKR					LOCATION:	STORM SHELTER		
FED FROM:	MSB-1B					FEEDER:	SEE PANELBOARD SCHEDULE - MSB-1B		
CIR. NO.	DESCRIPTION	VOLTS	P	HP	KW OR KVA	AMPS	BKR SIZE	LOCAL SAFETY SW. RATING	WIRE AND COND. SIZE	REMARKS
1,2,3	RP-SS (30 KVA X-FORMER)	480	3		15.7		80/3	-	3#4 & 1#8G - 1 1/4"C	
4,5,6	HP-SS1	480	3			28.0	40/3	60/3 - F40	3#8 & 1#10G - 1"C	
7,8,9	AC-SS1	480	3			73.0	90/3	100/3 - F90	3#3 & 1#8G - 1 1/4"C	
10	EH-1	277	1		2.0		20/1	-	2#12 & 1#12G - 1/2"C	
11	EH-2	277	1		2.0		20/1	-	2#12 & 1#12G - 1/2"C	
12	EH-3	277	1		2.0		20/1	-	2#12 & 1#12G - 1/2"C	
13,14,15	SPACE	277/480	3				-/3	-		
16,17,18	SPACE	277/480	3				-/3	-		
19,20,21	SPACE	277/480	3				-/3	-		
22-30	SPACES	277/480	3				-/3	-		

TOTAL CONNECTED LOAD:	102.4 KVA	
	128.0 AMPS	
TOTAL DEMAND LOAD:	102.4 KVA	
	128.0 AMPS	
TOTAL COMPUTED LOAD:	118.6 KVA	
	148.3 AMPS	

NOTES:
1. PROVIDE INTEGRAL 160KA (PER PHASE) SURGE PROTECTION DEVICE.
2. FURNISH PANELBOARD IN ONE SECTION WITH 30 TOTAL POLE SPACES. SPACES.

PANELBOARD SCHEDULE - RP-SS

PANEL TYPE:	SQUARE 'D' TYPE NQ				AIC RATING:	10KAIC (MINIMUM)				
VOLTAGE:	120/208V-3P-4W				MOUNTING:	SURFACE				
AMPS & TYPE:	100/3 MAIN BKR				LOCATION:	STORM SHELTER				
FED FROM:	LP-SS				FEEDER:	4#3 & 1#8G - 1 1/2"C				
CKT. NO.	NOTES	BKR	DESCRIPTION	WATTS	PHASE	WATTS	DESCRIPTION	BKR	NOTES	CKT NO.
1	-	20/1	NORMAL LIGHTS	600	A				-	22
2	PC, INV1	20/1	EXTERIOR LIGHTS	90	B				-	23
3	-	20/1	OUTLETS - MECHANICAL ROOM	600	C				-	24
4	-	20/1	OUTLETS - RESTROOMS	800	A				-	25
5	-	20/1	OUTLETS - STORM SHELTER	800	B				-	26
6	-	20/1	OUTLETS - STORM SHELTER	800	C				-	27
7	-	20/1	OUTLETS - STORM SHELTER	1,000	A				-	28
8	LO	20/1	FIRE ALARM PANEL	500	B				-	29
9	-	20/1	TELECOM BACKBOARD	500	C				-	30
10	-	20/1	TELECOM BACKBOARD	500	A				-	31
11	-	30/2	WATER HEATER	2,500	B				-	32
12	-	|	|	2,500	C				-	33
13	-	20/1	SPARE		A				-	34
14	-	20/1	CIRC. PUMP	500	B				-	35
15	-	20/1	SPARE		C				-	36
16	-	20/1	SPARE		A				-	37
17	-	20/1	SPARE		B				-	38
18	-	20/1	SPARE		C				-	39
19	-	20/1	SPARE		A	1,780	INV-SS	35/3	-	40
20	-	20/1	SPARE		B	1,300	4#8 & 1#10G - 1"C	|	-	41
21	-	20/1	SPARE		C	800	|	|	-	42

	PH. A:	PH. B:	PH. C:		
	4,680	5,690	5,200	TOTAL CONNECTED LOAD:	15.6 KVA
					43.3 AMPS
				TOTAL DEMAND LOAD:	15.6 KVA
					43.3 AMPS
				TOTAL COMPUTED LOAD:	15.7 KVA
					43.7 AMPS

NOTES:
1. PROVIDE INTEGRAL 160KA (PER PHASE) SURGE PROTECTION DEVICE.
2. "PC" INDICATES THAT CIRCUIT SHALL BE ROUTED THRU EXTERIOR PHOTOCELL.
3. "INV1" INDICATES THAT CIRCUIT SHALL BE ROUTED THRU LIGHTING INVERTER "INV1".
4. "LO" INDICATES THAT BREAKER SHALL BE FURNISHED WITH RED LOCK-ON HARDWARE.

