

ARCHITECTURAL ENGINEERING DEPARTMENT REQUEST FOR QUOTES March 19, 2024

The City of Mobile will receive quotes for the following Project:

Project Name: Azalea City Golf Course – Pump House Repairs -

Electrical Upgrades

Project Location: ACGC -1000 Museum Drive, Mobile, Alabama 36608

Project Number: PR-023-24

Summary of Work: Include the furnishing of all labor, materials, tools and equipment necessary for the Electrical upgrades as part of the repair work for the Pump House structure. All Electrical equipment including all associated conductors, conduit boxes, etc. to be upgraded (removed and replaced) as well all the removal and replacement of all existing light fixtures. This is the first phase of the work for the pump house which will include the later phase of work to remove and replace the existing South and North East walls of the pump house due to extensive termite damage. This electrical panel services the existing irrigation system (to remain intact), and it is desired to have as short of time period with no electrical service to the irrigation as possible. Existing Electrical service not to be disconnected until new panel is ready to be activated, and minimum electrical service disruption is the goal.

Important Dates:

Pre-Quote Meeting: Wednesday, April 3, 2024 at 10:00 AM. Quotes Due: Wednesday, April 17 2024 at 3:00 PM.

Examination of Documents: Before submitting a Quote, Contractors shall carefully examine this RFQ (including attachments), visit the site (including attendance at the Pre-Quote meeting), fully inform themselves as to existing conditions and limitations, and include in the Quote a sum to cover the cost of all items included in the RFQ and as necessary to perform the work. The submission of a Quote will be considered as conclusive evidence that the Contractor has made such examination.

Attachments:

- T-1.0 Cover Sheet and General Notes
- E-1.0 Electrical Legends, Abbreviations, Notes, and Specifications
- E-2.0 Existing / New Work Electrical Plans
- E-3.0 Electrical Risers and Schedules
- E-4.0 Electrical Details and Schedules

Pre-Quote meeting shall be held on Wednesday, <u>April 3, 2024 at 10:00 AM</u>, and meet at the front to Pump House Structure located near Museum Drive on the lake side, in Mobile, Alabama 36608. Contractors shall not park in the paved roadway. Contractors are required to have a representative present and sign-in in order to submit a quote. Contractors shall view and verify all existing conditions during the Mandatory Pre-Quote meeting. No additional site visits are scheduled, but may be arranged with the Project Manager upon request.

All **Requests for Information (RFI's)** and requests for substitutions shall be submitted in writing to the Project Manager no later than 3:00 PM, two (2) business days prior to the Quote submittal date. Responses shall be in the form of a written Addendum issued to all Contractors. Receipt of all addenda shall be acknowledged by the contractor on the Quote form. Failure to acknowledge Addenda may result in disqualification of the Quote.

This is a tax exempt project. Quoters shall NOT include sales tax in their quote. Submit Form C-3A, Accounting of Sales Tax, with Quote.

Contractor shall have access to the work site, as approved by the Owner, between 7:00 am -6:00 pm. Contractors shall be responsible for any power, water, and restroom facilities as needed. Debris shall be removed and disposed of daily. Obey all City and Facility regulations.

The Contractor shall deliver the work complete within forty five (45) calendar days from the date of the written Notice of Proceed.

- A. In order to coordinate the Contractor's work schedule with the Owner, within five (5) calendar days of receiving quotes, the Apparent Lowest Quoter shall meet with the Owner to discuss scope and Owner scheduling and priorities. The Apparent Low Quoter shall then provide a proposed schedule within five (5) calendar days of the initial meeting for Owner review and approval.
- B. It is unlikely that the Contractor will be allowed additional construction days due to inclement conditions ("rain days"), because of the critical completion date of the project. However, the Contractor may submit such requests, but only as such are appropriately documented and are in excess of the NOAA/National Weather Service average (previous 5 years) for the given month. A "rain day" is defined as more than a "trace" (0.10") of rain falling within a given 24 hour period. Contractor is to submit requested rain days each week. Do not wait for the end of the project to submit rain days.

Allowance(s):

Include in the Total Base Quote a stipulated allowance(s) as indicated on the Quote Form for the use upon Owner's instruction. Upon Contractor inspection and Owner approval, any additional work that may be required, but not covered in the original Scope of Work (Base Scope Quote), shall be added to the scope and cost charged against the Contingency Allowance. Contractor's cost for products, delivery, installation labor, insurance, payroll, bonding, equipment rental and overhead and profit will be included in the Allowances. Contractor's markups on allowances are limited to 10% for subcontractor's work and 15% for his own forces.

Use of Contingency Allowance(s) shall be approved in writing by the Owner before any materials are ordered or work performed.

Upon completion of the Work, any unused portion of the Allowances shall be credited back to the City of Mobile in the form of a Change Order.

Quotes (stipulated sum):

Quotes for the above Scope of Work will be received until **3:00 PM on Wednesday, April 17, 2024**, in the Architectural Engineering Department, 205 Government Street, P.O. Box 1827, Mobile, Alabama 36633. Quotes in amounts less than \$50,000 may be submitted in person, faxed, e-mailed or mailed to the Project Manager at the address indicated. Quotes \$50,000 or greater shall be submitted in a sealed 9"x12" envelope with the Contractor's General Contractors license information written on the outside of the bid envelope. Quotes for \$50,000 or more shall have a Bid Surety payable to Owner, City of Mobile, in the amount of 5% of the Base Quote drawn on an Alabama bank. Contractor is responsible for his quote arriving on time. Quotes will be reviewed in the Architectural Engineering Department following the time established for receipt of Quotes.

- A. No Bid may be modified, withdrawn, or canceled for a period of sixty (60) calendar days after the time designated for receipt of bids.
- B. The City of Mobile will have sixty (60) days from the bid opening date to award contract.

Bond Requirements:

For contracts that exceed \$50,000.00, a Bid Bond (or Bid Security), shall be required. For contractors that exceed \$10,000, a Performance Bond and a Labor and Material Payment Bond shall be required.

- A. Cost of Bonds shall be included in the Contractor's bid.
- B. A Surety authorized to do business in the State of Alabama must issue Bonds.
- C. The Bidder shall require the attorney-in-fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of the power of attorney.

Bid Security/Bid Bond:

- A. A Cashier's Check drawn on an Alabama bank or Bid Bond payable to Owner, City of Mobile, in the amount of 5% of the Base Bid, but in no event more than \$10,000.00 is required to accompany Bids over \$50,000.
- B. The Bid Security of the three lowest bidding Contractors shall be retained by the Owner until a contract is executed for the project.

A City of Mobile Business License is required and must be current at contract execution and throughout duration of contract.

City of Mobile Building Permits are required for this project, and all required progress and final inspections must be scheduled by the contractor. Closure of permits is a condition of final payment. There is no cost for City of Mobile permits.

Within ten (10) calendar days from the date of issuance of Contract forms for execution, the Contractor shall deliver to the City of Mobile the following items along with the electronically signed Owner Contractor Agreement:

- 1. Proof of enrollment in the Federal E-Verify program (see sample document attached as Exhibit 1)
- 2. Contract form example "Agreement Between Owner and Contractor For A Stipulated Sum" (sample attached as Exhibit 2)
- 3. Certificate of Insurance and policy endorsements in accordance with City of Mobile Insurance Requirements (attached as Exhibit 3 with sample documents)
- Company's current W-9 Tax Form and City of Mobile Vendor Information Form (Documents attached). Vendor may also show evidence of enrollment in the City of Mobile's Vendor Registration System: https://www.cityofmobile.org/bids/vendor-

For Payment(s), each month until project completion, submit two (2) notarized signature originals of the Application and Certificate for Payment, on AIA Documents G702 and G703. (Electronic forms will be provided by City of Mobile Architectural Engineering Department upon request of the Contractor.) Each Pay Application shall be based on the most recent schedule of values submitted by the Contractor. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work, and shall form the basis for review and approval of the Contractor's Application for Payment. The amount of progress payments may be reduced by 1.) amounts previously paid by Owner, 2.) uncorrected Work, 3.) non-payment of sub-contractor, 4.) defects discovered since last pay application, 5.) retainage. Prior to Substantial Completion of the Work, the Owner will hold **Retainage** from the payment otherwise due as follows: Five percent (5%) of the first fifty (50%) of the completed work and after fifty percent (50%) completion has been accomplished, no further retainage shall be held from the original Contract Sum. Increases in contract sum by Change Order shall also be subject to retainage. The net amount of the Retainage shall be equal to two and one half percent (2.5%) of the total Contract Sum, as increased or decreased by Change Order.

At **Substantial Completion** of the project, the Contractor shall publish a "Notice of Final Completion" of the contract in a locally published newspaper of general circulation, in accordance with Code of Alabama, Title 39, Section 39-1-1. For final Contract Sums less than fifty thousand dollars (\$50,000.00), the Contractor shall also provide an electronic or hard copy of the Notice verbiage, on company letterhead, to the Project Manager at the same time the Notice is submitted to the newspaper. Contracts over \$50,000, the Contractor shall publish four successive weeks. Within five working days after publication, the Contractor shall provide an original notarized proof of publication to the Project Manager.

The "Notice of Final Completion" shall read as follows:

STATE OF ALABAMA COUNTY OF MOBILE NOTICE OF COMPLETION

In accordance with Chapter 1, Title 39, Code of Alabama, 1975, NOTICE IS HEREBY given that (COMPANY NAME) has completed the contract for **Azalea City Golf Course Irrigation Pump House Electrical Upgrades.** All persons having any claims for labor, material or otherwise in connection with this project should immediately notify the Architectural Engineering Department, City of Mobile, P.O. Box 1827, Mobile, AL 36633-1827.

Liquidated Damages: A time charge equal to two hundred fifty dollars (\$250.00) per calendar day will be made against the Contractor for the entire period that any part of the Work remains uncompleted or required closeout documents are not acceptably submitted for more than thirty (30) calendar days after the time specified for the Substantial Completion of the Work, the amount of which shall be deducted by the Owner, and shall be retained by the Owner out of monies otherwise due the Contractor in the final payment, not as a penalty, but as liquidated damages sustained.

Contractor's Warranty: Contractor shall provide a written warrantee to the Owner that all materials furnished under the contract are of good quality and new. Contractor shall further warrant that the Work conforms to the requirements of the information contained in this Request For Quotes and will be free from defects. Work and/or materials not conforming to these requirements may be considered defective and shall, within one (1) year from date of Substantial Completion of the Project, be promptly replaced or corrected without cost to the Owner. Contractor shall also provide manufacturer's warranties for products used.

Close Out Documents: Shall consist of as built drawings, warrantees, approved submittals and other documents required by the RFQ document. They shall also include original executed copies of the following AIA Documents:

- 1. Contractor's Affidavit of Payment of Debts and Claims G706
- 2. Contractor's Affidavit of Release of Liens G706A
- 3. Consent of Surety to final Payment G707 (if bonds are required)

Contact the Project Manager, Will Mastin, at the City of Mobile, Architectural Engineering Department, 251-208-6035 phone, 251-406-2678 mobile, or e-mail will.mastin@cityofmobile.org for further clarification regarding this Request for Quote

Azalea City Golf Course – Pump House Electrical Upgrades Museum Drive, Mobile, AL PR-023-24

QUOTE FORM:			
Company Name:			
Company Address:			
Office Phone #:		Fax #:	
City of Mobile Business I	_icense No.:		
In compliance with the Rec Engineering Department, of No(s) dated _ propose to furnish all labor expenses incurred in perfo Contractor shall deliver the written Notice to Proceed.	, materials, tools,	, and all Adde the undersign equipment and supplies of Work for the amount lis	endum(a) ed does hereby and to sustain all sted below. The
Quoters shall NOT include Accounting of Sales Tax,	with Quote.	•	C-3A,
Quotes shall be provided	in whole dollar	amount with no cents.	
Base Quote Amount:			
	Amount in	Words	
		Dollars & No Cents \$_	.00
			Amount in #'s
Contingency Allowance:	One Thousand	Dollars & No Cents \$	1,000.00
	Amount in Words		Amount in #'s
Total Base Quote Amoun	.+-		
Total Dase Quote Allioun		Amount in Words	
			00
			Amount in #'s
Contact Phone #:		Cell #:	
E-mail Address:			
Signature:			
		Title:	

ACCOUNTING OF SALES TAX ATTACHMENT TO BID FORM SECTION 00400 SALES TAX FORM C-3A

To: City of Mobile	Date:
Name of Project: Project Number:	200 GOVERNMENT STREET EXTERIOR WALL REPAIRS MX-240-17
SALES TAX ACCO	<u>UNTING</u>
Pursuant to Act 201 in the bid proposal for	3-205, Section 1(g) the Contractor accounts for the sales tax NOT included orm as follows:
	ESTIMATED SALES TAX AMOUNT
BASE BID:	<u>\$</u>
than determining re	an accounting of sales tax shall render the bid non-responsive. Other esponsiveness, sales tax accounting shall not affect the bid pricing in the determination of the lowest responsible and responsive bidder.
Legal Name of Bidder	
Mailing Address	
*By (Legal Signatu	re)
*Name (type or print) (Seal)
*Title	
Telephone Number_	





Company ID Number:

Approved by:

Employer	
Name (Please Type or Print)	
Signature	Date
Department of Homeland Security Division	
5	Title
Signature	Date





Company ID Number:

Information	Required for the E-Verify Program
Information relating to your Comp	pany:
Company Name	
Company Facility Address	
Company Alternate Address	
County or Parish	
Employer Identification Num	
North American Industry Classification Systems Code	
Parent Company	
Number of Employees	
Number of Sites Verified for	

CITY OF MOBILE AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR A STIPULATED SUM (HEREINAFTER "AGREEMENT")

This Agreement made and entered into this Wednesday April 10, 2024.

BETW	EEN the Owner:	CITY OF MOBILE 205 Government Street P. O. Box 1827 Mobile, Alabama 36633		
And the Contractor:		Name Address Address		
		City Business License No.: Secretary of State Registration No.: 000		
For the following Project:		Azalea City Golf Course Pump House 1000 Museum Drive, Mobile, Alabama 36608		
Proje	ct Number:	PR-023-24		
The O	wner and Contractor ag	ree as set forth below:		
1.0	CONTRACTOR'S SERVI	ICE		
1.1	The Contractor's Services consist of those described in the Scope of Work which is attached here as "Exhibit A" and is hereby incorporated as a part of this Agreement and as provided in the Req for Quotes documents that are hereby incorporated by reference as a part of this Agreement as though fully set out herein. The total contract amount is and XX/100 Dollars (\$00) which includes a Contingency Allowance of 1000 and x/100 (\$00)			
1.2	If Additional Services are required due to circumstances beyond the Contractor's control, the Contractor shall give written notice to the Owner and obtain written authorization from the Owr before commencing such Services. The Contractor's notice shall include a description of the circumstances justifying the "Additional Services" and a proposal to provide the Services.			
1.3	ALLOWANCE			

A. Contingency Allowance shall cover cost of material, labor, overhead, profit and other expenses for complete installation of items of additional Work as required

for a complete, functional project. Contractor shall provide an itemized proposal including same for all Work. Contractor's charges for overhead and profit are limited to 10% of labor, materials and equipment costs on subcontractor's work; and 15% on work of Contractor's own forces.

- B. Contingency Allowance shall be used for unforeseen circumstances not covered in the construction documents. All extra work under this section must be authorized by the Owner, in writing, prior to ordering materials or undertaking work.
- C. Upon completion of the Work, the unused portion of the Contingency Allowance shall be credited back to the Owner in the form of a Change Order.

2.0 OWNER'S REPRESENTATIVE

2.1 The Owner's Representative, authorized to act on the Owner's behalf with respect to the Project, is the Director of Real Estate Asset Management or the Director's designated representative. The Owner's liaison with the Contractor is the Owner's Representative.

3.0 GENERAL REQUIREMENTS

- 3.1 The Contractor shall deliver the Work complete within **45** calendar days from the date of the written Notice to Proceed.
- 3.2 The Owner and the Contractor, respectively, bind themselves, their partners, successors, assigns, and legal representatives to the other party to this Agreement, with respect to all covenants of this Agreement. Contractor shall not assign, sublet, or transfer its interest in this Agreement without written consent of the Owner, which consent will be granted or withheld at the Owner's sole discretion.
- This Agreement represents the entire and integrated agreement between the Owner and Contractor and supersedes all prior negotiations, understandings or agreements either written or oral. The Owner and Contractor may amend this Agreement only by written instrument signed by both parties.
- All covenants, agreements, and stipulations of this Agreement (except warranties) shall remain in full force until completion of the Project or for a period of two (2) years from the date of this Agreement, whichever occurs first. By mutual agreement, the Owner and the Contractor may extend the Agreement time.

3.5 LIQUIDATED DAMAGES

A time charge equal to Two Hundred Fifty and 00/100 Dollars (\$250.00) per calendar day will be made against the Contractor for the entire period that any part of the Work remains incomplete or any closeout requirements are not acceptably submitted for more than thirty (30) calendar days after the time specified for the Substantial Completion of the Work. The amount of which shall be deducted by the Owner, and shall be retained by the Owner, out of monies otherwise due to the Contractor in the final payment, not as a penalty, but as liquidated damages sustained.

3.6. INSURANCE

For the term of this Agreement, Contractor shall acquire and maintain in full force and effect the following liability and comprehensive insurance issued by a company licensed and qualified to do business in the State of Alabama, *which such insurance shall be endorsed to name the City of Mobile as an additional insured,* and shall attach to this contract as proof thereof a certificate of insurance issued by an agent licensed and qualified to do business in the State of Alabama:

A. Workers' Compensation/Employer's Liability:

- 1. Workers' Compensation insurance in the amounts required by all applicable laws, rules or regulations of the state of Alabama.
- 2. Employer's Liability with limits of not less than:

Bodily Injury by Accident \$1,000,000 each accident Bodily Injury by Disease \$1,000,000 policy limit Bodily Injury by Disease \$1,000,000 each employee

B. Comprehensive General Liability Insurance

- 1. Comprehensive General Liability (occurrence form) including coverage for products/completed operations, independent contractors, and blanket contractual liability, specifically covering the obligations assumed by Contractor.
- 2. Limit of Liability: \$1,000,000 combined single limit of liability each occurrence bodily injury or property damage /\$2,000,000 Aggregate on a "Per Project" Basis.
- 3. General Aggregate Limit shall apply on a "Per Project" Basis.

C. Automobile Liability Insurance:

1. Automobile Liability Insurance to cover any auto, including all owned, non-owned, and hired vehicles, with a \$1,000,000 combined single limit of liability each accident for bodily injury and/or property damage.

