EMILIA RESOURCES PRODUCTION AREA RENOVATION
KEMPER COUNTY BOARD OF SUPERVISORS
KEMPER COUNTY, MISSISSIPPI

ADDENDUM NO. 3

TO: ALL BIDDERS ON THE ABOVE REFERENCED PROJECT

FROM: Terrell W. Temple, P.E.

DATE: January 13, 2022

SUBJECT: ADDENDUM NO. 3

1. **REPLACE** wage rates schedule dated 10-22-2021 with the attached updated wage rates schedule (4 pages) dated 01-07-2022.

2. **NOTE:** Buy American is not required for this project.

3. **CLARIFICATION re: Minority Participation -** Per contract documents, contractors are encouraged to comply with Minority Participation Goals enclosed in the documents. However, these "Goals" are not mandatory and a contractor's bid will not be rejected for simply failing to achieve the goal. However, the Contractor shall be required to execute all documents related to subcontractors, DBE participation, etc.

4. **ADD** the following attached documents re: **Selective Demolition**:

   Specification Section 024120.11 – Selective Demolition Guidelines
   Drawing sheet no. AAD1.0

5. **ADD** the attached specification section: Section 26 24 13 Switchboard

6. **REPLACE** specification Section 096723 – Resinous Flooring with the attached Section 096723 – Resinous Flooring

7. **REVISE** drawing sheet A1.3 – SCHEDULES (not reissued)
   a. Drawing ROOM FINISH SCHEDULE:
      CHANGE – CLEANING 1105 the following:
      1. FLOOR should read EPOXY-URETHANE in lieu of EPOXY
      2. BASE should read EPOXY-URETHANE in lieu of EPOXY

   b. Drawing MATERIALS & FINISHES LEGEND:
      ADD - the following under FLOOR:

	MARK	TYPE	MANUFACTURER	LINE	COLOR	REMARKS
	EPOXY URETHANE	URETHANE TOP COAT EPOXY	STONHARD	STONCLAD UT	STEEL GRAY	--

8. **REPLACE** existing sheets with the following revised sheets: (see attached)
   E0.2R1 One-Line Diagram
      a. Removed HDP1, XFMR-LRA fed by it and LDP3
      b. Added 200-4 feeder to schedule
   E0.3R1 Power Connection Schedules
      a. Updated feeders and circuit labels to mechanical equipment schedule.
      b. Add fixture C to schedule
      c. Updated E1 feed to MSB rather than MDP.
   E0.4R1 Panel Schedules
      a. Updated breaker to AC-10
      b. Updated MSB to MCB rather than MLO and name.
   E2.1R1 Floor Plan – Power
      a. Removed LDP4
      b. Updated switchboard name to MSB1
      c. Removed references to xfmr sizes; refer to one-line for size
      d. Added locations for E30-35. Coordinate final location with tenant
      e. Added LMP1 and xfmr LMP1 location.
      f. Added description of receptacle for each drop from busway for pricing purposes.
      g. Updated feeder circuit numbers to busways.
      h. Relocated the utility transformer pad. Primary conduit with pullstring, pad and complete secondary are a part of the contractor's scope.

9. **CLARIFICATION:** Owner will be responsible for moving existing equipment from an area prior to contractor commencing work in that area. The exception is that the large kettles in blending rooms will remain.

10. **CLARIFICATIONS AND GENERAL COMMENTS (ELECTRICAL):**

a. There are no 800A feeders in the project. There are 600A3P feeders.
b. Should an architectural alternate not be taken by the Owner, the electrical work within that space shall still be completed.
c. Regarding TVSS – refer to the notation and symbology on one-line as SPD (surge protection device).
d. The Contractor is not responsible for any 400Hz circuits as a part of this scope.
e. Coordination of outages: The facility will be in operation during construction. It is imperative that temporary outages or disconnects be coordinated in advance with Facility personnel, other disciplines and project engineer. Installation of temporary connections to provide

operating power will be flexible as long as safety, coordination and communication efforts are made by the Contractor.

f. IMC is required for all circuits and portions of circuits run below ceiling. EMT is allowed above ceiling.

g. When re-feeding existing equipment, connect to drive/disconnect/controller and provide and make final connection to the equipment.

Submitted By:

Project Engineer	Contractor
January 13, 2022	
Date	Date

BIDDER IS ADVISED THAT ADDENDUM ACKNOWLEDGMENT IS REQUIRED. ACKNOWLEDGED COPY OF ADDENDUM SHALL BE INCLUDED IN THE BID PACKAGE. FAILURE TO PROPERLY ACKNOWLEDGE ADDENDA MAY BE GROUNDS FOR REJECTION OF BID.

"General Decision Number: MS20220074 01/07/2022

Superseded General Decision Number: MS20210074

State: Mississippi

Construction Type: Heavy
HEAVY CONSTRUCTION PROJECTS

Counties: Clarke, George, Greene, Jasper, Kemper, Leake, Neshoba, Newton, Pearl River, Smith, Stone and Wayne Counties in Mississippi.

HEAVY CONSTRUCTION PROJECTS EXCLUDING FLOOD CONTROL

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022, Executive Order 14026 generally applies to the contract. The contractor must pay all covered workers at least $15.00 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2022.

If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022, Executive Order 13658 generally applies to the contract. The contractor must pay all covered workers at least $11.25 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2022.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/07/2022

* ELEC0917-009 06/01/2021

	Rates	Fringes
ELECTRICIAN	$ 28.15	10.32

IRON0469-001 06/01/2017

	Rates	Fringes
IRONWORKER (STRUCTURAL).....	$ 21.00	8.81

SUMS2015-040 04/03/2017

	Rates	Fringes
CARPENTER, Includes Form Work....	$ 16.54	0.00
CEMENT MASON/CONCRETE FINISHER, Includes Water Sewer Lines.....	$ 14.98	0.00
IRONWORKER, REINFORCING.....	$ 18.50	0.00
LABORER: Common or General, Includes Water Sewer Lines.....	$ 12.71	0.00
LABORER: Pipelayer, Includes Water Sewer Lines.....	$ 12.00	0.00
OPERATOR: Backhoe/Excavator/Trackhoe, Includes Water Sewer Lines.....	$ 14.68	0.00
OPERATOR: Bulldozer, Includes Water Sewer Lines.....	$ 14.71	0.00
TRUCK DRIVER: Dump Truck, Includes Water Sewer Lines.....	$ 13.25	0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union, which prevailed in the survey for this classification, which in this example would be Plumbers 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Division National Office Branch of Wage Surveys. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

SECTION 024120.11 - SELECTIVE DEMOLITION GUIDELINES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes dust control, dust partitions, walk-off areas, etc. to prevent accumulation of dust and provide clean workspaces during demolition and renovation in spaces adjacent to spaces in use by Owner.

1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site as required to coordinate with Owner between phases of the work.

PART 2 - PRODUCTS

2.1 DUST PARTITION DESCRIPTION

A. Partition Framing: Contractor option to utilize rough carpentry or light-gauge non-structural steel framing between floor and existing ceiling level with studs 2’-0” on center maximum as framework for dust control material.

1. Dust Control Material:

a. 6 Mil String-Reinforced Plastic Sheeting: Sheeting constructed utilizing a 3-ply laminate combining layers of linear low-density polyethylene film with a high-strength cord grid specifically engineered to provide a heavy-duty, lightweight material that won’t rip or tear. UV stabilization prevents degradation during extended exposure to sun and cold-crack resistance eliminates failures in extremely cold temperatures.

b. 10 Mil Heavy-Duty Plastic Sheeting: Sheeting constructed utilizing four layers of high strength polyethylene film to increase puncture resistance and a layer of polyester scrim to resist tearing. Maybe utilized as a vapor retarder to stop moisture migration in ceiling and wall construction. Utilize in high traffic or long-term dust partition construction.

2.2 DUST AND HVAC COVERS

A. Prevention of dust accumulation in adjacent areas, covering ducts, supply and return-air devices and protect HVAC equipment. Duct Cover Bags made with virgin polyethylene and an elastic opening designed to seamlessly conform to the size and shape of the duct, to prevent damaging moisture, dirt particles, and dust and debris from entering the air handling system.

2.3 RIGID PROTECTION BOARDS

A. Flame-retardant corrugated polypropylene panel to protect floors and surfaces during construction and renovation.

2.4 CLEANROOM WALK-OFF MATS

A. Cleanroom walk-off mats remove contaminants from shoe soles and footwear. Mat is constructed of tough polyethylene film and a non-skid adhesive utilizing multiple layers for peel off to reveal clean sheets.

PART 3 - EXECUTION

3.1 ACTIVITY LEVELS

A. **Level 1 Activity:** Inspections above ceiling that create minimal to no dust,minor repair, painting, or minor patching, minor electrical work, plumbing, similar work with little or no drilling, cutting, or other dust-raising activity, opening into chases and concealed spaces. Normal maintenance activity.

B. **Level 2 Activity:** Installation of electrical and computer cabling, working inchases and concealed spaces, working above ceiling, replacing finishes, wall covering removal, cutting drywall, sanding and other dust making activity within a room or other controlled area, opening ceiling tiles (more than 100 ft^2 consecutive).

C. **Level 3 Activity:** Removing floor coverings, sanding plaster walls, wall demolition and construction, duct work, major ceiling work, major demolition of areas, particularly those open to packaging/assembly areas, work onHVAC systems that release dust. Usually more than five consecutive days work.

3.2 PRECAUTION CLASSIFICATION

A. Class I Precautions (REQUIRED IN ALL RENOVATION WORK AREAS):

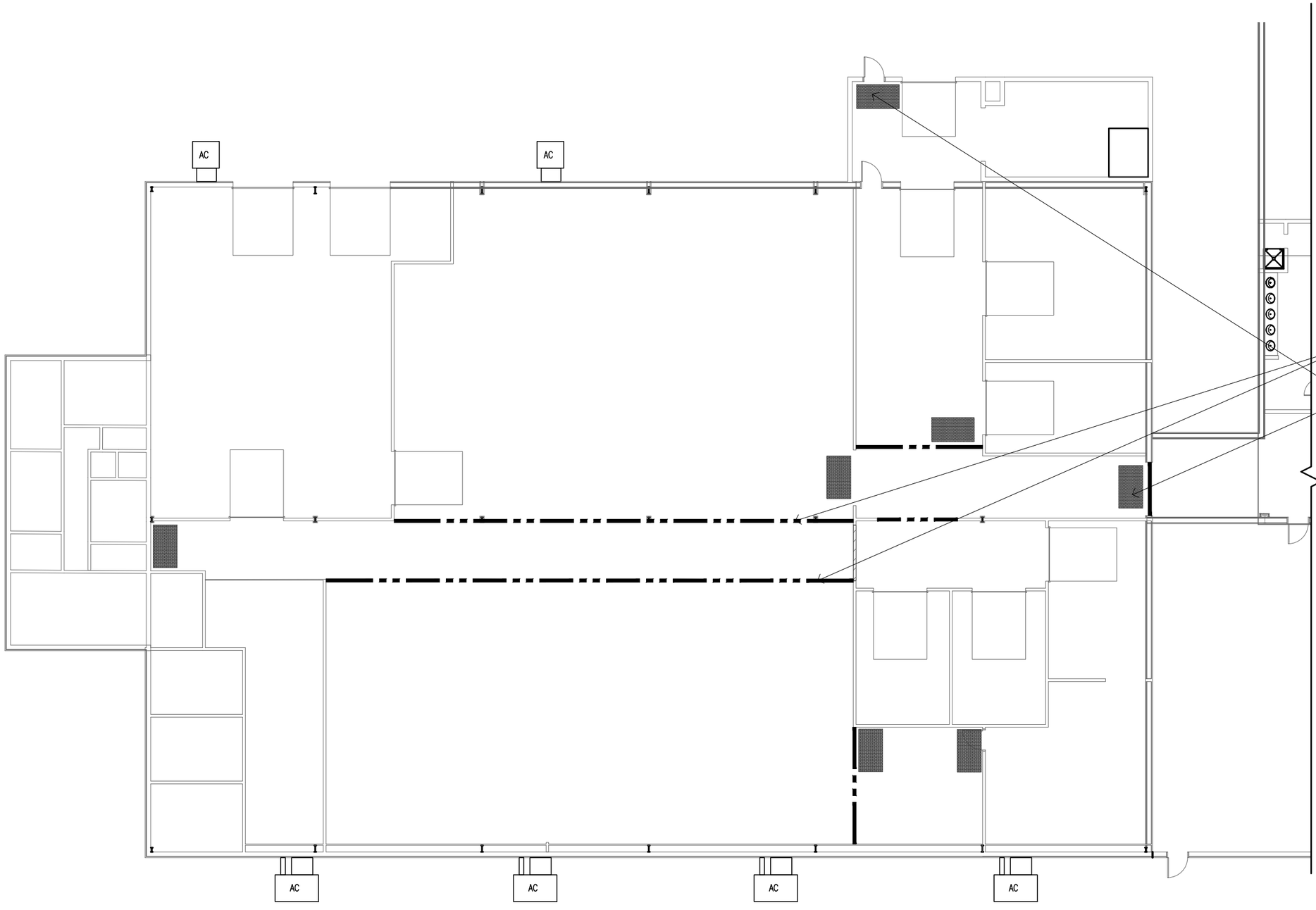
1. Use tightly covered container to remove debris along a path through active work areas.
2. Protect active work areas from activity or close access to work area.
3. If removing ceiling tiles, replace promptly.
4. Minimize dust and dirt.
5. Keep work area clean.
6. HEPA vacuum or damp wipe and mop work areas when work iscomplete.
7. Other precautions noted below.