INVERTER SCHEDULE - INV-SS

PANEL TYPE:	MYERS ILLUMINATOR HYPERNOVA (OR EQUAL)				AIC RATING:	10 KAIC (MINIMUM)				
INPUT VOLTAGE:	120/208V-3P-4W				OUTPUT VOL:	120/208V-3P-4W				
KVA RATING	10.0 KVA (MINIMUM)				LOCATION:	SEE PLANS				
FED FROM:	RP-SS				FEEDER:	SEE RP-SBB2 PANELBOARD SCHEDULE				
CKT. NO.	NOTES	BKR	DESCRIPTION	WATTS	PHASE	WATTS	DESCRIPTION	BKR	NOTES	CKT NO.
1	-	20/1	LIGHTS	980	A		SPARE	20/1	-	7
2	-	20/1	EF-SS1	500	B		SPACE		-	8
3	-	15/3	SF-1	800	C		SPACE		-	9
4	-	|	|	800	A		SPACE		-	10
5	-	|	|	800	B		SPACE		-	11
6	-	20/1	SPARE		C		SPACE		-	12

	PH. A:	PH. B:	PH. C:		
	1,780	1,300	800	TOTAL CONNECTED LOAD:	3.9 KVA
					10.8 AMPS
				TOTAL DEMAND LOAD:	3.9 KVA
					10.8 AMPS
				TOTAL COMPUTED LOAD:	4.1 KVA
					11.5 AMPS

NOTES:
1. INVERTER SHALL BE SIZED TO ACCOMMODATE LIGHTING AND FAN LOADS SHOWN IN SCHEDULES AND ON PLANS. PROVIDE 120 MINUTES OF BATTERY RUN TIME. UNIT SHALL BE RATED FOR 10.0 KVA (MINIMUM). UNIT SHALL HAVE 120/208V-3P-4W INPUT AND 120/208V-3P-4W OUTPUT. INCLUDE STATEMENT FROM MANUFACTURER WITH SUBMITTAL THAT UNIT WILL OPERATE LOADS DESCRIBED ABOVE FOR A MINIMUM OF 120 MINUTES.
2. FURNISH WITH 5-YEAR WARRANTY AND SYSTEM STARTUP AND COMMISSIONING.
3. MAXIMUM SIZE SHALL BE 42"W X 25"D.
4. INVERTER BASIS OF DESIGN IS MYERS EMERGENCY POWER SYSTEMS ILLUMINATOR HYPERNOVA SERIES

TRANSFORMER SCHEDULE

MARK	SIZE (KVA)	DESCRIPTION	PRIMARY VOLTAGE & PHASE	SECONDARY VOLTAGE & PHASE	PANEL FED	MOUNTING	GROUND SIZE	REMARKS
T-1B	225	DRY-TYPE	480V-3P-3W	120/208V-3P-4W	PP-1B	4" CONCRETE PAD	#2/0	
T-SS	30	DRY-TYPE	480V-3P-3W	120/208V-3P-4W	RP-SS	4" CONCRETE PAD	#8	
T-1A	300	DRY-TYPE	480V-3P-3W	120/208V-3P-4W	PP-1A	4" CONCRETE PAD	#3/0	
T-MT	300	DRY-TYPE	480V-3P-3W	120/208V-3P-4W	PP-MT	4" CONCRETE PAD	#3/0	
T-2	150	DRY-TYPE	480V-3P-3W	120/208V-3P-4W	PP-2	4" CONCRETE PAD	#2/0	

TRANSFORMER SCHEDULE NOTES:
1. EXACT TRANSFORMER LOCATIONS SHALL BE FIELD COORDINATED TO PROVIDE CODE-REQUIRED CLEARANCES AND WORKING SPACES AROUND TRANSFORMERS AND ADJACENT EQUIPMENT (SUCH AS PANELBOARDS).
2. ALL TRANSFORMERS SHALL BE MOUNTED ON VIBRATION ISOLATORS PER SPECIFICATION REQUIREMENTS.