D. Excess/Umbrella Liability Insurance

- 1. Providing following form coverage for Employer's Liability, Comprehensive General Liability, and Automobile Liability.
- 2. Limit of Liability: \$2,000,000 combined single limit of liability each occurrence for bodily injury and/or property damage.

<u>Waiver of Subrogation</u> - All policies of insurance shall be endorsed to waive rights of subrogation in favor of City of Mobile.

<u>Additional Insured</u> - All policies of insurance, except those referenced under paragraph A, shall be endorsed to name City of Mobile as an Additional Insured

<u>Primary Insurance</u> - All policies of insurance, except those referenced under paragraph A, shall be endorsed to provide that all such insurances are primary and non-contributing with any other insurance maintained by City of Mobile.

<u>Notice of Cancellation</u> – Certificates shall provide that such insurance shall not be subject to cancellation, non-renewal nor material change without 30 days or more (except 10 days for non-payment) prior written notice thereof to the City of Mobile.

<u>Certificates of Insurance</u> – General – Within ten (10) calendar days from date of issuance of Contract forms for execution, Contractor shall deliver to the City of Mobile, certificates of insurance (standard ACORD format) certifying the existence and limits of the insurance coverages along with separate policy endorsements as described above. Contractor shall also be responsible for delivering policy renewal certificates to the City of Mobile.

If the certificate of insurance referenced in this Agreement does not evidence insurance of owned vehicles, said certificate and this sentence shall evidence the Contractor's covenant that it does not own any vehicles and that it will not purchase or obtain any vehicles during the term of this Agreement. Said certificate shall require that said insurance coverage will not be altered or terminated unless City shall have been given written notice of such alteration or termination delivered to City not less than thirty (30) days before the effective date of such alteration or termination.

- 3.7 In the event of any breach or apparent breach by Contractor of any of its obligations under the terms of this Agreement, and in the further event that City shall engage the services of an attorney to protect or to enforce its rights with respect to said breach or apparent breach, then and in those events, Contractor agrees to pay and to reimburse any and all reasonable attorneys' fees and expenses which City may incur with respect to City's enforcement of this Agreement; regardless of whether said attorneys' fees and costs shall be incurred in connection with any litigation or in connection merely with advice and representation provided without litigation.
- 3.8 INDEMNIFICATION: The Contractor shall indemnify, defend and hold harmless City and its officers, elected officials, agents, representatives, and employees in respect of any and all claims, injuries, losses, diminution in value, damages, liabilities, whether or not currently due, and related expenses (including without limitation, settlement costs and any legal or other expenses for investigating or defending any actions or threatened actions) arising from or in connection with the contractor's performance under this agreement, including but not limited to, environmental laws, regulations, orders and decrees of whatever character or nature and damage or injury to persons or property. Contractor hereby confirms and agrees that Contractor is not a 'design professional' as defined in Alabama Act 2021-318, and not required to carry professional liability insurance for the performance or obligations of this contract.
- 3.9 This Agreement shall be governed by the laws of the State of Alabama, and the appropriate venue for any actions arising out of this Agreement shall be a court of proper jurisdiction in Mobile, Alabama.
- 3.10 Contractor shall obtain, at his own expense, all necessary licenses, inspections, permits, insurance, authorization and assurances necessary in order to abide by the terms of this Agreement. City of Mobile department permits, when required, shall be obtained by the Contractor at no cost.
- 3.11 Contractor, in the performance of its operations and obligations hereunder, shall not be deemed to be an agent of City but shall be deemed to be an independent Contractor in every respect and shall take all steps at its own expense, as City may from time to time request, to indicate that it is an independent Contractor. City does not and will not assume any responsibility for the means by which or the manner in which the services by Contractor provided for herein are performed, but on the contrary, Contractor shall be wholly responsible therefore.
- 3.12 BEST MANAGEMENT PRACTICES (BMPs): The Contractor shall be responsible for providing, implementing, and maintaining BMPs for sediment and erosion control, and all other applicable regulations, in full compliance with Local, State, and Federal Codes and Ordinances throughout the contract period. All Work shall be in accordance with the Clean Water Act, the Alabama Water Pollution Control Act, the current version of the Alabama Handbook for Erosion Control, Sediment Control and Storm Water Management on Construction Sites and Urban Areas; and the current version of the Mobile, Alabama City Code Chapter 17 Storm Water Management and Flood Control. All waste water with oils, grease, etc., shall be properly contained and disposed of.

- 3.13 METHOD of PAYMENT: Contractor shall provide one notarized original signature copies of invoices to the Architectural Engineering Department on a monthly basis and/or upon successful completion of service. Contractor invoices shall be provided on AIA Document G702 and AIA Document G703. Final payment shall not be processed until all required Close-out Documents are submitted to and approved by the Owner.
- 3.14 TERMINATION OF CONTRACT: The City retains the right to terminate the contract at its discretion, which shall be effective upon giving notice to the Contractor. Upon termination, the City shall only pay for those services satisfactorily rendered in the sole discretion of the City. The contractor may terminate the contract upon thirty (30) days written notice. Notice to the City shall be addressed to the Director Of Real Estate Asset Management. The City shall not be liable for payment to the Contractor for lost profit or damages as the result of its termination of the contract.
- 3.15 All notices of cancellation, requests, demands or other communications to Owner shall be in writing duly delivered to the following address for the City:

City of Mobile Architectural Engineering Department 205 Government St 5th Floor, South Tower PO Box 1827 Mobile, AL 36633

Copy to: City Attorney
City of Mobile Legal Department
Post Office Box 1827
Mobile, AL 36633-1827

To Contractor: NAME: ADDRESS:

3.16 LABOR AND MATERIAL PAYMENT BOND and PERFORMANCE BOND

Shall each be for one hundred percent (100%) of the Contract Price if the Contract Price is greater than \$50,000.00.

- 1. Cost of the bonds shall be included in the bid.
- 2. Bond shall be submitted with the executed agreement on provided form(s).
- 3. Power of Attorney is required for both bonds.
- 4. A Surety authorized to do business in the State of Alabama shall furnish both bonds.
- 5. A Surety licensed to do business in the State of Alabama must execute the bonds.

3.17 RETAINAGE

For each progress payment made prior to Substantial Completion of the Work, the Owner may withhold the following amount, as retainage, from the payment otherwise due:

Five percent (5%) of the first fifty percent (50%) of the completed work and after fifty percent (50%) completion has been accomplished, no further retainage shall be held from the original Contract Sum. Increases in the contract sum by Change Order shall also be subject to retainage.

The net amount of the Retainage shall be equal to two- and one-half percent (2.5%) of the total Contract Sum, as increased or decreased by Change Order.

3.18 PROOF OF ADVERTISEMENT of COMPLETION

- (a) Contractor shall provide proof of publication of Notice of Completion in a locally published newspaper of general circulation, in accordance with Title 39, Section 39-1-1 of the Code of Alabama. For final Contract Sums less than Fifty Thousand and 00/100 Dollars (\$50,000.00), the Contractor shall also provide, at the same time notice is sent to the newspaper, an electronic or hard copy of notice verbiage on Contractor letterhead to the City of Mobile for public posting for one week. This Notice of Completion shall not begin until the project has been accepted by the City of Mobile.
- (b) Notice of Completion advertisement shall read as follows:

STATE OF ALABAMA COUNTY OF MOBILE NOTICE OF COMPLETION

In accordance with Chapter I, Title 39, Code of Alabama, 1975, NOTICE IS HEREBY given that COMPANY NAME has completed the contract for PROJECT LOCATION & TITLE, PROJECT NUMBER, in Mobile, Alabama. All persons having any claim for labor, material or otherwise in connection with this project should immediately notify the Architectural Engineering Department, City of Mobile, P. O. Box 1827, Mobile, AL 36633-1827.

3.19 CONTRACTOR WARRANTY and CERTIFICATION

A. Upon completion of the contract the Contractor shall certify under oath that all bills have been paid in full.

B. In addition to manufacturer warranties required by the Bid Documents, Contractor shall provide a one (1) year Labor and Materials Warranty on company letterhead at completion of the Contract.

4.0 CONTRACT DOCUMENTS

A. The contract documents consist of this Agreement, the Request for Quotes documents, Exhibit "A" Scope of Work, Addenda issued prior to the execution of the Contract, other documents listed in this Agreement, and Modifications issued after the execution of this Agreement, all of which form the Contract, and are fully a part of the Contract as if attached to this Agreement or repeated herein. The contract documents are intended to agree, and if clarification of a conflict has not been made via Addendum, then the most restrictive or costly interpretation by the Director of Real Estate Asset Management will apply.

- B. An enumeration of the Contract Documents, other than a Modification, appears below:
- 1. Request for Quotes documents, dated <u>March 18,2024</u> as prepared by the City of Mobile Architectural Engineering Department and <u>Dell Consulting</u>.
- 2. Addendum No , dated MONTH, DAY, YEAR, Addendum No , dated MONTH, DAY, YEAR, etc.
- 3. E-Verify Documentation;
- 4. Certificate of Insurance with endorsements; and
- 5. This Instrument (Agreement).

5.0 DISPUTE RESOLUTION

Claims, disputes or other matters in question between the parties to this Agreement arising out of or relating to the Agreement or breach thereof shall be subject to legal proceedings unless the parties mutually agree otherwise.

6.0 FORCE MAJEURE

In the event that either party hereto shall be delayed or hindered in or prevented from the performance of any act required hereunder by reason of strikes, lockouts, labor troubles, inability to procure materials, failure of power, restrictive governmental laws or regulations, riots, insurrection, war, Act of God, or other reason of a like nature not the fault of the party delayed in performing work or doing acts required under the terms of this Agreement, then performance of such act shall be excused for the period of the delay and the period for the performance of any such act shall be extended for a period equivalent to the period of such delay.

7.0 NONDISCRIMINATION

A. Contractor shall comply with all Federal, State and local laws concerning nondiscrimination, including but not limited to City of Mobile Ordinance No. 14-034 which requires, *inter alia*, that all contractors performing work for the City of Mobile not discriminate on the basis of race, creed, color, national origin or disability, require that all subcontractors they engage do the same, and make every reasonable effort to assure that fifteen percent of the work performed under contract be awarded to socially and economically disadvantaged individuals and business entities.

B. Contractor shall abide by provisions of Mobile Ordinance No. 02-050 which prohibits discrimination in employment by Contractors and Subcontractors performing work for the City of Mobile.

8.0 NON-ASSIGNMENT

Neither this Agreement nor any rights under this Agreement may be assigned, by any party, without the prior written consent of the other party.

9.0 SEVERABILITY CLAUSE

In case any one or more of the provisions contained in this Agreement shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions of this Agreement, but this Agreement shall be construed as if such invalid or illegal or unenforceable provision had never been contained herein. Upon such determination that any term or other provision is invalid, illegal or unenforceable, the court or other tribunal making such determination is authorized and instructed to modify this Agreement so as to effect the original intent of the parties as closely as possible so that the transactions and agreements contemplated herein are consummated as originally contemplated to the fullest extent possible.

10.0 IMMIGRATION LAWS

By signing this contract, the contracting parties affirm, for the duration of the agreement, that they will not violate federal immigration law or knowingly employ, hire for employment, or continue to employ an unauthorized alien within the State of Alabama. Furthermore, a contracting party found to be in violation of this provision shall be deemed in breach of the agreement and shall be responsible for all damages resulting therefrom.

11.0 Public Contracts with Entities in Certain Boycott Activities

By signing this contract, the Contractor further represents and agrees that it is not currently engaged in, nor will it engage in, any boycott of a person or entity based in or doing business with a jurisdiction with which the State of Alabama can enjoy open trade.

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK

IN WITNESS WHERE OF, the parties to these presents have hereunto set their hand and seal; the Mayor of the City of Mobile, acting under and by virtue of such office and with full authority and the Contractor by such duly authorized officers or individuals as may be required by law.

This Agreement entered into as of the day and year first written above.

OWNER: City of Mobile	Legal Name of Party to Contract: CONTRACTOR:
Signature	By Signature
William S. Stimpson, Mayor	
Printed Name and Title	Printed Name and Title
	(Corporate Seal if applicable
ATTEST: City of Mobile	
City Clerk	
Contractor:	
as sworn, did depose and say that he, as such o	in and for said County and State, personally appeared of and after being duly fficer and with full authority, signed the above and foregoing
voluntarily as the act of said corporation on t Sworn to and subscribed for me this	the day the same bears date. day of,
NOTARY PUBLIC My Commission Expires:	

City of Mobile Insurance Requirements Contractor

<u>Insurance</u> – For the duration of this agreement, the Contractor shall maintain the following minimum amounts for this project:

A. Workers' Compensation/Employer's Liability:

- 1. Workers' Compensation insurance in the amounts required by all applicable laws, rules or regulations of the state of Alabama.
- 2. Employer's Liability with limits of not less than:

Bodily Injury by Accident
Bodily Injury by Disease
Bodily Injury by Disease
Bodily Injury by Disease
Bodily Injury by Accident
\$1,000,000 each accident
\$1,000,000 policy limit
\$1,000,000 each employee

B. Comprehensive General Liability Insurance:

- Comprehensive General Liability (occurrence form) including coverage for products/completed operations, independent contractors, blanket contractual liability specifically covering the obligations assumed by Contractor.
- 2. Limit of Liability: \$1,000,000 combined single limit of liability each occurrence bodily injury or property damage.
- 3. General Aggregate Limit shall apply on a "Per Project" Basis.

C. Automobile Liability Insurance:

1. Automobile Liability Insurance to cover any auto, including all owned, non-owned, and hired vehicles, with a \$1,000,000 combined single limit of liability each accident for bodily injury and/or property damage.

D. Excess/Umbrella Liability Insurance

- 1. Providing following form coverage for Employer's Liability, Comprehensive General Liability, and Automobile Liability.
- 2. Limit of Liability: \$2,000,000 combined single limit of liability each occurrence for bodily injury and/or property damage.

E. Builder's Risk Insurance

- 1. ALL RISK Builder's Risk coverage shall be provided for the Contractor, Owner and all SubContractors for the full amount of the Contract during construction, fabrications, storage, transport and erection of any equipment.
- 2. Policy provisions and the Certificate of Insurance shall be provided to the Owner.

CERTIFICATE OF LIABILITY INSURANCE ENDORSEMENT PAGE

The policy endorsements listed below are required and must be listed in the "Description of Operations" box on the Certificate of Liability Insurance or listed separately on an attachment to the certificate of insurance (ACORD 101, Additional Remarks Schedule).

<u>Waiver of Subrogation</u> - All policies of insurance shall be endorsed to waive rights of subrogation in favor of City of Mobile.

Additional Insured - All policies of insurance, except those referenced under paragraph A, shall be endorsed to name City of Mobile as an Additional Insured.

<u>Primary Insurance</u> - All policies of insurance, except those referenced under paragraph A, shall be endorsed to provide that all such insurances are primary and non-contributing with any other insurance maintained by City of Mobile.

Notice of Cancellation - Certificates of Insurance shall provide that such insurance shall not be subject to cancellation, non-renewal nor material change without 30 days or more (except 10 days for non-payment) prior written notice thereof to the City of Mobile.

<u>Certificates of Insurance – General</u> - Within ten (10) calendar days from date of issuance of Contract forms for execution, Consultant shall deliver to the City of Mobile, certificates of insurance (standard ACORD format) certifying the existence and limits of the insurance coverages along with separate policy endorsements as described above. Consultant shall also be responsible for delivering policy renewal certificates to the City of Mobile. A sample Certificate of Liability Insurance form, including the policy endorsement is attached for Consultant's reference.



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

REPRESENTATIVE OR PRODUCER, AN IMPORTANT: If the certificate holder is terms and conditions of the policy, certificate holder in lieu of such endors	s an ADDI ertain poli	TIONAL INSURED, the p cies may require an end	JOISEMENL A SIAL	endorsed. If ement on th	SUBROGATION IS WAIVE is certificate does not co	ED, subject to the nfer rights to the
PRODUCER			CONTACT NAME:		720	
			PHONE (A/C, No. Ext):		FAX (A/C, No):	
			E-MAIL ADDRESS:			
				SURER(S) AFFOR	RDING COVERAGE	NAIC#
			INSURER A:		7065	
INSURED			INSURER B:			
inooned			INSURER C:			
			INSURER D:			
			INSURER E :			
			INSURER F:			
CER CER	TIEICATE	NUMBER:	INSURENT:		REVISION NUMBER:	7
THIS IS TO CERTIFY THAT THE POLICIES INDICATED. NOTWITHSTANDING ANY RECERTIFICATE MAY BE ISSUED OR MAY EXCLUSIONS AND CONDITIONS OF SUCH	OF INSUF	RANCE LISTED BELOW HANT, TERM OR CONDITION THE INSURANCE AFFORD LIMITS SHOWN MAY HAVE	ED BY THE POLICE	ES DESCRIBE PAID CLAIMS	D HEREIN IS SUBJECT TO	
INSR LTR TYPE OF INSURANCE	INSR WVD	POLICY NUMBER	(MM/OD/TTT)	(MMADDITTTY)	EACH CURRENCE S	1,000,000
GENERAL LIABILITY					DAMA TO RENIGO	1.000.000
X COMMERCIAL GENERAL LIABILITY	XX					5,000
CLAIMS-MADE X OCCUR	<u> </u>		1	i		1,000,000
X Contractual Liability						1,000,000
	1		t	A		1,000,000
GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-			-		, / S	
AUTOMOBILE LIABILITY	xx				ac htt	1,000,000
X ANY AUTO					B INJURY (Per person) \$	
ALL OWNED SCHEDULED					BODILY INJURY (Per accident) \$	
AUTOS NON-OWNED					PROPERTY DAMAGE (Per accident)	
HIRED AUTOS AUTOS					5	
X UMBRELLA LIAB X OCCUR	xx		114		EACH OCCURRENCE S	2,000,000
EXCESS LIAB CLAIMS-MADE		(AGGREGATE S	2,000,000
				*	s	
DED RETENTIONS WORKERS COMPENSATION			110		X WC STATU- TORY LIMITS ER S	51,000,000
AND EMPLOYERS' LIABILITY Y/N	_				E.L. EACH ACCIDENT \$	
ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICE/MEMBER EXCLUDED?	N/A X		•		E.L. DISEASE - EA EMPLOYEE \$	
(Mandatory in NH) If yes, describe under					E.L. DISEASE - POLICY LIMIT \$	
DESCRIPTION OF OPERATIONS below						
			Coloreda Mariana	- enguise di		
DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICL Project Name:	LES (Attach / Projec	ACORD 101, Addition Remarks at Numb	Schedule, if more space i	s required)		
City of Mobile is included as an Additional In	carrier of the	anget to Concret Liebille.	Automobile Liability	and I Imhrella	Liability. All policies excer	ot workers
City of Mobile is included as an Additional in compensation, shall be Primary and Non-co	sured in re	espect to General Liability,	force or which may	he nurchased	by Additional Insured. Wa	iver of Subrogation
compensation, shall be Primary and Non-co applies in favor of City of Mobile with respec	nthoutory v	with any other insurance in	hility Umbrella Liabil	ity and Work	ers Compensation and Emp	loyer's Liability. 30
Day Notice of Cancellation, non-renewal or	material ch	an Liability, Automobile Lia	O days for non-payo	nent).		rus en eo voe en mai e
Day Notice of Cancellation, non-renewal of	material Cri	larige strail apply (except i	o dayo lor rion payri	0311ME		
CERTIFICATE HOLDER			CANCELLATION			
CERTIFICATE HOLDER						
City of Mahile		_	SHOULD ANY OF	THE ABOVE I	DESCRIBED POLICIES BE CA	NCELLED BEFORE
City of Mobile THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.						
P. O. Box 1827			ACCORDANCE W			
Mobile, Alabama 36633-182	7		AUTHORIZED DEDDESE	NTATIVE		7
	AUTHORIZED REPRESENTATIVE					
7-1						



CITY OF MOBILE

Subcontracting and Major Supplier Plan

Contact Office of Supplier Diversity for questions on completing this form. Via emai:Archnique.kidd@cityofmobile.org 251.208.7967

205 Government Street, 5th Floor

Bidders and Proposers – Please complete and submit these forms as required by your City of Mobile Bid or Proposal Specification.