B. Class II Precautions (REQUIRED WHEN WORKING IN AREAS ADJACENT TO MANUFACTURING AREA):

1. Use water mist to minimize dust when applicable (ie; demolition or when cutting wall board).
2. Isolate HVAC supply and exhaust with plastic or other solid material. Contact Maintenance Department to evaluate air balance and temperature in adjacent spaces to correct issues caused from HVAC isolation.
3. Use sticky walk off mats at the exit of the job site, being careful not to create a public trip hazard.

4. If vacuum is used on site, it must be HEPA filtered and maintained permanufacturer's specifications.
5. Upon completion of work, clean all surfaces with hospital approveddisinfectant.

END OF SECTION 024120.11



1 PARTIAL FLOOR PLAN - SELECTIVE DEMOLITION DUST PARTITIONS

1/16" = 1'-0"

N

emilia RESOURCES

REGISTERED ARCHITECT
Arjen Lagendijk
2144
Meridian, MS
STATE OF MISSISSIPPI

01-12-2022

SN20-1348

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SCALE as noted | 12 JANUARY 2022 | SHEET AAD1.0

SECTION 26 24 13
SWITCHBOARD

PART 1 GENERAL

1.1 SECTION INCLUDES:

A. Main Switchboard - Furnish and install the Service Entrance switchboard(s) as herein specified and shown on the associated electrical drawings.

1.2 REFERENCES:

The switchboard(s) and overcurrent protection devices referenced herein are designed and manufactured according to the following appropriate specifications.

A. ANSI/NFPA 70 - National Electrical Code (NEC).

B. ANSI/IEEE C12.16 - Solid State Electricity Metering.

C. ANSI C57.13 - Instrument Transformers.

D. NEMA AB 1 - Molded Case Circuit Breakers and Molded Case Switches.

E. NEMA PB 2 – Dead-front Distribution Switchboards, File E8681

F. NEMA PB 2.1 - Proper Handling, Installation, Operation and Maintenance of Dead-front Switchboards Rated 600 Volts or Less.

G. NEMA PB 2.2 - Application Guide for Ground Fault Protective Devices for Equipment.

H. UL 50 - Cabinets and Boxes.

I. UL 98 - Enclosed and Dead Front Switches.

J. UL 489 - Molded Case Circuit Breakers.

K. UL 891 - Dead-Front Switchboards.

L. UL 943 - Ground Fault Circuit Interrupters.

M. Federal Specification W-C-375B/Gen - Circuit Breakers, Molded Case, Branch Circuit and Service.

1.3 SUBMITTALS:

A. Shop Drawings shall indicate front and side enclosure elevations with overall dimensions shown; conduit entrance locations and requirements; nameplate legends; one-line diagrams; equipment schedule; and switchboard instrument details.

1.4 QUALIFICATIONS:

A. To be considered for approval, a manufacturer shall have specialized in the manufacturing and assembly of switchboards for at least fifty (50) years.

B. Furnish products listed by Underwriters Laboratories Incorporated and in accordance with standards listed in Article 1.03 - References.

C. The manufacturing facility shall be registered by Underwriters Laboratories Inc. to the International Organization for Standardization ISO 9002 Series Standards for quality.

1.5 DELIVERY, STORAGE, AND HANDLING:

A. Deliver, store, protect, and handle products in conformance with manufacturer's recommended practices as outlined in applicable Installation and Maintenance Manuals.

B. Each switchboard section shall be delivered in individual shipping splits for ease of handling. They shall be individually wrapped for protection and mounted on shipping skids.

C. Inspect and report concealed damage to carrier within their required time.

D. Store in a clean, dry space. Maintain factory protection and/or provide an additional heavy canvas or heavy plastic cover to protect structure from dirt, water, construction debris, and traffic. Where applicable, provide adequate heating within enclosures to prevent condensation.

E. Handle in accordance with NEMA PB 2.1 and manufacturer's written instructions. Lift only by lifting means provided for this express purpose. Handle carefully to avoid damage to switchboard internal components, enclosure, and finish.

1.6 ENVIRONMENTAL REQUIREMENTS:

A. Conform to NEMA PB 2 service conditions during and after installation of switchboards.

1.7 MAINTENANCE MATERIALS:

A. Provide one (1) set of installation and maintenance instructions with each switchboard. Instructions are to be easily identified and affixed within the incoming or main section of the line-up.

1.8 WARRANTY:

A. Manufacturer shall warrant equipment to be free from defects in materials and workmanship for the lesser of one (1) year from date of installation or eighteen (18) months from date of purchase.

PART 2 PRODUCTS

2.1 MANUFACTURERS:

A. Square D Company.

B. Substitutions must be submitted in writing three (3) weeks prior to original bid date with supporting documentation demonstrating that the alternate manufacturer conforms to all aspects of the specifications herein.

2.2 SWITCHBOARD – GENERAL:

A. Utility Metering Compartment: The utility current transformer compartment shall comply with the local utility construction specifications.

B. Short Circuit Current Rating: as noted on plans.

C. Future Provisions: All unused spaces provided, unless otherwise specified, shall be fully equipped for future devices, including all appropriate connectors and mounting hardware.

D. Enclosure: Type 1 - General Purpose.

1. Sections shall be aligned front and rear.
2. Removable steel base channels (1.5-inch floor sills) shall be bolted to the frame to rigidly support the entire shipping section for moving on rollers and floor mounting.
3. The switchboard enclosure shall be painted on all exterior surfaces. The paint finish shall be a medium gray, ANSI #49, applied by the electro-deposition process over an iron phosphate pre-treatment.
4. All front covers shall be screw removable with a single tool and all doors shall be hinged with removable hinge pins.
5. Top and bottom conduit areas shall be clearly indicated on shop drawings.

E. Nameplates: Provide 1-inch high x 3 inches engraved laminated (Gravoply) nameplates for each device. Furnish black letters on a white background for all voltages.

F. Bus Composition: Shall be plated copper. Plating shall be applied continuously to all bus work. The switchboard bussing shall be of enough cross-sectional area to meet UL Standard 891 temperature rise requirements. The phase and neutral through-bus shall have an ampacity as shown in the plans. For 4-wire systems, the neutral shall be of equivalent ampacity as the phase bus bar. Tapered bus is not acceptable. Full provisions for the addition of future sections shall be provided. Bussing shall include all necessary hardware to accommodate splicing for future additions.

G. Ground Bus: Sized per NFPA70 and UL 891 Tables 25.1 and 25.2 and shall extend the entire length of the switchboard. Provisions for the addition of future sections shall be provided.

2.3 SWITCHBOARD - INCOMING MAIN SECTION DEVICES:

A. Main Circuit Breaker(s)

1. Electronic trip molded case standard function 80% rated circuit breaker(s) through 2500A
   a. All electronic circuit breakers shall have the following time/current response adjustments: Long Time Pickup, Long Time Delay, Short Time Pickup, Short Time Delay, Ground Fault Pickup, Ground Fault Delay, and Instantaneous settings. Each adjustment shall have discrete settings (fully adjustable) and shall be independent of all other adjustments.
   b. Circuit breaker trip system shall be a microprocessor-based true rms sensing designed with sensing accuracy through the thirteenth (13^{th}) harmonic. Sensor ampere ratings shall be as indicated on the associated schedule and/or drawing.
   c. Long Time Pickup indication to signal when loading approaches or exceeds the adjustable ampere rating of the circuit breaker shall be provided.

2.4 SWITCHBOARD - DISTRIBUTION SECTION DEVICES:

A. Group mounted circuit breakers through 1200A

1. Circuit breaker(s) shall be group mounted plug-on with mechanical restraint on a common pan or rail assembly.
2. The interior shall have three flat bus bars stacked and aligned vertically with glass reinforced polyester insulators laminated between phases. The molded polyester insulators shall support and provide phase isolation to the entire length of bus.
3. Circuit breaker(s) equipped with line terminal jaws shall not require additional external mounting hardware. Circuit breaker(s) shall be held in mounted position by a self-contained bracket secured to the mounting pan by fasteners. Circuit breaker(s) of different frame sizes shall be capable of being mounted across from each other.
4. Line-side circuit breaker connections are to be jaw type.
5. All unused spaces provided, unless otherwise specified, shall be fully equipped for future devices, including all appropriate connectors and mounting hardware.
6. Electronic trip molded case standard function 80% rated circuit breakers through 2500A
    a. All electronic circuit breakers shall have the following time/current response adjustments: Long Time Pickup, Long Time Delay, Short Time Pickup, Short Time Delay, Ground Fault Pickup, Ground Fault Delay, and Instantaneous settings. Each adjustment shall have discrete settings (fully adjustable) and shall be independent of all other adjustments.
    b. Circuit breaker trip system shall be a microprocessor-based true rms sensing designed with sensing accuracy through the thirteenth (13^{th}) harmonic. Sensor ampere ratings shall be as indicated on the associated schedule and/or drawing.
    c. Long Time Pickup indication to signal when loading approaches or exceeds the adjustable ampere rating of the circuit breaker shall be provided.
    d. Furnish thermal magnetic molded case circuit breakers for 250A frames and below.

PART 3 EXECUTION

3.1 INSPECTION:

A. Examine area to receive switchboard to provide adequate clearance for switchboard installation.

B. Check that concrete pads are level and free of irregularities.

C. Start work only after unsatisfactory conditions are corrected.

3.2 INSTALLATION:

A. Install switchboard in accordance with manufacturer's written guidelines, the NEC, and local codes.

3.3 FIELD QUALITY CONTROL:

A. Inspect completed installation for physical damage, proper alignment, anchorage, and grounding.

B. Measure, using a Megger, the insulation resistance of each bus section phase-to-phase and phase-to-ground for one minute each, at minimum test voltage of 1000 VDC;

minimum acceptable value for insulation resistance is 1 megohms. NOTE: Refer to manufacturer's literature for specific testing procedures.

C. Check tightness of accessible bolted bus joints using calibrated torque wrench per manufacturer's recommended torque values.

D. Physically test key interlock systems to check for proper functionality.

E. Test ground fault systems by operating push-to-test button.

3.4 ADJUSTING:

A. Adjust all operating mechanisms for free mechanical movement per manufacturer’s specifications.

B. Tighten bolted bus connections in accordance with manufacturer's instructions.

C. Connect feeders and loads to appropriate breakers lugs per the line diagram. Prior to energizing switchboard, contact Engineer for inspection of terminations.

D. Set all breakers per the approved coordination study settings immediately after energizing switchboard.

3.5 CLEANING:

A. Touch up scratched or marred surfaces to match original finish.

END OF SECTION

SECTION 096723 - RESINOUS FLOORING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes one resinous flooring system, one with urethane body.
   1. Application Method: Squeegee, screed, and broadcast.

1.3 SUBMITTALS

A. Product Data: For each type of product indicated. Include manufacturer's technical data, application instructions, and recommendations for each resinous flooring component required.

B. Samples for Verification: For each resinous flooring system required, 6 inches (150 mm) square, applied to a rigid backing by Installer for this Project.

C. Product Schedule: Use resinous flooring designations indicated in Part 2 and room designations indicated on Drawings in product schedule.