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ISSUE | DATE
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1 ADD 01 | 08.25.2023

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CALHOUN COMMUNITY COLLEGE WORKFORCE SKILLS TRAINING CENTER

GMC ABHM210048

ALABAMA LICENSED No. 24401 PROFESSIONAL ENGINEER ROBERT C. RENFRO
08/25/2023

ELECTRICAL EQUIPMENT SCHEDULES

E4.05

JACKSON, RENFRO & ASSOCIATES, INC.
ELECTRICAL ENGINEERING & DESIGN
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JRA JOB NO. 222141

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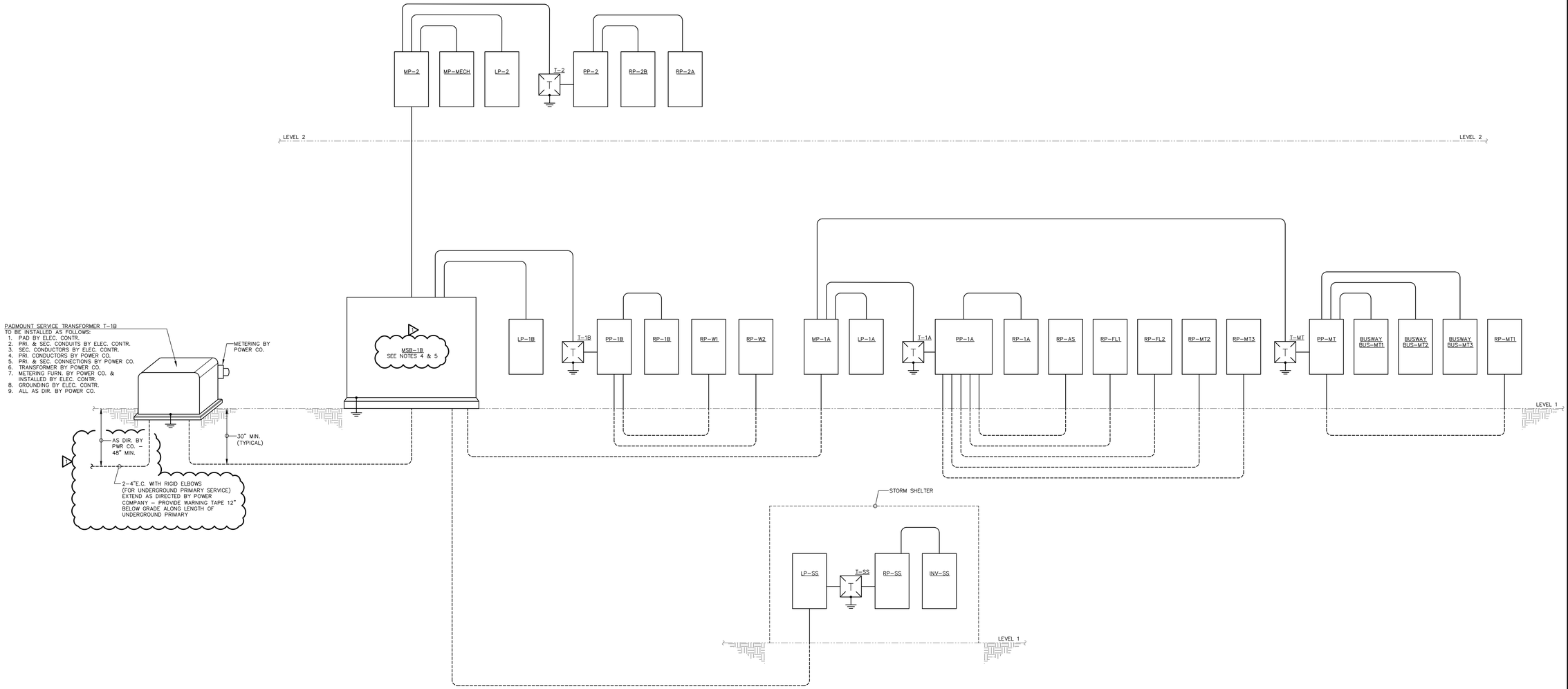