If you are submitting a proposal in response to a Request for Qualifications, Request for Proposal, or other solicitation ("Solicitations") issued by the City of Mobile, the bid specification may require you to utilize disadvantaged business enterprise ("DBE") subcontractors and suppliers. If DBE participation is required, you must complete and submit these forms with your proposal. If required, failure to submit this form will render your bid non-responsive. NOTE: To satisfy participation requirements for a federally funded project, you must utilize DBEs certified through the Alabama Unified Certification Program.

If DBE participation is required, and you fail to satisfy the participation requirement, you must show that you made a good faith effort to include such participation; you will be required to submit DBE Compliance Form 2 and include additional information if needed. When so required, failure to address adequately the good faith effort factors on Form 2 will render your bid or proposal non-responsive. The "good faith effort" factors on Form 2 are not intended to be a mandatory, exhaustive, or exclusive.

You are encouraged to work with the City of Mobile Supplier Diversity Manager when preparing this form. Please consult with the City Supplier Diversity Manager for a list of eligible DBEs. The "good faith effort" factors on **Form 2** are not intended to be mandatory, exhaustive, or exclusive; they are a tool to help you, and the City of Mobile, determine whether you made efforts which, by their scope, intensity, and appropriateness to the objective, would reasonably be expected to fulfill the participation requirement.

About "**DBEs**": Disadvantaged business enterprise or DBE means a for-profit small business concern (1) That is at least 51 percent owned by one or more individuals who are both socially and economically disadvantaged or, in the case of a corporation, in which 51 percent of the stock is owned by one or more such individuals; and (2) whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it.

About "Good Faith" Effort: Good faith efforts means efforts to achieve a DBE goal or other requirement of this part which, by their scope, intensity, and appropriateness to the objective, can reasonably be expected to fulfill the program requirement. The City of Mobile expects contractors holding large contracts to recruit and engage DBEs to be a part of their team.

Failure to submit this form, when so required by the bid or proposal specification, will render your bid non-responsive.



CITY OF MOBILE

Subcontracting and Major Supplier Plan

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Via emai:Archnique.kidd@cityofmobile.org 251.208.7967 205 Government Street, 5th Floor

FORM 1: Background and Plan

Section I. Information about your company

Company		
Address		
Telephone		
E-Mail		
RFP/RFQ Solicitation Number		
Project Description		
Is your company a DBE company?	Yes No No	
Work force demographics	Male Female Minority Non-minority SDVO	
	Total #of Employees	
Subcontractor/Major Supplier P	lan submitted by:	
Printed Name:		
Signature:	Date:	
Title:		
	signated as the DBE Liaison for all communication regarding DBE participation including docurance of records of Good Faith Efforts for this contract award:	mentatio
Name:		
Email:	Phone:	
	Page 2 of 5 Subcontractor/Supplier Plan	4/5/202



CITY OF MOBILE

Subcontracting and Major Supplier Plan

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Via emai:Archnique.kidd@cityofmobile.org 251.208.7967 205 Government Street, 5th Floor

FORM 1: Background and Plan (Cont'd

lease Print Company		Your Bid/Proposal Amount \$			D	Date:	
//	Description	on					
ame of Bidder/Proposer:	:						
intend to use the foll	owing subcor	ntractors: (Attach additional pages	if necessary)				
Cuba suturate a su	Dhana	Come of Work to be performed	CC Value to be	0/ Of Varia	DDE2	Official	
Subcontractor or Major Supplier	Phone	Scope of Work to be performed	\$\$ Value to be Performed	% Of Your Bid Amount	DBE?	Verification Only	



CITY OF MOBILE

Subcontracting and Major Supplier Plan

Form 2: Good Faith Effort Documentation

Name of E	Bidder: _	
Contact P	erson: _	Phone Email
Please co	omplete	this form if you are unable to identify DBE subcontractors or suppliers to reach 15% of the value of your bid.
YES (□)	NO (□)	Did you do these suggested areas for DBE recruitment and engagement
		PRE-BID MEETING(S): The bidder attended all pre-bid meetings scheduled by the City to inform DBEs of contracting and subcontracting opportunities.
		CMDBE/ALDOT DBE LIST(S): The bidder utilized the Office of Supplier Diversity's list or lists of certified through the Alabama Department of Transportation UCP DBE Listing
		SMALL CONTRACT(S): The bidder selected specific portions of the work to be performed by DBEs in order to increase the likelihood of meeting the DBE goals (including breaking down contracts into smaller units to facilitate DBE participation). Consider support services, including insurance, accounting, temporary labor, and transportation, landscaping, and janitorial as potential areas for DBE use.
		FOLLOW-UP: The bidder followed-up initial indications of interest by DBEs by contacting those DBEs to determine with certainty if they remained interested in bidding.
		GOOD FAITH NEGOTIATIONS: The bidder negotiated in good faith with interested DBEs and did not reject DBEs as unqualified without sound business reasons based on a thorough investigation of their capabilities. Bidders are not expected to engage unqualified subcontractors or subcontractors whose pricing, after negotiation, remains excessive or unreasonable. (Please document qualification deficiencies or unreasonable pricing if it prevented your engagement of specific DBE subcontractors.)
		ADVERTISEMENT: The bidder advertised in general circulation and/or trade association publications concerning subcontracting opportunities and allowed DBEs reasonable time to respond.
		INTERNET ADVERTISING: The bidder advertised DBE and/or subcontracting opportunities in the newspaper or other internet portals that are accessible to DBEs and/or potential subcontractors.

Page 4 of 5
Subcontractor/Supplier Plan



CITY OF MOBILE

Subcontracting and Major Supplier Plan

	INFORMATION: The bidder provided interested DBEs with adequate information about the plans, specifications and requirements of the subcontract.
	WRITTEN NOTICE(S): The bidder/proposer took the necessary steps to provide written notice in a manner reasonably calculated to inform DBEs of subcontracting opportunities and allowed sufficient time for them to participate effectively.
	COMMUNITY RESOURCES: The bidder/proposer used the services of available community organizations, small and/or disadvantaged business assistance offices and other organizations that provided assistance in the recruitment and placement of DBE firms.

CONTRACT RECORDS:

The bidder/proposer has maintained the following records for each DBE that has bid on the subcontracting opportunity:

- 1. Name, address, email address and telephone number
- 2. A description of information provided by the bidder/proposer or subcontractor; and
- 3. A statement of whether an agreement was reached, and if not, why not, including any reasons for concluding that the DBE was unqualified to perform the job.

Section 2(B)

There are not ways to break out 15% of the value of this contract for subcontractors / suppliers. Provide further detail in Section2(c)
the inability to break-out 15% of the value of the contract was the reason, or a reason, you could not meet the participation requirements.
Could not find sufficient DBEs to provide subcontracting or supplier services.
DBEs were available but did not have sufficient qualifications or experience to meet the needs of this contract.
lease indicate additional efforts you have taken to recruit and engage DBEs

Page 5 of 5 Subcontractor/Supplier Plan

Azalea City Irrigation Pump House Electrical Upgrades

The City of Mobile, Alabama

Museum Drive Mobile, Alabama



01/30/2024



AREA OF WORK

SUMMARY OF WORK - AZALEA CITY IRRIGATION PUMP HOUSE

UPGRADES ARE TO BE INCORPORATED:

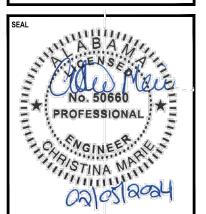
UPGRADING (REMOVE AND REPLACE) THE EXISTING ELECTRICAL BOXES, ETC.) ON THE SOUTH AND EAST WALLS SERVING THE IRRIGATION

THE EXISTING LIGHT FIXTURES AND ASSOCIATED SWITCH (INCLUDING ALL ASSOCIATED CONDUCTORS, CONDUIT, BOXES, ETC.) TO BE REMOVED AND REPLACED NEW.

INSTALLED FOR THE NEW EQUIPMENT.

DRAWING#	DRAWING DESCRIPTION:
T-1.0	TITLE SHEET
E-1.0	LEGEND & SPECIFICATIONS
E-2.0	EXISTING / NEW WORK ELECTRICAL PLAN
E-3.0	ELECTRICAL SCHEDULES AND DETAILS
E-4.0	ELECTRICAL SCHEDULES AND DETAILS





REVISION DESCRIPTION		
NUMBER REVISION		

UPGRADE IRRIGATION PUMP

TITLE SHEET

ELECTRICAL SPECIFICATIONS

GENERAL ELECTRICAL: THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY FOR THE INSTALLATION OF A COMPLETE ELECTRICAL SYSTEM AS INDICATED WITHIN THESE DRAWINGS, ALL WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL

- APPLICABLE CODES AND ORDINANCES AND WITH MANUFACTURER'S RECOMMENDATIONS. THE CONTRACTOR WILL BE REQUIRED TO FURNISH, INSTALL AND CONNECT ALL ITEMS AS INDICATED ON THE DRAWINGS.
- THE ARCHITECT SHALL BE NOTIFIED OF ANY CONFLICTS, OR INTERFERENCES THAT OCCUR BETWEEN INDIVIDUAL DRAWINGS.
- ALL MATERIALS AND EQUIPMENT SHALL BE INSTALLED IN A NEAT, FIRST CLASS, WORKMANLIKE MANNER, TO THE APPROVAL OF THE 5. GROUNDING & BONDING:
- OWNER / ENGINEER AND GOVERNING AUTHORITIES. IN ADDITION TO THE MANUFACTURERS STANDARD GUARANTEES, THE CONTRACTOR SHALL GUARANTEE ALL MATERIALS, EQUIPMENT AND WORKMANSHIP AGAINST DEFECTS FOR ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE, AND SHALL CORRECT ANY DEFECTS AT NO ADDITIONAL COST TO THE OWNER. ALL LAMPS SHALL BE GUARANTEED FOR 30 DAYS AFTER ACCEPTANCE.
- THE LOADS SHOWN FOR APPLIANCES AND EQUIPMENT ARE BASED ON DESIGN INFORMATION. THE CONTRACTOR SHALL VERIFY ALL 5.5. APPLIANCE LOADS PRIOR TO RUNNING THE CIRCUIT. THE MINIMUM CIRCUIT REQUIREMENTS SHALL BE BASED ON THE APPLIANCE 5.6. NAMEPLATE VALUE OR CODE REQUIREMENTS, WHICHEVER IS MORE STRINGENT. ADDITIONAL COMPENSATION SHALL NOT BE ALLOWED FOR APPLIANCE MODIFICATIONS BY THE CONTRACTOR.
- PRIOR APPROVAL: PRIOR APPROVAL SHALL BE REQUIRED FOR ANY MANUFACTURER OTHER THAN THOSE LISTED FOR ALL SPECIFIED ITEMS IN THESE DRAWINGS. SUBMIT ALL REQUESTS FOR PRIOR APPROVAL 2 WEEKS PRIOR TO BID OPENING. ENGINEER'S 6.1. APPROVAL WILL BE IN THE FORM OF AN ADDENDUM.

CODES & STANDARDS:

- INSTALLATION AND MATERIALS SHALL COMPLY WITH THE LATEST ADOPTED EDITION OF THE FOLLOWING CODES & STANDARDS: NATIONAL ELECTRICAL CODE.
- NFPA 72. NATIONAL FIRE PROTECTION CODE.
- INTERNATIONAL BUILDING CODE. 2.1.3.
- INTERNATIONAL ENERGY CONSERVATION CODE. 2.1.4.
- 2.1.5. NFPA 101.
- 2.1.6. ADA.
- 2.1.7. ANSI.
- 2.1.8. NEMA.
- 2.1.9. OSHA. 2.1.10.
- ALTERATIONS & ADDITIONS TO EXISTING WORK:
- 3.1. PROVIDE ALL NECESSARY ADDITIONS AND ALTERATIONS TO EXISTING WORK AS REQUIRED TO PROVIDE AND MAINTAIN A COMPLETE 8.3. AND PROPER ELECTRICAL INSTALLATION.
- AS NECESSARY, RELOCATE EXISTING ELECTRICAL WORK SO OTHER TRADES CAN PURSUE THEIR WORK.
- MAINTAIN POWER TO EXISTING PORTIONS OF BUILDINGS FED FROM OR THROUGH AREA IN SCOPE OF THIS CONTRACT. COORDINATE ALL REQUIRED OUTAGES WITH OWNER.
- BASIC MATERIALS & METHODS:
- ALL POWER AND DISTRIBUTION CABLING SHALL BE COPPER TYPE THWN/THHN.
- ALL ELECTRICAL EQUIPMENT, DEVICES, ETC. LOCATED OUTDOORS SHALL BE WEATHERPROOF.
- ELECTRICAL CONTRACTOR SHALL PROVIDE ADEQUATE AND PROPER SUPPORT FOR ALL ELECTRICAL OUTLETS, DEVICES, LIGHT FIXTURES, ETC. BUILT IN OR MOUNTED ON CEILINGS. NO OUTLET BOX, DEVICE, LIGHT FIXTURE, ETC. SHALL BE SUPPORTED FROM ANY ACOUSTICAL CEILING TILE OR DRYWALL CEILINGS. PROVIDE METAL SUPPORTS THAT ARE MADE FOR USE WITH CEILING GRID SYSTEMS OR PROVIDE HANGERS FROM STRUCTURE ABOVE.
- CONDUIT ROUTINGS AND DEVICE/EQUIPMENT LOCATIONS SHOWN ARE DIAGRAMMATIC ONLY, CONTRACTOR SHALL FIELD ROUTE AND LOCATE AS REQUIRED. CONDUIT ROUTINGS SHALL BE PARALLEL OR PERPENDICULAR TO BUILDING LINES.
- JUNCTION BOXES LOCATED ABOVE CEILING SHALL BE INSTALLED FACING DOWN AND SHALL BE ACCESSIBLE AFTER INSTALLATION. 10.2.
- COORDINATE ALL ELECTRICAL WORK WITH OTHER TRADES AND STRUCTURAL COMPONENTS. THE CONDUIT MATERIAL SHALL BE AS FOLLOWS:
- BELOW GRADE RNC (POWER & SITE LIGHTING ONLY). ELBOWS >1-1/2" SHALL BE RGS.
- RISER FROM 36" BELOW GRADE RGS.
- CONCEALED RISER FROM 36" BELOW GRADE RNC (POWER ONLY).
- 4.7.4. ABOVE GRADE SUBJECT TO PHYSICAL ABUSE - RGS.
- ABOVE GRADE NOT SUBJECT TO PHYSICAL ABUSE OR WEATHER EMT.
- INDOORS NOT SUBJECT TO PHYSICAL ABUSE EMT. OR METAL CLAD CABLE(AS ALLOWED BY LOCAL AUTHORITY HAVING
- FINAL CONDUIT CONNECTIONS TO HEAT PUMPS, AIR HANDLERS, EXHAUST FANS, AND WATER HEATERS SHALL BE LFMC WHETHER INTERIOR OR EXTERIOR.
- CONDUIT FITTINGS SHALL BE AS FOLLOWS:
- EMT <=2" USE STEEL SET SCREW WITH INSULATED THROATS FOR INTERIOR/ USE COMPRESSION FITTINGS WITH INSULATED THROATS FOR EXTERIOR, >2" USE SET-SCREW STEEL WITH INSULATED THROATS.
- RGS THREADED GALVANIZED STEEL
- PVC PVC APPROVED FOR THE USE.
- FMC ZINC-PLATED STEEL OR CADMIUM-PLATED MALLEABLE IRON SCREW TYPE WITH INSULATED THROAT.
- LFMC CADMIUM-PLATED MALLEABLE IRON OR STEEL COMPRESSION TYPE WITH INSULATED THROAT.

- 4.9. ALL OUTLET BOXES SHALL BE 4"X4"X1-1/2" DEEP MINIMUM. 4.10. ALL SIDEWALKS AND PARKING LOT ASPHALT AREAS THAT ARE CUT DUE TO NEW ELECTRICAL SERVICES SHALL BE REPAIRED TO MATCH EXISTING.
- 4.11. ALL DIMENSIONS TO DEVICES AFF SHALL BE TO CENTERLINE UNLESS NOTED OTHERWISE.
- COORDINATE LOCATIONS OF ELECTRICAL EQUIPMENT, DEVICES, OUTLETS, FIXTURES, ETC., PRIOR TO ROUGH-IN WORK

- 5.1. PROVIDE AN INSULATED EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS.
- GROUND RODS SHALL BE 3/4"X20' COPPERCLAD STEEL.
- BELOW GRADE CONNECTIONS SHALL BE EXOTHERMIC TYPE. ALL CABLES SHALL BE COPPER, ALL BOLTED CONNECTIONS SHALL BE BRONZE.
- WHERE AVAILABLE, BOND TO BUILDING STRUCTURAL STEEL, BUILDING FOUNDATION STEEL, METAL WATER SERVICE PIPING. PROVIDE THREE 20' GROUND RODS IN TRIANGLE ARRANGEMENT ON 20' CENTERS FOR MADE ELECTRODE SYSTEM. THE ELECTRICAL
- CONTRACTOR SHALL BOND NEW COPPER CLAD GROUND RODS WITH TINNED STRANDED BARE COPPER CONDUCTOR.