D. Installer Certificates: Signed by manufacturer certifying that installers comply with specified requirements.

E. Maintenance Data: For resinous flooring to include in maintenance manuals.

1.4 QUALITY ASSURANCE

A. No request for substitution shall be considered that would change the generic type of floor system specified (i.e. urethane based flake broadcast with mortar coat). Equivalent materials of other manufactures may be substituted only on approval of Architect or Engineer. Request for substitution will only be considered only if submitted 10 days prior to bid date. Request will be subject to specification requirements described in this section.

B. Installer Qualifications: Engage an experienced installer (applicator) who is experienced in applying resinous flooring systems similar in material, design, and extent to those indicated for this Project, whose work has resulted in applications with a record of successful in-service performance, and who is acceptable to resinous flooring manufacturer.
   1. Engage an installer who is certified in writing by resinous flooring manufacturer as qualified to apply resinous flooring systems indicated.

2. Contractor shall have completed at least 10 projects of similar size and complexity.

C. Source Limitations: Obtain primary resinous flooring materials, including primers, resins, hardening agents, grouting coats, and topcoats, through one source from a single manufacturer, with not less than ten years of successful experience in manufacturing and installing principal materials described in this section. Provide secondary materials, including patching and fill material, joint sealant, and repair materials, of type and from source recommended by manufacturer of primary materials.

D. Manufacturer Field Technical Service Representatives: Resinous flooring manufacture shall retain the services of Field Technical Service Representatives who are trained specifically on installing the system to be used on the project.
1. Field Technical Services Representatives shall be employed by the system manufacture to assist in the quality assurance and quality control process of the installation and shall be available to perform field problem solving issues with the installer.

E. Mockups: Apply mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
1. Apply full-thickness mockups on 48-inch- (1200-mm-) square floor area selected by Architect.
   a. Include 48-inch (1200-mm) length of integral cove base.
2. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

F. Pre-installation Conference:
1. General contractor shall arrange a meeting not less than thirty days prior to starting work.
2. Attendance:
   a. General Contractor
   b. Architect/Owner's Representative.
   c. Manufacturer/Installer's Representative.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials in original packages and containers, with seals unbroken, bearing manufacturer's labels indicating brand name and directions for storage and mixing with other components.

B. Store materials to prevent deterioration from moisture, heat, cold, direct sunlight, or other detrimental effects.

C. All materials used shall be factory pre-weighed and pre-packaged in single, easy to manage batches to eliminate on site mixing errors. No on site weighing or volumetric measurements allowed.

1.6 PROJECT CONDITIONS

A. Environmental Limitations: Comply with resinous flooring manufacturer's written instructions for substrate temperature, ambient temperature, moisture, ventilation, and other conditions affecting resinous flooring application.
   1. Maintain material and substrate temperature between 65 and 85 deg F (18 and 30 deg C) during resinous flooring application and for not less than 24 hours after application.

B. Lighting: Provide permanent lighting or, if permanent lighting is not in place, simulate permanent lighting conditions during resinous flooring application.

C. Close spaces to traffic during resinous flooring application and for not less than 24 hours after application, unless manufacturer recommends a longer period.

D. Concrete substrate shall be properly cured for a minimum of 30 days. A vapor barrier must be present for concrete subfloors on or below grade. Otherwise, an osmotic pressure resistant grout must be installed prior to the resinous flooring

E. 1.7 WARRANTY

A. Manufacturer shall furnish a single, written warranty covering both material and workmanship for a period of (1) full years from date of installation, or provide a joint and several warranty signed on a single document by material manufacturer and applicator jointly and severally warranting the materials and workmanship for a period of (1) full year from date of installation. A sample warranty letter must be included with bid package or bid may be disqualified.

PART 2 - PRODUCTS

2.1 RESINOUS FLOORING – designation **EPOXY**

A. Products: Subject to compliance with requirements:
   1. Stonhard, Inc.; Stonclad GS with top coat Stonkote GS4. Basis of Design.

B. System Characteristics:
   1. Color and Pattern: As scheduled.
   2. Wearing Surface: Standard
   3. Integral Cove Base: 6” High
   4. Overall System Thickness: 1/4 inch

C. System Components: Manufacturer's standard components that are compatible with each other and as follows:
   1. Primer:
      a. Material Basis: Stonhard Standard Primer
      b. Resin: Epoxy
      c. Formulation Description: (2) two component, low viscosity, urethane.
      d. Application Method: Squeegee and roller.
      e. Number of Coats: (1) one.

f. Aggregates: Broadcast quartz into wet primer coat.

2. Mortar Base:
   a. Material Basis: Stonclad GS.
   b. Resin: Epoxy
   c. Formulation Description: (3) three component, 100 percent solids.
   d. Application Method: Metal trowel.
      1) Thickness of Coats: Nominal 1/4 inch
      2) Number of Coats: (1) One.
   e. Aggregates: Pigmented Blended aggregate
3. Topcoat:
   a. Material Basis: Stonkote GS4
   b. Resin: Epoxy
   c. Formulation Description: (2) two component 100 percent solids
   d. Type: Pigmented
   e. Finish: Standard.
   f. Number of Coats: (1) one.

D. ACCESSORY MATERIALS

1. Patching and Fill Material: Resinous product of or approved by resinous flooring manufacturer and recommended by manufacturer for application indicated. No Single component or cementitious materials.
2. Joint Sealant: Type recommended or produced by resinous flooring manufacturer for type of service and joint condition indicated.

2.2 RESINOUS FLOORING – designation **EPOXY-URETHANE**

A. Products: Subject to compliance with requirements:
   1. Stonhard, Inc.; Stonclad UT with top coat Stonseal UT7. Basis of Design.

B. System Characteristics:
   1. Color and Pattern: As scheduled.
   2. Wearing Surface: Medium Texture
   3. Integral Cove Base: 6” High
   4. Overall System Thickness: 1/4 inch

C. System Components: Manufacturer's standard components that are compatible with each other and as follows:
   1. Mortar:
      a. Material Basis: Stonclad UT
      b. Resin: Urethane
      c. Formulation Description: (4) four component, 100 percent solids.
      d. Application Method: Trowel.
      e. Number of Coats: (1) one.
      f. Aggregates: Broadcast texture into wet mortar base.
         1)
   2. Topcoat:
      a. Material Basis: Stonseal UT7
      b. Resin: Urethane
      c. Formulation Description: (2) two component 100 percent solids
      d. Type: Pigmented

e. Finish: Standard.
f. Number of Coats: (1) one.

D. ACCESSORY MATERIALS

1. Primer: Type recommended by manufacturer for substrate and body coats indicated. Formulation Description: Stonclad UT urethane mortar is self priming.
2. Patching and Leveling: Use a four component fast setting Urethane grout. Moisture resistant polyurethane based grout designed for permanent repairs under flooring system. Stonhard, Stonset TG6. See drawings 1/4” per foot slope to drains. Use standard drain detail, saw cut and chase.
3. Waterproofing Membrane: Type recommended by manufacturer for substrate and primer and body coats indicated. Formulation Description Only if application above grade Stonproof ME7. Must include texture 3 broadcast to ensure intercoat adhesion.

PART 3 - EXECUTION

3.1 PREPARATION

A. General: Prepare and clean substrates according to resinous flooring manufacturer's written instructions for substrate indicated. Provide clean, dry, and neutral Ph substrate for resinous flooring application.

B. Concrete Substrates: Provide sound concrete surfaces free of laitance, glaze, efflorescence, curing compounds, form-release agents, dust, dirt, grease, oil, and other contaminants incompatible with resinous flooring.
1. Mechanically prepare substrates as follows:
a. Mechanically prepare with the use of Diamond grinding equipment to provide surface sound concrete surfaces free of laitance, glaze, efflorescence, curing compounds, form-release agents, dust, dirt, grease, oil, and other contaminants incompatible with resinous flooring. Or,
b. Shot-blast surfaces with an apparatus that abrades the concrete surface, contains the dispensed shot within the apparatus, and recirculates the shot by vacuum pickup.
c. Comply with ASTM C 811 requirements, unless manufacturer's written instructions are more stringent.
2. Repair damaged and deteriorated concrete according to resinous flooring manufacturer's written recommendations.
3. Verify that concrete substrates are dry.
a. Perform in situ probe test, ASTM F 2170. Proceed with application only after substrates do not exceed a maximum potential equilibrium relative humidity of 80 percent.
b. Perform anhydrous calcium chloride test, ASTM F 1869. Proceed with application only after substrates have maximum moisture-vapor-emission rate of 6 lb of water/1000 sq. ft. of slab in 24 hours.
c. Perform additional moisture tests recommended by manufacturer. Proceed with application only after substrates pass testing.

4. Verify that concrete substrates have neutral Ph and that resinous flooring will adhere to them. Perform tests recommended by manufacturer. Proceed with application only after substrates pass testing.

C. Resinous Materials: Mix components and prepare materials according to resinous flooring manufacturer's written instructions.

D. Use patching and fill material to fill holes and depressions in substrates according to manufacturer's written instructions.

E. Treat control joints and other nonmoving substrate cracks to prevent cracks from reflecting through resinous flooring according to manufacturer's written recommendations. Allowances should be included for Stonflex MP7 joint fill material.

3.2 APPLICATION

A. General: Apply components of resinous flooring system according to manufacturer's written instructions to produce a uniform, monolithic wearing surface of thickness indicated.
   1. Coordinate application of components to provide optimum adhesion of resinous flooring system to substrate, and optimum intercoat adhesion.
   2. Cure resinous flooring components according to manufacturer's written instructions. Prevent contamination during application and curing processes.
   3. At substrate expansion and isolation joints, provide joint in resinous flooring to comply with resinous flooring manufacturer's written recommendations.
      a. Apply joint sealant to comply with manufacturer's written recommendations.

B. Mix and apply primer over properly prepared substrate with strict adherence to manufacturer's installation procedures and coverage rates

C. Broadcast: Immediately broadcast quartz silica aggregate into the primer using manufacturer's specially designed spray caster. Strict adherence to manufacturer's installation procedures and coverage rates is imperative.

D. Integral Cove Base: Apply cove base mix to wall surfaces before applying flooring. Apply according to manufacturer's written instructions and details including those for taping, mixing, priming, troweling, sanding, and top coating of cove base. Round internal and external corners.

E. Body coat: Mix base material according to manufacturer's recommended procedures. Uniformly spread mixed material over previously primed substrate using manufacturer's installation tool. Roll material with strict adherence to manufacturer's installation procedures and coverage rates.

F. Broadcast: Immediately broadcast decorative flakes into the body coat. Strict adherence to manufacturer's installation procedures and coverage rates is imperative.

G. Sealer: Remove excess un-bonded flakes by lightly brushing and vacuuming the floor surface. Mix and apply sealer with strict adherence to manufacturer's installation procedures.

3.3 TERMINATIONS

A. Chase edges to “lock” the coating system into the concrete substrate along lines of termination.

B. Penetration Treatment: Lap and seal coating onto the perimeter of the penetrating item by bridging over compatible elastomer at the interface to compensate for possible movement.

C. Trenches: Continue coating system into trenches to maintain monolithic protection. Treat cold joints to assure bridging of potential cracks.

D. Treat floor drains by chasing the coating to lock in place at point of termination.

3.4 JOINTS AND CRACKS

A. Treat control joints to bridge potential cracks and to maintain monolithic protection.

B. Treat cold joints and construction joints to bridge potential cracks and to maintain monolithic protection on horizontal and vertical surfaces as well as horizontal and vertical interfaces.

C. Discontinue floor coating system at vertical and horizontal contraction and expansion joints by installing backer rod and compatible sealant after coating installation is completed. Provide sealant type recommended by manufacturer for traffic conditions and chemical exposures to be encountered.

3.5 CLEANING, PROTECTING, AND CURING

A. Cure resinous flooring materials in compliance with manufacturer's directions, taking care to prevent contamination during stages of application and prior to completion of curing process. Close area of application for a minimum of 18 hours.

B. Protect resinous flooring materials from damage and wear during construction operation. Where temporary covering is required for this purpose, comply with manufacturer's recommendations for protective materials and method of application. General Contractor is responsible for protection and cleaning of surfaces after final coats.