SINGLE LINE DIAGRAM

SCALE : NONE

DIAGRAM NOTES

1. REFER TO SWITCHBOARD, PANELBOARD, AND TRANSFORMER SCHEDULES FOR ALL APPLICABLE FEEDER SIZES, BREAKER RATINGS, BUS RATINGS, TRANSFORMER RATINGS, ETC. NOT SHOWN ON THIS DIAGRAM.
2. NEUTRAL-GROUND BONDS SHALL ONLY BE MADE AT THE FOLLOWING LOCATIONS:
   A. MAIN BREAKER AT MSB-1B.
   B. MAIN BREAKER AT MP-W.
   C. SECONDARY SIDE OF ALL TRANSFORMERS.
3. REFER TO GROUNDING PLANS & TRANSFORMER SCHEDULES FOR MINIMUM GROUNDING ELECTRODE SIZES FOR DISTRIBUTION EQUIPMENT.
4. PROVIDE SERVICE ENTRANCE EQUIPMENT WITH ENGRAVED NAMEPLATE TO INDICATE THE SERVICE NUMBER (I.E. SERVICE 1 OF 2), THE LOCATION OF ALL OF OTHER SERVICE DISCONNECTS (I.E. MAIN ELECTRICAL ROOM), AND THE AREA SERVED BY THE SERVICE.
5. THE ELECTRICAL CONTRACTOR SHALL INSTALL CT'S ON SERVICE ENTRANCE CONDUCTORS FOR MONITORING BY THE BUILDING AUTOMATION SYSTEM. CT'S SHALL BE FURNISHED BY CONTROLS CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR. COORDINATE ALL WORK WITH CONTROLS CONTRACTOR PRIOR TO ROUGH-IN.