6. IDENTIFICATION:

- PROVIDE ENGRAVED 1"X3" PHENOLIC LABELS FOR ALL PANELBOARDS, SAFETY SWITCHES, TRANSFORMERS, CABINETS, ETC. PAINT THE RACEWAY SYSTEM COUPLINGS AND BOX COVERS ABOVE CEILINGS FOR THE FOLLOWING SYSTEMS AS FOLLOWS:
- 208 VOLT SYSTEMS BLACK,
- 480 VOLT SYSTEMS BROWN. 6.2.3. AFTER PAINTING, WRITE THE CIRCUIT NUMBER (I.E. "LPA-34") ON ALL BRANCH CIRCUIT JUNCTION BOX COVERS ABOVE CEILING WITH WHITE MARKER.

GENERAL WIRING DEVICES:

- SWITCHES SPECIFICATION GRADE, 20 AMP, COLOR BY ARCHITECT
- RECEPTACLES SPECIFICATION GRADE, 20 AMP, NEMA 5-20R, COLOR BY ARCHITECT.
- COVER PLATES NYLON, COLOR BY ARCHITECT.
- SPECIAL RECEPTACLES PER THE DRAWINGS. VERIFY WITH EQUIPMENT BEING SUPPLIED.
- APPROVED MANUFACTURERS HUBBELL, LEVITON, EAGLE, PASS & SEYMOUR.

8. SAFETY SWITCHES:

- GENERAL DUTY, VISIBLE BLADE, LOCKABLE, QUICK-MAKE/QUICK-BREAK, HORSEPOWER RATED, FUSED WHERE INDICATED.
- PROVIDE WITH GROUND LUG KIT.
- INTERIOR NEMA 1.
- APPROVED MANUFACTURERS SQUARE D, GENERAL ELECTRIC, SIEMENS.

9. MOTOR STARTERS:

- MANUAL TYPE SHALL BE TOGGLE WITH THERMAL OVERLOAD.
- MAGNETIC TYPE SHALL HAVE SOLID STATE OVERLOAD RELAY WITH Ø LOSS AND Ø UNBALANCE PROTECTION, HOA SWITCH, RED RUN AND GREEN STOP LED LIGHTS.
- INTERIOR NEMA 1
- EXTERIOR NEMA 3R.
 - APPROVED MANUFACTURERS SQUARE D, GENERAL ELECTRIC, CUTLER-HAMMER, SIEMENS, EATON

10. PANELBOARDS:

- FRONT ACCESSIBLE, BOLT-ON MOLDED CASE C/Bs, COPPER PHASE & NEUTRAL BUSSING, COPPER GROUND BAR, FULLY RATED (SERIES RATING NOT ALLOWED)
- ENCLOSURES SHALL BE DOOR-IN-DOOR CONSTRUCTION.
- INTERIOR NEMA 1
- ALL INTERIOR PANELBOARDS ARE TO HAVE FOUR SPARE 3/4" CONDUITS INSTALLED TO AN ACCESSIBLE SPACE FOR FUTURE.
- EXTERIOR NEMA 3R.
- PROVIDE TYPE-WRITTEN DIRECTORY IN CLEAR SLEEVE ON INSIDE OF DOOR.
- APPROVED MANUFACTURERS SQUARE D. GENERAL ELECTRIC. SIEMENS.

11. DRY-TYPE TRANSFORMERS <600V:

- 11.1. 150° RISE. COPPER WINDINGS.
- 11.3. PROVIDE WITH 4" HIGH CONCRETE HOUSEKEEPING PAD.
- 11.4. GROUND SECONDARY TO NEAREST BUILDING STEEL APPROVED MANUFACTURERS - SQUARE D, GENERAL ELECTRIC, SIEMENS.

12. LIGHTING:

12.1. FOR ALL FIXTURES, PROVIDE ALL MOUNTING HARDWARE AS REQUIRED FOR A FULLY FUNCTIONAL AND COMPLETE INSTALLATION.

ELECTRICAL LEGEND

GENERAL ELECTRICAL DEVICES:

- SINGLE POLE LIGHTING SWITCH. MOUNT 48" TO TOP OF BOX AFF UNLESS NOTED OTHERWISE, SUBSCRIPT INDICATES AS FOLLOWS: M - 30 AMP TWO POLE MOTOR RATED SWITCH MOUNTED AT THE EQUIPMENT
- PROVIDE PHENOLIC LABEL. DUPLEX RECEPTACLE NEMA 5-20R. MOUNT 18" AFF UNLESS NOTED OTHERWISE.

VERIFY DUPLEX MOUNTING REQUIREMENTS WITH ARCHITECTURAL DRAWINGS

- PRIOR TO ROUGH-IN. SUBSCRIPT INDICATES AS FOLLOWS:
- G GROUND FAULT CIRCUIT INTERRUPTER TYPE. WP - GFI DEVICE WITH DIECAST WEATHERPROOF BACKBOX & DIECAST WEATHERPROOF (IN-USE) COVERPLATE. IN EXTERIOR LOCATIONS MOUNT 30" AFG. WEATHERPROOF OUTLET BOX COVERPLATES ARE TO BE LISTED AND IDENTIFIED
- AS "EXTRA-DUTY". 84" - MOUNTING HEIGHT OF DEVICE AFF.
- 21 # INDICATES PANELBOARD CKT NUMBER
- QUADRAPLEX RECEPTACLE (TWO NEMA 5-20R) MOUNTED 18" AFF. UNLESS NOTED OTHERWISE.

MISCELLANEOUS EQUIPMENT

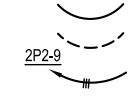
- ÆF EXHAUST FAN.
- © ELECTRICAL CONNECTION TO EQUIPMENT. VERIFY LOCATION WITH EQUIPMENT PROVIDER.

DISTRIBUTION & POWER EQUIPMENT:

- PANELBOARD. MOUNT AS INDICATED. SEE PANELBOARD SCHEDULES.
- NON-FUSED GENERAL DUTY SAFETY SWITCH. SIZE FOR LOAD BEING SERVED.
- FUSED GENERAL DUTY SAFETY SWITCH. SIZE FOR LOAD BEING SERVED. WALL MOUNTED TRANSFORMER WITH CONCRETE HOUSEKEEPING PAD. SEE TRANSFORMER SCHEDULE FOR SIZE AND TYPE.

LIGHTING FIXTURES:

SEE LIGHTING FIXTURE SCHEDULE FOR SYMBOLS AND DESCRIPTIONS. THE FIXTURE MARK IN AN ENCLOSED SPACE WITH SIMILAR FIXTURES WILL APPLY TO ALL FIXTURES IN THE SPACE.



OTHER:

CIRCUIT RUN CONCEALED ABOVE CEILING OR IN WALL,

CIRCUIT RUN CONCEALED IN OR BELOW FLOOR SLAB OR UNDERGROUND. HOMERUN TO PANELBOARD. ANY CIRCUIT WITHOUT FURTHER DESIGNATION SHALL BE 2#12,#12G,3/4"C. TICK MARKS INDICATE # OF CONDUCTORS (EGC NOT SHOWN). MINIMUM SIZE ON 120V HOMERUNS GREATER THAN 50 FEET SHALL BE

#10 AWG. MINIMUM SIZE ON 120V HOMERUNS GREATER THAN 100 FEET SHALL BE #8 AWG. MINIMUM SIZE ON 120V HOMERUNS GREATER THAN 160 FEET SHALL BE #6 AWG. MINIMUM SIZE ON 277V HOMERUNS GREATER THAN 100 FEET SHALL BE #10 AWG. INCREASE CONDUIT SIZE AS REQUIRED PER NEC. UNDERLINED TEXT

- LIGHT FIXTURE IDENTIFICATION TAG. SEE LIGHT FIXTURE SCHEDULE FOR SYMBOLS & DETAILS.
- \langle 1 \rangle SHEET NOTE TAG.

INDICATES CIRCUIT DESIGNATION.

4LP1) PANELBOARD, SWITCHBOARD, TRANSFORMER & ELECTRICAL EQUIPMENT **IDENTIFICATION TAG.**



ARREVIATIONS

	ABBKE/	/IAHON	NS
A	AMPS	MCM	THOUSAND CIRCULAR MILS
AC	ABOVE COUNTER	MH	MANHOLE
AF	AMP FRAME	MIN	MINIMUM
AFF	ABOVE FINISHED FLOOR	MISC	MISCELLANEOUS
AFG	ABOVE FINISHED GRADE	MLO	MAIN LUGS ONLY
AHU	AIR HANDLING UNIT	MNT	MOUNTING HEIGHT
AL	ALUMINUM	MTG	MOUNTING
ARCH	ARCHITECT OR ARCHITECTURAL	MTS	MANUAL TRANSFER SWITCH
AT	AMP TRIP	MV	MEDIUM VOLTAGE
ATS	AUTOMATIC TRANSFER SWITCH	N1	NEMA 1
ATU	AIR TERMINAL UNIT	N3R	NEMA 3R
AWG	AMERICAN WIRE GAUGE	N/A	NOT APPLICABLE
BAS	BUILDING AUTOMATION SYSTEM	NA	NOT APPLICABLE
BFG	BELOW FINISHED GRADE	NEC	NATIONAL ELECTRICAL CODE
BJ	BONDING JUMPER	NESC	NATIONAL ELECTRICAL SAFETY CODE
BKR	CIRCUIT BREAKER	NEU	NEUTRAL
BLDG	BUILDING	OCPD	OVERCURRENT PROTECTION DEVICE
BOD	BASIS OF DESIGN	OFOL	OWNER FURNISHED OWNER INSTALLED
C C/D	CONDUIT	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
C/B	CIRCUIT BREAKER	OH	OVERHEAD
CL	CURRENT LIMITING	OHE	OVERHEAD ELECTRIC
C/L	CENTERLINE	OHP	OVERHEAD PRIMARY
CLG	CEILING	OHS	OVERHEAD SECONDARY
CKT	CIRCUIT	PBD	PANELBOARD
CT	CURRENT TRANSFORMER	PF	POWER FACTOR
CU	COPPER	PNL	PANELBOARD
DDC	DIRECT DIGITAL CONTROL	PT	POTENTIAL TRANSFORMER
DEMO	DEMOLISH	PWR	POWER
EC	ELECTRICAL CONTRACTOR	REC	RECEPTACLE
EGC	EQUIPMENT GROUNDING CONDUCTOR	REQD	REQUIRED
ELEC	ELECTRICAL	RM	ROOM
EMGB	ELECTRICAL MAIN GROUNDING BUSBAR	RGS	RIGID GALVANIZED STEEL CONDUIT
EF	EXHAUST FAN	RNC	RIGID NON-METALLIC CONDUIT
EX	EXISTING TO REMAIN	RVSS	REDUCED VOLTAGE SOLID STATE
EXT	EXTERIOR	SA	SURGE ARRESTER
EWC	ELECTRIC WATER COOLER	SCA	SHORT CIRCUIT AMPS
EMT	ELECTRICAL METALLIC TUBING	SF	SUPPLY FAN
EQUIP	EQUIPMENT	SPEC	
FMC		SWBD	
FACP	FIRE ALARM SYSTEM CONTROL PANEL	SWGR	SWITCHGEAR
FU	FUSE	TBB	
F/A		TR	TELECOMMUNICATIONS ROOM
FLA	FULL LOAD AMPS	TGB	
FLR	FLOOR	TMGB	
FVNR	FULL VOLTAGE NON-REVERSING	TVSS	
GFI	GROUND FAULT INTERRUPTER	TYP	TYPICAL
G			UNDERFLOOR RACEWAY
	GROUND (OR GFI FOR RECEPTACLE SUBSCRIPT)		
GC	GENERAL CONTRACTOR	UG	UNDERGROUND
GND	GROUND	UGE	UNDERGROUND ELECTRIC
GEC	GROUNDING ELECTRODE CONDUCTOR	UGP	
HH	HANDHOLE	UGS	UNDERGROUND SECONDARY
HOA	HAND-OFF-AUTOMATIC	UL	UNDERWRITERS' LABORATORIES
HP	HEAT PUMP OR HORSEPOWER	UNO	UNLESS NOTED OTHERWISE
HVAC	HEATING, VENTILATION & AIR-CONDITIONING		
IG	ISOLATED GROUND	V	VOLT
IMC	INTERMEDIATE METAL CONDUIT	VA	VOLT-AMPERES
JB	JUNCTION BOX	VAR	VOLT-AMPERES REACTIVE
k	KILO	VAV	VARIABLE AIR VOLUME UNIT
kAIC	KILO-AMPERE INTERRUPTING CAPABILITY	W	WATTS
kCMIL	THOUSAND CIRCULAR MILS	WAO	WORK AREA OUTLET
LCP	LIGHTING CONTROL PANEL	WP	WEATHERPROOF
LTG	LIGHTING	WSR	WITHSTAND RATING
LFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT	XFMR	TRANSFORMER
LV	LOW VOLTAGE	XP	EXPLOSION PROOF
MAX	MAXIMUM	φ	PHASE
MCA	MINIMUM CIRCUIT AMPACITY	[†] 72°	DEGREES
MCC	MOTOR CONTROL CENTER	Δ	DELTA
MCE	MAIN COMMUNICATIONS EQUIPMENT ROOM	Ω	OHMS
- -			

MEP Engineering Christina Marie 50660 Alabama Certificate # CA-4146-813 Downtowner Blvd. Ste. [Mobile, Alabama 36609 P: 251-316-0015 F: 850-332-6629 **DELL CONSULTING PROJECT: 24-00**



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DESIGNED BY:

DRAWN BY:

CHECKED BY:

02/05/2024

SHEET TITLE:

ELECTRICAL LEGENDS ABBREVIATIONS, NOTES AND SPECIFICATIONS

(1) EXISTING LIGHTING FIXTURE(S) AND ASSOCIATED LIGHTING CONTROL DEVICE IS TO BE COMPLETELY REMOVED AND REPLACED NEW PER NEW WORK PLANS. ALL ASSOCIATED CONDUCTORS, CONDUIT, BOXES, ETC. ARE TO BE REMOVED AND REPLACED NEW PER NEW WORK PLANS.

EXISTING / DEMOLITION SHEET NOTES

- (2) EXISTING ELECTRICAL EQUIPMENT TO BE COMPLETELY REMOVED AND REPLACED NEW PER NEW WORK PLANS. ALL ASSOCIATED CONDUCTORS, CONDUIT, BOXES, ETC. ARE TO BE REMOVED AND REPLACED NEW PER NEW WORK PLANS.
- (3) EXISTING ROOF MOUNTED EXHAUST FAN TO REMAIN ALL ASSOCIATED CONDUCTORS, CONDUIT, BOXES, ETC. ARE TO BE REMOVED AND REPLACED NEW PER NEW WORK PLANS.
- (4) EXISTING IRRIGATION SYSTEM TO REMAIN PROTECT DURING RENOVATIONS.
- (5) EXISTING IRRIGATION PUMPS TO REMAIN PROTECT DURING RENOVATIONS.
- (6) EXISTING UTILITY METER AND WEATHERHEAD TO BE REMOVED AND REPLACED NEW PER NEW WORK PLANS. THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE DISCONNECT / RECONNECT OF THE SERVICE WITH ALABAMA POWER COMPANY PRIOR TO BEGINNING ANY WORK.
- (7) EXISTING RECEPTACLE TO BE REPLACED NEW ALL ASSOCIATED CONDUCTORS, CONDUIT, BOXES, ETC. ARE TO BE REMOVED AND REPLACED NEW PER NEW WORK PLANS.

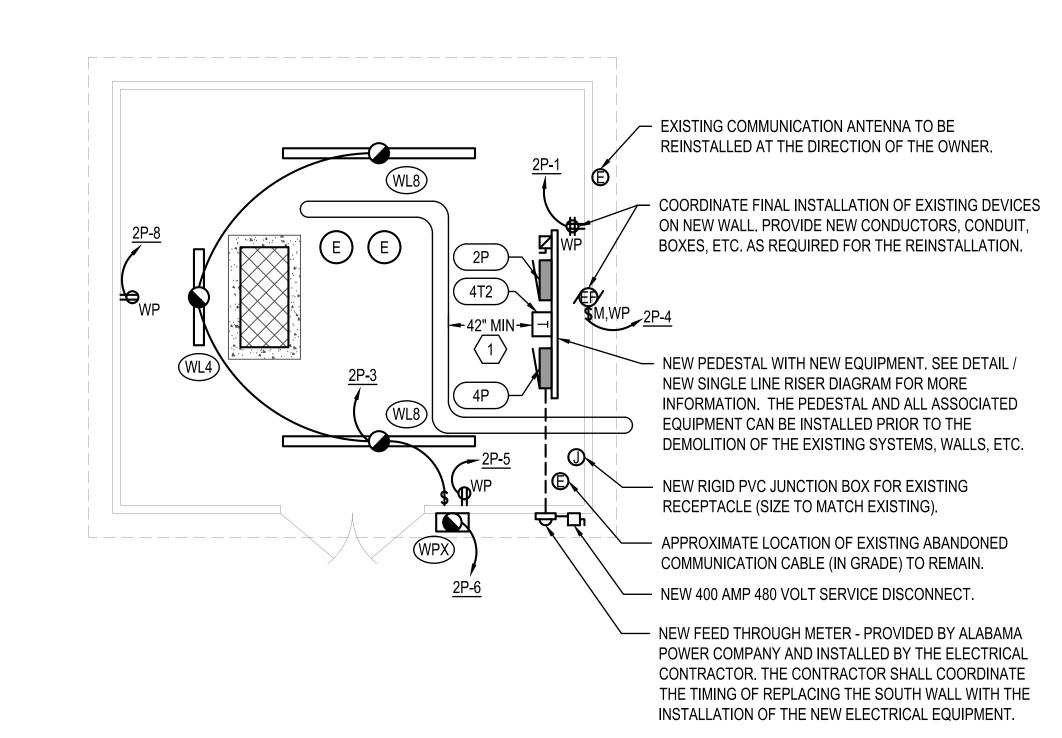
NEW WORK SHEET NOTES

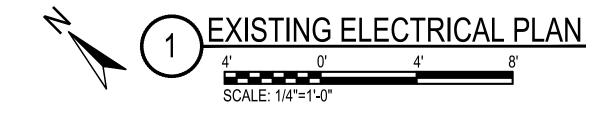
 \langle 1 angle INSTALL PEDESTAL AND EQUIPMENT SO THAT THERE IS A MINIMUM OF 42" BETWEEN THE FACE OF THE EQUIPMENT AND THE FRONT OF THE EXISTING PIPE.