C. Cleaning: Remove temporary covering and clean resinous flooring just prior to final inspection. Use cleaning materials and procedures recommended by resinous flooring manufacturer

END OF SECTION 096723

GENERAL NOTES:

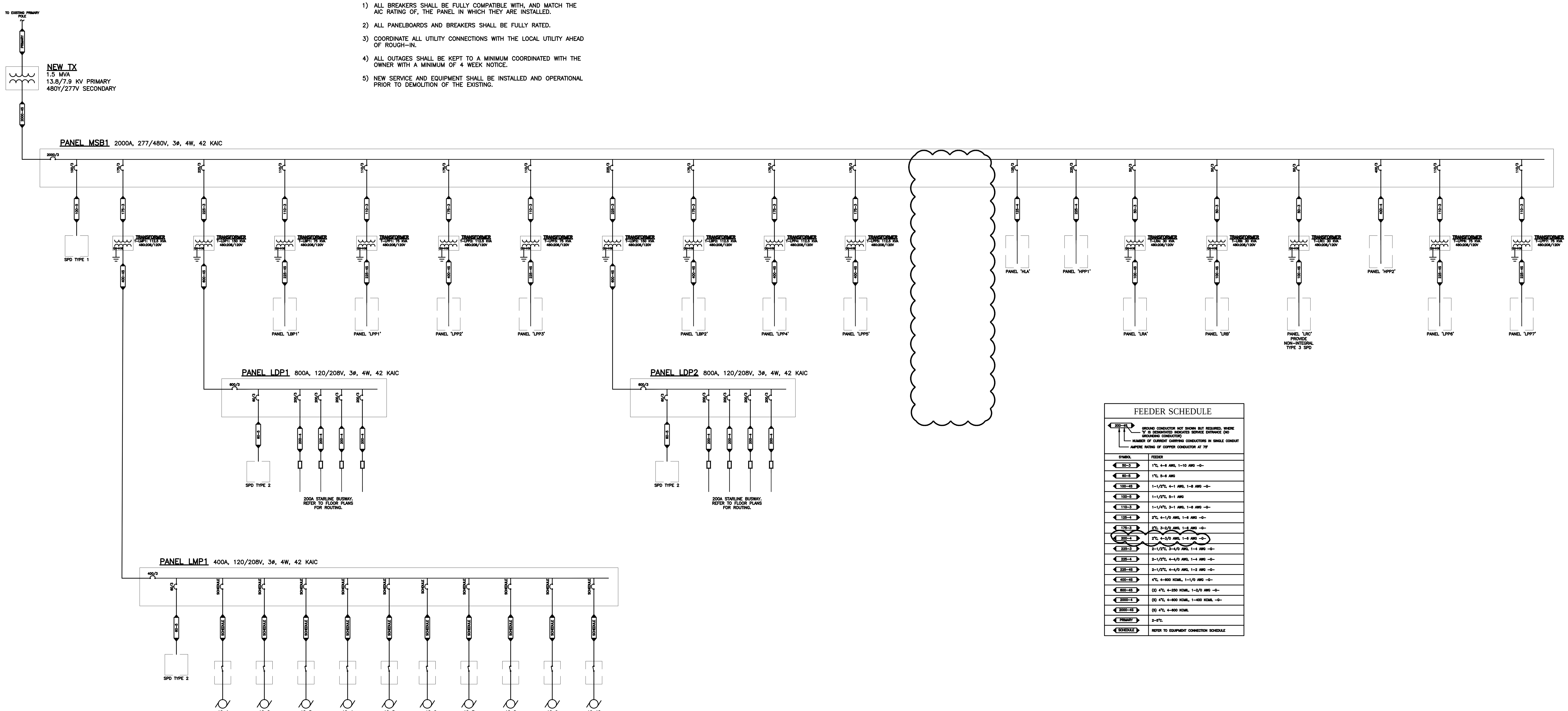
1) ALL BREAKERS SHALL BE FULLY COMPATIBLE WITH, AND MATCH THE AIC RATING OF, THE PANEL IN WHICH THEY ARE INSTALLED.

2) ALL PANELBOARDS AND BREAKERS SHALL BE FULLY RATED.

3) COORDINATE ALL UTILITY CONNECTIONS WITH THE LOCAL UTILITY AHEAD OF ROUGH-IN.

4) ALL OUTAGES SHALL BE KEPT TO A MINIMUM COORDINATED WITH THE OWNER WITH A MINIMUM OF 4 WEEK NOTICE.

5) NEW SERVICE AND EQUIPMENT SHALL BE INSTALLED AND OPERATIONAL PRIOR TO DEMOLITION OF THE EXISTING.



FEEDER SCHEDULE

200-4S — GROUND CONDUCTOR NOT SHOWN BUT REQUIRED. WHERE 'S' IS DESIGNTATED INDICATES SERVICE ENTRANCE (NO GROUNDING CONDUCTOR) — NUMBER OF CURRENT CARRYING CONDUCTORS IN SINGLE CONDUIT — AMPERE RATING OF COPPER CONDUCTOR AT 75°

SYMBOL	FEEDER
50-3	1"C, 4-6 AWG, 1-10 AWG -G-
60-5	1"C, 5-6 AWG
100-4S	1-1/2"C, 4-1 AWG, 1-8 AWG -G-
100-5	1-1/2"C, 5-1 AWG
110-3	1-1/4"C, 3-1 AWG, 1-6 AWG -G-
125-4	2"C, 4-1/0 AWG, 1-6 AWG -G-
175-3	2"C, 3-2/0 AWG, 1-6 AWG -G-
200-4	2"C, 4-3/0 AWG, 1-6 AWG -G-
225-3	2-1/2"C, 3-4/0 AWG, 1-4 AWG -G-
225-4	2-1/2"C, 4-4/0 AWG, 1-4 AWG -G-
225-4S	2-1/2"C, 4-4/0 AWG, 1-2 AWG -G-
400-4S	4"C, 4-600 KCMIL, 1-1/0 AWG -G-
600-4S	(2) 4"C, 4-250 KCMIL, 1-2/0 AWG -G-
2000-4	(5) 4"C, 4-600 KCMIL, 1-400 KCMIL -G-
2000-4S	(5) 4"C, 4-600 KCMIL
PRIMARY	2-5"C.
SCHEDULE	REFER TO EQUIPMENT CONNECTION SCHEDULE

Jon D. Rice & Associates, LLC
Electrical Engineering Consultants
5403 Castlewoods Court . Suite G . Flowood, MS . 39232
Tel 601-919-8040 Fax 601-919-8060 PROJ.# 20011.00

emilia RESOURCES

JON D. RICE REGISTERED PROFESSIONAL ENGINEER 14455 STATE OF MISSISSIPPI

CONSULTANT:

REVISION:	DATE:
ADDENDUM 1	1/13/2022

EMILIA RESOURCES, INC.
Facility Alterations & Renovations
Kemper County
DeKalb, Mississippi

DESIGNED BY: SA
DRAWN BY: SA
CHECKED BY: SA

Arjen Lagendijk - Architect, PLLC
P. O. BOX 848 MERIDIAN, MISSISSIPPI 39302 601 482-7303 F 601 482-7336

ONE-LINE DIAGRAM

SN: 20-1348
DATE: 30 OCTOBER 2021

E0.2R1

EQUIPMENT CONNECTION SCHEDULE

TAG	DESCRIPTION	VOLT/ PHASE	MCA	CIRCUIT	FEEDER	DISCONNECT	NOTES
E1	2,000 GAL KETTLE	480V/3Φ	125A	MSB1-1,3,5	4-#1/0, 1-#6(G) IN 1-1/2"C.	200A/3P/175AF	1,2,3,4
E2	500 GAL KETTLE	208V/3Φ	50A	LPP1-1,3,5	4-#6, 1-#8(G) IN 1"C.	100A/3P/70AF	1,2,3,4
E3	5 HP TRANSFER PUMP	208V/3Φ	20.9A	LPP1-2,4,6	4-#10, 1-#10(G) IN 3/4"C.	30A/3P/30AF	1,2,3,4
E4	1,000 GAL KETTLE	208V/3Φ	125A	LPP2-1,3,5	4-#1/0, 1-#6(G) IN 1-1/2"C.	200A/3P/175AF	1,2,3,4
E5	SIDE KETTLE MIXER	208V/3Φ	6.3A	LPP2-2,4,6	4-#12, 1-#12(G) IN 3/4"C.	30A/3P/15AF	1,2,3,4
E6	5 HP TRANSFER PUMP	208V/3Φ	20.9A	LPP2-7,9,11	4-#10, 1-#10(G) IN 3/4"C.	30A/3P/30AF	1,2,3,4
E7	500 GAL KETTLE	208V/3Φ	50A	LPP3-1,3,5	4-#6, 1-#8(G) IN 1"C.	100A/3P/70AF	1,2,3,4
E8	1 HP SIDE KETTLE MIXER	208V/3Φ	6.3A	LPP3-2,4,6	4-#12, 1-#12(G) IN 3/4"C.	30A/3P/15AF	1,2,3,4
E9	3 HP SIDE KETTLE SWEEP	208V/3Φ	13.3A	LPP3-7,9,11	4-#12, 1-#12(G) IN 3/4"C.	30A/3P/20AF	1,2,3,4
E10	5 HP TRANSFER PUMP	208V/3Φ	20.9A	LPP3-8,10,12	4-#12, 1-#12(G) IN 3/4"C.	30A/3P/30AF	1,2,3,4
E11	500 GAL KETTLE	208V/3Φ	156.3A	LPP4-1,3,5	4-#2/0, 1-#6(G) IN 2"C.	400A/3P/225AF	1,2,3,4
E12	1 HP SIDE KETTLE MIXER	208V/3Φ	6.3A	LPP4-2,4,6	4-#12, 1-#12(G) IN 3/4"C.	30A/3P/15AF	1,2,3,4
E13	3 HP SIDE KETTLE SWEEP	208V/3Φ	13.3A	LPP4-7,9,11	4-#12, 1-#12(G) IN 3/4"C.	30A/3P/20AF	1,2,3,4
E14	5 HP TRANSFER PUMP	208V/3Φ	20.9A	LPP4-8,10,12	4-#10, 1-#10(G) IN 3/4"C.	30A/3P/30AF	1,2,3,4
E15	1,000 GAL KETTLE	208V/3Φ	218.8A	LPP5-1,3,5	4-#4/0, 1-#4(G) IN 2-1/2"C.	400A/3P/350AF	1,2,3,4
E16	SIDE KETTLE MIXER	208V/3Φ	6.3A	LPP5-2,4,6	4-#12, 1-#12(G) IN 3/4"C.	30A/3P/15AF	1,2,3,4
E17	5 HP TRANSFER PUMP	208V/3Φ	20.9A	LPP5-7,9,11	4-#10, 1-#10(G) IN 3/4"C.	30A/3P/30AF	1,2,3,4
E18	OVERHEAD DOOR	208V/1Φ	22.5A	LBP1-1,3	2-#10, 1-#10(G) IN 3/4"C.	30A/2P/30AF	1,2,3
E19	OVERHEAD DOOR	208V/1Φ	22.5A	LBP1-5,7	2-#10, 1-#10(G) IN 3/4"C.	30A/2P/30AF	1,2,3
E20	OVERHEAD DOOR	208V/1Φ	22.5A	LBP1-9,11	2-#10, 1-#10(G) IN 3/4"C.	30A/2P/30AF	1,2,3
E21	OVERHEAD DOOR	208V/1Φ	22.5A	LBP1-2,4	2-#10, 1-#10(G) IN 3/4"C.	30A/2P/30AF	1,2,3
E22	OVERHEAD DOOR	208V/1Φ	22.5A	LBP1-6,8	2-#10, 1-#10(G) IN 3/4"C.	30A/2P/30AF	1,2,3
E23	OVERHEAD DOOR	208V/1Φ	22.5A	LBP1-10,12	2-#10, 1-#10(G) IN 3/4"C.	30A/2P/30AF	1,2,3
E24	OVERHEAD DOOR	208V/1Φ	22.5A	LBP1-13,15	2-#10, 1-#10(G) IN 3/4"C.	30A/2P/30AF	1,2,3
E25	OVERHEAD DOOR	208V/1Φ	22.5A	LBP1-17,19	2-#10, 1-#10(G) IN 3/4"C.	30A/2P/30AF	1,2,3
E26	OVERHEAD DOOR	208V/1Φ	22.5A	LBP1-21,23	2-#10, 1-#10(G) IN 3/4"C.	30A/2P/30AF	1,2,3
E27	OVERHEAD DOOR	208V/1Φ	22.5A	LBP1-14,16	2-#10, 1-#10(G) IN 3/4"C.	30A/2P/30AF	1,2,3
E28	OVERHEAD DOOR	208V/1Φ	22.5A	LBP1-18,20	2-#10, 1-#10(G) IN 3/4"C.	30A/2P/30AF	1,2,3
E29	OVERHEAD DOOR	208V/1Φ	22.5A	LBP1-22,24	2-#10, 1-#10(G) IN 3/4"C.	30A/2P/30AF	1,2,3
E30	3 HP RO SYSTEM	208V/3Φ	13.3A	LBP2-1,3,5	4-#12, 1-#12(G) IN 3/4"C.	30A/3P/20AF	1,2,3,4
E31	25 HP AIR COMPRESSOR	208V/3Φ	93.5A	LBP2-2,4,6	4-#1, 1-#6(G) IN 1-1/4"C.	200A/3P/150AF	1,2,3,4
E32	25 HP AIR COMPRESSOR	208V/3Φ	93.5A	LBP2-7,9,11	4-#1, 1-#6(G) IN 1-1/4"C.	200A/3P/150AF	1,2,3,4
E33	30 HP AIR COMPRESSOR	208V/3Φ	110A	LBP2-8,10,12	4-#1/0, 1-#6(G) IN 1-1/2"C.	200A/3P/175AF	1,2,3,4
E34	AIR DRYER	120V/1Φ	12.5A	LBP2-13	2-#12, 1-#12(G) IN 3/4"C.	TOGGLE	1,2,3,7
E35	AIR DRYER	120V/1Φ	12.5A	LBP2-15	2-#12, 1-#12(G) IN 3/4"C.	TOGGLE	1,2,3,7
E36	HEAT TUNNEL	480V/3Φ	26.5A	HPP1-1,3,5	3-#8, 1-#10(G) IN 3/4"C.	60A/3P/40AF	1,2,3,7
E37	HEAT TUNNEL	480V/3Φ	26.5A	HPP1-7,9,11	3-#8, 1-#10(G) IN 3/4"C.	60A/3P/40AF	1,2,3,7
E38	HEAT TUNNEL	480V/3Φ	26.5A	HPP1-2,4,6	3-#8, 1-#10(G) IN 3/4"C.	60A/3P/40AF	1,2,3,7
E39	HEAT TUNNEL	480V/3Φ	26.5A	HPP1-8,10,12	3-#8, 1-#10(G) IN 3/4"C.	60A/3P/40AF	1,2,3,7