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CALHOUN COMMUNITY COLLEGE WORKFORCE SKILLS TRAINING CENTER

GMC ABHM210048

ALABAMA LICENSED PROFESSIONAL ENGINEER No. 24463 ROBERT C. RENFRO
08/25/2023

SINGLE LINE DIAGRAM

E5.01

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LIGHTING FIXTURE SCHEDULE

MARK	MANUFACTURER	CATALOG NUMBER	VOLTAGE	LAMPS WATTS	LAMPS LUMENS	LAMPS TYPE	MOUNTING HEIGHT	MOUNTING TYPE	REMARKS
A4	LITHONIA COLUMBIA DAY-BRITE	2VTL4-48L-ADP	120/277	39	5238	LED 3500K	CEILING	RECESSED LAY-IN	
A4E	LITHONIA COLUMBIA DAY-BRITE	2VTL4-48L-ADP-EL14L	120/277	39	5238	LED 3500K	CEILING	RECESSED LAY-IN	EM14
A6	LITHONIA COLUMBIA DAY-BRITE	2VTL4-60L-ADP-EZ1	120/277	48	6300	LED 3500K	CEILING	RECESSED LAY-IN	DIM010
A6E	LITHONIA COLUMBIA DAY-BRITE	2VTL4-60L-ADP-EZ1-EL14L	120/277	48	6300	LED 3500K	CEILING	RECESSED LAY-IN	DIM010, EM14
B6	LITHONIA COLUMBIA DAY-BRITE	2VTL2-60L-ADP-EZ1	120/277	49	6050	LED 3500K	CEILING	RECESSED LAY-IN	DIM010
B6E	LITHONIA COLUMBIA DAY-BRITE	2VTL2-60L-ADP-EZ1-EL14L	120/277	49	6050	LED 3500K	CEILING	RECESSED LAY-IN	DIM010, EM14
C	LITHONIA COLUMBIA DAY-BRITE	EPANL-2X4-4000LM	120/277	38	4077	LED 3500K	CEILING	RECESSED LAY-IN	
CE	LITHONIA COLUMBIA DAY-BRITE	EPANL-2X4-4000LM-E10WCP	120/277	38	4077	LED 3500K	CEILING	RECESSED LAY-IN	EM14
D15	GOTHAM PRESCOLITE DAY-BRITE	EVO6-35/15-AR-MD-LSS-GZ10	120/277	15	1471	LED 3500K	CEILING	RECESSED	DIM010
D15E	GOTHAM PRESCOLITE DAY-BRITE	EVO6-35/15-AR-MD-LSS-GZ10-EL	120/277	15	1471	LED 3500K	CEILING	RECESSED	DIM010, EM14
D20	GOTHAM PRESCOLITE DAY-BRITE	EVO6-40/20-AR--LSS-ND	120/277	20	2006	LED 4000K	CEILING	RECESSED	
EL	CANLET KILLARK CAPRI	68-02-20W-L-W-F-OG-09	120	20	2580	LED	ELEVATOR SHAFT	OUTLET BOX	
F	LITHONIA COLUMBIA DAY-BRITE	ZL1D-L48-3000LM-FST	120/277	30	3966	LED 3500K	CEILING OR 10'-0" A.F.F.	SURFACE OR PENDANT	
FE	LITHONIA COLUMBIA DAY-BRITE	ZL1D-L48-3000LM-FST-E10WLCP	120/277	30	3966	LED 3500K	CEILING OR 10'-0" A.F.F.	SURFACE OR PENDANT	EM14
G	SONNEMAN (OR APPROVED EQ.)	SUSPENDERS 4-TIER GALLERY MATRIX WITH ETCHED CHICLET LUMINAIRE SKU: SLS0002-SC02	277	300	18860	LED 3500K	AS DIRECTED BY ARCHITECT	PENDANT	DIM010
H10	PRUDENTIAL LEDALITE LITECONTROL	BPRO4-REC-FLSH-LED35-LO-10'-TMW-SAL-LP-SC-ND	120/277	38	4600	LED 3500K	CEILING	RECESSED GWB	
H13	PRUDENTIAL LEDALITE LITECONTROL	BPRO4-REC-FLSH-LED35-LO-13'-TMW-SAL-LP-SC-ND	120/277	50	5980	LED 3500K	CEILING	RECESSED GWB	
H17	PRUDENTIAL LEDALITE LITECONTROL	BPRO4-REC-FLSH-LED35-LO-17'-TMW-SAL-LP-SC-ND	120/277	65	7820	LED 3500K	CEILING	RECESSED GWB	
H20	PRUDENTIAL LEDALITE LITECONTROL	BPRO4-REC-FLSH-LED35-LO-20'-TMW-SAL-LP-SC-ND	120/277	76	9200	LED 3500K	CEILING	RECESSED GWB	
K	PRUDENTIAL LEDALITE LITECONTROL	BPRO4-LIN-FLSH-LED35-SO-9'-Y**-SAL-NU-SC-ND	120/277	71	7965	LED 3500K	LEVEL WITH BOTTOM OF BAFFLES	S.S. AIRCRAFT CABLE PENDANT	FSA
KE	PRUDENTIAL LEDALITE LITECONTROL	BPRO4-LIN-FLSH-LED35-SO-9'-Y**-SAL-NU-SC-ND-EMHE	120/277	71	7965	LED 3500K	LEVEL WITH BOTTOM OF BAFFLES	S.S. AIRCRAFT CABLE PENDANT	EM14, FSA
L	LUMINAIRE LED KENALL (OR APPROVED EQ.)	VPF4-4FT-NODIM-40W-35K-120-OP	120	43	4144	LED 3500K	BOTTOM OF JOISTS	PENDANT	FSA
LE	LUMINAIRE LED KENALL (OR APPROVED EQ.)	VPF4-4FT-NODIM-40W-35K-120-OP-EMB310	120	43	4144	LED 3500K	BOTTOM OF JOISTS	PENDANT	EM14, FSA
ME	GOTHAM PRESCOLITE DAY-BRITE	ICO4CC-35/30-AR-LSS-30D-EZ1-JBXCC-E6WR	120/277	35	2920	LED 3500K	AS DIRECTED BY ARCHITECT	PENDANT	DIM010, EMX, FSA
N	LITHONIA COLUMBIA DAY-BRITE	FEM-L48-10000LM-LPAFL-MD	120/277	62	9782	LED 4000K	CEILING	SURFACE	
NE	LITHONIA COLUMBIA DAY-BRITE	FEM-L48-10000LM-LPAFL-MD-E10WMCP	120/277	62	9782	LED 4000K	CEILING	SURFACE	EM14
P	LITHONIA COLUMBIA DAY-BRITE	DSXW1 LED-10C-530-40K-T3M	120/277	19	2159	LED 4000K	ABOVE DOOR (MATCH MARK "PE" FIXTURE)	OUTLET BOX	FSA
PE	LITHONIA COLUMBIA DAY-BRITE	DSXW1 LED-10C-530-40K-T3M-E20WC	120/277	19	2159	LED 4000K	ABOVE DOOR	OUTLET BOX	EM14, FSA
Q	NOT USED	-	-	-	-	-	-		
R	LUX DYNAMICS (OR APPROVED EQUAL)	E-4-S-A-835-2-U10-CP-MFG	120/277	185	29992	LED 3500K	23'-4" A.F.F. (TO BOTTOM OF FIXTURE)	S.S. AIRCRAFT CABLE PENDANT	
RE	LUX DYNAMICS (OR APPROVED EQUAL)	E-4-S-A-835-2-U10-CP-E15-MFG	120/277	185	29992	LED 3500K	23'-4" A.F.F. (TO BOTTOM OF FIXTURE)	S.S. AIRCRAFT CABLE PENDANT	EM14
R1	LUX DYNAMICS (OR APPROVED EQUAL)	E-3-S-A-835-2-U10-CP-MFG	120/277	115	18230	LED 3500K	LEVEL WITH BOTTOM OF TRUSSES	S.S. AIRCRAFT CABLE PENDANT	
R1E	LUX DYNAMICS (OR APPROVED EQUAL)	E-3-S-A-835-2-U10-CP-E15-MFG	120/277	115	18230	LED 3500K	LEVEL WITH BOTTOM OF TRUSSES	S.S. AIRCRAFT CABLE PENDANT	EM14
ST	LITHONIA COLUMBIA DAY-BRITE	WL4-40L-GZ10-LP835-MSD7-DIM10-EL14L (WITH INTEGRAL DIMMING OCC SENSOR)	120/277	40	4124	LED 3500K	7'-6" A.F.F.	OUTLET BOX	EM14
X1	LITHONIA COLUMBIA DAY-BRITE	LE-S-1-G-ELN (WITH DIRECTIONAL ARROWS AS SHOWN ON THE PLANS)	120/277	3	N/A	LED	CEILING OR AB. DOOR	OUTLET BOX	EMX
X2	LITHONIA COLUMBIA DAY-BRITE	LE-S-2-G-ELN (WITH DIRECTIONAL ARROWS AS SHOWN ON THE PLANS)	120/277	3	N/A	LED	CEILING OR AB. DOOR	OUTLET BOX	EMX
X3	LITHONIA COLUMBIA DAY-BRITE	LRP-1-GC-ELN (WITH DIRECTIONAL ARROWS AS SHOWN ON THE PLANS)	120/277	3	N/A	LED	CEILING OR AB. DOOR	OUTLET BOX	EMX
X4	LITHONIA COLUMBIA DAY-BRITE	LRP-2-GMR-ELN (WITH DIRECTIONAL ARROWS AS SHOWN ON THE PLANS)	120/277	3	N/A	LED	CEILING OR AB. DOOR	OUTLET BOX	EMX
X5	LITHONIA COLUMBIA DAY-BRITE	LRP-1-GMR-ELN (WITH DIRECTIONAL ARROWS AS SHOWN ON THE PLANS)	120/277	3	N/A	LED	CEILING OR AB. DOOR	OUTLET BOX	EMX
Y	LITHONIA COLUMBIA DAY-BRITE	DSXB LED-16C-530-40K-SYM	120/277	28	2397	LED 4000K	SEE DETAIL "E-BOL"		FSA

LIGHTING FIXTURE SCHEDULE

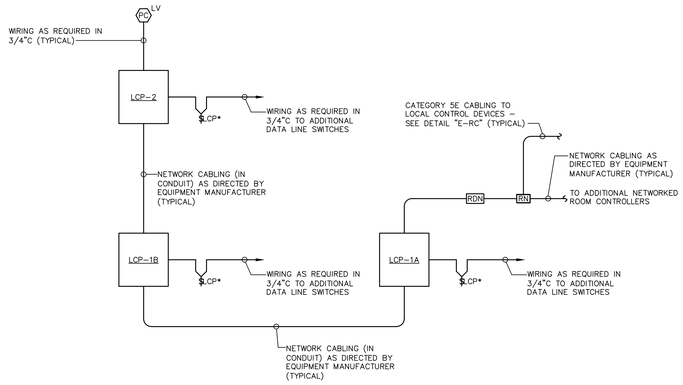
MARK	MANUFACTURER	CATALOG NUMBER	VOLTAGE	LAMPS WATTS	LAMPS LUMENS	LAMPS TYPE	MOUNTING HEIGHT	MOUNTING TYPE	REMARKS
Z2	LITHONIA COLUMBIA DAY-BRITE	DSX1-LED-P6-40K-70CRI-T2M-BL30	120/277	165	20,303	LED 4000K	MOUNT AT 32' ABOVE GRADE TO 30' SQUARE STRAIGHT STEEL POLE - SEE DETAIL "E-LP1"		BLD, FSA
Z5	LITHONIA COLUMBIA DAY-BRITE	DSX1-LED-P7-40K-70CRI-T5M-BL30	120/277	184	23,191	LED 4000K	MOUNT AT 32' ABOVE GRADE TO 30' SQUARE STRAIGHT STEEL POLE - SEE DETAIL "E-LP1"		BLD, FSA
AA	EUREKA CAMMAN (OR APPROVED EQ.)	3450-LED.HO-40-277V	277	15	1124	LED 4000K	AS DIRECTED BY ARCHITECT	OUTLET BOX	FSA
AA1	EUREKA CAMMAN (OR APPROVED EQ.)	3450-LED.HO-40-120V	120	15	1124	LED 4000K	AS DIRECTED BY ARCHITECT	OUTLET BOX	FSA

LIGHTING FIXTURE SCHEDULE GENERAL NOTES:

1. ALL INTERIOR LIGHTING FIXTURES SHALL BE 3500K WITH A MINIMUM CRI OF 80 UNLESS NOTED OTHERWISE, AND ALL EXTERIOR LIGHTING FIXTURES SHALL BE 4000K UNLESS NOTED OTHERWISE.
2. CONTRACTOR SHALL COORDINATE ALL FIXTURE MOUNTING PROVISIONS WITH THE ASSOCIATED CEILING TYPE(S) PRIOR TO ORDERING FIXTURES.
3. ALL FIXTURES AND BALLASTS/DRIVERS SHALL BE RATED FOR OPERATION IN AMBIENT TEMPERATURES UP TO 55 DEGREES CELSIUS.
4. TO ENSURE PROPER COORDINATION AND LONG TERM SUPPORT FOR THE OWNER, ALL LIGHTING FIXTURES SHALL BE PURCHASED THROUGH MANUFACTURER'S REPRESENTATIVES AND DISTRIBUTORS LOCATED WITHIN SIXTY (60) MILES OF THE PROJECT SITE. SUBMITTALS RECEIVED THAT DO NOT COMPLY WITH THIS REQUIREMENT WILL BE REJECTED WITHOUT REVIEW. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DELAYS CAUSED BY NON-COMPLIANCE WITH THIS REQUIREMENT.

LIGHTING FIXTURE SCHEDULE KEYED NOTES:

BLD PROVIDE DIMMING DRIVER AS REQUIRED FOR 30% BI-LEVEL DIMMING.
DIM010 PROVIDE INTEGRAL 0-10V DIMMING DRIVER AS REQUIRED FOR 1% TO 100% FLICKER-FREE DIMMING CAPABILITY FOR THE DESIGNATED FIXTURE(S). VERIFY THAT THE PROPOSED DIMMING DRIVER IS COMPATIBLE WITH THE ASSOCIATED DIMMER PRIOR TO ORDERING FIXTURE. INSTALL ALL LOW VOLTAGE WIRING AS REQUIRED FROM DIMMER TO FIXTURE(S)
EM14 EMERGENCY FIXTURE. PROVIDE EMERGENCY BATTERY PACK RATED FOR AT LEAST 1400 LUMENS.
EMX EMERGENCY FIXTURE. PROVIDE EMERGENCY BATTERY PACK RATED FOR AT LEAST 90 MINUTES OF OPERATION.
FSA PROVIDE FINISH AS SELECTED BY ARCHITECT.



DETAIL "E-LCP" LIGHTING CONTROL PANEL RISER DIAGRAM

SCALE : NONE

LIGHTING CONTROL PANEL - LCP-1B

RELAY MARK	DESCRIPTION	ASSOCIATED PANEL	ASSOC'D CIR. NO.	AUTO ON	AUTO OFF	OVERRIDE 'ON' L.V. SWITCH(ES)	OVERRIDE 'ON' BUTTON(S)	OVERRIDE 'OFF' L.V. SWITCH(ES)	OVERRIDE 'OFF' BUTTON(S)	REMARKS
1	PARKING LOT LIGHTING	LP-1B	1	DUSK	DAWN	-	-	-	-	-
2	PARKING LOT LIGHTING	LP-1B	2	DUSK	AS PER OWNER	-	-	-	-	-
3	EXTERIOR EMERGENCY LIGHTS	LP-1B	3	DUSK	DAWN	-	-	-	-	EMERGENCY
4	LIGHTS - EXTERIOR GRINDING	LP-1B	4	DUSK	DAWN	$LCPC	1	$LCPC	2	-
5	EXTERIOR SECURITY LIGHTS	LP-1B	5	DUSK	DAWN	-	-	-	-	-
6	EXTERIOR LIGHTS	LP-1B	6	DUSK	AS PER OWNER	-	-	-	-	-
7	LIGHTS - CORRIDOR	LP-1B	7	NONE	AS PER OWNER	$LCPA	1	$LCPA	1	-
8	SPARE									
9	SPARE									
10	SPACE									
11	SPACE									
12	SPACE									

LIGHTING CONTROL PANEL NOTES:
1. LIGHTING CONTROL PANELS SHALL UTILIZE 30A RELAYS/CONTACTORS.
2. ALL PRESET TIMES FOR LIGHTING CONTROLS SHALL BE SET INTO THE LIGHTING CONTROL SYSTEM AS DIRECTED BY THE FACILITY MANAGER.
3. ALL INTERIOR FLOURESCENT/LED CIRCUITS SHALL BE PROGRAMMED TO BLINK OFF TO PROVIDE WARNING TO THE OCCUPANTS 5 MINUTES PRIOR TO AUTO OFF.
4. PROVIDE A BARRIER TO ISOLATE ALL EMERGENCY CIRCUITS.

LIGHTING CONTROL PANEL - LCP-1A

RELAY MARK	DESCRIPTION	ASSOCIATED PANEL	ASSOC'D CIR. NO.	AUTO ON	AUTO OFF	OVERRIDE 'ON' L.V. SWITCH(ES)	OVERRIDE 'ON' BUTTON(S)	OVERRIDE 'OFF' L.V. SWITCH(ES)	OVERRIDE 'OFF' BUTTON(S)	REMARKS
1	EXTERIOR EMERGENCY LIGHTS	LP-1A	1	DUSK	DAWN	-	-	-	-	EMERGENCY
2	EXTERIOR LIGHTS	LP-1A	2	DUSK	AS PER OWNER	-	-	-	-	-
3	SPARE									
4	SPARE									
5	SPARE									
6	SPARE									
7	SPARE									
8	SPARE									
9	SPARE									
10	SPACE									
11	SPACE									
12	SPACE									

LIGHTING CONTROL PANEL NOTES:
1. LIGHTING CONTROL PANELS SHALL UTILIZE 30A RELAYS/CONTACTORS.
2. ALL PRESET TIMES FOR LIGHTING CONTROLS SHALL BE SET INTO THE LIGHTING CONTROL SYSTEM AS DIRECTED BY THE FACILITY MANAGER.
3. ALL INTERIOR FLOURESCENT/LED CIRCUITS SHALL BE PROGRAMMED TO BLINK OFF TO PROVIDE WARNING TO THE OCCUPANTS 5 MINUTES PRIOR TO AUTO OFF.
4. PROVIDE A BARRIER TO ISOLATE ALL EMERGENCY CIRCUITS.

LIGHTING CONTROL PANEL - LCP-2

RELAY MARK	DESCRIPTION	ASSOCIATED PANEL	ASSOC'D CIR. NO.	AUTO ON	AUTO OFF	OVERRIDE 'ON' L.V. SWITCH(ES)	OVERRIDE 'ON' BUTTON(S)	OVERRIDE 'OFF' L.V. SWITCH(ES)	OVERRIDE 'OFF' BUTTON(S)	REMARKS
1	MAIN ENTRANCE CANOPY LIGHTS	LP-2	1	DUSK	AS PER OWNER		-		-	-
2	LIGHTS - CORRIDOR	LP-2	2	NONE	AS PER OWNER	$LCPB	1	$LCPB	2	-
3	SPARE									
4	SPARE									
5	SPARE									
6	SPARE									
7	SPARE									
8	SPARE									
9	SPARE									
10	SPACE									
11	SPACE									
12	SPACE									

LIGHTING CONTROL PANEL NOTES:
1. LIGHTING CONTROL PANELS SHALL UTILIZE 30A RELAYS/CONTACTORS.
2. ALL PRESET TIMES FOR LIGHTING CONTROLS SHALL BE SET INTO THE LIGHTING CONTROL SYSTEM AS DIRECTED BY THE FACILITY MANAGER.
3. ALL INTERIOR FLOURESCENT/LED CIRCUITS SHALL BE PROGRAMMED TO BLINK OFF TO PROVIDE WARNING TO THE OCCUPANTS 5 MINUTES PRIOR TO AUTO OFF.
4. PROVIDE A BARRIER TO ISOLATE ALL EMERGENCY CIRCUITS.

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GMC ABHM210048

ALABAMA LICENSED PROFESSIONAL ENGINEER ROBERT C. RENFRO No. 24483
08/25/2023

ELECTRICAL DETAILS

E5.06

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