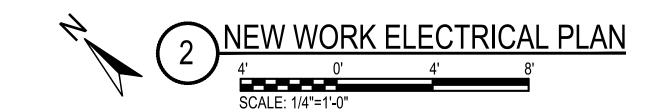
APPROXIMATE ROUTING OF IRRIGATION SYSTEM PIPING \perp APPROXIMATE LOCATION OF EXISTING COMMUNICATION TO REMAIN. PROTECT DURING CONSTRUCTION. ANTENNA TO BE REMOVED, PROTECTED AND REINSTALLED AFTER THE WALL HAS BEEN REPLACED. EXISTING PVC JUNCTION BOX FOR EXISTING RECEPTACLE TO BE REPLACED NEW PER NEW WORK PLANS. EXISTING WALL(S) (EAST AND SOUTH) TO BE REMOVED AND REPLACED NEW BY OTHERS. NEW GALVANIZED STRUCTURE AND ELECTRICAL EQUIPMENT TO BE INSTALLED PRIOR TO DISCONNECT OF EXISTING ELECTRICAL EQUIPMENT AND REMOVAL OF WALL. APPROXIMATE LOCATION OF EXISTING ABANDONED

COMMUNICATION CABLE (IN GRADE) TO REMAIN. OWNER

TO RE-PURPOSE AT A LATER DATE.







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UPGRAI TRIC, ᆸ SE PUMP IRRIGATION

DRAWN BY:

CHECKED BY:

02/05/2024

SHEET TITLE:

EXISTING / NEW WORK ELECTRICAL PLANS

	PANELBOARD INFORMATION SCHEDULE													
MARK	ENCLOSURE	MOUNTING	VOLTAGE	Ø	WIRE	MAIN	IF MLO,	SERVICE	kAIC	Ø BUS	N BUS		FEEDER	
	TYPE	STYLE				BKR	SERVING BKR	RATED	RATING	RATING (A)	RATING	CONDUCTORS	GROUND	CONDUIT
4P	NEMA 3R	SURFACE	480Y/277	3	4	250	N/A	YES	14	250	100%	4#250	NONE	3"C
2P	NEMA 3R	SURFACE	208Y/120	3	4	60	N/A	NO	10	100	100%	4#4	#8	1 1/4"C
NOTES	TES ALL PANELBOARDS ARE TO HAVE COPPER BUS.													

SINGI F	INF	DIAGRAM	I FGFND

FAULT CURRENT TAG. AVAILABLE SYMMETRICAL FAULT CURRENT IN KA AT EQUIPMENT INDICATED. BASED ON XXXXkVA UTILITY TRANSFORMER.

ALL PANELBOARDS ARE TO HAVE ARC FLASH WARNING LABEL IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE ARTICLE 110.16.

CIRCUIT BREAKER

NORMAL POWER FEEDER/CKT.

ф Т

DRY TYPE TRANSFORMER. SEE TRANSFORMER SCHEDULE FOR FEEDER SIZE AND TRANSFORMER SIZE.

PANELBOARD. SEE PANELBOARD INFORMATION SCHEDULE FOR FEEDER SIZE AND PANELBOARD SIZE & DATA.

GROUNDING ELECTRODE AND GROUNDING ELECTRODE CONDUCTOR

	TRANSFORMER SCHEDULE										
MARK	PRIMARY	SECONDARY	Ø	WIRE	KVA	*MNT	**TYPE	PRIMARY FEEDER	SIZE GEC TO	SIZE GEC TO FOUNDATION	
	VOLTAGE	VOLTAGE						SIZE	3/4"X10" GND ROD	REBAR, WATER & BLDG STEEL	
4T2	480 DELTA	208Y/120	3	4	15	FLR	STD	3#10,#10G,3/4"C	#8	#8	

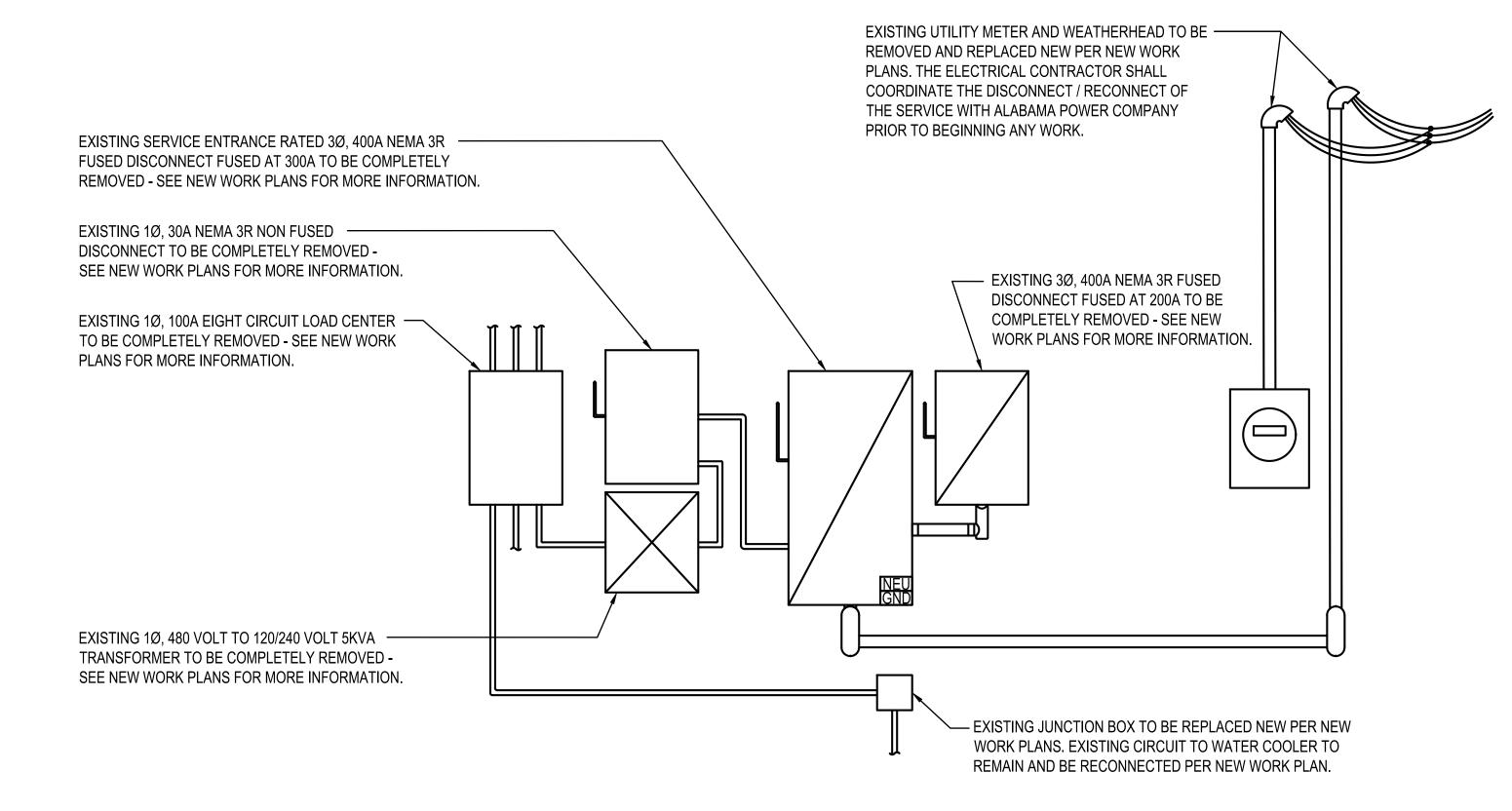
*MNT: WALL=WALL MOUNTED, PROVIDE MANUFACTURER'S WALL BRACKET.

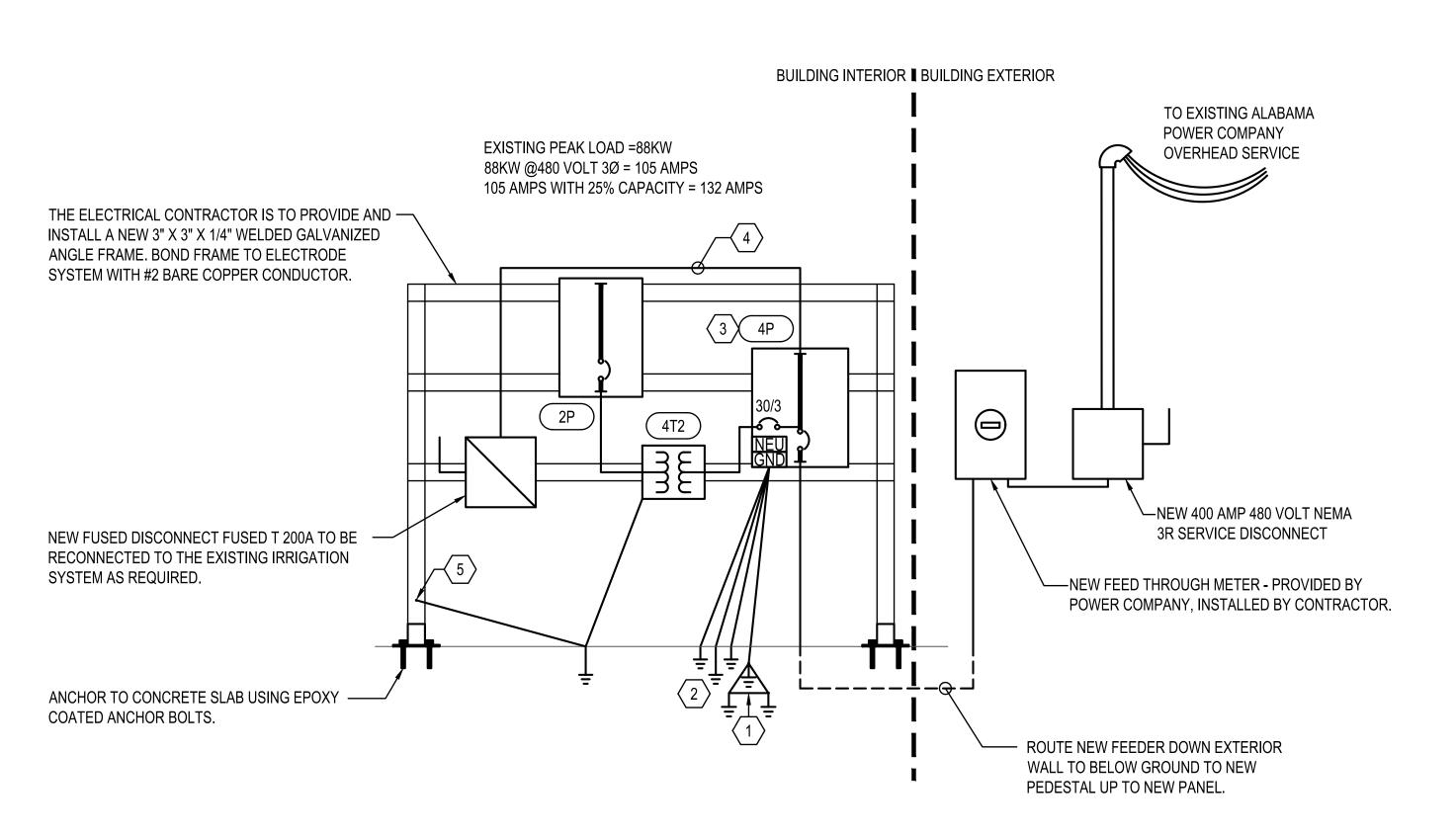
SEE TRANSFORMER MOUNTING DETAIL.

**TYPE: STD=STANDARD PER SPECIFICATIONS.

SINGLE LINE DIAGRAM NOTES

- \langle 1 \rangle #2 GEC TO THREE 20' GROUND RODS ON 20' CENTERS IN EQUILATERAL DELTA ARRANGEMENT.
- 2 #2 BONDS TO FOUNDATION REBAR, BUILDING WATER SERVICE AND BUILDING STEEL.
- (3) BASED ON AVAILABLE FAULT CURRENT FROM A 480 VOLT 3Ø 150 KVA OVERHEAD TRANSFORMER BANK, THE ELECTRICAL CONTRACTOR SHALL LABEL THE NEW PANEL "4P" AS "SERVICE ENTRANCE RATED" AND IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE ARTICLE 110.24; AVAILABLE FAULT CURRENT 9,019 AMPS. FINAL PARAMETERS (DISTANCE, TRANSFORMER SIZE, ETC.) SHALL BE COORDINATED WITH ALABAMA POWER COMPANY PRIOR TO LABELING, ADJUST AS REQUIRED.
- 4 NEW 4#3/0, #4G IN 2-1/2" CONDUIT TO EXISTING IRRIGATION PUMP EQUIPMENT.
- \langle 5 \rangle BOND FRAME TO ELECTRODE SYSTEM WITH #2 BARE COPPER CONDUCTOR.





NOTE: UNLESS OTHERWISE NOTED, ALL EXISTING IS TO BE REMOVED AND REPLACED NEW.

EXISTING SERVICE ON INTERIOR OF BUILDING

NOTE: UNLESS OTHERWISE NOTED, ALL NEW EXPOSED CONDUIT TO BE GRS.



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TRIC, ᆸ SE IRRIGATION

DRAWN BY: CHECKED BY:

02/05/2024

SHEET TITLE:

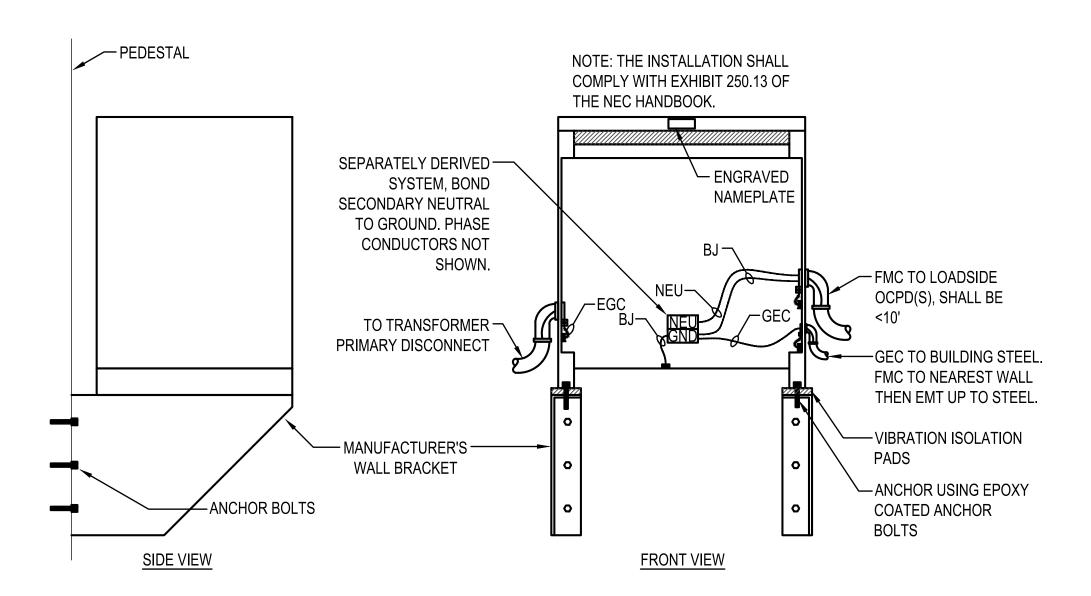
ELECTRICAL RISERS AND SCHEDULES

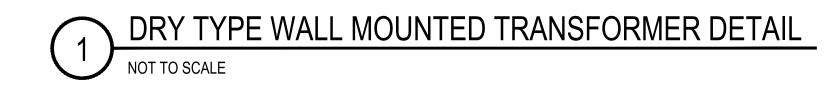
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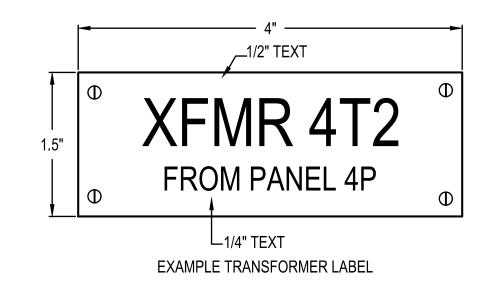
	LIGHTING FIXTURE SCHEDULE									
MARK	MANUFACTURER AND CATALOG NUMBER			VOLTAGE	MOUNTING	NOTES				
		TYPE	WATTS							
WL4	LITHONIA LIGHTING CLX-L48-5000LM-SEF-RDL-MVOLT-GZ1-35K-80CRI-PS1050-GALVW	LED	40	MVOLT	SURFACE	4' LED UTILITY FIXTURE				
WL8	LITHONIA LIGHTING CLX-L96-6000LM-SEF-RDL-MVOLT-GZ1-35K-80CRI-PS1050-GALVW	LED	24	MVOLT	SURFACE	8' LED UTILITY FIXTURE				
WPX	LITHONIA LIGHTING WPX1-LED-P2-40K-MVOLT-E14WCDDBXD	LED	24	MVOLT	SURFACE	LED WALL SCONCE WITH INTEGRAL EMERGENCY BATTERY BACK UP. PROVIDE WITH PHOTOCELL FOR LIGHTING CONTROL.				
NOTES	S FIXTURES W/HALF FILLED CENTERS TO BE PROVIDED W/EMERGENCY BALLAST; MAX AVAILABLE FOR FIXTURE.									
	COORDINATE THE FINAL LOCATION WITH OWNER PRIOR TO ROUGH IN.									
	COORDINATE THE FINAL FXTURE SELECTION WITH THE	OWNEF	R PRIOR	TO ORDER						

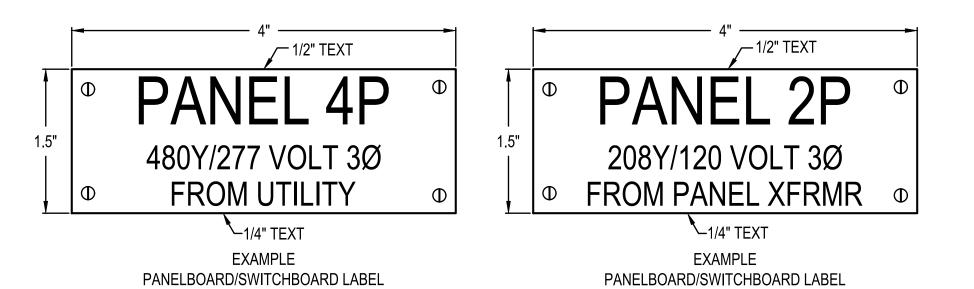
				PA	NELI	BOAF	RD S	CHE	DULE	=			
	MARK: F	PANE	L 4P										
CKT	LOAD	BF	REAKER	Р	HASE (kV	A)	Pl	HASE (kV	A)	BREAK	ER	LOAD	CKT
#	DESCRIPTION	Р	TRIP	Α	В	С	Α	В	С	TRIP	Р	DESCRIPTION	#
1				44.3			5.0					NEW 15KVA	2
3	EXISTING IRRIGATION SYSTEM				44.3			5.0		30	3	TRANSFORMER 4T2	4
5	VIA FEED THROUGH LUGS					44.3			5.0				6
7	SPARE	1	20							20	1	SPARE	8
9	SPARE	1	20							20	1	SPARE	10
11	SPARE	1	20							20	1	SPARE	12
				44.3	44.3	44.3	5.0	5.0	5.0				
	TOTAL (kVA) ØA	49.3	ØB	49.3	ØC	49.3			ŀ	HIGH	PHASE (AMPS) 178.0	
	٦	ΓΟΤΑ	L CONNE	CTED LC	AD (kVA)	147.9				-	TOTA	L LOAD (AMPS) 177.9	
CREA	TE A DIRECTORY TO INDICATE INSTALLE	ED LC	DADS. IND	ICATE LO	DAD TYPE	(REC, L	G, AHU-1	, ETC.) A	ND ROOM	// NUMBE	RS S	ERVED FOR EVERY BRANCH CIRCUIT.	