NOTES:

1) CIRCUIT TO INCLUDE ONE (1) GREEN GROUNDING CONDUCTOR (G) SIZED PER BRANCH CIRCUIT UNLESS SHOWN TO BE SIZED DIFFERENTLY. ALL CONDUCTORS TYPE AWG.

2) DUAL ELEMENT TYPE FUSE AND PROPER VOLTAGE. IF FUSE SIZE NOT SHOWN, UNIT TO BE UNFUSED.

3) FINAL CONNECTION USING FLEXIBLE CONDUIT. COORDINATE FINAL CONNECTION TYPE WITH OWNER/EQUIPMENT PROVIDER PRIOR TO SUBMITTALS.

4) FINAL CONNECTION USING LIQUID TIGHT FLEXIBLE CONDUIT.

5) INSTALL DISCONNECT SWITCH ADJACENT TO AND CONNECT THROUGH STARTER OR VARIABLE FREQUENCY DRIVE (AS REQUIRED) FURNISHED UNDER MECHANICAL SECTION.

6) RAINTIGHT NEMA 4X DISCONNECT SWITCH.

7) PROVIDE TOGGLE SWITCH IN NEMA 1 ENCLOSURE AS DISCONNECT.

8) DISCONNECT INTEGRAL WITH UNIT.

9) INDOOR UNIT IS SERVED BY OUTDOOR UNIT. PROVIDE CONDUIT AND BOXES AS REQUIRED FOR CABLING PROVIDED WITH UNIT. VERIFY REQUIREMENTS WITH MANUFACTURER AND PROVIDE WIRING REQUIRED IF NOT PROVIDED WITH UNIT.

MECHANICAL EQUIPMENT CONNECTION SCHEDULE

TAG	DESCRIPTION	VOLT/ PHASE	MCA	CIRCUIT	FEEDER	DISCONNECT	NOTES
M1	AC-1	208V/3Φ	36A	LMP1-1,3,5	3-#8, 1-#10(G) IN 3/4"C.	60A/3P/60AF	1,2,4,6
M2	AC-2	208V/3Φ	36A	LMP1-2,4,6	3-#8, 1-#10(G) IN 3/4"C.	60A/3P/60AF	1,2,4,6
M3	AC-3	208V/3Φ	36A	LMP1-7,9,11	3-#8, 1-#10(G) IN 3/4"C.	60A/3P/60AF	1,2,4,6
M4	AC-4	208V/3Φ	36A	LMP1-8,10,12	3-#8, 1-#10(G) IN 3/4"C.	60A/3P/60AF	1,2,4,6
M5	AC-5	208V/3Φ	36A	LMP1-13,15,17	3-#8, 1-#10(G) IN 3/4"C.	60A/3P/60AF	1,2,4,6
M6	AC-6	208V/3Φ	36A	LMP1-14,16,18	3-#8, 1-#10(G) IN 3/4"C.	60A/3P/60AF	1,2,4,6
M7	AC-7	208V/3Φ	18A	LMP1-19,21,23	3-#10, 1-#10(G) IN 3/4"C.	30A/3P/30AF	1,2,4,6
M8	AC-8	208V/3Φ	18A	LMP1-20,22,24	3-#10, 1-#10(G) IN 3/4"C.	30A/3P/30AF	1,2,4,6
M9	AC-9	208V/3Φ	18A	LMP1-25,27,29	3-#10, 1-#10(G) IN 3/4"C.	30A/3P/30AF	1,2,4,6
M10	AC-10	208V/1Φ	24A	LMP1-26,28	2-#10, 1-#10(G) IN 3/4"C.	60A/2P/40AF	1,2,4,6
M11	EF-1	208V/3Φ	2A	LPP5-19,21,23	3-#12, 1-#12(G) IN 3/4"C.	30A/3P/15AF	1,2,3
M12	EF-2	208V/3Φ	2A	LPP4-19,21,23	3-#12, 1-#12(G) IN 3/4"C.	30A/3P/15AF	1,2,3

NOTES:

1) CIRCUIT TO INCLUDE ONE (1) GREEN GROUNDING CONDUCTOR (G) SIZED PER BRANCH CIRCUIT UNLESS SHOWN TO BE SIZED DIFFERENTLY. ALL CONDUCTORS TYPE AWG.

2) DUAL ELEMENT TYPE FUSE AND PROPER VOLTAGE. IF FUSE SIZE NOT SHOWN, UNIT TO BE UNFUSED.

3) FINAL CONNECTION USING FLEXIBLE CONDUIT.

4) FINAL CONNECTION USING LIQUID TIGHT FLEXIBLE CONDUIT.

5) INSTALL DISCONNECT SWITCH ADJACENT TO AND CONNECT THROUGH STARTER OR VARIABLE FREQUENCY DRIVE (AS REQUIRED) FURNISHED UNDER MECHANICAL SECTION.

6) RAINTIGHT NEMA 4X DISCONNECT SWITCH.

7) PROVIDE TOGGLE SWITCH IN NEMA 1 ENCLOSURE AS DISCONNECT.

8) DISCONNECT INTEGRAL WITH UNIT.

9) INDOOR UNIT IS SERVED BY OUTDOOR UNIT. PROVIDE CONDUIT AND BOXES AS REQUIRED FOR CABLING PROVIDED WITH UNIT. VERIFY REQUIREMENTS WITH MANUFACTURER AND PROVIDE WIRING REQUIRED IF NOT PROVIDED WITH UNIT.

LIGHT FIXTURE SCHEDULE

SYMBOL	VOLTS	WATTS/TYPE	DESCRIPTION	MANUFACTURER	CATALOG NUMBER/WATTS	MOUNTING
A	277	110W/ LED	2' X 4' TROFFER, 5000K LED, 80+ CRI, A12.125 LENS, 14000 LUMENS, LM80 OF 60,000 HOURS OR BETTER, DAMP LOCATION LISTED	LITHONIA	2GTL4 140L A12125 LP850	RECESSED
B	277	86W/ LED	4' SUSPENDED FIXTURE, 5000K LED, 80+ CRI, NO LOUVER, 10000 LUMENS, LM80 OF 60,000 HOURS OR BETTER, DAMP LOCATION LISTED	LITHONIA	MSL 10000LM L/LV MVOLT 50K 80CRI	RECESSED
C	277	110W/ LED	2' X 4' TROFFER, 5000K LED, 80+ CRI, A12.125 LENS, 14000 LUMENS, LM80 OF 60,000 HOURS OR BETTER, DAMP LOCATION LISTED	LITHONIA	2GTL4 140L A12125 LP850	RECESSED
D	277	53W/ LED	2' X 4' TROFFER, 5000K LED, 80+ CRI, A12.125 LENS, 7200 LUMENS, LM80 OF 60,000 HOURS OR BETTER, DAMP LOCATION LISTED	LITHONIA	2GTL4 72L A12125 LP850	RECESSED
X1	277	9W/ LED	LED EXIT SIGN, RED LETTERING, BRUSHED ALUMINUM, SINGLE FACED, DAMP LOCATION LISTED	LITHONIA	LQC 1 R	WALL

emilia RESOURCES

JON D. RICE
REGISTERED PROFESSIONAL ENGINEER
STATE OF MISSISSIPPI

CONSULTANT:

REVISION:	DATE:
ADDENDUM 1	1/13/2022

EMILIA RESOURCES, INC.
Facility Alterations & Renovations
Kemper County
DeKalb, Mississippi

DESIGNED BY: SA
DRAWN BY: SA
CHECKED BY: SA

Arjen Lagendijk - Architect, PLLC
P. O. BOX 848 MERIDIAN, MISSISSIPPI 39302 601 482-7303 F 601 482-7336

POWER CONNECTION SCHEDULES

SN: 20–1348
DATE: 30 OCTOBER 2021

Jon D. Rice & Associates, LLC
Electrical Engineering Consultants
5403 Castlewoods Court . Suite G . Flowood, MS . 39232
Tel 601-919-8040 Fax 601-919-8060 PROJ.# 20011.00

E0.3R1

PANEL 'MSB1' SCHEDULE

LOCATION: TBD | RATING: 2000A | AIC: 42K
VOLTAGE: 277 /480 V | TYPE: MCB | ENCLOSURE: NEMA 1
WIRING: 3Φ/4W

CKT	BKR	DESCRIPTION	CLASS	LOAD	A	B	C	LOAD	CLASS	DESCRIPTION	BKR	CKT
1			N	0	40000			40000	1.00			2
3	100A/3P	SPD TYPE 1	N	0		40000		40000	1.00	XFMR T-LDP1	225A/3P	4
5			N	0			40000	40000	1.00			6
7			1.00	6810	46810			40000	1.00			8
9	110A/3P	XFMR T-LPP1	1.00	6810		46810		40000	1.00	XFMR T-LDP2	225A/3P	10
11			1.00	6810			46810	40000	1.00			12
13			1.00	14610	29810			15200	1.00			14
15	175A/3P	XFMR T-LPP2	1.00	14610		29810		15200	1.00	XFMR T-LBP1	110A/3P	16
17			1.00	14610			29810	15200	1.00			18
19			1.00	8690	39770			31080	1.00			20
21	110A/3P	XFMR T-LPP3	1.00	8690		39770		31080	1.00	XFMR T-LBP2	175A/3P	22
23			1.00	8690			38570	29880	1.00			24
25			1.00	19130	21290			2160	1.00			26
27	175A/3P	XFMR T-LPP4	1.00	19130		21110		1980	1.00	XFMR T-LRA	50A/3P	28
29			1.00	19130			21110	1980	1.00			30
31			1.00	23850	26370			2520	1.00			32
33	175A/3P	XFMR T-LPP5	1.00	23850		27190		3340	1.07	XFMR T-LRB	50A/3P	34
35			1.00	23850			26370	2520	1.00			36
37			1.00	3000	5520			2520	1.00			38
39	125A/3P	PANEL HLA	1.00	3000		5340		2340	1.00	XFMR T-LRC	50A/3P	40
41			1.00	5000			7520	2520	1.00			42
43			M	27700	55950			28250	0.80			44
45	200A/3P	E1 - 2,000 GAL KETTLE	M	27700		55950		28250	0.80	XFMR T-LMP1	175A/3P	46
47			M	27700			53650	25950	0.80			48
49			1.00	29400	29400			0	0.00			50
51	225A/3P	PANEL HPP1	1.00	29400		29400		0	0.00	PANEL HPP2	400A/3P	52
53			1.00	29400			29400	0	0.00			54
55			0.00	0	0			0	0.00			56
57	110A/3P	XFMR T-LPP6	0.00	0		0		0	0.00	XFMR T-LPP7	110A/3P	58
59			0.00	0			0	0	0.00			60
61			N		0				N			62
63	100A/3P	SPARE	N			0			N	SPARE	100A/3P	64
65			N				0		N			66
67			N		0				N			68
69	225A/3P	SPARE	N			0			N	SPARE	400A/3P	70
71			N				0		N			72
73			N		0				N			74
75		SPACE	N			0			N	SPACE		76
77			N				0		N			78
79			N		0				N			80
81		SPACE	N			0			N	SPACE		82
83			N				0		N			84
					294920 VA	295380 VA	293240 VA					
					1065 A	1066 A	1059 A					