	MARK: LOAI	D CEN	TER 2P										
CKT	LOAD	BF	REAKER	Р	HASE (kV	A)	Р	HASE (kV.	A)	BREAK	ER	LOAD	CK1
#	DESCRIPTION	Р	TRIP	Α	В	С	Α	В	С	TRIP	Р	DESCRIPTION	#
1	RECEPTACLE	1	20	0.4			0.2			20	1	WATER COOLER (AT 16 TEE)	2
3	INTERIOR LIGHTING	1	20		0.1			0.2		20	1	EXHAUST FAN	4
5	RECEPTACLE	1	20			0.2			0.1	20	1	EXTERIOR LIGHTING	6
7	IRRIGATION CONTROLLER	1	20	0.3			0.2			20	1	RECEPTACLE	8
9	SPARE	1	20		-			2.5		30	2	FUTURE 5KVA HEATER	10
11	SPARE	1	20			-			2.5				12
				0.7	0.1	0.2	0.4	2.7	2.6				
	TOTAL (kV	A) ØA	1.1	ØB	2.8	ØC	2.8			HIGH PH	ASE (AMPS) 23.3	
		TOTA	L CONNE	CTED LO	AD (kVA)	6.7		-		TOTAL L	OAD (AMPS) 18.6	





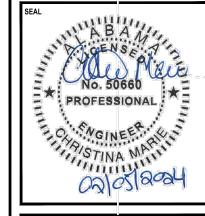


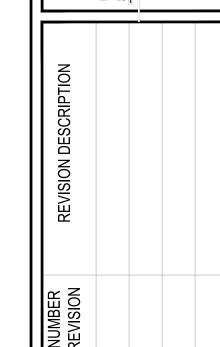


ENGRAVED PLASTIC TAG WITH BLACK LETTERS ON WHITE BACKGROUND (RED BACKGROUND FOR EMERGENCY EQUIPMENT). TAG SHALL HAVE ALL EDGES BEVELED AND SMOOTH. SECURE TAG WITH 4 CHROME (STAINLESS STEEL FOR WET OR DAMP LOCATIONS) SCREWS. ADHESIVE BACKING, TAPE, ETC IS NOT ALLOWED. DIMENSIONS ARE MINIMUM, TAG SHALL BE LARGER AS REQUIRED TO FIT APPROPRIATE TEXT.



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DELL CONSULTING PROJECT: 24-007





AZALEA CHIY IRRIGATION PUMP HOUSE ELECTRICAL UPGRADE

DESIGNE CM

CHECKED BY

CHECKED BY: CM

<u>DATE:</u> 02/05/2024

SHEET TITLE:

ELECTRICAL DETAILS AND SCHEDULES

HEET:

Azalea City Irrigation Pump House Electrical Upgrades

The City of Mobile, Alabama

Museum Drive Mobile, Alabama



01/30/2024



AREA OF WORK

SUMMARY OF WORK - AZALEA CITY IRRIGATION PUMP HOUSE

UPGRADES ARE TO BE INCORPORATED:

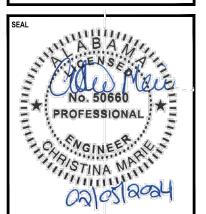
UPGRADING (REMOVE AND REPLACE) THE EXISTING ELECTRICAL BOXES, ETC.) ON THE SOUTH AND EAST WALLS SERVING THE IRRIGATION

THE EXISTING LIGHT FIXTURES AND ASSOCIATED SWITCH (INCLUDING ALL ASSOCIATED CONDUCTORS, CONDUIT, BOXES, ETC.) TO BE REMOVED AND REPLACED NEW.

INSTALLED FOR THE NEW EQUIPMENT.

DRAWING#	DRAWING DESCRIPTION:
T-1.0	TITLE SHEET
E-1.0	LEGEND & SPECIFICATIONS
E-2.0	EXISTING / NEW WORK ELECTRICAL PLAN
E-3.0	ELECTRICAL SCHEDULES AND DETAILS
E-4.0	ELECTRICAL SCHEDULES AND DETAILS





REVISION DESCRIPTION		
NUMBER REVISION		

UPGRADE IRRIGATION PUMP

TITLE SHEET

ELECTRICAL SPECIFICATIONS

GENERAL ELECTRICAL: THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY FOR THE INSTALLATION OF A COMPLETE ELECTRICAL SYSTEM AS INDICATED WITHIN THESE DRAWINGS, ALL WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL

- APPLICABLE CODES AND ORDINANCES AND WITH MANUFACTURER'S RECOMMENDATIONS. THE CONTRACTOR WILL BE REQUIRED TO FURNISH, INSTALL AND CONNECT ALL ITEMS AS INDICATED ON THE DRAWINGS.
- THE ARCHITECT SHALL BE NOTIFIED OF ANY CONFLICTS. OR INTERFERENCES THAT OCCUR BETWEEN INDIVIDUAL DRAWINGS.
- ALL MATERIALS AND EQUIPMENT SHALL BE INSTALLED IN A NEAT, FIRST CLASS, WORKMANLIKE MANNER, TO THE APPROVAL OF THE 5. GROUNDING & BONDING:
- OWNER / ENGINEER AND GOVERNING AUTHORITIES. IN ADDITION TO THE MANUFACTURERS STANDARD GUARANTEES, THE CONTRACTOR SHALL GUARANTEE ALL MATERIALS, EQUIPMENT AND WORKMANSHIP AGAINST DEFECTS FOR ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE, AND SHALL CORRECT ANY DEFECTS AT NO ADDITIONAL COST TO THE OWNER. ALL LAMPS SHALL BE GUARANTEED FOR 30 DAYS AFTER ACCEPTANCE.
- THE LOADS SHOWN FOR APPLIANCES AND EQUIPMENT ARE BASED ON DESIGN INFORMATION. THE CONTRACTOR SHALL VERIFY ALL 5.5. APPLIANCE LOADS PRIOR TO RUNNING THE CIRCUIT. THE MINIMUM CIRCUIT REQUIREMENTS SHALL BE BASED ON THE APPLIANCE 5.6. NAMEPLATE VALUE OR CODE REQUIREMENTS, WHICHEVER IS MORE STRINGENT. ADDITIONAL COMPENSATION SHALL NOT BE ALLOWED FOR APPLIANCE MODIFICATIONS BY THE CONTRACTOR.
- PRIOR APPROVAL: PRIOR APPROVAL SHALL BE REQUIRED FOR ANY MANUFACTURER OTHER THAN THOSE LISTED FOR ALL SPECIFIED ITEMS IN THESE DRAWINGS. SUBMIT ALL REQUESTS FOR PRIOR APPROVAL 2 WEEKS PRIOR TO BID OPENING. ENGINEER'S 6.1. APPROVAL WILL BE IN THE FORM OF AN ADDENDUM.

CODES & STANDARDS:

- INSTALLATION AND MATERIALS SHALL COMPLY WITH THE LATEST ADOPTED EDITION OF THE FOLLOWING CODES & STANDARDS: NATIONAL ELECTRICAL CODE.
- NFPA 72. NATIONAL FIRE PROTECTION CODE.
- INTERNATIONAL BUILDING CODE. 2.1.3.
- INTERNATIONAL ENERGY CONSERVATION CODE. 2.1.4.
- 2.1.5. NFPA 101.
- 2.1.6. ADA.
- 2.1.7. ANSI.
- 2.1.8. NEMA.
- 2.1.9. OSHA. 2.1.10.
- ALTERATIONS & ADDITIONS TO EXISTING WORK:
- 3.1. PROVIDE ALL NECESSARY ADDITIONS AND ALTERATIONS TO EXISTING WORK AS REQUIRED TO PROVIDE AND MAINTAIN A COMPLETE 8.3. AND PROPER ELECTRICAL INSTALLATION.
- AS NECESSARY, RELOCATE EXISTING ELECTRICAL WORK SO OTHER TRADES CAN PURSUE THEIR WORK.
- MAINTAIN POWER TO EXISTING PORTIONS OF BUILDINGS FED FROM OR THROUGH AREA IN SCOPE OF THIS CONTRACT. COORDINATE ALL REQUIRED OUTAGES WITH OWNER.
- BASIC MATERIALS & METHODS:
- ALL POWER AND DISTRIBUTION CABLING SHALL BE COPPER TYPE THWN/THHN.
- ALL ELECTRICAL EQUIPMENT, DEVICES, ETC. LOCATED OUTDOORS SHALL BE WEATHERPROOF.
- ELECTRICAL CONTRACTOR SHALL PROVIDE ADEQUATE AND PROPER SUPPORT FOR ALL ELECTRICAL OUTLETS, DEVICES, LIGHT FIXTURES, ETC. BUILT IN OR MOUNTED ON CEILINGS. NO OUTLET BOX, DEVICE, LIGHT FIXTURE, ETC. SHALL BE SUPPORTED FROM ANY ACOUSTICAL CEILING TILE OR DRYWALL CEILINGS. PROVIDE METAL SUPPORTS THAT ARE MADE FOR USE WITH CEILING GRID SYSTEMS OR PROVIDE HANGERS FROM STRUCTURE ABOVE.
- CONDUIT ROUTINGS AND DEVICE/EQUIPMENT LOCATIONS SHOWN ARE DIAGRAMMATIC ONLY, CONTRACTOR SHALL FIELD ROUTE AND LOCATE AS REQUIRED. CONDUIT ROUTINGS SHALL BE PARALLEL OR PERPENDICULAR TO BUILDING LINES.
- JUNCTION BOXES LOCATED ABOVE CEILING SHALL BE INSTALLED FACING DOWN AND SHALL BE ACCESSIBLE AFTER INSTALLATION. 10.2.
- COORDINATE ALL ELECTRICAL WORK WITH OTHER TRADES AND STRUCTURAL COMPONENTS. THE CONDUIT MATERIAL SHALL BE AS FOLLOWS:
- BELOW GRADE RNC (POWER & SITE LIGHTING ONLY). ELBOWS >1-1/2" SHALL BE RGS.
- RISER FROM 36" BELOW GRADE RGS.
- CONCEALED RISER FROM 36" BELOW GRADE RNC (POWER ONLY).
- 4.7.4. ABOVE GRADE SUBJECT TO PHYSICAL ABUSE - RGS.
- ABOVE GRADE NOT SUBJECT TO PHYSICAL ABUSE OR WEATHER EMT.
- INDOORS NOT SUBJECT TO PHYSICAL ABUSE EMT. OR METAL CLAD CABLE(AS ALLOWED BY LOCAL AUTHORITY HAVING
- FINAL CONDUIT CONNECTIONS TO HEAT PUMPS, AIR HANDLERS, EXHAUST FANS, AND WATER HEATERS SHALL BE LFMC WHETHER INTERIOR OR EXTERIOR.
- CONDUIT FITTINGS SHALL BE AS FOLLOWS:
- EMT <=2" USE STEEL SET SCREW WITH INSULATED THROATS FOR INTERIOR/ USE COMPRESSION FITTINGS WITH INSULATED THROATS FOR EXTERIOR, >2" USE SET-SCREW STEEL WITH INSULATED THROATS.
- RGS THREADED GALVANIZED STEEL
- PVC PVC APPROVED FOR THE USE.
- FMC ZINC-PLATED STEEL OR CADMIUM-PLATED MALLEABLE IRON SCREW TYPE WITH INSULATED THROAT.
- LFMC CADMIUM-PLATED MALLEABLE IRON OR STEEL COMPRESSION TYPE WITH INSULATED THROAT.

- 4.9. ALL OUTLET BOXES SHALL BE 4"X4"X1-1/2" DEEP MINIMUM. 4.10. ALL SIDEWALKS AND PARKING LOT ASPHALT AREAS THAT ARE CUT DUE TO NEW ELECTRICAL SERVICES SHALL BE REPAIRED TO MATCH EXISTING.
- 4.11. ALL DIMENSIONS TO DEVICES AFF SHALL BE TO CENTERLINE UNLESS NOTED OTHERWISE.
- COORDINATE LOCATIONS OF ELECTRICAL EQUIPMENT, DEVICES, OUTLETS, FIXTURES, ETC., PRIOR TO ROUGH-IN WORK

- 5.1. PROVIDE AN INSULATED EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS.
- GROUND RODS SHALL BE 3/4"X20' COPPERCLAD STEEL.
- BELOW GRADE CONNECTIONS SHALL BE EXOTHERMIC TYPE. ALL CABLES SHALL BE COPPER, ALL BOLTED CONNECTIONS SHALL BE BRONZE.
- WHERE AVAILABLE, BOND TO BUILDING STRUCTURAL STEEL, BUILDING FOUNDATION STEEL, METAL WATER SERVICE PIPING. PROVIDE THREE 20' GROUND RODS IN TRIANGLE ARRANGEMENT ON 20' CENTERS FOR MADE ELECTRODE SYSTEM. THE ELECTRICAL
- CONTRACTOR SHALL BOND NEW COPPER CLAD GROUND RODS WITH TINNED STRANDED BARE COPPER CONDUCTOR.

6. IDENTIFICATION:

- PROVIDE ENGRAVED 1"X3" PHENOLIC LABELS FOR ALL PANELBOARDS, SAFETY SWITCHES, TRANSFORMERS, CABINETS, ETC. PAINT THE RACEWAY SYSTEM COUPLINGS AND BOX COVERS ABOVE CEILINGS FOR THE FOLLOWING SYSTEMS AS FOLLOWS:
- 208 VOLT SYSTEMS BLACK.

480 VOLT SYSTEMS - BROWN.

6.2.3. AFTER PAINTING, WRITE THE CIRCUIT NUMBER (I.E. "LPA-34") ON ALL BRANCH CIRCUIT JUNCTION BOX COVERS ABOVE CEILING WITH WHITE MARKER.

GENERAL WIRING DEVICES:

- SWITCHES SPECIFICATION GRADE, 20 AMP, COLOR BY ARCHITECT
- RECEPTACLES SPECIFICATION GRADE, 20 AMP, NEMA 5-20R, COLOR BY ARCHITECT.
- COVER PLATES NYLON, COLOR BY ARCHITECT.
- SPECIAL RECEPTACLES PER THE DRAWINGS. VERIFY WITH EQUIPMENT BEING SUPPLIED.
- APPROVED MANUFACTURERS HUBBELL, LEVITON, EAGLE, PASS & SEYMOUR.

8. SAFETY SWITCHES:

- GENERAL DUTY, VISIBLE BLADE, LOCKABLE, QUICK-MAKE/QUICK-BREAK, HORSEPOWER RATED, FUSED WHERE INDICATED.
- PROVIDE WITH GROUND LUG KIT. INTERIOR - NEMA 1.
- APPROVED MANUFACTURERS SQUARE D, GENERAL ELECTRIC, SIEMENS.

9. MOTOR STARTERS:

- MANUAL TYPE SHALL BE TOGGLE WITH THERMAL OVERLOAD.
- MAGNETIC TYPE SHALL HAVE SOLID STATE OVERLOAD RELAY WITH Ø LOSS AND Ø UNBALANCE PROTECTION, HOA SWITCH, RED RUN AND GREEN STOP LED LIGHTS.
- INTERIOR NEMA 1 EXTERIOR - NEMA 3R.
- APPROVED MANUFACTURERS SQUARE D, GENERAL ELECTRIC, CUTLER-HAMMER, SIEMENS, EATON

10. PANELBOARDS:

- FRONT ACCESSIBLE, BOLT-ON MOLDED CASE C/Bs, COPPER PHASE & NEUTRAL BUSSING, COPPER GROUND BAR, FULLY RATED (SERIES RATING NOT ALLOWED)
- ENCLOSURES SHALL BE DOOR-IN-DOOR CONSTRUCTION.
- INTERIOR NEMA 1
- ALL INTERIOR PANELBOARDS ARE TO HAVE FOUR SPARE 3/4" CONDUITS INSTALLED TO AN ACCESSIBLE SPACE FOR FUTURE.
- EXTERIOR NEMA 3R.
- PROVIDE TYPE-WRITTEN DIRECTORY IN CLEAR SLEEVE ON INSIDE OF DOOR.
- APPROVED MANUFACTURERS SQUARE D. GENERAL ELECTRIC. SIEMENS.

11. DRY-TYPE TRANSFORMERS <600V:

- 11.1. 150° RISE. COPPER WINDINGS.
- 11.3. PROVIDE WITH 4" HIGH CONCRETE HOUSEKEEPING PAD.
- 11.4. GROUND SECONDARY TO NEAREST BUILDING STEEL
- APPROVED MANUFACTURERS SQUARE D, GENERAL ELECTRIC, SIEMENS.

12. LIGHTING:

12.1. FOR ALL FIXTURES, PROVIDE ALL MOUNTING HARDWARE AS REQUIRED FOR A FULLY FUNCTIONAL AND COMPLETE INSTALLATION.

ELECTRICAL LEGEND

GENERAL ELECTRICAL DEVICES:

- SINGLE POLE LIGHTING SWITCH. MOUNT 48" TO TOP OF BOX AFF UNLESS NOTED OTHERWISE, SUBSCRIPT INDICATES AS FOLLOWS:
- M 30 AMP TWO POLE MOTOR RATED SWITCH MOUNTED AT THE EQUIPMENT PROVIDE PHENOLIC LABEL.
- DUPLEX RECEPTACLE NEMA 5-20R. MOUNT 18" AFF UNLESS NOTED OTHERWISE. VERIFY DUPLEX MOUNTING REQUIREMENTS WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN. SUBSCRIPT INDICATES AS FOLLOWS:
 - G GROUND FAULT CIRCUIT INTERRUPTER TYPE.
 - WP GFI DEVICE WITH DIECAST WEATHERPROOF BACKBOX & DIECAST WEATHERPROOF (IN-USE) COVERPLATE. IN EXTERIOR LOCATIONS MOUNT 30" AFG. WEATHERPROOF OUTLET BOX COVERPLATES ARE TO BE LISTED AND IDENTIFIED
 - 84" MOUNTING HEIGHT OF DEVICE AFF.
- 21 # INDICATES PANELBOARD CKT NUMBER

AS "EXTRA-DUTY".

QUADRAPLEX RECEPTACLE (TWO NEMA 5-20R) MOUNTED 18" AFF. UNLESS NOTED OTHERWISE.

MISCELLANEOUS EQUIPMENT

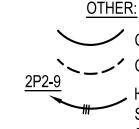
- ÆF EXHAUST FAN.
- © ELECTRICAL CONNECTION TO EQUIPMENT. VERIFY LOCATION WITH EQUIPMENT PROVIDER.

DISTRIBUTION & POWER EQUIPMENT:

- PANELBOARD. MOUNT AS INDICATED. SEE PANELBOARD SCHEDULES.
- NON-FUSED GENERAL DUTY SAFETY SWITCH. SIZE FOR LOAD BEING SERVED.
- FUSED GENERAL DUTY SAFETY SWITCH. SIZE FOR LOAD BEING SERVED. WALL MOUNTED TRANSFORMER WITH CONCRETE HOUSEKEEPING PAD. SEE TRANSFORMER SCHEDULE FOR SIZE AND TYPE.

LIGHTING FIXTURES:

SEE LIGHTING FIXTURE SCHEDULE FOR SYMBOLS AND DESCRIPTIONS. THE FIXTURE MARK IN AN ENCLOSED SPACE WITH SIMILAR FIXTURES WILL APPLY TO ALL FIXTURES IN THE SPACE.



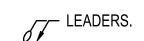
CIRCUIT RUN CONCEALED ABOVE CEILING OR IN WALL, CIRCUIT RUN CONCEALED IN OR BELOW FLOOR SLAB OR UNDERGROUND.

HOMERUN TO PANELBOARD. ANY CIRCUIT WITHOUT FURTHER DESIGNATION SHALL BE 2#12,#12G,3/4"C. TICK MARKS INDICATE # OF CONDUCTORS (EGC NOT SHOWN). MINIMUM SIZE ON 120V HOMERUNS GREATER THAN 50 FEET SHALL BE #10 AWG. MINIMUM SIZE ON 120V HOMERUNS GREATER THAN 100 FEET SHALL BE

- #8 AWG. MINIMUM SIZE ON 120V HOMERUNS GREATER THAN 160 FEET SHALL BE #6 AWG. MINIMUM SIZE ON 277V HOMERUNS GREATER THAN 100 FEET SHALL BE #10 AWG. INCREASE CONDUIT SIZE AS REQUIRED PER NEC. UNDERLINED TEXT
- LIGHT FIXTURE IDENTIFICATION TAG. SEE LIGHT FIXTURE SCHEDULE FOR SYMBOLS & DETAILS.
- \langle 1 \rangle SHEET NOTE TAG.

INDICATES CIRCUIT DESIGNATION.

4LP1) PANELBOARD, SWITCHBOARD, TRANSFORMER & ELECTRICAL EQUIPMENT **IDENTIFICATION TAG.**



ARREVIATIONS

	ABBKE/	/IATION	NS)
A	AMPS	MCM	THOUSAND CIRCULAR MILS
AC	ABOVE COUNTER	MH	MANHOLE
AF	AMP FRAME	MIN	MINIMUM
AFF	ABOVE FINISHED FLOOR	MISC	MISCELLANEOUS
AFG	ABOVE FINISHED GRADE	MLO	MAIN LUGS ONLY
AHU	AIR HANDLING UNIT	MNT	MOUNTING HEIGHT
AL	ALUMINUM	MTG	MOUNTING
ARCH	ARCHITECT OR ARCHITECTURAL	MTS	MANUAL TRANSFER SWITCH
ARCH	AMP TRIP	MV	
			MEDIUM VOLTAGE
ATS	AUTOMATIC TRANSFER SWITCH	N1	NEMA 1
ATU	AIR TERMINAL UNIT	N3R	NEMA 3R
AWG	AMERICAN WIRE GAUGE	N/A	NOT APPLICABLE
BAS	BUILDING AUTOMATION SYSTEM	NA	NOT APPLICABLE
BFG	BELOW FINISHED GRADE	NEC	NATIONAL ELECTRICAL CODE
BJ	BONDING JUMPER	NESC	NATIONAL ELECTRICAL SAFETY CODE
BKR	CIRCUIT BREAKER	NEU	NEUTRAL
BLDG	BUILDING	OCPD	OVERCURRENT PROTECTION DEVICE
BOD	BASIS OF DESIGN	OFOI	OWNER FURNISHED OWNER INSTALLED
C	CONDUIT	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
C/B	CIRCUIT BREAKER	OH	OVERHEAD
CL	CURRENT LIMITING	OHE	OVERHEAD ELECTRIC
C/L	CENTERLINE	OHP	OVERHEAD PRIMARY
CLG	CEILING	OHS	OVERHEAD SECONDARY
CKT	CIRCUIT	PBD	PANELBOARD
CT	CURRENT TRANSFORMER	PF	POWER FACTOR
CU	COPPER	PNL	PANELBOARD
DDC	DIRECT DIGITAL CONTROL	PT	POTENTIAL TRANSFORMER
DEMO	DEMOLISH	PWR	POWER
EC	ELECTRICAL CONTRACTOR	REC	RECEPTACLE
EGC	EQUIPMENT GROUNDING CONDUCTOR	REQD	REQUIRED
ELEC	ELECTRICAL	RM	ROOM
EMGB	ELECTRICAL MAIN GROUNDING BUSBAR	RGS	RIGID GALVANIZED STEEL CONDUIT
EF	EXHAUST FAN	RNC	RIGID NON-METALLIC CONDUIT
EX	EXISTING TO REMAIN	RVSS	REDUCED VOLTAGE SOLID STATE
EXT	EXTERIOR	SA	SURGE ARRESTER
EWC	ELECTRIC WATER COOLER	SCA	SHORT CIRCUIT AMPS
EMT	ELECTRICAL METALLIC TUBING	SF	SUPPLY FAN
EQUIP	EQUIPMENT	SPEC	SPECIFICATION
FMC	FLEXIBLE METAL CONDUIT	SWBD	SWITCHBOARD
FACP	FIRE ALARM SYSTEM CONTROL PANEL	SWGR	SWITCHGEAR
FU	FUSE	TBB	TELECOMMUNICATIONS BONDING BACKBONE
F/A	FIRE ALARM	TR	TELECOMMUNICATIONS ROOM
FLA	FULL LOAD AMPS	TGB	TELECOMMUNICATIONS GROUNDING BUSBAR
FLR	FLOOR	TMGB	TELECOMMUNICATIONS MAIN GROUNDING BUSBAR
FVNR	FULL VOLTAGE NON-REVERSING	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
GFI	GROUND FAULT INTERRUPTER	TYP	TYPICAL
G	GROUND (OR GFI FOR RECEPTACLE SUBSCRIPT)	UFR	UNDERFLOOR RACEWAY
GC	GENERAL CONTRACTOR	UG	UNDERGROUND
GND	GROUND	UGE	UNDERGROUND ELECTRIC
GEC	GROUNDING ELECTRODE CONDUCTOR	UGP	UNDERGROUND PRIMARY
HH	HANDHOLE	UGS	UNDERGROUND SECONDARY
HOA	HAND-OFF-AUTOMATIC	UL	UNDERWRITERS' LABORATORIES
HP	HEAT PUMP OR HORSEPOWER	UNO	UNLESS NOTED OTHERWISE
HVAC	HEATING, VENTILATION & AIR-CONDITIONING	UPS	UNINTERRUPTIBLE POWER SUPPLY
IG	ISOLATED GROUND	V	VOLT
IMC	INTERMEDIATE METAL CONDUIT	VA	VOLT-AMPERES
JB	JUNCTION BOX	VAR	VOLT-AMPERES REACTIVE
k	KILO	VAV	VARIABLE AIR VOLUME UNIT
kAIC	KILO-AMPERE INTERRUPTING CAPABILITY	W	WATTS
kCMIL	THOUSAND CIRCULAR MILS	WAO	WORK AREA OUTLET
LCP	LIGHTING CONTROL PANEL	WP	WEATHERPROOF
LTG	LIGHTING	WSR	WITHSTAND RATING
LFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT	XFMR	TRANSFORMER
LV	LOW VOLTAGE	XP	EXPLOSION PROOF
MAX	MAXIMUM	φ	PHASE
MCA	MINIMUM CIRCUIT AMPACITY	Ψ 72°	DEGREES
MCC	MOTOR CONTROL CENTER	Δ	DELTA
MOE	MAIN COMMUNICATIONS FOLUDATION FOR	<u> </u>	OLLIA

OHMS

MAIN COMMUNICATIONS EQUIPMENT ROOM

MEP Engineering Christina Marie 50660 Alabama Certificate # CA-4146-813 Downtowner Blvd. Ste. [Mobile, Alabama 36609

P: 251-316-0015 F: 850-332-6629 **DELL CONSULTING PROJECT: 24-00** PROFESSIONAL



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DESIGNED BY:

DRAWN BY:

02/05/2024

CHECKED BY:

SHEET TITLE: ELECTRICAL LEGENDS

AND SPECIFICATIONS

ABBREVIATIONS, NOTES

(1) EXISTING LIGHTING FIXTURE(S) AND ASSOCIATED LIGHTING CONTROL DEVICE IS TO BE COMPLETELY REMOVED AND REPLACED NEW PER NEW WORK PLANS. ALL ASSOCIATED CONDUCTORS, CONDUIT, BOXES, ETC. ARE TO BE REMOVED AND REPLACED NEW PER NEW WORK PLANS.

EXISTING / DEMOLITION SHEET NOTES

- (2) EXISTING ELECTRICAL EQUIPMENT TO BE COMPLETELY REMOVED AND REPLACED NEW PER NEW WORK PLANS. ALL ASSOCIATED CONDUCTORS, CONDUIT, BOXES, ETC. ARE TO BE REMOVED AND REPLACED NEW PER NEW WORK PLANS.
- (3) EXISTING ROOF MOUNTED EXHAUST FAN TO REMAIN ALL ASSOCIATED CONDUCTORS, CONDUIT, BOXES, ETC. ARE TO BE REMOVED AND REPLACED NEW PER NEW WORK PLANS.
- (4) EXISTING IRRIGATION SYSTEM TO REMAIN PROTECT DURING RENOVATIONS.
- (5) EXISTING IRRIGATION PUMPS TO REMAIN PROTECT DURING RENOVATIONS.
- (6) EXISTING UTILITY METER AND WEATHERHEAD TO BE REMOVED AND REPLACED NEW PER NEW WORK PLANS. THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE DISCONNECT / RECONNECT OF THE SERVICE WITH ALABAMA POWER COMPANY PRIOR TO BEGINNING ANY WORK.
- (7) EXISTING RECEPTACLE TO BE REPLACED NEW ALL ASSOCIATED CONDUCTORS, CONDUIT, BOXES, ETC. ARE TO BE REMOVED AND REPLACED NEW PER NEW WORK PLANS.

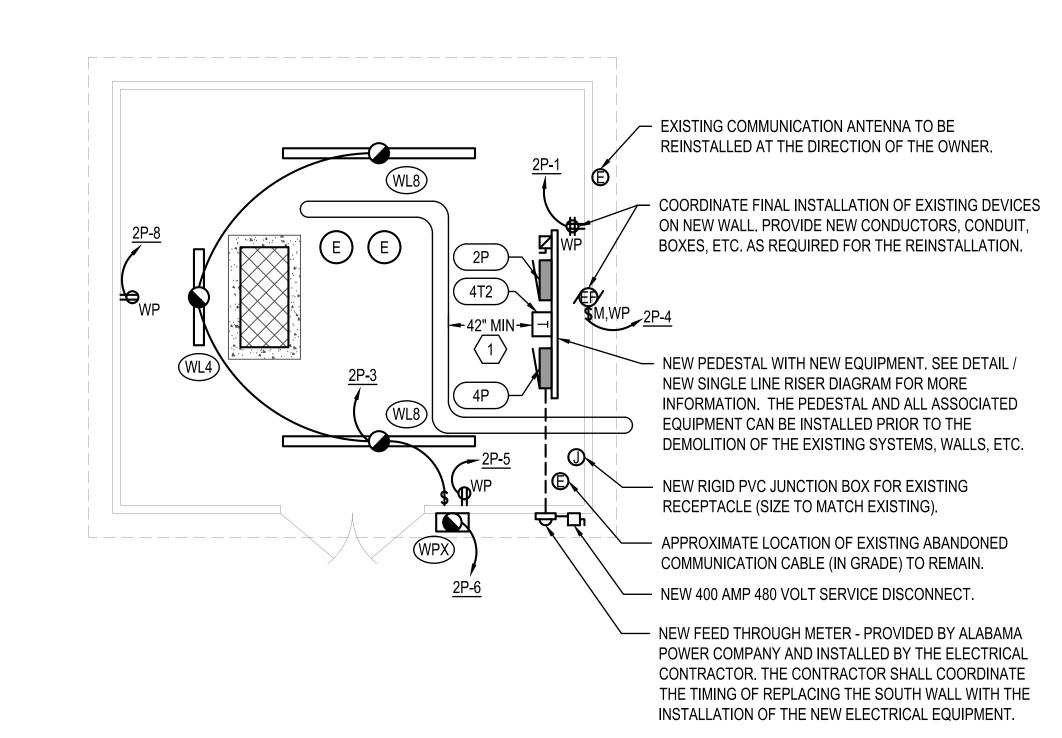
NEW WORK SHEET NOTES

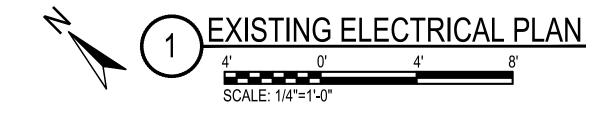
 \langle 1 angle INSTALL PEDESTAL AND EQUIPMENT SO THAT THERE IS A MINIMUM OF 42" BETWEEN THE FACE OF THE EQUIPMENT AND THE FRONT OF THE EXISTING PIPE.

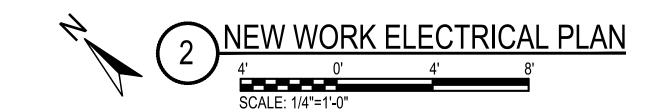
APPROXIMATE ROUTING OF IRRIGATION SYSTEM PIPING \perp APPROXIMATE LOCATION OF EXISTING COMMUNICATION TO REMAIN. PROTECT DURING CONSTRUCTION. ANTENNA TO BE REMOVED, PROTECTED AND REINSTALLED AFTER THE WALL HAS BEEN REPLACED. EXISTING PVC JUNCTION BOX FOR EXISTING RECEPTACLE TO BE REPLACED NEW PER NEW WORK PLANS. EXISTING WALL(S) (EAST AND SOUTH) TO BE REMOVED AND REPLACED NEW BY OTHERS. NEW GALVANIZED STRUCTURE AND ELECTRICAL EQUIPMENT TO BE INSTALLED PRIOR TO DISCONNECT OF EXISTING ELECTRICAL EQUIPMENT AND REMOVAL OF WALL. APPROXIMATE LOCATION OF EXISTING ABANDONED

COMMUNICATION CABLE (IN GRADE) TO REMAIN. OWNER

TO RE-PURPOSE AT A LATER DATE.







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UPGRAI TRIC, ᆸ SE PUMP IRRIGATION

DRAWN BY:

CHECKED BY:

02/05/2024

SHEET TITLE:

EXISTING / NEW WORK ELECTRICAL PLANS

	PANELBOARD INFORMATION SCHEDULE													
MARK	ARK ENCLOSURE MOUNTING VOLTAGE Ø WIRE MAIN IFMLO, SERVICE KAIC ØBUS NBUS FEEDER													
	TYPE	STYLE				BKR	SERVING BKR	RATED	RATING	RATING (A)	RATING	CONDUCTORS	GROUND	CONDUIT
4P	NEMA 3R	SURFACE	480Y/277	3	4	250	N/A	YES	14	250	100%	4#250	NONE	3"C
2P	NEMA 3R	SURFACE	208Y/120	3	4	60	N/A	NO	10	100	100%	4#4	#8	1 1/4"C
NOTES	ALL PANELBO	DARDS ARE TO	O HAVE COP	PER B	US.									

SINGI F	INF	DIAGRAM	LEGEND

FAULT CURRENT TAG. AVAILABLE SYMMETRICAL FAULT CURRENT IN KA AT EQUIPMENT INDICATED. BASED ON XXXXkVA UTILITY TRANSFORMER.

ALL PANELBOARDS ARE TO HAVE ARC FLASH WARNING LABEL IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE ARTICLE 110.16.

CIRCUIT BREAKER

NORMAL POWER FEEDER/CKT.

ф Т

DRY TYPE TRANSFORMER. SEE TRANSFORMER SCHEDULE FOR FEEDER SIZE AND TRANSFORMER SIZE.

PANELBOARD. SEE PANELBOARD INFORMATION SCHEDULE FOR FEEDER SIZE AND PANELBOARD SIZE & DATA.