DEMAND FACTORS

		C. LOAD	DEMAND	D. LOAD
LIGHTING	L	0	100%	0
RECEPTACLE	R	0	*	0
HVAC	H	0	80%	0
KITCHEN	K	0	65%	0
MOTOR	M	83100	100%	83100
NON-CONTINUOUS	N	0	100%	0
CONTINUOUS	C	0	125%	0
PANEL	#	800440	98%	784200

LOAD SUMMARY
CONNECTED: 883540 VA : 1063 A
DEMAND: 867300 VA : 1044 A

PHASE BALANCE
A 33%
B 33%
C 33%

AVG. DMD 98.16%

PANEL 'LPP1' SCHEDULE

LOCATION: TBD | RATING: 225A | AIC: 42K
VOLTAGE: 120 /208 V | TYPE: MCB | ENCLOSURE: NEMA 1
WIRING: 3Φ/4W

CKT	BKR	DESCRIPTION	CLASS	LOAD	A	B	C	LOAD	CLASS	DESCRIPTION	BKR	CKT
1			M	4800	6810			2010	M			2
3	75A/3P	E2 - 500 GAL KETTLE	M	4800		6810		2010	M	E3 - 5HP XFER PUMP	30A/3	4
5			M	4800			6810	2010	M			6
7			N		0				N			8
9	60A/3P	SPARE	N			0			N	SPARE	50A/3P	10
11			N				0		N			12
13			N		0				N			14
15	30A/3P	SPARE	N			0			N	SPARE	20A/3P	16
17			N				0		N			18
19			N		0				N			20
21		SPACE	N			0			N	SPACE		22
23			N				0		N			24
25			N		0				N			26
27		SPACE	N			0			N	SPACE		28
29			N				0		N			30
					6810 VA	6810 VA	6810 VA					
					57 A	57 A	57 A					

DEMAND FACTORS

		C. LOAD	DEMAND	D. LOAD
LIGHTING	L	0	100%	0
RECEPTACLE	R	0	*	0
HVAC	H	0	80%	0
KITCHEN	K	0	65%	0
MOTOR	M	20430	60%	12258
NON-CONTINUOUS	N	0	100%	0
CONTINUOUS	C	0	125%	0
PANEL	#	0	0%	0

LOAD SUMMARY
CONNECTED: 20430 VA : 57 A
DEMAND: 12258 VA : 34 A

PHASE BALANCE
A 33%
B 33%
C 33%

AVG. DMD 60.00%

PANEL 'LPP2' SCHEDULE

LOCATION: TBD | RATING: 400A | AIC: 42K
VOLTAGE: 120 /208 V | TYPE: MCB | ENCLOSURE: NEMA 1
WIRING: 3Φ/4W

CKT	BKR	DESCRIPTION	CLASS	LOAD	A	B	C	LOAD	CLASS	DESCRIPTION	BKR	CKT
1			M	12000	12600			600	M			2
3	200A/3P	E4 - 1,000 GAL KETTLE	M	12000		12600		600	M	E5 - SIDE KETTLE MIXER	15A/3P	4
5			M	12000			12600	600	M			6
7			M	2010	2010				N			8
9	30A/3P	E6 - 5HP XFER PUMP	M	2010		2010			N	SPARE	50A/3P	10
11			M	2010			2010		N			12
13			N		0				N			14
15	30A/3P	SPARE	N			0			N	SPARE	20A/3P	16
17			N				0		N			18
19			N		0				N			20
21		SPACE	N			0			N	SPACE		22
23			N				0		N			24
25			N		0				N			26
27		SPACE	N			0			N	SPACE		28
29			N				0		N			30
					14610 VA	14610 VA	14610 VA					
					122 A	122 A	122 A					

DEMAND FACTORS

		C. LOAD	DEMAND	D. LOAD
LIGHTING	L	0	100%	0
RECEPTACLE	R	0	*	0
HVAC	H	0	80%	0
KITCHEN	K	0	65%	0
MOTOR	M	43830	100%	43830
NON-CONTINUOUS	N	0	100%	0
CONTINUOUS	C	0	125%	0
PANEL	#	0	0%	0

LOAD SUMMARY
CONNECTED: 43830 VA : 122 A
DEMAND: 43830 VA : 122 A

PHASE BALANCE
A 33%
B 33%
C 33%

AVG. DMD 100.00%

PANEL 'LPP3' SCHEDULE

LOCATION: TBD | RATING: 225A | AIC: 42K
VOLTAGE: 120 /208 V | TYPE: MCB | ENCLOSURE: NEMA 1
WIRING: 3Φ/4W

CKT	BKR	DESCRIPTION	CLASS	LOAD	A	B	C	LOAD	CLASS	DESCRIPTION	BKR	CKT
1			M	4800	5400			600	M			2
3	75A/3P	E7 - 500 GAL KETTLE	M	4800		5400		600	M	E8 - 1HP SD KTL MIXER	15A/3P	4
5			M	4800			5400	600	M			6
7			M	1280	3290			2010	M			8
9	20A/3P	E9 - 3HP SD KTL SWEEP	M	1280		3290		2010	M	E10 - 5HP XFER PUMP	30A/3P	10
11			M	1280			3290	2010	M			12
13			N		0				N			14
15	30A/3P	SPARE	N			0			N	SPARE	20A/3P	16
17			N				0		N			18
19			N		0				N			20
21		SPACE	N			0			N	SPACE		22
23			N				0		N			24
25			N		0				N			26
27		SPACE	N			0			N	SPACE		28
29			N				0		N			30
					8690 VA	8690 VA	8690 VA					
					72 A	72 A	72 A					

DEMAND FACTORS

		C. LOAD	DEMAND	D. LOAD
LIGHTING	L	0	100%	0
RECEPTACLE	R	0	*	0
HVAC	H	0	80%	0
KITCHEN	K	0	65%	0
MOTOR	M	26070	100%	26070
NON-CONTINUOUS	N	0	100%	0
CONTINUOUS	C	0	125%	0
PANEL	#	0	0%	0

LOAD SUMMARY
CONNECTED: 26070 VA : 72 A
DEMAND: 26070 VA : 72 A

PHASE BALANCE
A 33%
B 33%
C 33%

AVG. DMD 100.00%

PANEL 'LPP4' SCHEDULE

LOCATION: TBD | RATING: 400A | AIC: 42K
VOLTAGE: 120 /208 V | TYPE: MCB | ENCLOSURE: NEMA 1
WIRING: 3Φ/4W

CKT	BKR	DESCRIPTION	CLASS	LOAD	A	B	C	LOAD	CLASS	DESCRIPTION	BKR	CKT
1			M	15000	15600			600	M			2
3	225A/3P	E11 - 500 GAL KETTLE	M	15000		15600		600	M	E12 - 1HP SD KTL MIXER	15A/3P	4
5			M	15000			15600	600	M			6
7			M	1280	3290			2010	M			8
9	20A/3P	E13 - 3HP SD KTL SWEEP	M	1280		3290		2010	M	E14 - 5HP XFER PUMP	30A/3P	10
11			M	1280			3290	2010	M			12
13			N		0				N			14
15	30A/3P	SPARE	N			0			N	SPARE	20A/3P	16
17			N				0		N			18
19			M	240	240				N			20
21	15A/3P	M12 - EF-2	M	240		240			N	SPACE		22
23			M	240			240		N			24
25			N		0				N			26
27		SPACE	N			0			N	SPACE		28
29			N				0		N			30
					19130 VA	19130 VA	19130 VA					
					159 A	159 A	159 A					

DEMAND FACTORS

		C. LOAD	DEMAND	D. LOAD
LIGHTING	L	0	100%	0
RECEPTACLE	R	0	*	0
HVAC	H	0	80%	0
KITCHEN	K	0	65%	0
MOTOR	M	57390	100%	57390
NON-CONTINUOUS	N	0	100%	0
CONTINUOUS	C	0	125%	0
PANEL	#	0	0%	0

LOAD SUMMARY
CONNECTED: 57390 VA : 159 A
DEMAND: 57390 VA : 159 A

PHASE BALANCE
A 33%
B 33%
C 33%

AVG. DMD 100.00%

PANEL 'LPP5' SCHEDULE

LOCATION: TBD | RATING: 400A | AIC: 42K
VOLTAGE: 120 /208 V | TYPE: MCB | ENCLOSURE: NEMA 1
WIRING: 3Φ/4W

CKT	BKR	DESCRIPTION	CLASS	LOAD	A	B	C	LOAD	CLASS	DESCRIPTION	BKR	CKT
1			M	21000	21600			600	M			2
3	350A/3P	E15 - 1,000 GAL KETTLE	M	21000		21600		600	M	E16 - SIDE KETTLE MIXER	15A/3P	4
5			M	21000			21600	600	M			6
7			M	2010	2010				M			8
9	30A/3P	E17 - 5HP XFER PUMP	M	2010		2010			M	SPARE	45A/3P	10
11			M	2010			2010		M			12
13			N		0				N			14
15	30A/3P	SPARE	N			0			N	SPARE	20A/3P	16
17			N				0		N			18
19			M	240	240				N			20
21	15A/3P	M11 - EF-1	M	240		240			N	SPACE		22
23			M	240			240		N			24
25			N		0				N			26
27		SPACE	N			0			N	SPACE		28
29			N				0		N			30
					23850 VA	23850 VA	23850 VA					
					199 A	199 A	199 A					

DEMAND FACTORS

		C. LOAD	DEMAND	D. LOAD
LIGHTING	L	0	100%	0
RECEPTACLE	R	0	*	0
HVAC	H	0	80%	0
KITCHEN	K	0	65%	0
MOTOR	M	71550	100%	71550
NON-CONTINUOUS	N	0	100%	0
CONTINUOUS	C	0	125%	0
PANEL	#	0	0%	0

LOAD SUMMARY
CONNECTED: 71550 VA : 199 A
DEMAND: 71550 VA : 199 A

PHASE BALANCE
A 33%
B 33%
C 33%

AVG. DMD 100.00%

PANEL 'LBP1' SCHEDULE

LOCATION: TBD | RATING: 225A | AIC: 42K
VOLTAGE: 120 /208 V | TYPE: MCB | ENCLOSURE: NEMA 1
WIRING: 3Φ/4W

CKT	BKR	DESCRIPTION	CLASS	LOAD	A	B	C	LOAD	CLASS	DESCRIPTION	BKR	CKT
1	30A/2P	E18 - OVERHEAD DOOR	M	1900	3800			1900	M	E21 - OVERHEAD DOOR	30A/2P	2
3			M	1900		3800		1900	M			4
5	30A/2P	E19 - OVERHEAD DOOR	M	1900			3800	1900	M	E22 - OVERHEAD DOOR	30A/2P	6
7			M	1900	3800			1900	M			8
9	30A/2P	E20 - OVERHEAD DOOR	M	1900		3800		1900	M	E23 - OVERHEAD DOOR	30A/2P	10
11			M	1900			3800	1900	M			12
13	30A/2P	E24 - OVERHEAD DOOR	M	1900	3800			1900	M	E27 - OVERHEAD DOOR	30A/2P	14
15			M	1900		3800		1900	M			16
17	30A/2P	E25 - OVERHEAD DOOR	M	1900			3800	1900	M	E28 - OVERHEAD DOOR	30A/2P	18
19			M	1900	3800			1900	M			20
21	30A/2P	E26 - OVERHEAD DOOR	M	1900		3800		1900	M	E29 - OVERHEAD DOOR	30A/2P	22
23			M	1900			3800	1900	M			24
25	30A/2P	SPARE	N		0				N	SPARE	30A/2P	26
27			N			0			N			28
29	15A/2P	SPARE	N				0		N	SPARE	15A/2P	30
31			N		0				N			32
33	20A/1P	SPARE	N			0			N	SPARE	20A/1P	34
35	20A/1P	SPARE	N				0		N	SPARE	20A/1P	36
37	20A/1P	SPARE	N		0				N	SPARE	20A/1P	38
39		SPACE	N			0			N	SPACE	20A/1P	40
41		SPACE	N				0		N	SPACE	20A/1P	42
					15200 VA	15200 VA	15200 VA					
					127 A	127 A	127 A					

DEMAND FACTORS

		C. LOAD	DEMAND	D. LOAD
LIGHTING	L	0	100%	0
RECEPTACLE	R	0	*	0
HVAC	H	0	80%	0
KITCHEN	K	0	65%	0
MOTOR	M	45600	100%	45600
NON-CONTINUOUS	N	0	100%	0
CONTINUOUS	C	0	125%	0
PANEL	#	0	0%	0

LOAD SUMMARY
CONNECTED: 45600 VA : 127 A
DEMAND: 45600 VA : 127 A

PHASE BALANCE
A 33%
B 33%
C 33%

AVG. DMD 100.00%

PANEL 'LBP2' SCHEDULE

LOCATION: TBD | RATING: 400A | AIC: 42K
VOLTAGE: 120 /208 V | TYPE: MCB | ENCLOSURE: NEMA 1
WIRING: 3Φ/4W

CKT	BKR	DESCRIPTION	CLASS	LOAD	A	B	C	LOAD	CLASS	DESCRIPTION	BKR	CKT
1			M	1280	10280			9000	M			2
3	20A/3P	E30 - 3HP RO SYSTEM	M	1280		10280		9000	M	E31 - 25HP AIR COMP	150A/3P	4
5			M	1280			10280	9000	M			6
7			M	9000	19600			10600	M			8
9	150A/3P	E32 - 25HP AIR COMP	M	9000		19600		10600	M	E33 - 30HP AIR COMP	175A/3P	10
11			M	9000			19600	10600	M			12
13	20A/1P	E34 - AIR DRYER	M	1200	1200				M			14
15	20A/1P	E35 - AIR DRYER	M	1200		1200			M	SPARE	80A/3P	16
17	20A/1P	SPARE	M				0		M			18
19	20A/1P	SPARE	M		0				M			20
21	20A/1P	SPARE	M			0			M	SPARE	60A/3P	22
23	20A/1P	SPARE	M				0		M			24
25	20A/1P	SPARE	N		0				N			26
27	20A/1P	SPARE	N			0			N	SPARE	45A/3P	28
29	20A/1P	SPARE	N				0		N			30
31		SPACE	N		0				N	SPACE		32
33		SPACE	N			0			N	SPACE		34
35		SPACE	N				0		N	SPACE		36
37		SPACE	N		0				N	SPACE		38
39		SPACE	N			0			N	SPACE		40
41		SPACE	N				0		N	SPACE		42
					31080 VA	31080 VA	29880 VA					
					259 A	259 A	249 A					

DEMAND FACTORS

		C. LOAD	DEMAND	D. LOAD
LIGHTING	L	0	100%	0
RECEPTACLE	R	0	*	0
HVAC	H	0	80%	0
KITCHEN	K	0	65%	0
MOTOR	M	92040	100%	92040
NON-CONTINUOUS	N	0	100%	0
CONTINUOUS	C	0	125%	0
PANEL	#	0	0%	0

LOAD SUMMARY
CONNECTED: 92040 VA : 256 A
DEMAND: 92040 VA : 256 A

PHASE BALANCE
A 34%
B 34%
C 32%

AVG. DMD 100.00%

PANEL 'LDP1' SCHEDULE

LOCATION: TBD | RATING: 400A | AIC: 42K
VOLTAGE: 120 /208 V | TYPE: MCB | ENCLOSURE: NEMA 1
WIRING: 3Φ/4W

CKT	BKR	DESCRIPTION	CLASS	LOAD	A	B	C	LOAD	CLASS	DESCRIPTION	BKR	CKT
1			N	10000	20000			10000	N			2
3	200A/3P	200A BUSWAY 1	N	10000		20000		10000	N	200A BUSWAY 2	200A/3P	4
5			N	10000			20000	10000	N			6
7			N	10000	20000			10000	N			8
9	200A/3P	200A BUSWAY 3	N	10000		20000		10000	N	200A BUSWAY 4	200A/3P	10
11			N	10000			20000	10000	N			12
13			N		0				M			14
15	100A/3P	SPARE	N			0			M	SPARE	100A/3P	16
17			N				0		M			18
19			N		0				N			20
21	100A/3P	SPARE	N			0			N	SPD	60A/3P	22
23			N				0		N			24
					40000 VA	40000 VA	40000 VA					
					333 A	333 A	333 A					

DEMAND FACTORS

		C. LOAD	DEMAND	D. LOAD
LIGHTING	L	0	100%	0
RECEPTACLE	R	0	*	0
HVAC	H	0	80%	0
KITCHEN	K	0	65%	0
MOTOR	M	0	100%	0
NON-CONTINUOUS	N	120000	100%	120000
CONTINUOUS	C	0	125%	0
PANEL	#	0	0%	0

LOAD SUMMARY
CONNECTED: 120000 VA : 333 A
DEMAND: 120000 VA : 333 A

PHASE BALANCE
A 33%
B 33%
C 33%

AVG. DMD 100.00%

PANEL 'LDP2' SCHEDULE

LOCATION: TBD | RATING: 400A | AIC: 42K
VOLTAGE: 120 /208 V | TYPE: MCB | ENCLOSURE: NEMA 1
WIRING: 3Φ/4W

CKT	BKR	DESCRIPTION	CLASS	LOAD	A	B	C	LOAD	CLASS	DESCRIPTION	BKR	CKT
1			N	10000	20000			10000	N			2
3	200A/3P	200A BUSWAY 5	N	10000		20000		10000	N	200A BUSWAY 6	200A/3P	4
5			N	10000			20000	10000	N			6
7			N	10000	20000			10000	N			8
9	200A/3P	200A BUSWAY 7	N	10000		20000		10000	N	200A BUSWAY 8	200A/3P	10
11			N	10000			20000	10000	N			12
13			N		0				N			14
15	100A/3P	SPARE	N			0			N	SPARE	100A/3P	16
17			N				0		N			18
19			N		0				N			20
21	100A/3P	SPARE	N			0			N	SPD	60A/3P	22
23			N				0		N			24
					40000 VA	40000 VA	40000 VA					
					333 A	333 A	333 A					

DEMAND FACTORS

		C. LOAD	DEMAND	D. LOAD
LIGHTING	L	0	100%	0
RECEPTACLE	R	0	*	0
HVAC	H	0	80%	0
KITCHEN	K	0	65%	0
MOTOR	M	0	100%	0
NON-CONTINUOUS	N	120000	100%	120000
CONTINUOUS	C	0	125%	0
PANEL	#	0	0%	0

LOAD SUMMARY
CONNECTED: 120000 VA : 333 A
DEMAND: 120000 VA : 333 A

PHASE BALANCE
A 33%
B 33%
C 33%

AVG. DMD 100.00%

PANEL 'LRA' SCHEDULE

LOCATION: TBD | RATING: 100A | AIC: 42K
VOLTAGE: 120 /208 V | TYPE: MCB | ENCLOSURE: NEMA 1
WIRING: 3Φ/4W

CKT	BKR	DESCRIPTION	CLASS	LOAD	A	B	C	LOAD	CLASS	DESCRIPTION	BKR	CKT
1	20A/1P	RECEPTACLES	R	540	1080			540	R	RECEPTACLES	20A/1P	2
3	20A/1P	RECEPTACLES	R	540		1080		540	R	RECEPTACLES	20A/1P	4
5	20A/1P	RECEPTACLES	R	540			1440	900	R	RECEPTACLES	20A/1P	6
7	20A/1P	RECEPTACLES	R	540	1080			540	R	RECEPTACLES	20A/1P	8
9	20A/1P	RECEPTACLES	R	360		900		540	R	RECEPTACLES	20A/1P	10
11	20A/1P	RECEPTACLES	R	540			540		N	SPARE	20A/1P	12
13	20A/1P	SPARE	N		0				N	SPARE	20A/1P	14
15	20A/1P	SPARE	N			0			N	SPARE	20A/1P	16
17	20A/1P	SPARE	N				0		N	SPARE	20A/1P	18
19	20A/1P	SPARE	N		0				N	SPARE	20A/1P	20
21	20A/1P	SPARE	N			0			N	SPARE	20A/1P	22
23	20A/1P	SPARE	N				0		N	SPARE	20A/1P	24
25	20A/1P	SPARE	N		0				N	SPARE	20A/1P	26
27	20A/1P	SPARE	N			0			N	SPARE	20A/1P	28
29	20A/1P	SPARE	N				0		N	SPARE	20A/1P	30
31		SPACE	N		0				N	SPACE		32
33		SPACE	N			0			N	SPACE		34
35		SPACE	N				0		N	SPACE		36
37		SPACE	N		0				N	SPACE		38
39		SPACE	N			0			N	SPACE		40
41		SPACE	N				0		N	SPACE		42
					2160 VA	1980 VA	1980 VA					
					18 A	17 A	17 A					

DEMAND FACTORS

		C. LOAD	DEMAND	D. LOAD
LIGHTING	L	0	100%	0
RECEPTACLE	R	6120	*	6120
HVAC	H	0	80%	0
KITCHEN	K	0	65%	0
MOTOR	M	0	100%	0
NON-CONTINUOUS	N	0	100%	0
CONTINUOUS	C	0	125%	0
PANEL	#	0	0%	0

LOAD SUMMARY
CONNECTED: 6120 VA : 17 A
DEMAND: 6120 VA : 17 A

PHASE BALANCE
A 35%
B 32%
C 32%

AVG. DMD 100.00%

PANEL 'LRB' SCHEDULE

LOCATION: TBD | RATING: 100A | AIC: 42K
VOLTAGE: 120 /208 V | TYPE: MCB | ENCLOSURE: NEMA 1
WIRING: 3Φ/4W

CKT	BKR	DESCRIPTION	CLASS	LOAD	A	B	C	LOAD	CLASS	DESCRIPTION	BKR	CKT
1	20A/1P	RECEPTACLES	R	540	1080			540	R	RECEPTACLES	20A/1P	2
3	20A/1P	RECEPTACLES	R	540		1080		540	R	RECEPTACLES	20A/1P	4
5	20A/1P	RECEPTACLES	R	540			1260	720	R	RECEPTACLES	20A/1P	6
7	20A/1P	RECEPTACLES	R	360	1080			720	R	RECEPTACLES	20A/1P	8
9	20A/1P	RECEPTACLES	R	540		1260		720	R	RECEPTACLES	20A/1P	10
11	20A/1P	RECEPTACLES	R	360			1260	900	R	RECEPTACLES	20A/1P	12
13	20A/1P	RECEPTACLES	R	360	360				N	SPARE	20A/1P	14
15	20A/1P	FACP	C	1000		1000			N	SPARE	20A/1P	16
17	20A/1P	SPARE	N				0		N	SPARE	20A/1P	18
19	20A/1P	SPARE	N		0				N	SPARE	20A/1P	20
21	20A/1P	SPARE	N			0			N	SPARE	20A/1P	22
23	20A/1P	SPARE	N				0		N	SPARE	20A/1P	24
25	20A/1P	SPARE	N		0				N	SPARE	20A/1P	26
27	20A/1P	SPARE	N			0			N	SPARE	20A/1P	28
29	20A/1P	SPARE	N				0		N	SPARE	20A/1P	30
31		SPACE	N		0				N	SPACE		32
33		SPACE	N			0			N	SPACE		34
35		SPACE	N				0		N	SPACE		36
37		SPACE	N		0				N	SPACE		38
39		SPACE	N			0			N	SPACE		40
41		SPACE	N				0		N	SPACE		42
					2520 VA	3340 VA	2520 VA					
					21 A	28 A	21 A					

DEMAND FACTORS

		C. LOAD	DEMAND	D. LOAD
LIGHTING	L	0	100%	0
RECEPTACLE	R	7380	*	7380
HVAC	H	0	80%	0
KITCHEN	K	0	65%	0
MOTOR	M	0	100%	0
NON-CONTINUOUS	N	0	100%	0
CONTINUOUS	C	1000	125%	1250
PANEL	#	0	0%	0

LOAD SUMMARY
CONNECTED: 8380 VA : 23 A
DEMAND: 8630 VA : 24 A

PHASE BALANCE
A 30%
B 40%
C 30%

AVG. DMD 102.98%

PANEL 'LRC' SCHEDULE

LOCATION: TBD | RATING: 100A | AIC: 42K
VOLTAGE: 120 /208 V | TYPE: MCB | ENCLOSURE: NEMA 1
WIRING: 3Φ/4W

CKT	BKR	DESCRIPTION	CLASS	LOAD	A	B	C	LOAD	CLASS	DESCRIPTION	BKR	CKT
1	20A/1P	RECEPTACLES	R	540	1080			540	R	RECEPTACLES	20A/1P	2
3	20A/1P	RECEPTACLES	R	540		1080		540	R	RECEPTACLES	20A/1P	4
5	20A/1P	RECEPTACLES	R	540			1260	720	R	RECEPTACLES	20A/1P	6
7	20A/1P	RECEPTACLES	R	360	1080			720	R	RECEPTACLES	20A/1P	8
9	20A/1P	RECEPTACLES	R	540		1260		720	R	RECEPTACLES	20A/1P	10
11	20A/1P	RECEPTACLES	R	360			1260	900	R	RECEPTACLES	20A/1P	12
13	20A/1P	RECEPTACLES	R	360	360				N	SPARE	20A/1P	14
15	20A/1P	SPARE	R			0			N	SPARE	20A/1P	16
17	20A/1P	SPARE	N				0		N	SPARE	20A/1P	18
19	20A/1P	SPARE	N		0				N	SPARE	20A/1P	20
21	20A/1P	SPARE	N			0			N	SPARE	20A/1P	22
23	20A/1P	SPARE	N				0		N	SPARE	20A/1P	24
25	20A/1P	SPARE	N		0				N	SPARE	20A/1P	26
27	20A/1P	SPARE	N			0			N	SPARE	20A/1P	28
29	20A/1P	SPARE	N				0		N	SPARE	20A/1P	30
31		SPACE	N		0				N	SPACE		32
33		SPACE	N			0			N	SPACE		34
35		SPACE	N				0		N	SPACE		36
37		SPACE	N		0				N	SPACE		38
39		SPACE	N			0			N	SPACE		40
41		SPACE	N				0		N	SPACE		42
					2520 VA	2340 VA	2520 VA					
					21 A	20 A	21 A					

DEMAND FACTORS

		C. LOAD	DEMAND	D. LOAD
LIGHTING	L	0	100%	0
RECEPTACLE	R	7380	*	7380
HVAC	H	0	80%	0
KITCHEN	K	0	65%	0
MOTOR	M	0	100%	0
NON-CONTINUOUS	N	0	100%	0
CONTINUOUS	C	0	125%	0
PANEL	#	0	0%	0

LOAD SUMMARY
CONNECTED: 7380 VA : 21 A
DEMAND: 7380 VA : 21 A

PHASE BALANCE
A 34%
B 32%
C 34%

AVG. DMD 100.00%

PANEL 'LMP1' SCHEDULE

LOCATION: TBD | RATING: 400A | AIC: 42K
VOLTAGE: 120 /208 V | TYPE: MCB | ENCLOSURE: NEMA 1
WIRING: 3Φ/4W

CKT	BKR	DESCRIPTION	CLASS	LOAD	A	B	C	LOAD	CLASS	DESCRIPTION	BKR	CKT
1			H	3460	6920			3460	H			2
3	60A/3P	M1 - AC-1	H	3460		6920		3460	H	M2 - AC-2	60A/3P	4
5			H	3460			6920	3460	H			6
7			H	3460	6920			3460	H			8
9	60A/3P	M3 - AC-3	H	3460		6920		3460	H	M4 - AC-4	60A/3P	10
11			H	3460			6920	3460	H			12
13			H	3460	6920			3460	H			14
15	60A/3P	M5 - AC-5	H	3460		6920		3460	H	M6 - AC-6	60A/3P	16
17			H	3460			6920	3460	H			18
19			H	1730	3460			1730	H			20
21	30A/3P	M7 - AC-7	H	1730		3460		1730	H	M8 - AC-8	30A/3P	22
23			H	1730			3460	1730	H			24
25			H	1730	4030			2300	H			26
27	30A/3P	M9 - AC-9	H	1730		4030		2300	H	M10 - AC-10	40A/3P	28
29			H	1730			1730		N	SPARE	20A/1P	30
31			N		0				N			32
33	30A/3P	SPARE	N			0			N	SPARE	60A/3P	34
35			N				0		N			36
37			N		0				N			38
39	40A/3P	SPARE	N			0			N	SPARE	60A/3P	40
41			N				0		N			42
					28250 VA	28250 VA	25950 VA					
					235 A	235 A	216 A					

DEMAND FACTORS

		C. LOAD	DEMAND	D. LOAD
LIGHTING	L	0	100%	0
RECEPTACLE	R	0	*	0
HVAC	H	82450	80%	65960
KITCHEN	K	0	65%	0
MOTOR	M	0	100%	0
NON-CONTINUOUS	N	0	100%	0
CONTINUOUS	C	0	125%	0
PANEL	#	0	0%	0

LOAD SUMMARY
CONNECTED: 82450 VA : 229 A
DEMAND: 65960 VA : 183 A

PHASE BALANCE
A 34%
B 34%
C 31%

AVG. DMD 80.00%

Jon D. Rice & Associates, LLC
Electrical Engineering Consultants
5403 Castlewoods Court, Suite G, Flowood, MS, 39232
Tel 601-919-8040 Fax 601-919-8060 PROJ.# 20011.00

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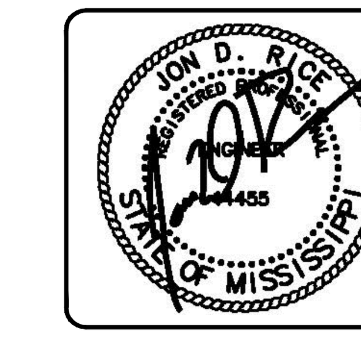

CONSULTANT:
DATE: 1/12/2022
REVISION: ADDENDUM 1

EMILIA RESOURCES, INC.
Facility Alterations & Renovations
Kemper County
DeKalb, Mississippi

DESIGNED BY: SA
DRAWN BY: SA
CHECKED BY: SA

Arjen Lagendijk - Architect, PLLC
P. O. BOX 848 MERIDIAN, MISSISSIPPI 39302 601 482-7303 F 601 482-7336

PANEL SCHEDULES

SN: 20–1348
DATE: 30 OCTOBER 2021

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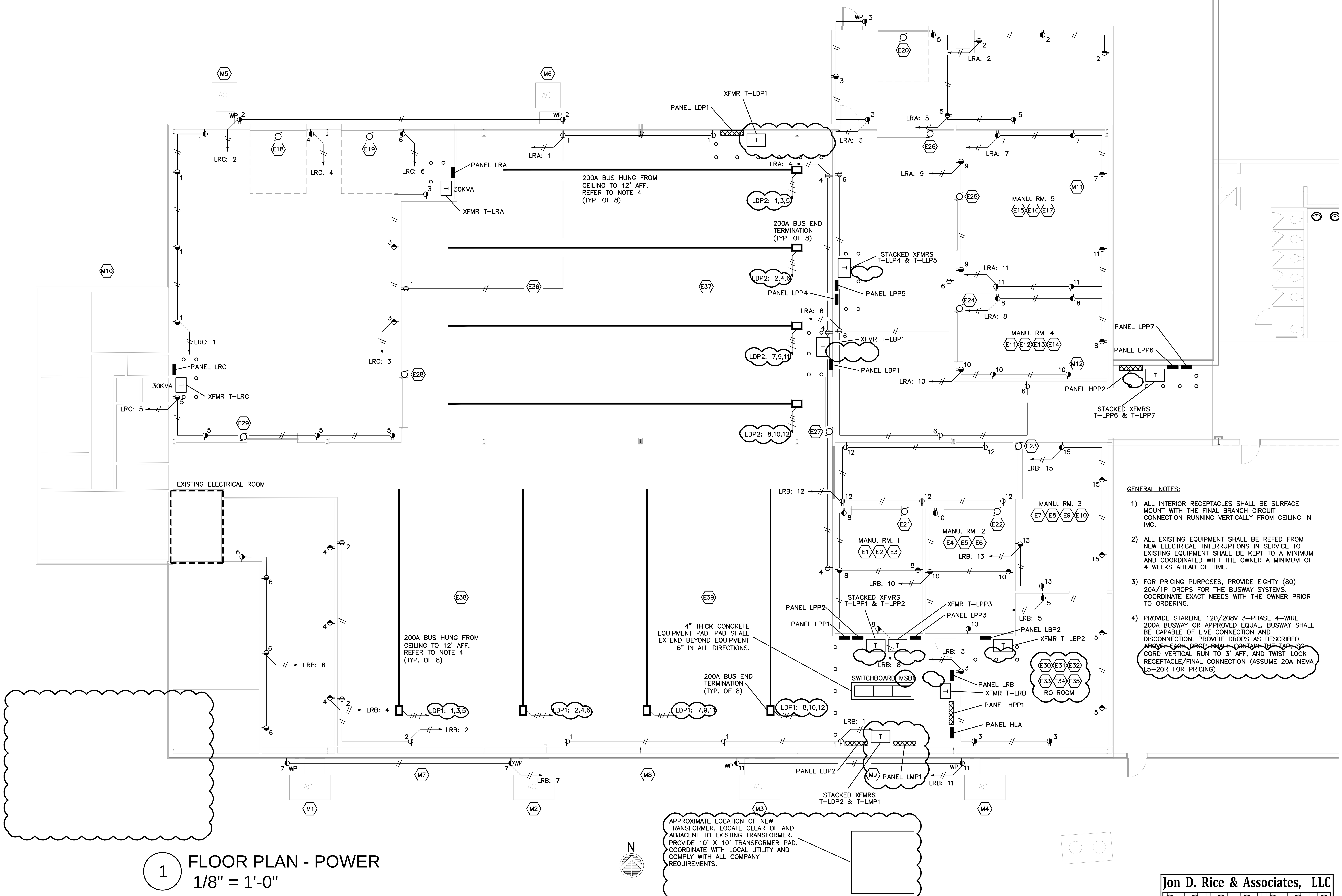

1 FLOOR PLAN - POWER
1/8" = 1'-0"

GENERAL NOTES:

1) ALL INTERIOR RECEPTACLES SHALL BE SURFACE MOUNT WITH THE FINAL BRANCH CIRCUIT CONNECTION RUNNING VERTICALLY FROM CEILING IN IMC.

2) ALL EXISTING EQUIPMENT SHALL BE REFED FROM NEW ELECTRICAL. INTERRUPTIONS IN SERVICE TO EXISTING EQUIPMENT SHALL BE KEPT TO A MINIMUM AND COORDINATED WITH THE OWNER A MINIMUM OF 4 WEEKS AHEAD OF TIME.

3) FOR PRICING PURPOSES, PROVIDE EIGHTY (80) 20A/1P DROPS FOR THE BUSWAY SYSTEMS. COORDINATE EXACT NEEDS WITH THE OWNER PRIOR TO ORDERING.

4) PROVIDE STARLINE 120/208V 3-PHASE 4-WIRE 200A BUSWAY OR APPROVED EQUAL. BUSWAY SHALL BE CAPABLE OF LIVE CONNECTION AND DISCONNECTION. PROVIDE DROPS AS DESCRIBED ABOVE. EACH DROP SHALL CONTAIN THE TAP, SO CORD VERTICAL RUN TO 3' AFF, AND TWIST-LOCK RECEPTACLE/FINAL CONNECTION (ASSUME 20A NEMA L5-20R FOR PRICING).

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Electrical Engineering Consultants
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Tel 601-919-8040 Fax 601-919-8060 PROJ.# 20011.00

emilia RESOURCES

JON D. RICE
REGISTERED PROFESSIONAL ENGINEER
STATE OF MISSISSIPPI

CONSULTANT:

REVISION:	DATE:
ADDENDUM 1	1/13/2022

EMILIA RESOURCES, INC.
Facility Alterations & Renovations
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CHECKED BY: SA

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FLOOR PLAN - POWER

SN: 20-1348
DATE: 30 OCTOBER 2021

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