GROUNDING ELECTRODE AND GROUNDING ELECTRODE CONDUCTOR

					TR	RANS	FORM	MER SCHEDUL	.E	
MARK	PRIMARY	SECONDARY	Ø	WIRE	KVA	*MNT	**TYPE	PRIMARY FEEDER	SIZE GEC TO	SIZE GEC TO FOUNDATION
	VOLTAGE	VOLTAGE						SIZE	3/4"X10" GND ROD	REBAR, WATER & BLDG STEEL
4T2	480 DELTA	208Y/120	3	4	15	FLR	STD	3#10,#10G,3/4"C	#8	#8

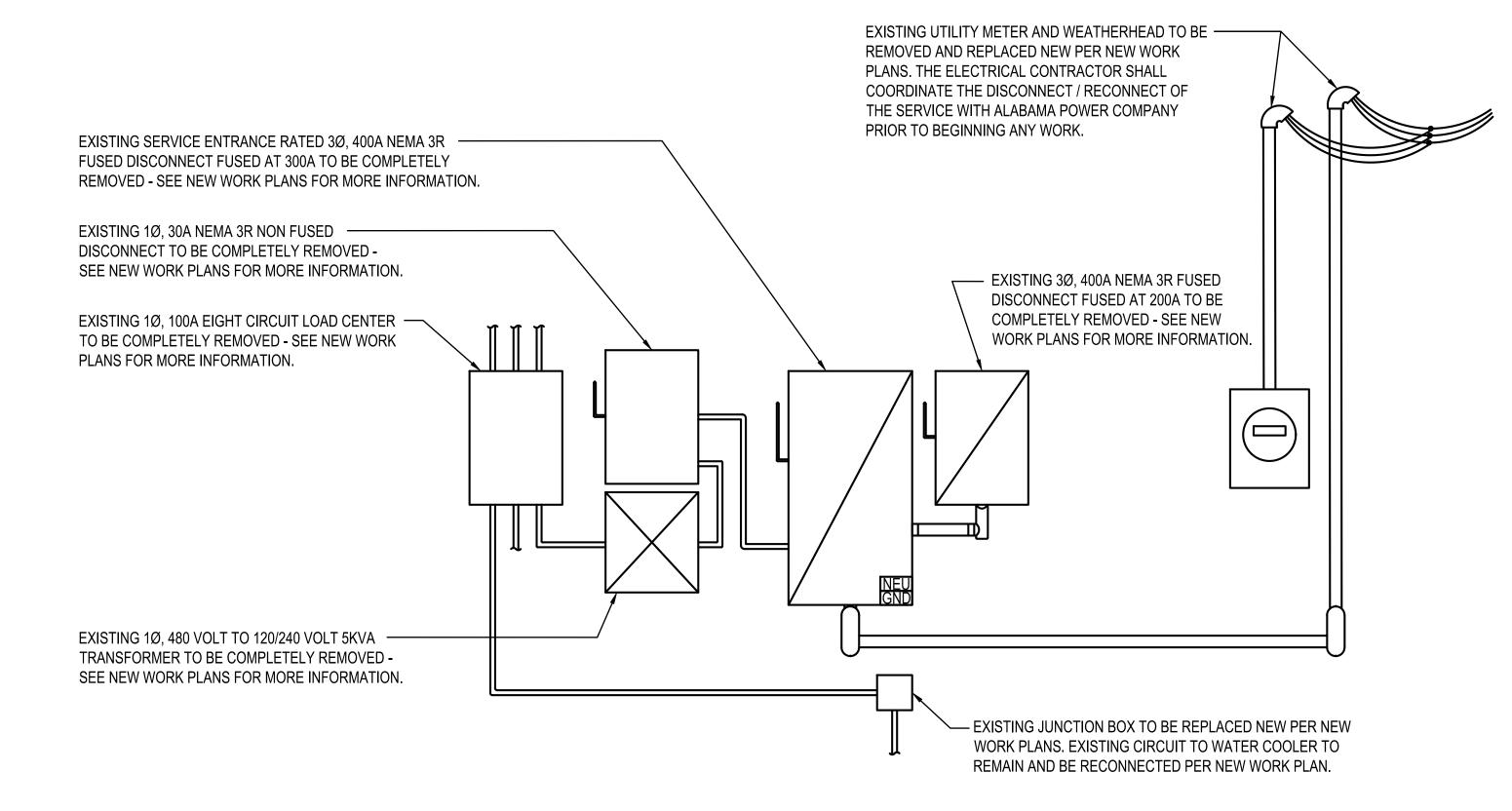
*MNT: WALL=WALL MOUNTED, PROVIDE MANUFACTURER'S WALL BRACKET.

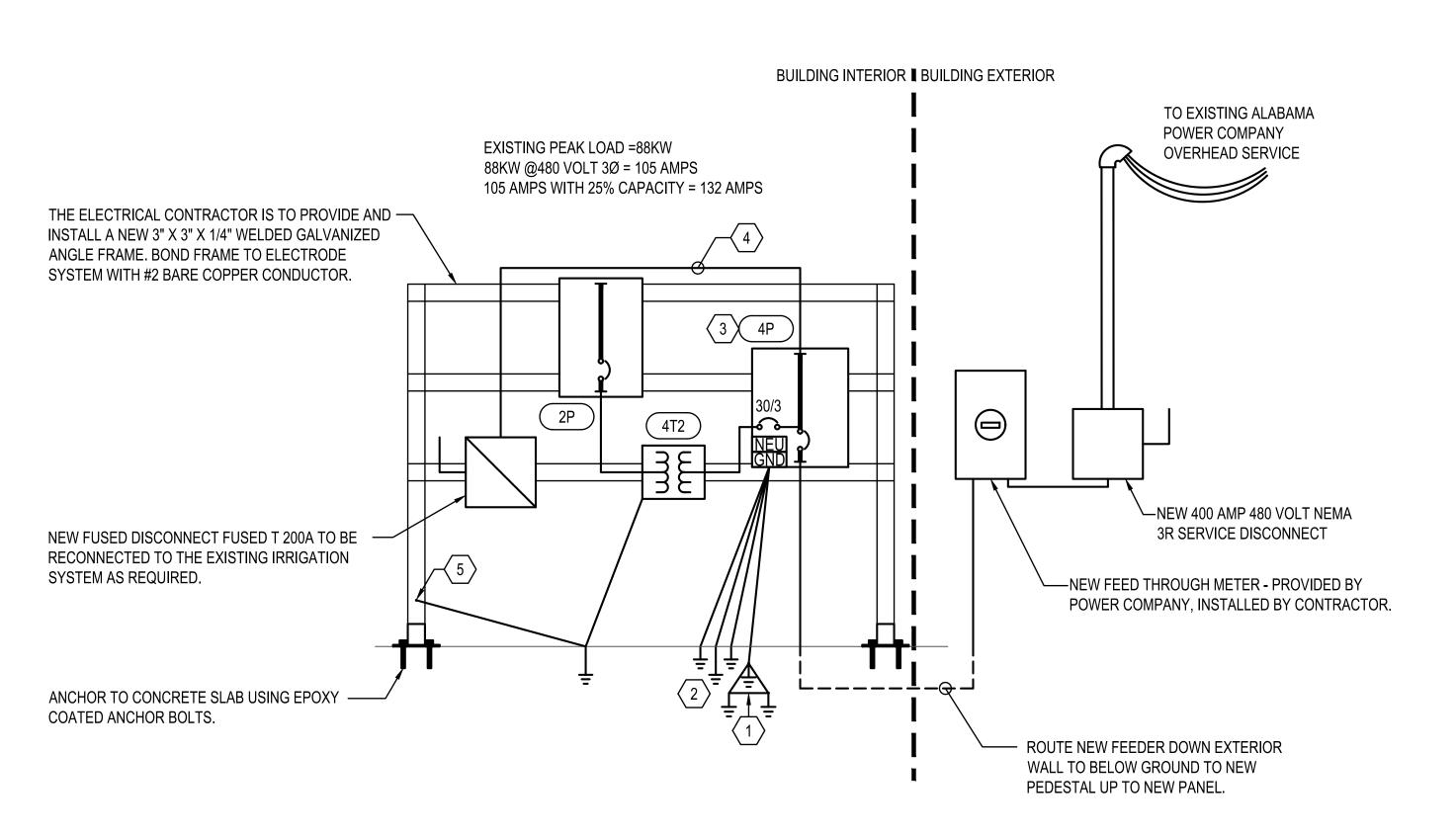
SEE TRANSFORMER MOUNTING DETAIL.

**TYPE: STD=STANDARD PER SPECIFICATIONS.

SINGLE LINE DIAGRAM NOTES

- \langle 1 \rangle #2 GEC TO THREE 20' GROUND RODS ON 20' CENTERS IN EQUILATERAL DELTA ARRANGEMENT.
- 2 #2 BONDS TO FOUNDATION REBAR, BUILDING WATER SERVICE AND BUILDING STEEL.
- (3) BASED ON AVAILABLE FAULT CURRENT FROM A 480 VOLT 3Ø 150 KVA OVERHEAD TRANSFORMER BANK, THE ELECTRICAL CONTRACTOR SHALL LABEL THE NEW PANEL "4P" AS "SERVICE ENTRANCE RATED" AND IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE ARTICLE 110.24; AVAILABLE FAULT CURRENT 9,019 AMPS. FINAL PARAMETERS (DISTANCE, TRANSFORMER SIZE, ETC.) SHALL BE COORDINATED WITH ALABAMA POWER COMPANY PRIOR TO LABELING, ADJUST AS REQUIRED.
- 4 NEW 4#3/0, #4G IN 2-1/2" CONDUIT TO EXISTING IRRIGATION PUMP EQUIPMENT.
- \langle 5 \rangle BOND FRAME TO ELECTRODE SYSTEM WITH #2 BARE COPPER CONDUCTOR.





NOTE: UNLESS OTHERWISE NOTED, ALL EXISTING IS TO BE REMOVED AND REPLACED NEW.

EXISTING SERVICE ON INTERIOR OF BUILDING

NOTE: UNLESS OTHERWISE NOTED, ALL NEW EXPOSED CONDUIT TO BE GRS.



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TRIC, ᆸ SE IRRIGATION

DRAWN BY: CHECKED BY:

02/05/2024

SHEET TITLE:

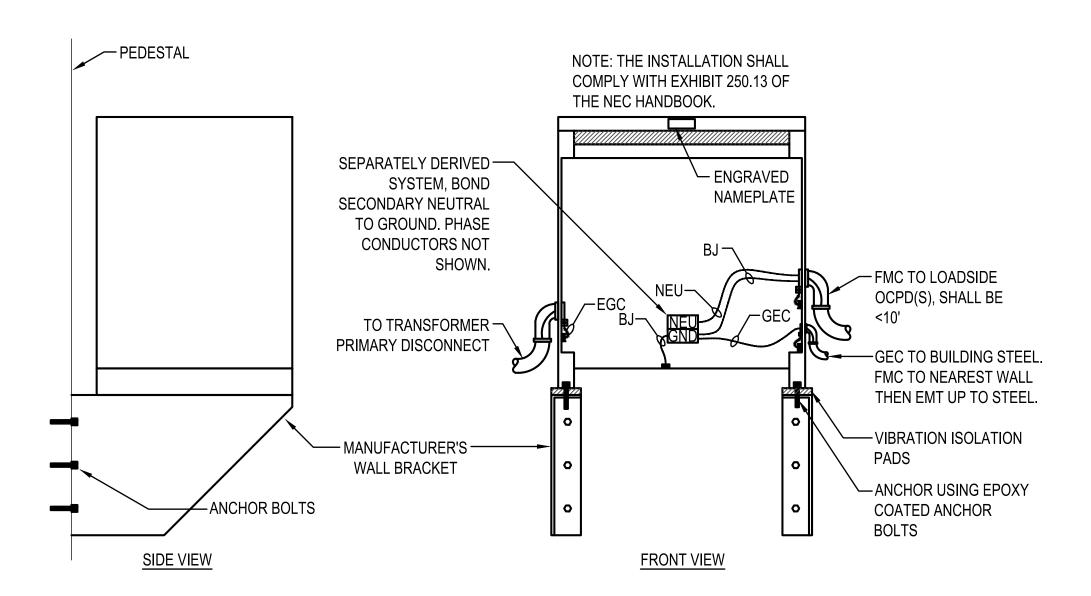
ELECTRICAL RISERS AND SCHEDULES

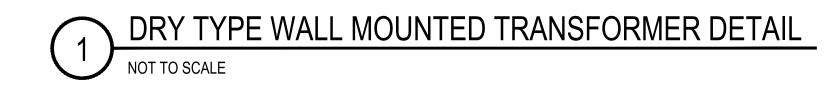
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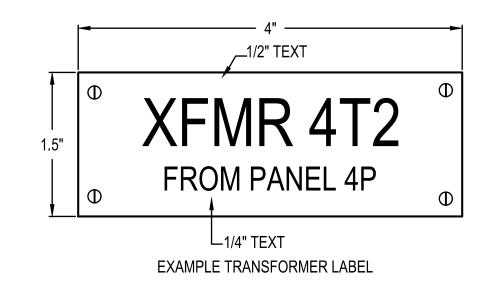
	LIGHTING	FIX	TURE	SCHE	DULE		
MARK	MANUFACTURER AND CATALOG NUMBER			VOLTAGE	MOUNTING	NOTES	
		TYPE	WATTS				
WL4	LITHONIA LIGHTING CLX-L48-5000LM-SEF-RDL-MVOLT-GZ1-35K-80CRI-PS1050-GALVW	LED	40	MVOLT	SURFACE	4' LED UTILITY FIXTURE	
WL8	LITHONIA LIGHTING CLX-L96-6000LM-SEF-RDL-MVOLT-GZ1-35K-80CRI-PS1050-GALVW	LED	24	MVOLT	SURFACE	8' LED UTILITY FIXTURE	
WPX	LITHONIA LIGHTING WPX1-LED-P2-40K-MVOLT-E14WCDDBXD	LED	24	MVOLT	SURFACE	LED WALL SCONCE WITH INTEGRAL EMERGENCY BATTERY BACK UP. PROVIDE WITH PHOTOCELL FOR LIGHTING CONTROL.	
NOTES	FIXTURES W/HALF FILLED CENTERS TO BE PROVIDED W.	/EMER	GENCY B	ALLAST; M.	ax availabl	E FOR FIXTURE.	
	COORDINATE THE FINAL LOCATION WITH OWNER PRIOR	TO RC	UGH IN.				
	COORDINATE THE FINAL FXTURE SELECTION WITH THE	OWNEF	R PRIOR	ORDER	•		

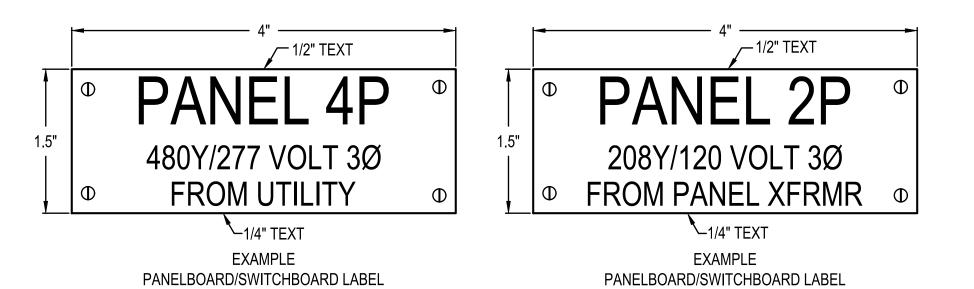
				PA	NELI	BOAF	RD S	CHE	DULE	=			
	MARK: F	PANE	L 4P										
CKT	LOAD	BF	REAKER	Р	HASE (kV	A)	Pl	HASE (kV	A)	BREAK	ER	LOAD	CKT
#	DESCRIPTION	P TRIP		Α	В	С	Α	В	С	TRIP P		DESCRIPTION	#
1				44.3			5.0					NEW 15KVA	2
3	EXISTING IRRIGATION SYSTEM				44.3			5.0		30	3	TRANSFORMER 4T2	4
5	VIA FEED THROUGH LUGS					44.3			5.0				6
7	SPARE	1	20							20	1	SPARE	8
9	SPARE	1	20							20	1	SPARE	10
11	SPARE	1	20							20	1	SPARE	12
				44.3	44.3	44.3	5.0	5.0	5.0				
	TOTAL (kVA) ØA	49.3	ØB	49.3	ØC	49.3			ŀ	HIGH	PHASE (AMPS) 178.0	
	٦	ΓΟΤΑ	L CONNE	CTED LC	AD (kVA)	147.9				-	TOTA	AL LOAD (AMPS) 177.9	
CREA	TE A DIRECTORY TO INDICATE INSTALLE	ED LC	DADS. IND	ICATE LO	DAD TYPE	(REC, L	G, AHU-1	, ETC.) A	ND ROOM	// NUMBE	RS S	ERVED FOR EVERY BRANCH CIRCUIT.	

	MARK: LOA) CEN	TER 2P										
CKT	LOAD	BF	REAKER	Р	HASE (kV	A)) PHASE (kVA		A)	BREAK	ER	LOAD	CKT
#	DESCRIPTION	Р	TRIP	Α	В	С	Α	В	С	TRIP	Р	DESCRIPTION	#
1	RECEPTACLE	1	20	0.4			0.2			20	1	WATER COOLER (AT 16 TEE)	2
3	INTERIOR LIGHTING	1	20		0.1			0.2		20	1	EXHAUST FAN	4
5	RECEPTACLE	1	20			0.2			0.1	20	1	EXTERIOR LIGHTING	6
7	IRRIGATION CONTROLLER	1	20	0.3			0.2			20	1	RECEPTACLE	8
9	SPARE	1	20		-			2.5		30	2	FUTURE 5KVA HEATER	10
11	SPARE	1	20			-			2.5				12
				0.7	0.1	0.2	0.4	2.7	2.6				
	TOTAL (kV	۹) ØA	1.1	ØB	2.8	ØC	2.8			HIGH PH	ASE (AMPS) 23.3	
		TOTA	L CONNE	CTED LO	AD (kVA)	6.7		-		TOTAL L	OAD (AMPS) 18.6	





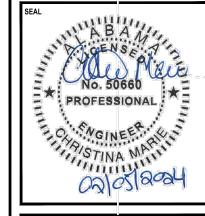


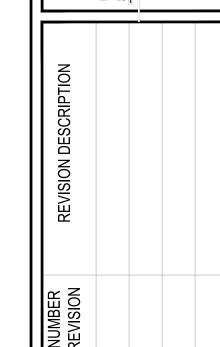


ENGRAVED PLASTIC TAG WITH BLACK LETTERS ON WHITE BACKGROUND (RED BACKGROUND FOR EMERGENCY EQUIPMENT). TAG SHALL HAVE ALL EDGES BEVELED AND SMOOTH. SECURE TAG WITH 4 CHROME (STAINLESS STEEL FOR WET OR DAMP LOCATIONS) SCREWS. ADHESIVE BACKING, TAPE, ETC IS NOT ALLOWED. DIMENSIONS ARE MINIMUM, TAG SHALL BE LARGER AS REQUIRED TO FIT APPROPRIATE TEXT.



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AZALEA CHIY IRRIGATION PUMP HOUSE ELECTRICAL UPGRADE

DESIGNE CM

CHECKED BY

CHECKED BY: CM

<u>DATE:</u> 02/05/2024

SHEET TITLE:

ELECTRICAL DETAILS AND SCHEDULES

HEET: