



Addendum No. 1

To: Pre-Bid Conference Attendees

From: Shannon McIntyre, Capital Improvement Project Manager
City of Mobile Architectural Engineering Department

Re: Copeland Cox Tennis Center
LED Lighting and Power Improvements
PR-037-23

Date: December 07, 2023

This Addendum forms a part of, and modifies, the Request for Bid Documents for the above referenced project, dated November 27, 2023. Acknowledge the receipt of this Addendum No.1 and all subsequent Addenda, if any, in the space provided on the Bid Form. Failure to do so may subject Bidder to disqualification.

General:

- Item 1. The Pre-Bid Conference Agenda ***with Modifications*** and Pre-Bid Conference Attendance Roster, dated November 30, 2023 are attached and form part of Addendum No. 1. Verify the modified Agenda as there may be items affecting the bid.
- Item 2. Revisions to the Pre-Quote Agenda are indicated with a strike-through for deletions and bold italic typeface for additions.
- Item 3. The City of Mobile will be purchasing material and equipment from Musco. A material list included for reference.
- Item 4. Attached Request for Bids, Addendum #1, dated December 7, 2023, shall be used as bid documents in lieu of previous Request for Bids, dated November 27, 2023.

Drawings:

END OF ADDENDUM NO. 1

COPELAND COX TENNIS CENTER
LED LIGHTING and POWER IMPROVEMENTS
PR-042-19
PRE-BID CONFERENCE

1:30 PM November 30, 2023, 851 Gaillard Drive, Mobile, AL

AGENDA w/ *Modifications*

1. Attendance roster. Include a contact person and an e-mail address. Please write legibly.
2. Introductions - Owner Contacts, Engineer.
3. Discussion of Scope of Work:
4. POWER UPGRADES:

THIS PORTION OF THE PROJECT INVOLVES UPGRADING THE ELECTRICAL DISTRIBUTION SERVICE THAT SUPPORTS THE TENTS ON THE EAST SIDE, SUPPLYING POWER TO THE NEW TENT ON THE WEST SIDE AND SUPPLYING POWER FOR LIVE STREAM CAPABILITY.

BASE BID:

UNLESS OTHERWISE NOTED THE ELECTRICAL CONTRACTOR IS TO COMPLETELY THE EXISTING SERVICE SUPPLYING POWER TO THE TENTS ON THE EAST AND PROVIDE AND INSTALL NEW UPGRADED SERVICE. THE ELECTRICAL CONTRACTOR IS TO PROVIDE AND INSTALL POWER PEDESTALS AND GENERAL RECEPTACLES AT EACH EAST TENT LOCATION (TYPICAL OF THREE).

ALTERNATE #1:

THE ELECTRICAL CONTRACTOR IS TO PROVIDE AND INSTALL A POWER PEDESTALS AT THE NEW WEST TENT LOCATION. THE ELECTRICAL CONTRACTOR IS TO PROVIDE AND INSTALL ASSOCIATED BREAKER, CONDUIT, CONDUCTORS, ETC. AS REQUIRED FOR THE NEW POWER PEDESTAL. THE ELECTRICAL CONTRACTOR IS TO COMPLETELY REMOVE DAMAGED / ABANDONED CONDUIT, CABLING, ETC. THAT PREVIOUSLY SERVED THE OLD TENT THAT WAS DAMAGED IN A WEATHER EVENT.

ALTERNATE #2:

~~THE ELECTRICAL CONTRACTOR IS TO PROVIDE AND INSTALL FIBER AND POWER AT SELECT LOCATIONS TO SUPPORT LIVE STREAM CAPABILITIES. THE ELECTRICAL CONTRACTOR IS TO PROVIDE AND INSTALL ASSOCIATED BREAKERS, CONDUIT, CONDUCTORS, ETC. AS REQUIRED FOR THE NEW POWER / FIBER DROPS.~~

Lighting Upgrades:

SUMMARY OF WORK

THE PROJECT INVOLVES UPGRADING (REMOVE AND REPLACE) THE COURT LIGHTING FOR SELECT TENNIS COURTS AT THE MOBILE TENNIS CENTER. ALL COURTS SELECTED BELOW ARE TO HAVE NEW FIXTURES INSTALLED - THE NEW LIGHTING IS TO PROVIDE AN AVERAGE OF 75FC ON EACH COURT. FOR THE BASE BID AND ALTERNATE #1 THE EXISTING POLES AND FEEDERS ARE TO BE REUSED.

FOR ALTERNATE #2 THE EXISTING POLES AND FIXTURES ARE TO BE COMPLETELY REMOVED AND REPLACED NEW AND NEW FEEDERS ARE TO BE PROVIDED AND INSTALLED AS REQUIRED.

BASE BID:

UPGRADE (REMOVE AND REPLACE) FIXTURES FOR COURTS 39-60. EXISTING POLES ARE TO REMAIN. NEW CONTROL COMPONENTS ARE TO BE INCLUDED IN THIS BASE BID. THE NEW CONTROL COMPONENTS IN THE BASE BID ARE TO BE CAPABLE OF FUTURE EXPANSION. ALL WIRING IS TO BE ROUTED THROUGH THE NEW CONTROLS AS REQUIRED.

NEW BOLLARD LIGHTING IS TO BE PROVIDED AND INSTALLED AND THE CLUBHOUSE ENTRANCE.

ALTERNATE #1:

UPGRADE (REMOVE AND REPLACE) FIXTURES FOR COURTS 35-38. EXISTING POLES ARE TO REMAIN. NEW CONTROL COMPONENTS ARE TO BE INCLUDED IN THIS ALTERNATE. ALL WIRING IS TO BE ROUTED THROUGH THE NEW CONTROLS AS REQUIRED.

ALTERNATE #2:

UPGRADE (REMOVE AND REPLACE) FIXTURES AND POLES FOR COURTS 1-8. UNLESS OTHERWISE NOTED, ALL EXISTING SERVICE EQUIPMENT IS TO BE DISCONNECTED AND COMPLETELY REMOVED AND REPLACED NEW. THE ELECTRICAL CONTRACTOR IS TO PROVIDE AND INSTALL A NEW 400 AMP 480 VOLT THREE PHASE NEMA 3R SERVICE ENTRANCE RATED DISCONNECT AND 480Y/277 VOLT 400 AMP THREE PHASE NEMA 3R PANEL TO SERVE COURTS 1-8. THE CONTRACTOR IS TO PROVIDE AND INSTALL A NEW 15KVA NEMA 3R TRANSFORMER AND 208Y/120 VOLT THREE PHASE NEMA 3R PANEL TO SERVE GENERAL RECEPTACLES AND OTHER CIRCUITS. NEW CONTROL COMPONENTS ARE TO BE INCLUDED IN THIS ALTERNATE. ALL WIRING IS TO BE ROUTED THROUGH THE NEW CONTROLS AS REQUIRED.

ALL PHASES:

IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO WORK IN CONJUNCTION WITH THE LIGHTING VENDOR TO ENSURE A FULLY OPERATION SYSTEM IS PROVIDED AND INSTALLED.

ALL HARDWARE AND COMPONENTS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM ARE TO BE PROVIDED AND INSTALLED AS REQUIRED. THIS INCLUDES BUT IS NOT LIMITED TO:

1. THE GROUNDING OF ALL NEW AND EXISTING LIGHT POLES.
2. ALL CONTROLS INCLUDING BUT NOT LIMITED TO CONTROL MODULES, ANTENNAS, PROGRAMMING, CABLING, ETC, AS REQUIRED FOR THE INSTALLATION OF CURRENT PHASE AND FUTURE PHASES.
3. ALL MOUNTING HARDWARE FOR THE FIXTURES AND CONTROLS.

4. EXPOSED CONDUITS ARE TO BE PAINTED AS DIRECTED BY THE OWNER TO MATCH SURROUNDING SURFACES.
5. **CONTRACTOR SHALL TAKE RECEIPT OF ALL CITY PURCHASED EQUIPMENT AND STORE EITHER ON SITE IN A SECURE CONEX, OR IN CONTRACTOR'S BONDED BUILDING. CONTRACTOR IS RESPONSIBLE FOR THE SECURITY OF ALL DELIVERED EQUIPMENT AND MATERIAL.**
5. **ALL EQUIPMENT AND MATERIAL REQUIRED BUT NOT LISTED ON THE VENDOR'S PURCHASE ORDER IS THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY.**
7. **CONTRACTOR IS RECOMMENDED TO PHOTOGRAPH ALL COURTS, SIDEWALKS, ETC. BEFORE STARTING WORK. ANY DAMAGE DONE DURING CONSTRUCTION WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR AS REQUIRED.**

Special Instructions or conditions.

- a. Contractor may use sanitary facilities located at the Tennis Center. Restrooms will also continue to be used by the public and shall be maintained clean and in a sanitary condition.
- b. Contractor may utilize, without cost, the water and electrical service of the facility as available, in moderate amounts.
- c. City of Mobile permits are required for the construction, but are available without cost to the Contractor. General Contractor/ Electrical Contractor shall have a current \$10,000 Surety Bond on file with the City of Mobile Permitting Department prior to issuance of permits and throughout the contract duration.
- d. Remove waste and surplus materials, rubbish, and construction debris from the site. On-Site Dumpster location to be coordinated with Owner Contact.
- e. Tennis Center shall remain in use throughout the construction period. Contractor shall have access to the Tennis Center from 6:00 AM to 9:00 PM, seven days per week. Contractor shall coordinate schedule for work through the Project Manager and give a minimum of seven (7) days notice for any interruption of electrical service or issues that would make use the courts unsafe for the public.
- f. **City of Mobile will provide black out dates when available. Any black out dates required will not count towards contract time.**
- g. Contractor shall access work from perimeter of courts to the greatest extent possible. The Courts shall be protected, and if damaged, shall be repaired by the Contractor.
- h. Bid Date is Wednesday, December 20, 2023.
- i. Any observed ambiguities, discrepancies, omissions or errors in any part of the contract documents shall be submitted as written RFIs to the Owner at shannon.mcintyre@cityofmobile.org and copied to the Engineer andy@dellconsultingllc.com and christy@dellconsultingllc.com.
- j. Cut off time for submission of RFIs is 5 calendar days prior to the Bid Opening.
- k. Cut off time for submission of RFSs is 14 calendar days prior to the Bid Opening.
- l. Official clarifications or corrections will be made by written addendum and posted to the City of Mobile bid website.

5. Bidding instructions, forms, special requirements and time.
 - a. Bid Form with, **Accounting of Sales Tax**, Bid Security in the form of a Bid Bond or Bid Check, and the Supplier Diversity Subcontractor and Major Supplier Plan, as applicable, shall accompany all sealed bids.
 - b. Use of Allowances shall be reviewed and approved by the Owner.
 - c. **Construction duration is as follows:**
 - **90 calendar days from receipt of City purchased equipment and material.**
 - d. City of Mobile Mun. Code Sec 14-2 requires that the city in all contracts shall make every reasonable effort to require that the contractors have at least fifteen percent participation by socially and economically disadvantaged individuals or that fifteen percent of the value of city contracts shall be awarded to qualified contractors who are socially and economically disadvantaged (See Project Manual).
 - e. An Alabama General Contractors License is required for all bids \$50,000 or more, including any subcontractor bids of that value or more. Contractor shall be responsible to verify that their license is in good standing and of an acceptable classification with the Alabama Licensing Board for General Contractors prior submitting a bid.

6. Additional Requirements at time of Contract execution:
 - a. A valid City of Mobile business license for the duration of the contract period.
 - b. E-verify Documentation: The Beason-Hammond Taxpayer Protection Act applies to this project. Contractor shall comply with the requirements of this Act and show proof of enrollment in the E-verify program by submitting the electronically generated Federal E-verify document prior to signing of the construction contract. (see Project Manual)
 - c. Performance Bond and Labor & Material Payment Bond
 - d. Certificate of Insurance in amounts and with endorsements as required by the City of Mobile (see Project Manual and Exhibit 3).
 - e. On all documents: City of Mobile Business License, the Alabama Secretary of State Business Identity, the Alabama Secretary of State Certificate of Authority (out of state contractors), E-verify documentation, Contractor's licensure and ACORD Insurance Form, the Contractors name shall be listed EXACTLY the same

7. Payment requirements.
 - a. Retainage withheld at 5% of the first 50% of Construction Completed until the amount equals 2.5% of the full contract amount.
 - b. The final 2.5% of the full contract amount is withheld as retainage until all close out requirements are met, proof of advertisement, warranties, Consent of Surety and release of liens, etc. By State of Alabama Law, notice of final completion of the contract shall be published four times in a local newspaper of general circulation.

8. Owner/City of Mobile contacts and phone numbers:
 - Shannon McIntyre, City of Mobile: Office: 251-208-7635 or Cellular: 251-508-7752; shannon.mcintyre@cityofmobile.org

9. Walk of Site

ATTENDANCE ROSTER

MEETING	PROJECT	LOCATION	DATE		
Pre-Bid Conference	Copeland-Cox Tennis Center - LED Lighting and Power Improvements PR-041-20 and PR-034-21	851 Gaillard Drive, Mobile, Alabama	2023-11-29		
NAME	ORGANIZATION	PHONE	FAX	CELL PHONE	E-MAIL
Shannon McIntyre	City of Mobile, A/E Department	251-208-7635	251-208-5871	251-508-7752	shannon.mcintyre@cityofmobile.org
Randy Godwin	NextPoint Lighting Sol.	251-622-5151		same	brg6@hotmail.com
Audrey Maurin	DELL CONSULTING	251-360-015		251-979-1434	audrey@dellconsultingllc.com
CHRISTY MARIE	DELL CONSULTING LLC	251-316-0008			CHRISTY@DELLCONSULTINGLLC.COM
JAYSON MORGAN	HARRIS CONTRACTING	251-508-0017			JAYSON@HARRIS CONTRACTING SERVICES.COM
TIM TORRACI	Bill Smith Electric	251-349-6724			TIM@BillSmithElectric.com
HOWARD HILL	AK Electric	251-625-2186		251-605-9235	akelectric@bellsouth.net
James Hill	H+H Electric	251-675-2186		251-510-5105	hh electric@Bellsouth.net
Scott Ward	City of Mobile - Tennis	251-610-0167			Scott.Ward@cityofmobile.org
Jace Daniel	City of Mobile - Tennis	251-454-3993			Jace.daniel@cityofmobile.org

Date: December 20, 2023

Project: Mobile Tennis Center LED
Mobile, Alabama
Musco Project Number: 228435

Sourcewell

Master Project: 199030, Contract Number: 041123-MSL, Expiration: 06/16/2027
Category: Sports lighting with related supplies and services

All purchase orders should note the following:
Sourcewell Purchase – Contract Number: 041123-MSL

Quotation Price – Materials Only Delivered to Job Site

Base Bid – Courts 39-60	\$XXX.00
Alternate 1 – Courts 35-38	\$XXX.00
Alternate 2: Courts 1-8 (includes new poles)	\$XXX.00
2 Courts – 12’ spacing: 1-8, 35-38, 51-52, 57-60	
6 Courts – 12’ spacing: 39-44, 45-50, 53-56	

Sales tax, bonding, labor, installation, and unloading of the equipment are not included.
Quote is confidential. Pricing and lead times are effective for 30 days only.

SportsCluster® System with Total Light Control – TLC for LED™ technology (Base Bid & Alternate 1)

System Description

- Factory aimed and assembled luminaires,
- Pole length factory assembled wire harnesses
- Factory wired and tested remote electrical component enclosures
- Mounting hardware for poletop luminaire assemblies and electrical components enclosures
- Disconnects
- UL listed assemblies
- Enhanced corrosion protection

Operation and Warranty Services

- Product assurance and warranty program that covers materials and onsite labor, eliminating 100% of your maintenance costs for 10 years

Light-Structure System™ with Total Light Control – TLC for LED™ technology (Alternate 2)

System Description

- Factory aimed and assembled luminaries
- Galvanized steel poles
- Pre-cast concrete bases with integrated lightning grounding
- Pole length factory assembled wire harnesses
- Factory wired and tested remote electrical component enclosures
- UL listed assemblies
- Enhanced corrosion protection

Operation and Warranty Services

- Product assurance and warranty program that covers materials and onsite labor, eliminating 100% of your maintenance costs for 25 years





ARCHITECTURAL ENGINEERING DEPARTMENT REQUEST FOR BIDS

December 7, 2023, Addendum #1

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

Project Name: Copeland-Cox Tennis Center – LED Lighting and Power Improvements

Project Location: 851 Gaillard Drive, Mobile, Alabama 36608

Project Number: PR-037-23

Power Upgrades:

SUMMARY OF WORK

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ALL COURTS SELECTED BELOW ARE TO HAVE NEW FIXTURES INSTALLED - THE NEW LIGHTING IS TO PROVIDE AN AVERAGE OF 75FC ON EACH COURT.

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3. ALL MOUNTING HARDWARE FOR THE FIXTURES AND CONTROLS.
4. EXPOSED CONDUITS ARE TO BE PAINTED AS DIRECTED BY THE OWNER TO MATCH SURROUNDING SURFACES.
5. **CONTRACTOR SHALL TAKE RECEIPT OF ALL CITY PURCHASED EQUIPMENT AND STORE EITHER ON SITE IN A SECURE CONEX, OR IN CONTRACTOR'S BONDED BUILDING. CONTRACTOR IS RESPONSIBLE FOR THE SECURITY OF ALL DELIVERED EQUIPMENT AND MATERIAL.**
5. **ALL EQUIPMENT AND MATERIAL REQUIRED BUT NOT LISTED ON THE VENDOR'S PURCHASE ORDER IS THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY.**
6. **CONTRACTOR IS RECOMMENDED TO PHOTOGRAPH ALL COURTS, SIDEWALKS, ETC. BEFORE STARTING WORK. ANY DAMAGE DONE DURING CONSTRUCTION WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR AS REQUIRED.**

Important Dates:

Pre-Bid Conference:
Bids Due:

Thursday, November 30, 2023 at 1:30 PM.
Wednesday, December 20, 2023 at 2:30 PM.

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

Attachments:

Lighting Upgrades:

TL-1.0	TITLE SHEET
EL-1.0	LEGEND & SPECIFICATIONS
EL-2.0	OVERALL ELECTRICAL PLAN
EL-3.0	ENLARGED TENNIS COURTS 39-60 POWER PLAN
EL-4.0	CLUBHOUSE ENTRANCE LIGHTING – BASE BID
EL-5.0	ENLARGED TENNIS COURTS 35-38 POWER PLAN – ALTERNATE #1
EL-6.0	ENLARGED TENNIS COURTS 1-8 POWER PLAN – ALTERNATE #2
EL-7.0	ELECTRICAL DETAILS

Power Upgrades:

TL-1.0	TITLE SHEET
EL-1.0	LEGEND & SPECIFICATIONS
EL-2.0	OVERALL ELECTRICAL PLAN
EL-3.0	ENLARGED ELECTRICAL PLAN - BASE BID
EL-4.0	ENLARGED ELECTRICAL PLAN – ALTERNATE #1
EL-6.0	ELECTRICAL SCHEDULES
EL-7.0	ELECTRICAL DETAILS

Pre-Bid meeting shall be held on Thursday, November 30, 2023 at 1:30 PM local time at Copeland-Cox Tennis Center, East Side, 851 Gaillard Drive, Mobile, Alabama 36608. A representative of the Bidder is encouraged to be present at the conference. However, if no representative can be present in person, the Bidder shall contact the Project Manager at 251-508-7752, at least 24 hours prior to the meeting, in order to coordinate attendance of the conference by conference call. Contractors shall view and verify all existing conditions during the Pre-Bid meeting or at a separate time.

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, five (5) business days prior to the Bid 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 NOT A TAX-EXEMPT PROJECT. Bidders shall NOT include sales and use taxes in their quote amount.

Contractors may use on-site utilities and facilities, such as power, water, public restrooms and designated parking areas. Contractor shall have access to the work site, as approved by the Owner, between 7:00 AM - 4:00 PM Monday through Friday. Additional access may be coordinated with the Owner representatives in advance. Debris shall be removed and disposed

of daily. No temporary storage will be available at this location. Lock and secure tools and materials while working at the facility. The City of Mobile is not responsible for contractors' items. Obey all City and Facility regulations.

The Contractor shall deliver the work complete within ***ninety (90) calendar days*** from the date of the written Notice of Proceed, or from the date of receipt of City purchased equipment, whichever is latter.

In order to coordinate the Contractor's work schedule with the Owner, within five (5) calendar days of the bid opening, the Apparent Low Bidder shall meet with the Owner to discuss scope and Owner scheduling and priorities. The Apparent Low Bidder shall then provide a proposed schedule within five (5) calendar days of the initial meeting for Owner review and approval.

The Contractor may be allowed additional construction days due to inclement conditions ("rain days"), 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:

Include in the Total Base Bid a stipulated allowance as indicated on the Bid 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 Bid), 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 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 Allowance shall be credited back to the City of Mobile in the form of a Change Order.

Submission of Bids (stipulated sum):

Bid, with Bid Security, Disadvantaged Business Enterprise Plan and other supporting data specified, shall be contained in a sealed, opaque envelope, approximately 9x12 inches or larger and be marked on the outside with the words "SEALED BID FOR COPELAND-COX TENNIS CENTER LED LIGHTING AND POWER IMPROVEMENTS - PROJECT NUMBER: PR-037-23", the Bid Date, and Contractor's name, address, and City of Mobile Business License number.

- A. And, if bidding in an amount \$50,000 or greater, the State of Alabama General Contractor's License number and classification of the Bidder issued by the State of Alabama Licensing Board for General Contractors shall be written on the envelope.
- B. Bids shall be deposited at the designated location prior to the time and date for receipt of Bids. Bids received after the time and date specified in the Invitation to Bid, or as modified by Addendum, will not be considered. Late Bids will be returned to the Bidder unopened.

- C. The Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids.
- D. Oral, telephonic, facsimile or other electronically transmitted bids will not be considered.

MODIFICATION OR WITHDRAWAL OF BIDS:

- A. A Bid may not be modified, withdrawn, or canceled by the Bidder for a period of sixty (60) days following the time and date designated for receipt of bids, and each Bidder so agrees in submitting a Bid.

8. CONSIDERATION AND AWARD OF BIDS:

- A. At the discretion of the City, the properly identified Bids received on time will be publicly opened and will be read aloud.
- B. The City shall have the right to reject any and all Bids. A Bid not accompanied by a required Bid security or a Bid which is in any way incomplete or irregular is subject to rejection.
- C. It is the intent of the City to award a Contract to the lowest qualified Bidder provided the Bid has been submitted in accordance with the requirements of the Bidding Documents and does not exceed the funds available. The City shall have the right to waive informalities and irregularities in a Bid received and to accept the Bid which, in the City's judgment, is in the City's best interest.
- D. The award shall be based on the lowest Total Bid for the Base Bid and any allowances, plus any alternates that may be accepted, as listed on the Bid Form.

Equal Opportunity:

- A. Contractor shall provide an appropriately completed copy of the "City of Mobile Subcontracting and Major Supplier Plan" (Exhibit 1) with their Quote Form. Form shall document DBE Subcontractors participating in the project and, should the total % of DBE participation not meet the 15% minimum, all efforts to obtain DB Subcontractors shall be documented on or attached to the DBE Form when submitted. During construction, contractors are required to submit a "DBE Utilization Report" with every Pay Application.
- B. Contractors should contact the City of Mobile, Supplier Diversity Manager for assistance with DBE Subcontractor information and any questions regarding the DBE Compliance Forms. Contact Archnique Kidd at 251-208-7967 or archnique.kidd@cityofmobile.org.

Bond Requirements:

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

- Cost of Bonds shall be included in the Contractor's bid.
- A Surety authorized to do business in the State of Alabama must issue Bonds.

- 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 Bid.
- 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 2).
2. Contract form example "Agreement Between Owner and Contractor For A Stipulated Sum" (sample attached as Exhibit 3).
3. Certificate of Insurance and policy endorsements in accordance with City of Mobile Insurance Requirements (attached as Exhibit 4 with sample documents).
4. Company's current City of Mobile Vendor Information Form and W-9 Tax Form (attached as Exhibit 5). 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. 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 Copeland-Cox Tennis Center – LED Lighting and Power Improvements, PR-037-23, in Mobile, Alabama 36608. 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 two (2) 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 (Exhibit 6):

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, David Krumrey, at the City of Mobile, Architectural Engineering Department, 251-208-1083, or cell at 281-794-1664, or e-mail david.krumrey@volkert.com for further clarification regarding this Request for Quotes.

**COPELAND-COX TENNIS CENTER
LED LIGHTING AND POWER IMPROVEMENTS
PR-037-23**

BID FORM:

Company Name: _____

Company Address: _____

Office Phone #: _____ **Fax #:** _____

City of Mobile Business License No.: _____

In compliance with the Request for Quotes prepared by the City of Mobile, Architectural Engineering Department, dated _____, and all Addendum(a) No(s) _____ dated _____, the undersigned does hereby propose to furnish all labor, materials, tools, equipment and supplies and to sustain all expenses incurred in performing the Scope of Work for the amount listed below. The Contractor shall deliver the work complete within thirty (30) calendar days from the written Notice to Proceed.

Bidders shall include sales and use taxes.

Bidders shall be provided in whole dollar amount with no cents.

Lighting Upgrades:

Base Bid Amount: _____

Amount in Words
_____ Dollars & No Cents \$ _____.00

Amount in #'s

Contingency Allowance: Ten Thousand Dollars & No Cents \$ _____10,000.00
Amount in Words Amount in #'s

Total Base Quote Amount: _____

Amount in Words
_____ Dollars & No Cents \$ _____.00
Amount in #'s

Additive Alternate #1 Amount: _____

Amount in Words
_____ Dollars & No Cents \$ _____.00
Amount in #'s

Additive Alternate #2 Amount: _____

Amount in Words
_____ Dollars & No Cents \$ _____.00
Amount in #'s

Power Upgrades:

Base Bid Amount: _____
Amount in Words
_____ Dollars & No Cents \$ _____ .00
Amount in #'s

Contingency Allowance: Three Thousand Dollars & No Cents \$ 3,000.00
Amount in Words Amount in #'s

Total Base Quote Amount: _____
Amount in Words
_____ Dollars & No Cents \$ _____ .00
Amount in #'s

Additive Alternate #1 Amount: _____
Amount in Words
_____ Dollars & No Cents \$ _____ .00
Amount in #'s

Contact Phone #: _____ **Cell #:** _____

E-mail Address: _____

Signature: _____ **Date:** _____

Printed Name: _____ **Title:** _____

City of Mobile "Subcontracting and Major Supplier Plan" shall be submitted with Bid.

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

To: City of Mobile

Date: _____

Name of Project: COPELAND COX TENNIS CENTER - LED LIGHTING and
POWER IMPROVEMENTS

Project Number: PR-042-19

SALES TAX ACCOUNTING

Pursuant to Act 2013-205, Section 1(g) the Contractor accounts for the sales tax NOT included in the bid proposal form as follows:

ESTIMATED SALES TAX AMOUNT

LIGHTING UPGRADES BASE BID: \$ _____

ADD ALT. #1: \$ _____

ADD ALT. #2: \$ _____

POWER UPGRADES BASE BID: \$ _____

ADD ALT. #1: \$ _____

Failure to provide an accounting of sales tax shall render the bid non-responsive. Other than determining responsiveness, sales tax accounting shall not affect the bid pricing nor be considered in the determination of the lowest responsible and responsive bidder.

Legal Name of Bidder _____

Mailing Address _____

***By (Legal Signature)** _____

*Name (type or print) _____ (Seal)

*Title _____

Telephone Number _____

Copeland-Cox Tennis Center LED Lighting Improvements PR-037-23

FOR

The City of Mobile, Alabama

851 Gaillard Drive
Mobile, Alabama

BY



12/06/2023

AREA OF WORK



SUMMARY OF WORK - MOBILE TENNIS CENTER

THE PROJECT INVOLVES UPGRADING (REMOVE AND REPLACE) THE COURT LIGHTING FOR SELECT TENNIS COURTS AT THE MOBILE TENNIS CENTER.

ALL COURTS SELECTED BELOW ARE TO HAVE NEW FIXTURES INSTALLED - THE NEW LIGHTING IS TO PROVIDE AN AVERAGE OF 75FC ON EACH COURT.
FOR THE BASE BID AND ALTERNATE #1 THE EXISTING POLES AND FEEDERS ARE TO BE REUSED.
FOR ALTERNATE #2 THE EXISTING POLES AND FIXTURES ARE TO BE COMPLETELY REMOVED AND REPLACED NEW AND NEW FEEDERS ARE TO BE PROVIDED AND INSTALLED AS REQUIRED.

BASE BID:
UPGRADE (REMOVE AND REPLACE) FIXTURES FOR COURTS 39-60. EXISTING POLES ARE TO REMAIN. NEW CONTROL COMPONENTS ARE TO BE INCLUDED IN THIS BASE BID. THE NEW CONTROL COMPONENTS IN THE BASE BID ARE TO BE CAPABLE OF FUTURE EXPANSION. ALL WIRING IS TO BE ROUTED THROUGH THE NEW CONTROLS AS REQUIRED. NEW BOLLARD LIGHTING IS TO BE PROVIDED AND INSTALLED AT THE CLUBHOUSE ENTRANCE.

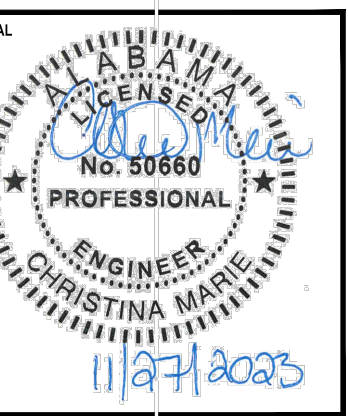
ALTERNATE #1:
UPGRADE (REMOVE AND REPLACE) FIXTURES FOR COURTS 35-38. EXISTING POLES ARE TO REMAIN. NEW CONTROL COMPONENTS ARE TO BE INCLUDED IN THIS ALTERNATE. ALL WIRING IS TO BE ROUTED THROUGH THE NEW CONTROLS AS REQUIRED.

ALTERNATE #2:
UPGRADE (REMOVE AND REPLACE) FIXTURES AND POLES FOR COURTS 1-8. UNLESS OTHERWISE NOTED, ALL EXISTING SERVICE EQUIPMENT IS TO BE DISCONNECTED AND COMPLETELY REMOVED AND REPLACED NEW. THE ELECTRICAL CONTRACTOR IS TO PROVIDE AND INSTALL A NEW 400 AMP 480 VOLT THREE PHASE NEMA 3R SERVICE ENTRANCE RATED DISCONNECT AND 480Y/277 VOLT 400 AMP THREE PHASE NEMA 3R PANEL TO SERVE COURTS 1-8. THE CONTRACTOR IS TO PROVIDE AND INSTALL A NEW 15KVA NEMA 3R TRANSFORMER AND 208Y/120 VOLT THREE PHASE NEMA 3R PANEL TO SERVE GENERAL RECEPTACLES AND OTHER CIRCUITS. NEW CONTROL COMPONENTS ARE TO BE INCLUDED IN THIS ALTERNATE. ALL WIRING IS TO BE ROUTED THROUGH THE NEW CONTROLS AS REQUIRED.

ALL PHASES:
IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO WORK IN CONJUNCTION WITH THE LIGHTING VENDOR TO ENSURE A FULLY OPERATION SYSTEM IS PROVIDED AND INSTALLED.
ALL HARDWARE AND COMPONENTS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM ARE TO BE PROVIDED AND INSTALLED AS REQUIRED. THIS INCLUDES BUT IS NOT LIMITED TO:
1. THE GROUNDING OF ALL NEW AND EXISTING LIGHT POLES.
2. ALL CONTROLS INCLUDING BUT NOT LIMITED TO CONTROL MODULES, ANTENNAS, PROGRAMMING, CABLING, ETC. AS REQUIRED FOR THE INSTALLATION OF CURRENT PHASE AND FUTURE PHASES.
3. ALL MOUNTING HARDWARE FOR THE FIXTURES AND CONTROLS.
4. EXPOSED CONDUITS ARE TO BE PAINTED AS DIRECTED BY THE OWNER TO MATCH SURROUNDING SURFACES.

IT IS THE RESPONSIBILITY OF THE LIGHTING VENDOR TO PROVIDE ALL FIXTURES, MOUNTING HARDWARE, CONTROLS, POLES, ETC. AS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL THE SYSTEM PER THE MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTION.

DRAWING #	DRAWING DESCRIPTION:
TL-1.0	TITLE SHEET
EL-1.0	LEGEND & SPECIFICATIONS
EL-2.0	OVERALL ELECTRICAL PLAN
EL-3.0	ENLARGED TENNIS COURTS 39-60 POWER PLAN - BASE BID
EL-4.0	CLUBHOUSE ENTRANCE LIGHTING - BASE BID
EL-5.0	ENLARGED TENNIS COURTS 35-38 POWER PLAN - ALTERNATE #1
EL-6.0	ENLARGED TENNIS COURTS 1-8 POWER PLAN - ALTERNATE #2
EL-7.0	ELECTRICAL DETAILS



NUMBER	REVISION	REVISION DESCRIPTION

**COPELAND-COX TENNIS CENTER
LED LIGHTING IMPROVEMENTS PR-037-23
MOBILE, ALABAMA**

DESIGNED BY:
AWM

DRAWN BY:
CM

CHECKED BY:
AWM

DATE:
12/06/2023

SHEET TITLE:
LED LIGHTING
TITLE SHEET

SHEET:
TL-1.0

ELECTRICAL SPECIFICATIONS

1. GENERAL ELECTRICAL:
 - 1.1. 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.
 - 1.2. THE CONTRACTOR SHALL CAREFULLY EXAMINE THE ARCHITECTURAL, STRUCTURAL, ELECTRICAL AND MECHANICAL DRAWINGS PRIOR TO SUBMITTING HIS BID. THE CONTRACTOR WILL BE REQUIRED TO FURNISH, INSTALL AND CONNECT ALL ITEMS AS INDICATED ON THE DRAWINGS.
 - 1.3. THE ARCHITECT SHALL BE NOTIFIED OF ANY CONFLICTS, OR INTERFERENCES THAT OCCUR BETWEEN INDIVIDUAL DRAWINGS.
 - 1.4. ALL MATERIALS AND EQUIPMENT SHALL BE INSTALLED IN A NEAT, FIRST CLASS, WORKMANLIKE MANNER, TO THE APPROVAL OF THE ARCHITECT/ENGINEER AND GOVERNING AUTHORITIES.
 - 1.5. 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.
 - 1.6. THE LOADS SHOWN FOR APPLIANCES AND EQUIPMENT ARE BASED ON DESIGN INFORMATION. THE CONTRACTOR SHALL VERIFY ALL APPLIANCE LOADS PRIOR TO RUNNING THE CIRCUIT. THE MINIMUM CIRCUIT REQUIREMENTS SHALL BE BASED ON THE APPLIANCE NAMEPLATE VALUE OR CODE REQUIREMENTS, WHICHEVER IS MORE STRINGENT. ADDITIONAL COMPENSATION SHALL NOT BE ALLOWED FOR APPLIANCE MODIFICATIONS BY THE CONTRACTOR.
 - 1.7. 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 APPROVAL WILL BE IN THE FORM OF AN ADDENDUM.
2. CODES & STANDARDS:
 - 2.1. INSTALLATION AND MATERIALS SHALL COMPLY WITH THE LATEST ADOPTED EDITION OF THE FOLLOWING CODES & STANDARDS:
 - 2.1.1. NATIONAL ELECTRICAL CODE.
 - 2.1.2. NFPA 72. NATIONAL FIRE PROTECTION CODE.
 - 2.1.3. INTERNATIONAL BUILDING CODE.
 - 2.1.4. INTERNATIONAL ENERGY CONSERVATION CODE.
 - 2.1.5. NFPA 101.
 - 2.1.6. ADA.
 - 2.1.7. ANSI.
 - 2.1.8. NEMA.
 - 2.1.9. OSHA.
 - 2.1.10. UL.
3. ALTERATIONS & ADDITIONS TO EXISTING WORK:
 - 3.1. PROVIDE ALL NECESSARY ADDITIONS AND ALTERATIONS TO EXISTING WORK AS REQUIRED TO PROVIDE AND MAINTAIN A COMPLETE AND PROPER ELECTRICAL INSTALLATION.
 - 3.2. AS NECESSARY, RELOCATE EXISTING ELECTRICAL WORK SO OTHER TRADES CAN PURSUE THEIR WORK.
 - 3.3. MAINTAIN POWER TO EXISTING PORTIONS OF BUILDINGS FED FROM OR THROUGH AREA IN SCOPE OF THIS CONTRACT.
 - 3.4. COORDINATE ALL REQUIRED OUTAGES WITH OWNER.
4. BASIC MATERIALS & METHODS:
 - 4.1. ALL POWER AND DISTRIBUTION CABLING SHALL BE COPPER TYPE THWN/THHN.
 - 4.2. ALL ELECTRICAL EQUIPMENT, DEVICES, ETC. LOCATED OUTDOORS SHALL BE WEATHERPROOF.
 - 4.3. 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.
 - 4.4. 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.
 - 4.5. JUNCTION BOXES LOCATED ABOVE CEILING SHALL BE INSTALLED FACING DOWN AND SHALL BE ACCESSIBLE AFTER INSTALLATION.
 - 4.6. COORDINATE ALL ELECTRICAL WORK WITH OTHER TRADES AND STRUCTURAL COMPONENTS.
 - 4.7. THE CONDUIT MATERIAL SHALL BE AS FOLLOWS:
 - 4.7.1. BELOW GRADE - RNC (POWER & SITE LIGHTING ONLY). ELBOWS >1-1/2" SHALL BE RGS.
 - 4.7.2. RISER FROM 36" BELOW GRADE - RGS.
 - 4.7.3. CONCEALED RISER FROM 36" BELOW GRADE - RNC (POWER ONLY).
 - 4.7.4. ABOVE GRADE SUBJECT TO PHYSICAL ABUSE - RGS.
 - 4.7.5. ABOVE GRADE NOT SUBJECT TO PHYSICAL ABUSE OR WEATHER - EMT.
 - 4.7.6. INDOORS NOT SUBJECT TO PHYSICAL ABUSE - EMT, OR METAL CLAD CABLE (AS ALLOWED BY LOCAL AUTHORITY HAVING JURISDICTION).
 - 4.7.7. FINAL CONDUIT CONNECTIONS TO HEAT PUMPS, AIR HANDLERS, EXHAUST FANS, AND WATER HEATERS SHALL BE LFMC WHETHER INTERIOR OR EXTERIOR.
 - 4.8. CONDUIT FITTINGS SHALL BE AS FOLLOWS:
 - 4.8.1. ALUMINUM - <=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.

- 4.8.2. RGS - THREADED GALVANIZED STEEL.
 - 4.8.3. PVC - PVC APPROVED FOR THE USE.
 - 4.8.4. FMC - ZINC-PLATED STEEL OR CADMIUM-PLATED MALLEABLE IRON SCREW TYPE WITH INSULATED THROAT.
 - 4.8.5. 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. ELECTRICAL CONTRACTOR SHALL WORK CLOSELY WITH THE MASONRY CONTRACTOR ON THE INSTALLATION OF ALL ELECTRICAL BOXES, CABINETS, RINGS, ETC. IN MASONRY WALLS. THE BOXES SHALL BE INSTALLED AT THE UNIFORM HEIGHTS CALLED FOR ON THE DRAWINGS AND SPECIFICATIONS. PROVIDE APPROPRIATE DEPTH MASONRY RINGS FOR ALL OUTLETS IN MASONRY WALLS TO INSURE PROPER CUTTING AND FITTING. THE FACE OF THE CABINETS, BOXES, RINGS, ETC. SHALL BE PLUMB AND FLUSH WITH THE FACE OF THE FINISH MATERIAL. ANY CABINET, OUTLET BOX, ETC. NOT MEETING THE ABOVE REQUIREMENT SHALL BE REMOVED AND REINSTALLED AT NO ADDITIONAL COST TO THE OWNER.
 - 4.11. ALL SIDEWALKS AND PARKING LOT ASPHALT AREAS THAT ARE CUT DUE TO NEW ELECTRICAL SERVICES SHALL BE REPAIRED TO MATCH EXISTING.
 - 4.12. ALL DIMENSIONS TO DEVICES AFF SHALL BE TO CENTERLINE UNLESS NOTED OTHERWISE.
5. GROUNDING & BONDING:
 - 5.1. PROVIDE AN INSULATED EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS.
 - 5.2. GROUND RODS SHALL BE 3/4"x20" COPPERCLAD STEEL.
 - 5.3. BELOW GRADE CONNECTIONS SHALL BE EXOTHERMIC TYPE.
 - 5.4. ALL CABLES SHALL BE COPPER, ALL BOLTED CONNECTIONS SHALL BE BRONZE.
 - 5.5. PROVIDE A #6AWG MINIMUM GROUND IN EMT FROM EACH TELCOM BACKBOARD TO THE MAIN ELECTRICAL SERVICE GROUND.
 - 5.6. WHERE AVAILABLE, BOND TO BUILDING STRUCTURAL STEEL, BUILDING FOUNDATION STEEL, METAL WATER SERVICE PIPING.
 - 5.7. 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:
 - 6.1. PROVIDE ENGRAVED 1"x3" PHENOLIC LABELS FOR ALL PANELBOARDS, SAFETY SWITCHES, TRANSFORMERS, CABINETS, ETC.
 - 6.2. PAINT THE RACEWAY SYSTEM COUPLINGS AND BOX COVERS ABOVE CEILINGS FOR THE FOLLOWING SYSTEMS AS FOLLOWS:
 - 6.2.1. 208 VOLT SYSTEMS - BLACK.
 - 6.2.2. 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.
 7. GENERAL WIRING DEVICES:
 - 7.1. SWITCHES - SPECIFICATION GRADE, 20 AMP, COLOR BY ARCHITECT.
 - 7.2. RECEPTACLES - SPECIFICATION GRADE, 20 AMP, NEMA 5-20R, COLOR BY ARCHITECT.
 - 7.3. COVER PLATES - NYLON, COLOR BY ARCHITECT.
 - 7.4. SPECIAL RECEPTACLES - PER THE DRAWINGS, VERIFY WITH EQUIPMENT BEING SUPPLIED.
 - 7.5. APPROVED MANUFACTURERS - HUBBELL, LEVITON, EAGLE, PASS & SEYMOUR.
 8. SAFETY SWITCHES:
 - 8.1. GENERAL DUTY, VISIBLE BLADE, LOCKABLE, QUICK-MAKE/QUICK-BREAK, HORSEPOWER RATED, FUSED WHERE INDICATED.
 - 8.2. PROVIDE WITH GROUND LUG KIT.
 - 8.3. INTERIOR - NEMA 1.
 - 8.4. EXTERIOR - NEMA 3R.
 - 8.5. APPROVED MANUFACTURERS - SQUARE D, GENERAL ELECTRIC, SIEMENS.
 9. PANELBOARDS:
 - 9.1. FRONT ACCESSIBLE, BOLT-ON MOLDED CASE C/Bs, COPPER PHASE & NEUTRAL BUSSING, COPPER GROUND BAR, FULLY RATED (SERIES RATING NOT ALLOWED).
 - 9.2. ENCLOSURES SHALL BE DOOR-IN-DOOR CONSTRUCTION.
 - 9.3. INTERIOR - NEMA 1.
 - 9.4. ALL INTERIOR PANELBOARDS ARE TO HAVE FOUR SPARE 3/4" CONDUITS INSTALLED TO AN ACCESSIBLE SPACE FOR FUTURE.
 - 9.5. EXTERIOR - NEMA 3R.
 - 9.6. PROVIDE TYPE-WRITTEN DIRECTORY IN CLEAR SLEEVE ON INSIDE OF DOOR. APPROVED MANUFACTURERS - SQUARE D, GENERAL ELECTRIC, SIEMENS.
 10. DRY-TYPE TRANSFORMERS <600V:
 - 10.1. 150" RISE.
 - 10.2. COPPER WINDINGS.
 - 10.3. PROVIDE WITH 4" HIGH CONCRETE HOUSEKEEPING PAD.
 - 10.4. GROUND SECONDARY TO NEAREST BUILDING STEEL. APPROVED MANUFACTURERS - SQUARE D, GENERAL ELECTRIC, SIEMENS.
 11. LIGHTING:
 - 11.1. TENNIS COURT LIGHTING - THE ELECTRICAL CONTRACTOR IS TO COORDINATE WITH TENNIS COURT LIGHTING VENDOR TO PROVIDE ALL CONDUIT, WIRE AND INSTALLATION OF ALL HARDWARE AND COMPONENTS TO COMPLETE THE OPERATIONAL LIGHTING SYSTEM.

ABBREVIATIONS

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	OFOI	OWNER FURNISHED OWNER INSTALLED
CONDUIT	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	72°	DEGREES
MCC	MOTOR CONTROL CENTER	Δ	DELTA
MCE	MAIN COMMUNICATIONS EQUIPMENT ROOM	Ω	OHMS

LIGHTING FIXTURE SCHEDULE

MARK	MANUFACTURER AND CATALOG NUMBER	TOTAL WATTS		VOLTAGE	MOUNTING	NOTES
		TYPE	WATTS			
BL	HESS AMERICA LIGHTING MSC1100/1-NW-UNV-XX	LED	15	15	MVOLT CONCRETE FOUNDATION	LED BOLLARD FIXTURE COORDINATE FINISH WITH OWNER / ARCHITECT
TC	TLC-LED-1200 TLC-LED-1500 TLC-LED-550NR	LED	1170 1410 570	1170 1410 570	MVOLT POLE 70'	POLE MOUNTED LED FIXTURES 5700K - 75CRI
CONTROLS	NEW TENNIS COURT LIGHTING CONTROLS ARE TO BE PROVIDED WITH THE MEANS TO RAMP UP FIXTURE CURRENT INRUSH DRAW TO AVOID NUISANCE TRIPPING.					
NOTES	FIXTURES WITH HALF FILLED IN CENTER SHALL BE PROVIDED WITH AN EMERGENCY BALLAST, 1100 LUMENS OR THE MAXIMUM AVAILABLE FOR THE FIXTURE. FINAL FIXTURE / POLE SELECTION BE APPROVED BY OWNER / ARCHITECT PRIOR TO ORDER THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL MOUNTING HARDWARE AS REQUIRED FOR A NEAT AND COMPLETE INSTALLATION.					

ELECTRICAL LEGEND

SITE EQUIPMENT:

PAD-MOUNTED TRANSFORMER.

LIGHTING CONTROL EQUIPMENT:

PROGRAMMABLE LIGHTING CONTROL PANEL. SEE DETAIL.

DISTRIBUTION & POWER EQUIPMENT:

NON-FUSED GENERAL DUTY SAFETY SWITCH. SIZE FOR LOAD BEING SERVED.

FLOOR 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 INDICATES CIRCUIT DESIGNATION.

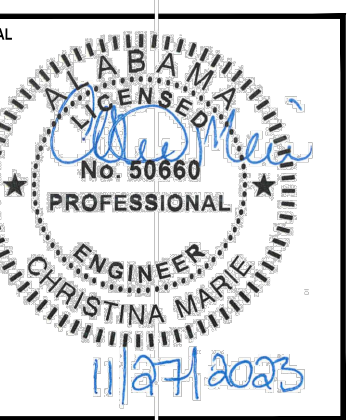
LOW VOLTAGE CABLE AS SPECIFIED BY THE MANUFACTURER.

LIGHT FIXTURE IDENTIFICATION TAG. SEE LIGHT FIXTURE SCHEDULE FOR SYMBOLS & DETAILS.

SHEET NOTE TAG.

PANELBOARD, SWITCHBOARD, TRANSFORMER & ELECTRICAL EQUIPMENT IDENTIFICATION TAG.

LEADERS.



NUMBER	REVISION	REVISION DESCRIPTION

COPELAND-COX TENNIS CENTER
LED LIGHTING IMPROVEMENTS PR-037-23
 MOBILE, ALABAMA

DESIGNED BY:
AWM

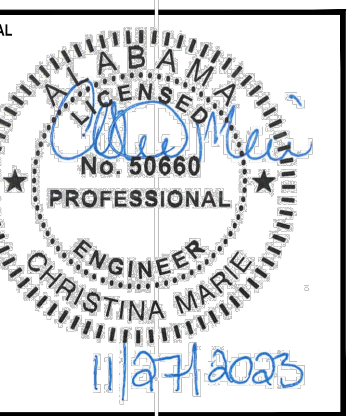
DRAWN BY:
CM

CHECKED BY:
AWM

DATE:
12/06/2023

SHEET TITLE:
LED LIGHTING
LEGEND AND
SPECIFICATIONS

SHEET:
EL-1.0



NUMBER	REVISION	REVISION DESCRIPTION

**COPELAND-COX TENNIS CENTER
 LED LIGHTING IMPROVEMENTS PR-037-23
 MOBILE, ALABAMA**

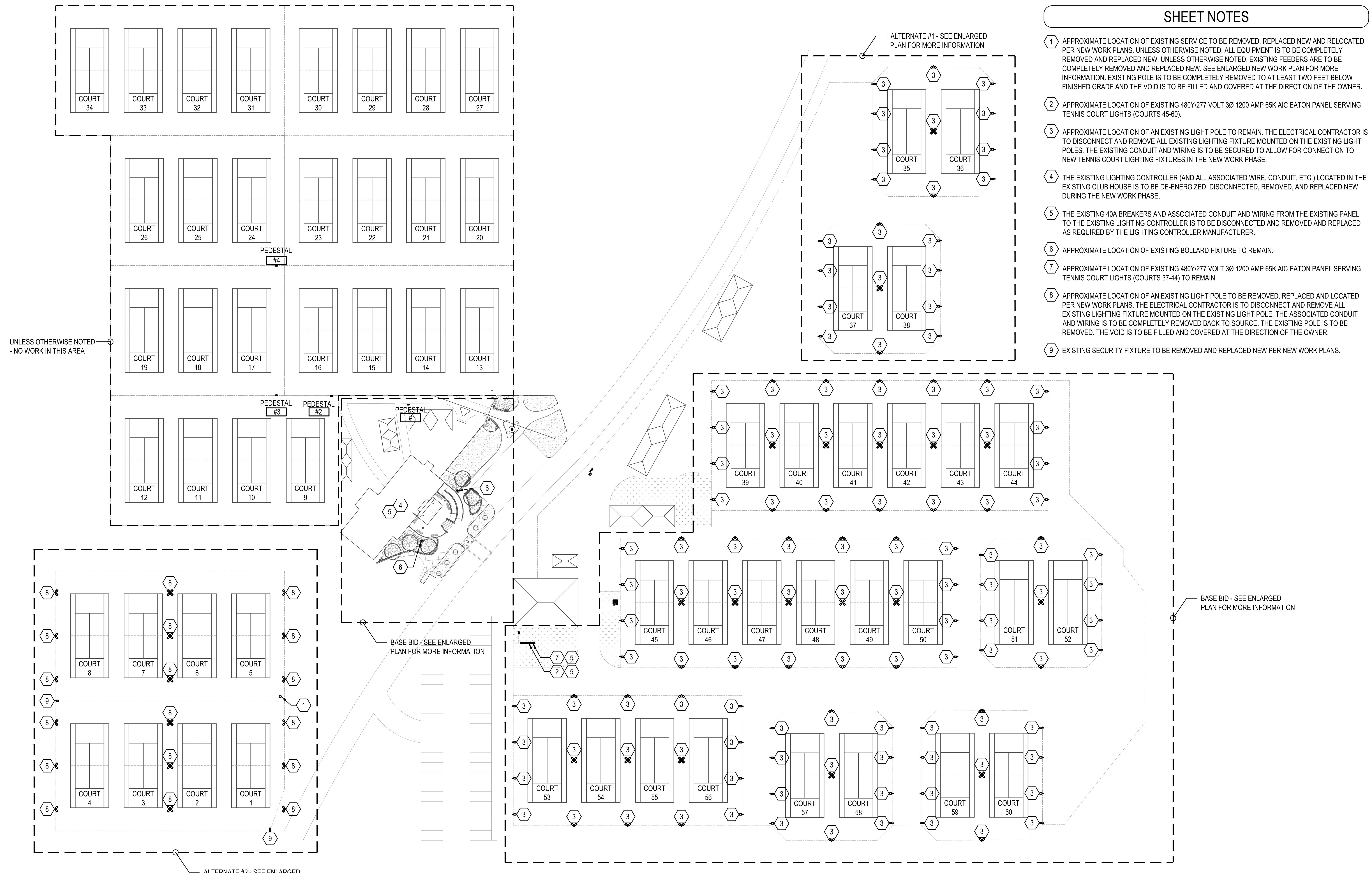
DESIGNED BY:
AWM
 DRAWN BY:
CM
 CHECKED BY:
AWM
 DATE:
12/06/2023

SHEET TITLE:
LED LIGHTING
OVERALL ELECTRICAL
PLAN

SHEET:
EL-2.0

SHEET NOTES

- 1 APPROXIMATE LOCATION OF EXISTING SERVICE TO BE REMOVED, REPLACED NEW AND RELOCATED PER NEW WORK PLANS. UNLESS OTHERWISE NOTED, ALL EQUIPMENT IS TO BE COMPLETELY REMOVED AND REPLACED NEW. UNLESS OTHERWISE NOTED, EXISTING FEEDERS ARE TO BE COMPLETELY REMOVED AND REPLACED NEW. SEE ENLARGED NEW WORK PLAN FOR MORE INFORMATION. EXISTING POLE IS TO BE COMPLETELY REMOVED TO AT LEAST TWO FEET BELOW FINISHED GRADE AND THE VOID IS TO BE FILLED AND COVERED AT THE DIRECTION OF THE OWNER.
- 2 APPROXIMATE LOCATION OF EXISTING 480Y/277 VOLT 3Ø 1200 AMP 65K AIC EATON PANEL SERVING TENNIS COURT LIGHTS (COURTS 45-60).
- 3 APPROXIMATE LOCATION OF AN EXISTING LIGHT POLE TO REMAIN. THE ELECTRICAL CONTRACTOR IS TO DISCONNECT AND REMOVE ALL EXISTING LIGHTING FIXTURE MOUNTED ON THE EXISTING LIGHT POLES. THE EXISTING CONDUIT AND WIRING IS TO BE SECURED TO ALLOW FOR CONNECTION TO NEW TENNIS COURT LIGHTING FIXTURES IN THE NEW WORK PHASE.
- 4 THE EXISTING LIGHTING CONTROLLER (AND ALL ASSOCIATED WIRE, CONDUIT, ETC.) LOCATED IN THE EXISTING CLUB HOUSE IS TO BE DE-ENERGIZED, DISCONNECTED, REMOVED, AND REPLACED NEW DURING THE NEW WORK PHASE.
- 5 THE EXISTING 40A BREAKERS AND ASSOCIATED CONDUIT AND WIRING FROM THE EXISTING PANEL TO THE EXISTING LIGHTING CONTROLLER IS TO BE DISCONNECTED AND REMOVED AND REPLACED AS REQUIRED BY THE LIGHTING CONTROLLER MANUFACTURER.
- 6 APPROXIMATE LOCATION OF EXISTING BOLLARD FIXTURE TO REMAIN.
- 7 APPROXIMATE LOCATION OF EXISTING 480Y/277 VOLT 3Ø 1200 AMP 65K AIC EATON PANEL SERVING TENNIS COURT LIGHTS (COURTS 37-44) TO REMAIN.
- 8 APPROXIMATE LOCATION OF AN EXISTING LIGHT POLE TO BE REMOVED, REPLACED AND LOCATED PER NEW WORK PLANS. THE ELECTRICAL CONTRACTOR IS TO DISCONNECT AND REMOVE ALL EXISTING LIGHTING FIXTURE MOUNTED ON THE EXISTING LIGHT POLE. THE ASSOCIATED CONDUIT AND WIRING IS TO BE COMPLETELY REMOVED BACK TO SOURCE. THE EXISTING POLES IS TO BE REMOVED. THE VOID IS TO BE FILLED AND COVERED AT THE DIRECTION OF THE OWNER.
- 9 EXISTING SECURITY FIXTURE TO BE REMOVED AND REPLACED NEW PER NEW WORK PLANS.



1 OVERALL ELECTRICAL PLAN
 SCALE: 1"=40'-0"

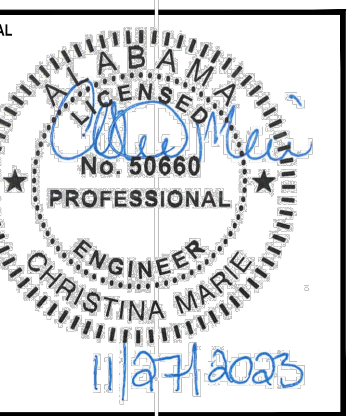
UNLESS OTHERWISE NOTED - NO WORK IN THIS AREA

BASE BID - SEE ENLARGED PLAN FOR MORE INFORMATION

ALTERNATE #1 - SEE ENLARGED PLAN FOR MORE INFORMATION

ALTERNATE #2 - SEE ENLARGED PLAN FOR MORE INFORMATION

BASE BID - SEE ENLARGED PLAN FOR MORE INFORMATION



NUMBER	REVISION	REVISION DESCRIPTION

COPELAND-COX TENNIS CENTER
LED LIGHTING IMPROVEMENTS PR-037-23
 MOBILE, ALABAMA

DESIGNED BY:
AWM

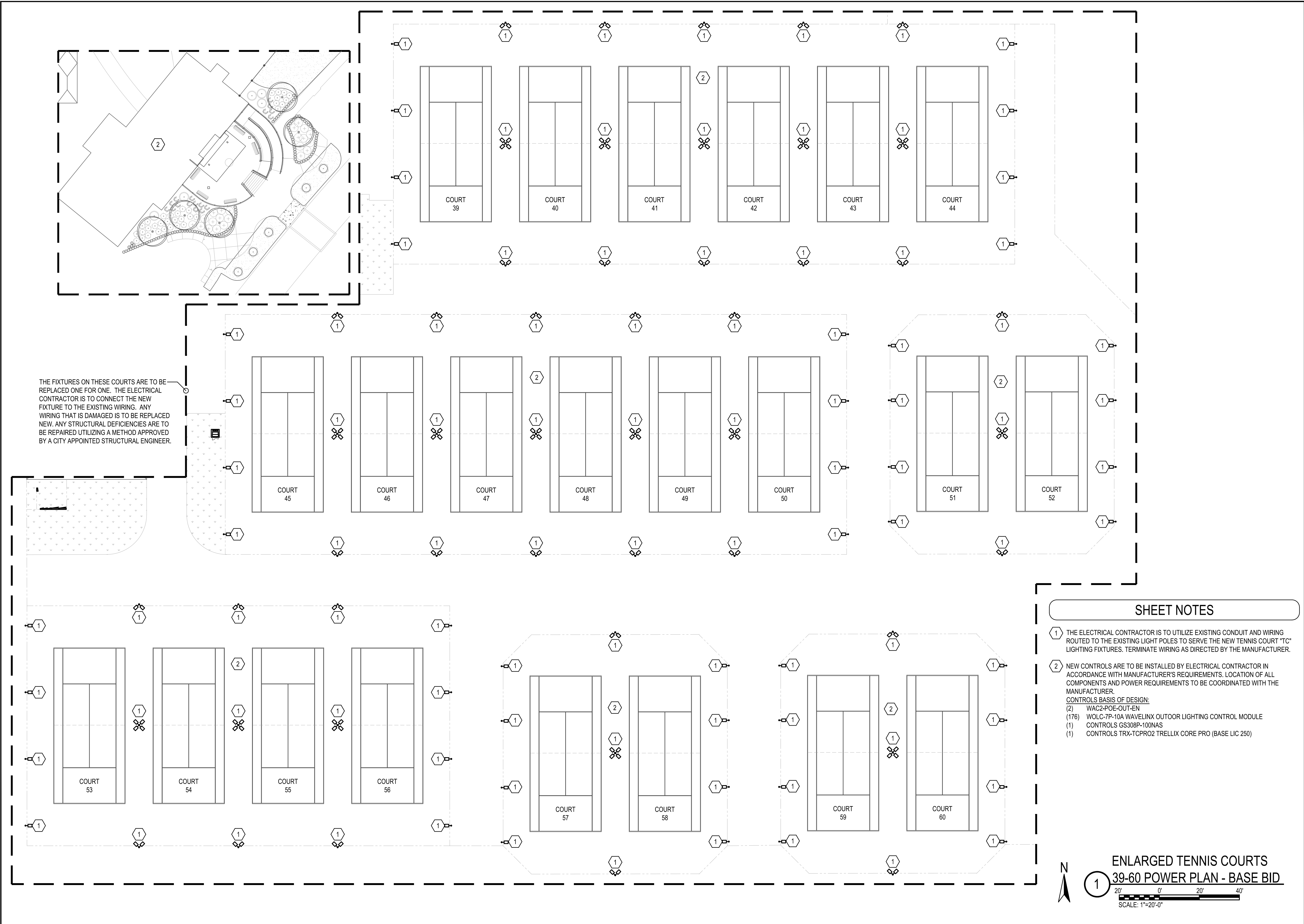
DRAWN BY:
CM

CHECKED BY:
AWM

DATE:
12/06/2023

SHEET TITLE:
LED LIGHTING
ENLARGED TENNIS
COURTS 39-60 POWER
PLAN - BASE BID

SHEET:
EL-3.0



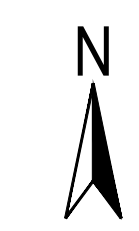
THE FIXTURES ON THESE COURTS ARE TO BE REPLACED ONE FOR ONE. THE ELECTRICAL CONTRACTOR IS TO CONNECT THE NEW FIXTURE TO THE EXISTING WIRING. ANY WIRING THAT IS DAMAGED IS TO BE REPLACED NEW. ANY STRUCTURAL DEFICIENCIES ARE TO BE REPAIRED UTILIZING A METHOD APPROVED BY A CITY APPOINTED STRUCTURAL ENGINEER.

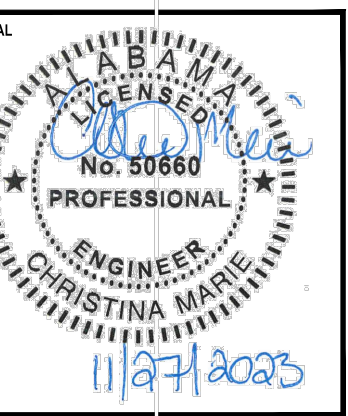
SHEET NOTES

- 1 THE ELECTRICAL CONTRACTOR IS TO UTILIZE EXISTING CONDUIT AND WIRING ROUTED TO THE EXISTING LIGHT POLES TO SERVE THE NEW TENNIS COURT "TC" LIGHTING FIXTURES. TERMINATE WIRING AS DIRECTED BY THE MANUFACTURER.
- 2 NEW CONTROLS ARE TO BE INSTALLED BY ELECTRICAL CONTRACTOR IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS. LOCATION OF ALL COMPONENTS AND POWER REQUIREMENTS TO BE COORDINATED WITH THE MANUFACTURER.
CONTROLS BASIS OF DESIGN:
 (2) WAC2-POE-OUT-EN
 (176) WOLC-7P-10A WAVELINX OUTDOOR LIGHTING CONTROL MODULE
 (1) CONTROLS GS308P-100NAS
 (1) CONTROLS TRX-TCPR02 TRELIX CORE PRO (BASE LIC 250)

ENLARGED TENNIS COURTS
39-60 POWER PLAN - BASE BID

1
 20' 0' 20' 40'
 SCALE: 1"=20'-0"





NUMBER	REVISION	REVISION DESCRIPTION

**COPELAND-COX TENNIS CENTER
 LED LIGHTING IMPROVEMENTS PR-037-23
 MOBILE, ALABAMA**

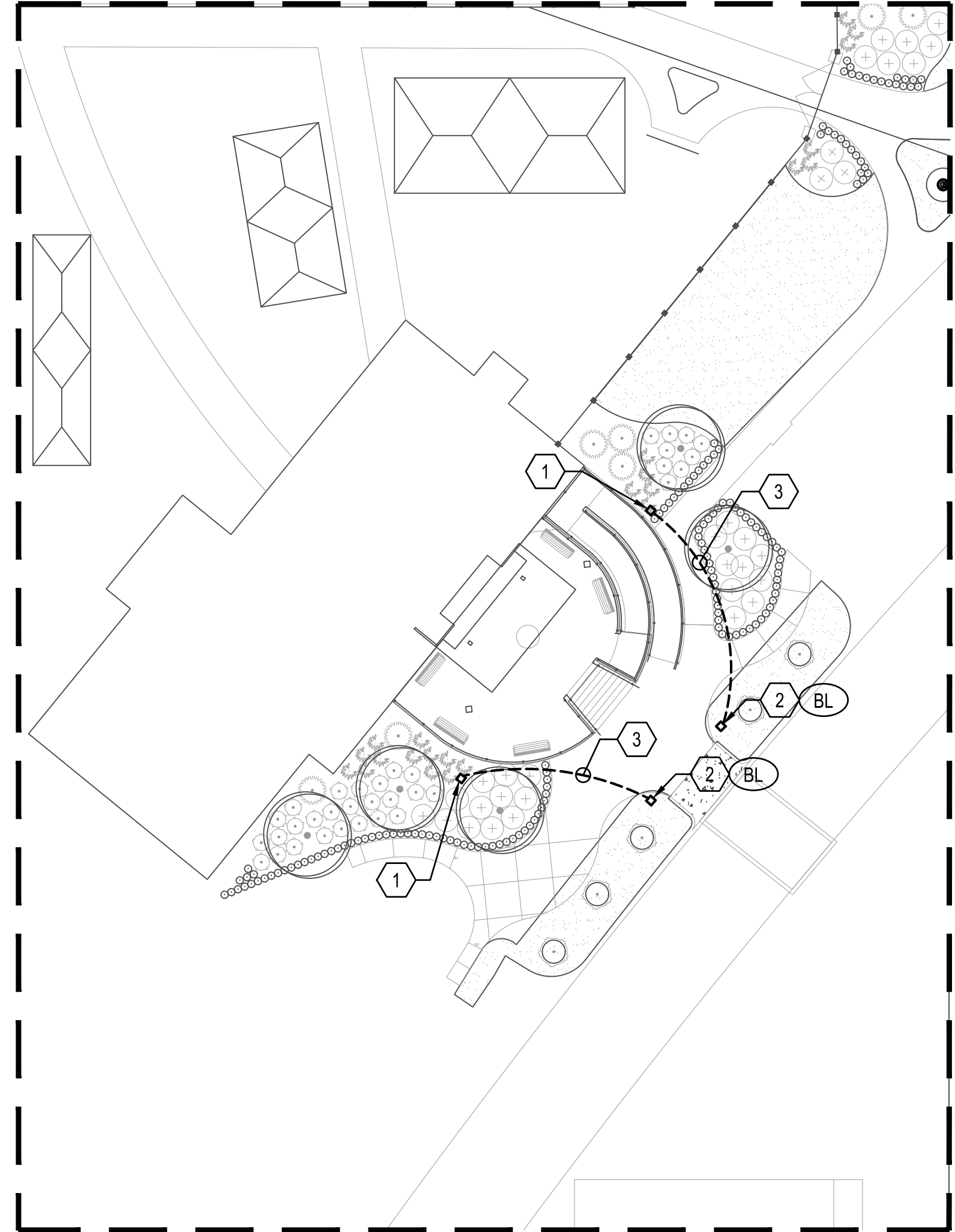
DESIGNED BY:
AWM
 DRAWN BY:
CM
 CHECKED BY:
AWM
 DATE:
12/06/2023

SHEET TITLE:
LED LIGHTING
CLUBHOUSE
ENTRANCE LIGHTING -
ALTERNATE

SHEET:
EL-4.0

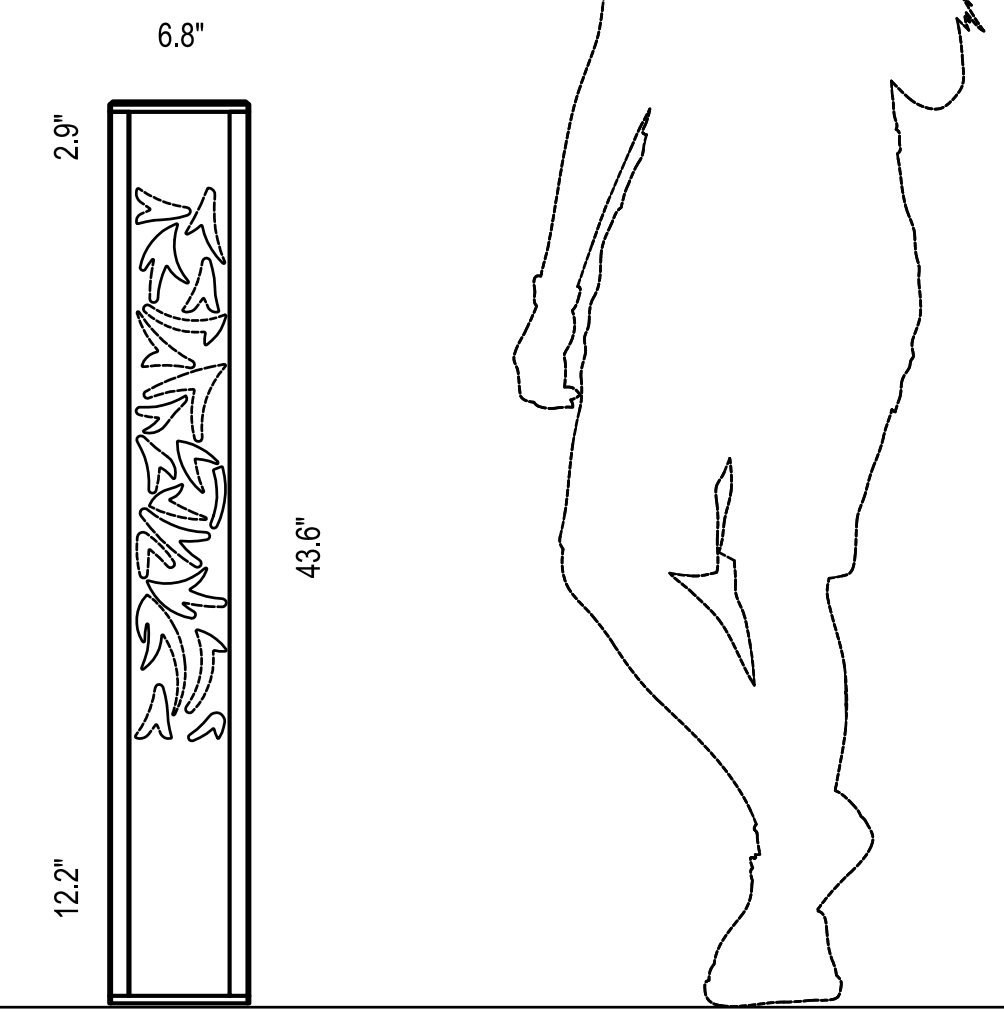
SHEET NOTES

- 1 APPROXIMATE LOCATION OF EXISTING BOLLARD FIXTURE TO REMAIN.
- 2 THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A NEW BOLLARD IN THIS APPROXIMATE LOCATION. THE CONTRACTOR SHALL FIELD COORDINATE THE EXACT LOCATION TO AVOID CONFLICT WITH SURROUNDING LANDSCAPING.
- 3 THE ELECTRICAL CONTRACTOR IS TO BORE A MINIMUM OF 24" BELOW FINISHED GRADE AND PROVIDE AND INSTALL 2#12, #12G IN 3/4" CONDUIT TO CONNECT THE NEW BOLLARD TO THE EXISTING BOLLARD LIGHTING CIRCUIT. THE CONTRACTOR SHALL TAKE CARE TO AVOID DAMAGING THE EXISTING LANDSCAPING.

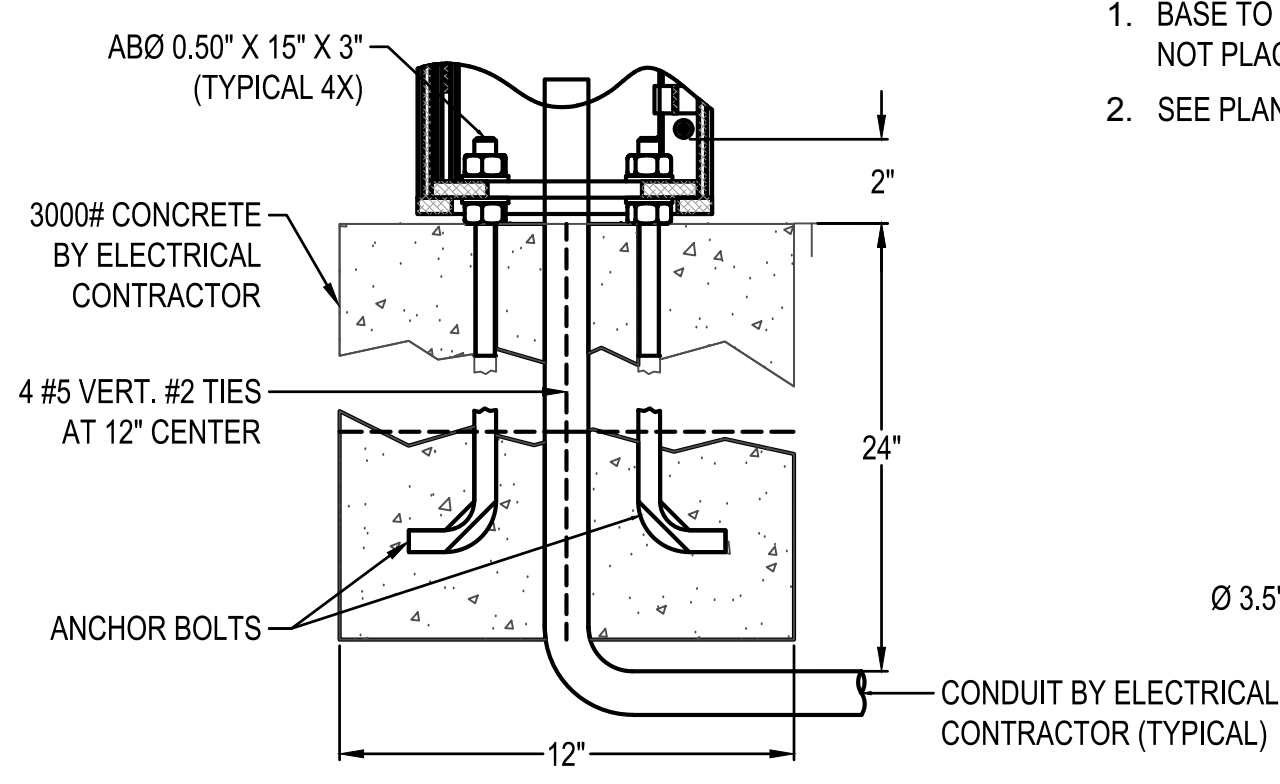


MOSAIC BOLLARD - Ice Bloom
 ILLUMINATING BOLLARD

DIMENSIONS
 ALL DIMENSIONS ARE SHOWN IN INCHES UNLESS OTHERWISE NOTED.

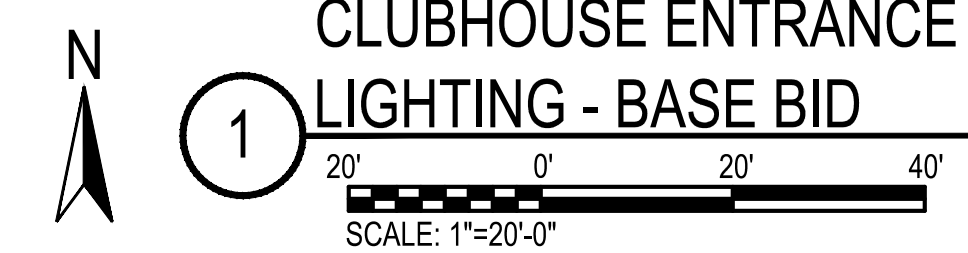


MOUNTING DETAILS
 ALL DIMENSIONS ARE SHOWN IN INCHES UNLESS OTHERWISE NOTED.

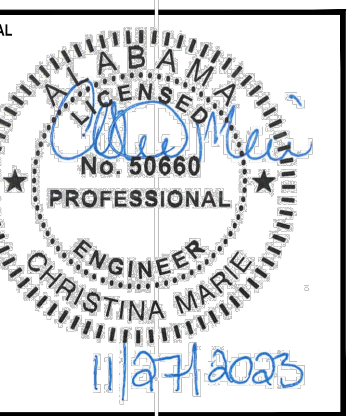


- NOTES:**
1. BASE TO BE POURED AGAINST UNDISTURBED EARTH. DO NOT PLACE ANY PORTION OF BASE BELOW WATER TABLE.
 2. SEE PLANS FOR LOCATION AND QUANTITIES.

2 CONCRETE BASE FOR BOLLARD DETAIL
 NOT TO SCALE



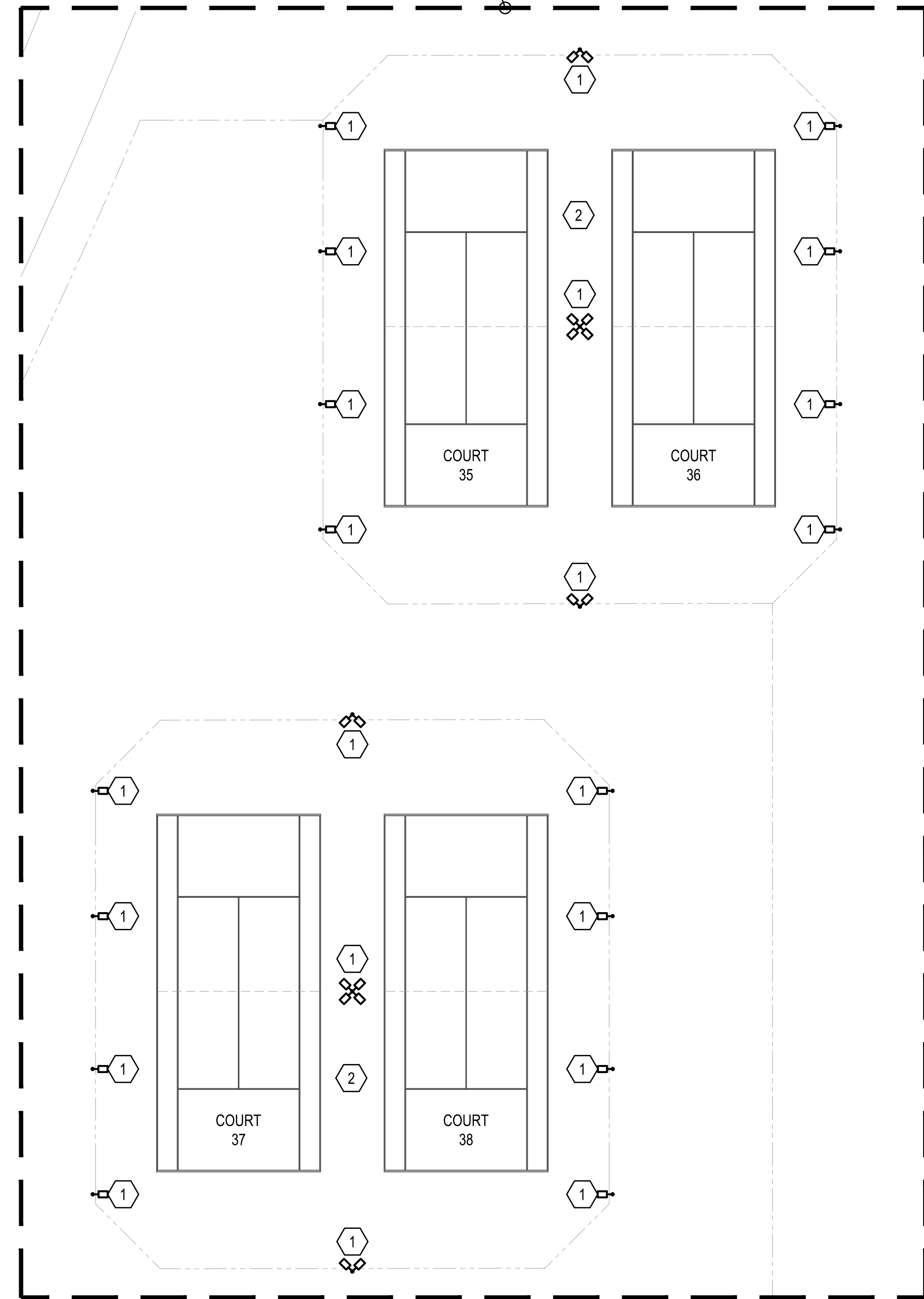
**1 CLUBHOUSE ENTRANCE
 LIGHTING - BASE BID**



SHEET NOTES

- 1 THE ELECTRICAL CONTRACTOR IS TO UTILIZE EXISTING CONDUIT AND WIRING ROUTED TO THE EXISTING LIGHT POLES TO SERVE THE NEW TENNIS COURT "TC" LIGHTING FIXTURES. TERMINATE WIRING AS DIRECTED BY THE MANUFACTURER.
- 2 NEW CONTROLS ARE TO BE INSTALLED BY ELECTRICAL CONTRACTOR IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS. LOCATION OF ALL COMPONENTS AND POWER REQUIREMENTS TO BE COORDINATED WITH THE MANUFACTURER.
 CONTROLS BASIS OF DESIGN:
 (32) WOLC-7P-10A WAVELINX OUTDOOR LIGHTING CONTROL MODULE
 (1) WAC2-POE-OUT-EN

THE FIXTURES ON THESE COURTS ARE TO BE REPLACED ONE FOR ONE. THE ELECTRICAL CONTRACTOR IS TO CONNECT THE NEW FIXTURE TO THE EXISTING WIRING. ANY WIRING THAT IS DAMAGED IS TO BE REPLACED NEW. ANY STRUCTURAL DEFICIENCIES ARE TO BE REPAIRED UTILIZING A METHOD APPROVED BY A CITY APPOINTED STRUCTURAL ENGINEER.



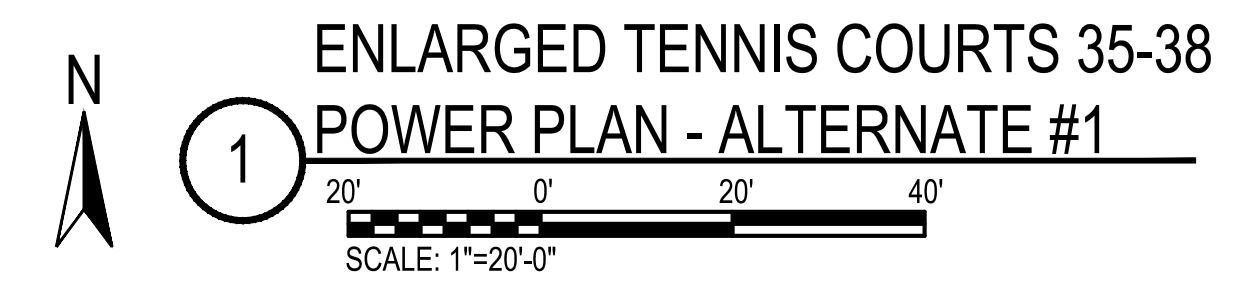
NUMBER	REVISION	REVISION DESCRIPTION

COPELAND-COX TENNIS CENTER
LED LIGHTING IMPROVEMENTS PR-037-23
 MOBILE, ALABAMA

DESIGNED BY:
AWM
 DRAWN BY:
CM
 CHECKED BY:
AWM
 DATE:
12/06/2023

SHEET TITLE:
LED LIGHTING
ENLARGED TENNIS
COURTS 35-38 POWER
PLAN - ALTERNATE

SHEET:
EL-5.0

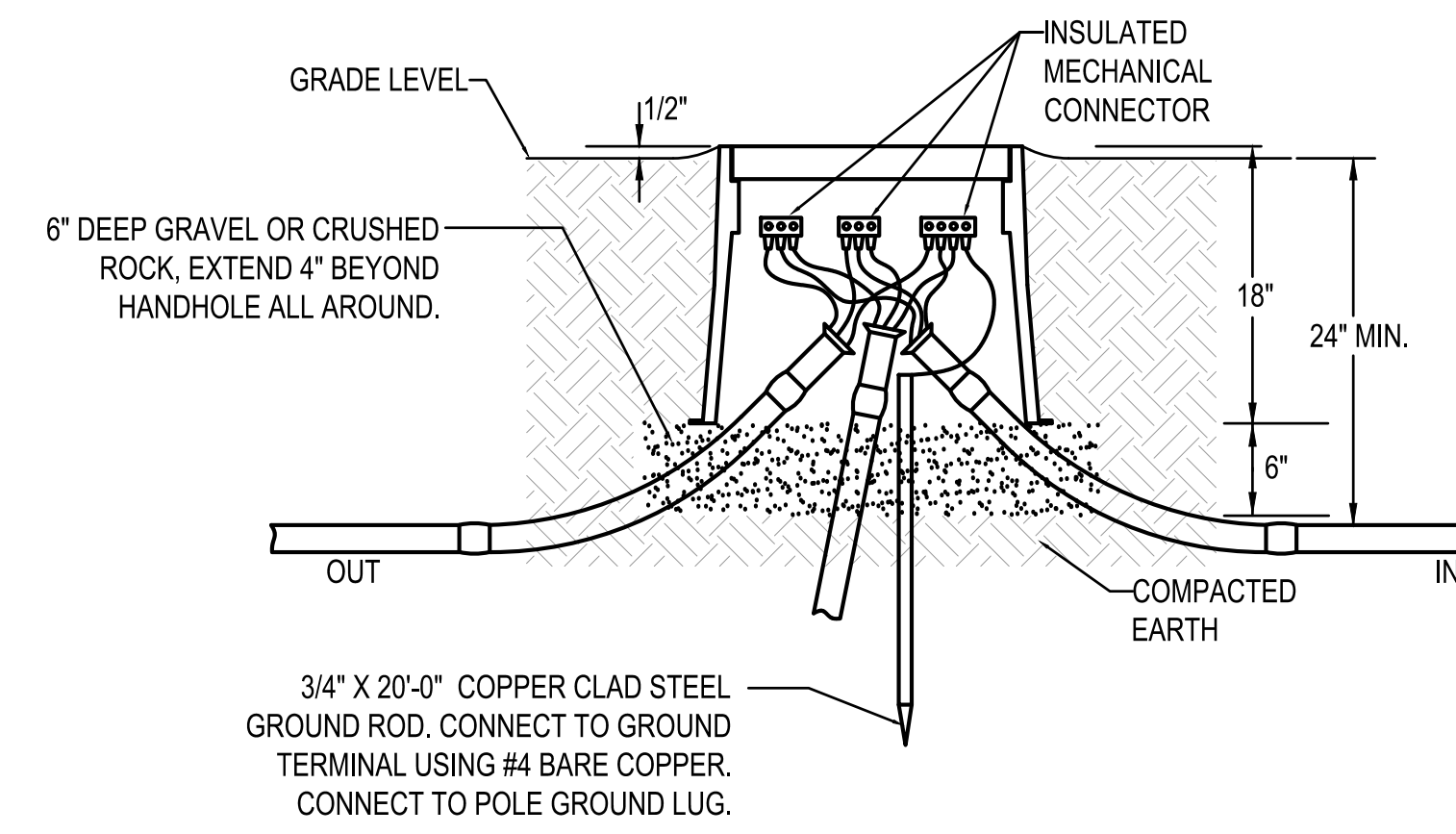


ENLARGED TENNIS COURTS 35-38
POWER PLAN - ALTERNATE #1

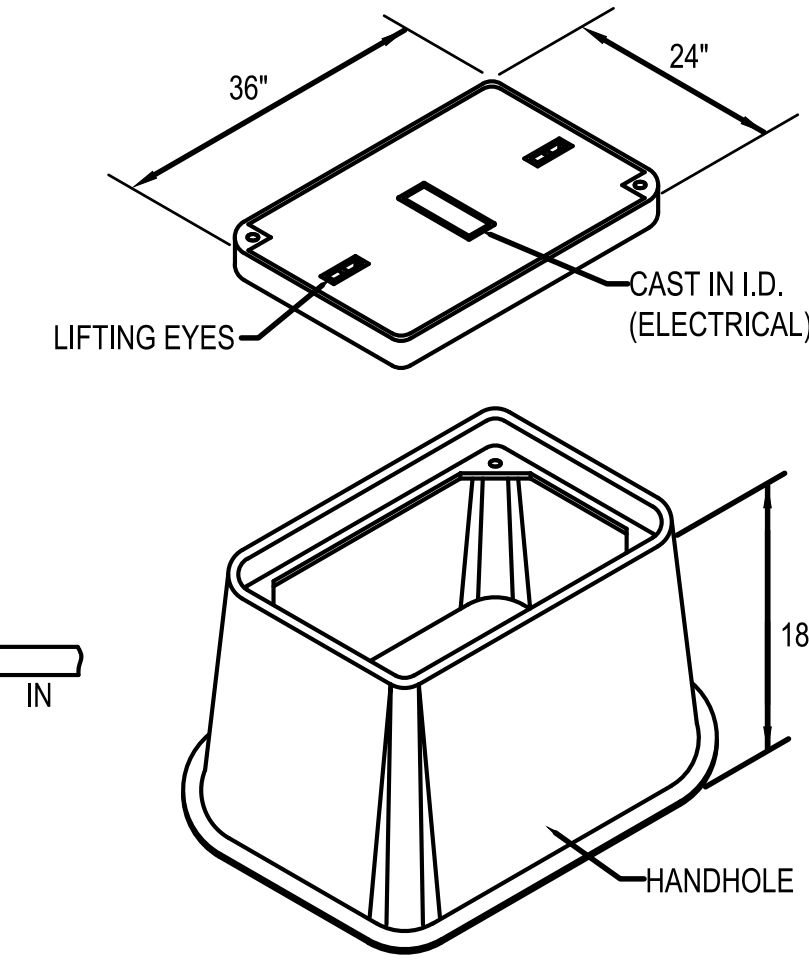
SHEET NOTES

- 1 NEW TENNIS COURT LIGHTING POLE AND "TC" FIXTURE. TERMINATE WIRING AS DIRECTED BY THE MANUFACTURER.
- 2 THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A SEPARATE CIRCUIT FROM PANEL 4WTC FOR THE NEW SECURITY LIGHTING "DSX" (LITHONIA - DSXOLED-P4-40K-80CRI-TFTM-MVOLT-PIR-HS-DDBXD OR APPROVED EQUAL) ON THIS POLE. THE ELECTRICAL CONTRACTOR IS TO PROVIDE 2#8, #10G IN 1" CONDUIT FROM A NEW 20/1 BREAKER (10K AIC PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR) 24" BELOW FINISHED GRADE TO SERVE THE SECURITY LIGHTING. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL STAINLESS STEEL MOUNTING HARDWARE AS REQUIRED FOR A FULL INSTALLATION. THE FIXTURE IS TO BE MOUNTED 25' ABOVE FINISHED GRADE.
- 3 THE ELECTRICAL CONTRACTOR SHALL DETERMINE WHICH EXISTING CIRCUITS ARE TO BE REPLACED, WHICH CIRCUITS ARE TO REMAIN AND WHICH CIRCUITS ARE ABANDONED PRIOR TO BEGINNING ANY WORK. EXISTING CIRCUITS TO REMAIN (RECEPTACLES, ETC.) ARE TO BE DISCONNECTED FROM EXISTING PANEL, SECURED AND RECONNECTED TO NEW PANEL.
- 4 NEW SERVICE LOCATION. THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A NEW GALVANIZED ANGLE FRAME PEDESTAL TO MOUNT THE NEW EQUIPMENT. THE PEDESTAL SHALL BE LOCATED IN THE SAME VICINITY AS THE ORIGINAL SERVICE BUT SHALL BE INSTALLED SO THAT ALL REQUIRED CLEARANCES AND WORK SPACES ARE MAINTAINED AS REQUIRED.
- 5 NEW CONDUITS AND CONDUCTORS (4#8, #10G IN 1" CONDUIT) ARE TO BE PROVIDED AND INSTALLED FOR NEW WORK POLES / FIXTURES AND CONNECTED TO THE NEW TENNIS COURT "TC" LIGHTING CONTROLS. THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL CONDUIT AND WIRING AS REQUIRED.
- 6 NEW CONTROLS ARE TO BE INSTALLED BY ELECTRICAL CONTRACTOR IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS. LOCATION OF ALL COMPONENTS AND POWER REQUIREMENTS TO BE COORDINATED WITH THE MANUFACTURER.
- 7 THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A NEW HANDHOLE AT THIS APPROXIMATE LOCATION. SEE DETAIL FOR MORE INFORMATION.

THE FIXTURES ON THESE COURTS ARE TO BE REPLACED ONE FOR ONE. THE ELECTRICAL CONTRACTOR IS TO CONNECT THE NEW FIXTURE TO THE EXISTING WIRING. ANY WIRING THAT IS DAMAGED IS TO BE REPLACED NEW. ANY STRUCTURAL DEFICIENCIES ARE TO BE REPAIRED UTILIZING A METHOD APPROVED BY A CITY APPOINTED STRUCTURAL ENGINEER.



INSTALLATION DETAIL



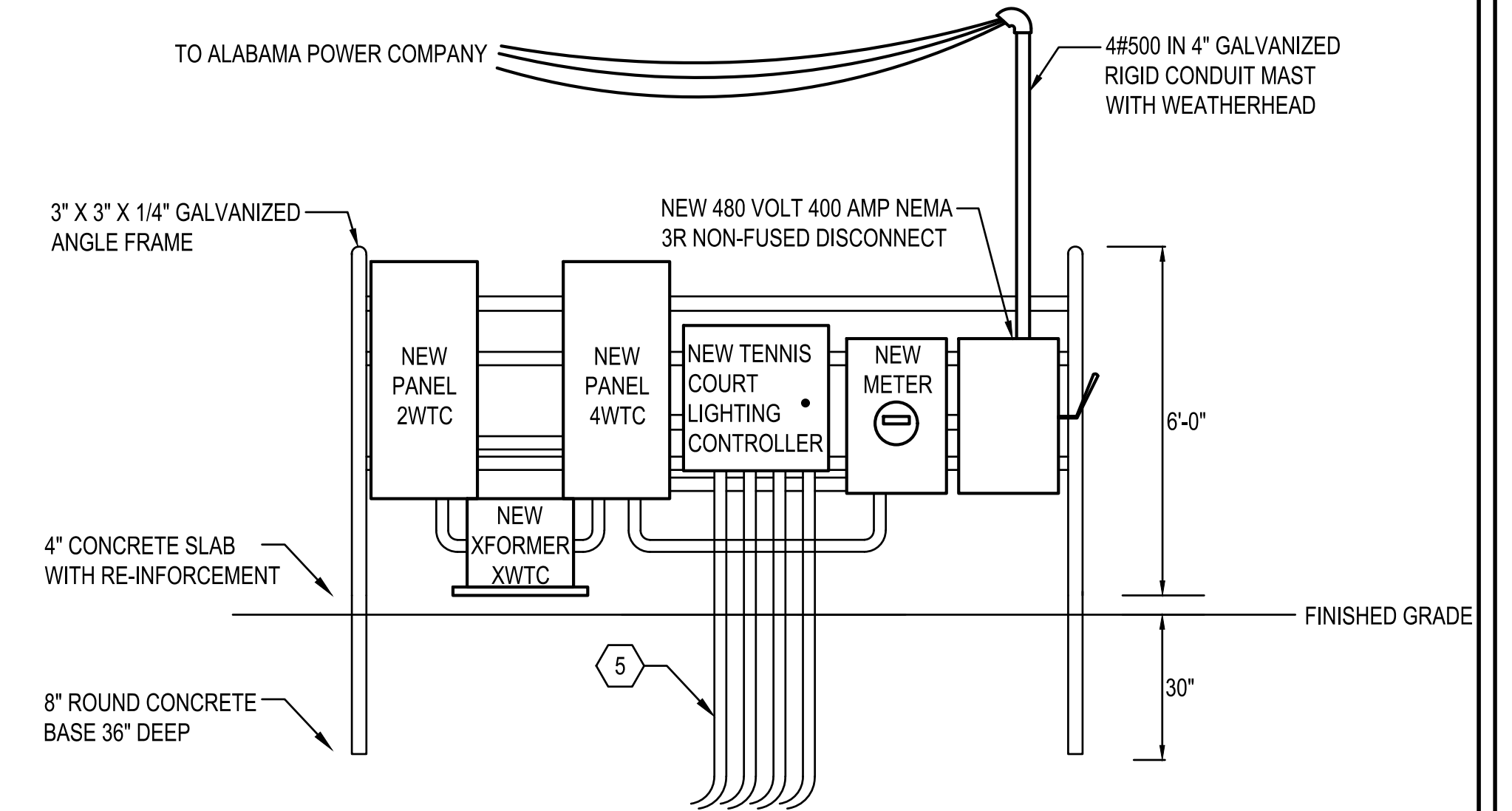
CONSTRUCTION DETAIL

HANDHOLE NOTES:

1. HANDHOLE SHALL HAVE LOGO CAST IN COVER (LOGO=ELECTRICAL). INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS AND THESE REQUIREMENTS.
2. TERMINATE CONDUITS ENTERING HANDHOLE WITH END BELL. CONSTRUCT CONDUIT RISE TO ENTER BOX FROM SIDE WITH 22-1/2" SWEEP ELBOWS.
3. CONDUITS ENTERING AND LEAVING HANDHOLE SHALL BE SEALED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE ARTICLES 514 AND 501.15.

4 ELECTRICAL HANDHOLE DETAIL (BASE BID)

NOT TO SCALE



FRONT VIEW

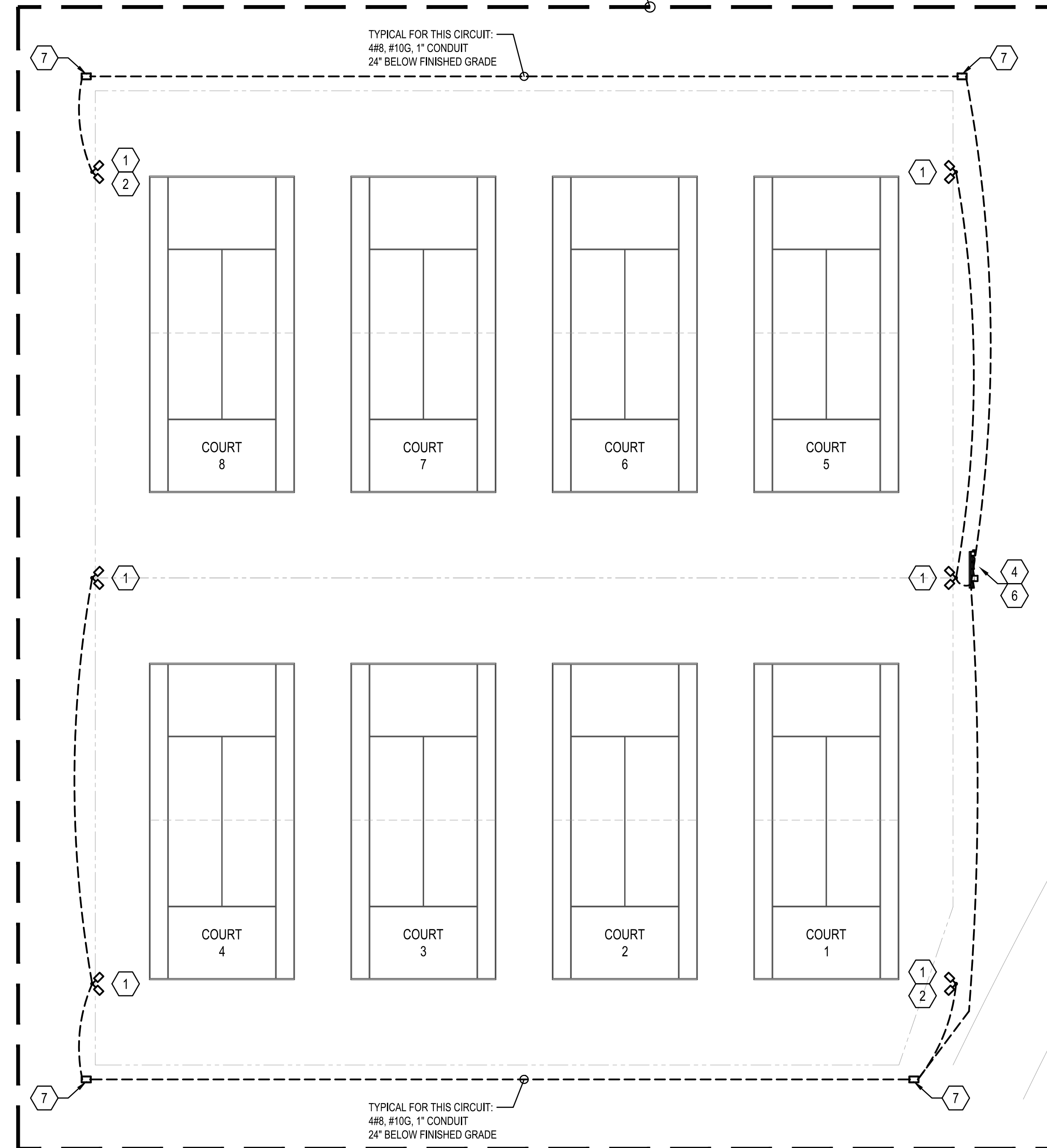
3 MODIFIED SERVICE PEDESTAL

NOT TO SCALE

- EXISTING CONTACTOR CABINET TO BE COMPLETELY REMOVED AND REPLACED NEW PER NEW WORK PLANS
- EXISTING SERVICE ENTRANCE RATED DISCONNECT TO BE COMPLETELY REMOVED AND REPLACED NEW PER NEW WORK PLANS
- EXISTING 3KVA 480 TO 120/240 VOLT TRANSFORMER TO BE COMPLETELY REMOVED AND REPLACED NEW PER NEW WORK PLANS
- EXISTING 480Y/277 VOLT 3Ø 300 AMP SQUARE D PANEL TO BE COMPLETELY REMOVED AND REPLACED NEW PER NEW WORK PLANS
- EXISTING METER TO BE COMPLETELY REMOVED AND REPLACED NEW PER NEW WORK PLANS
- EXISTING POWER POLE WITH AN OVERHEAD SERVICE TO REMAIN

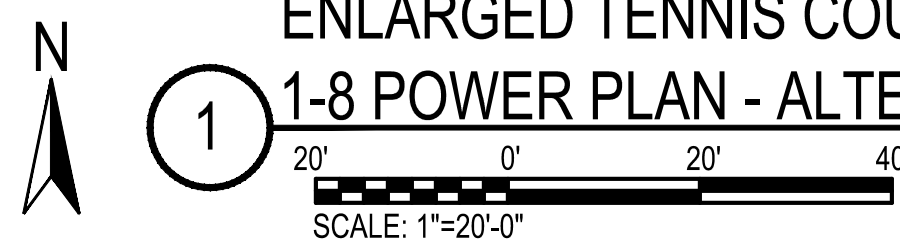
2 EXISTING SERVICE POLE LAYOUT

NOT TO SCALE



ENLARGED TENNIS COURTS

1-8 POWER PLAN - ALTERNATE #2



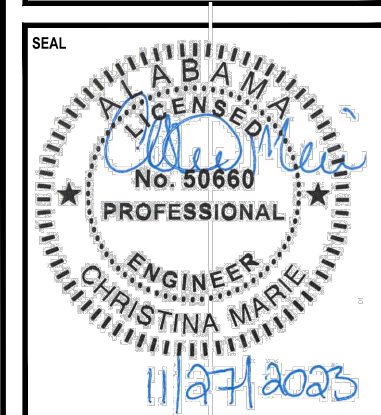
NUMBER	REVISION	REVISION DESCRIPTION

**COPELAND-COX TENNIS CENTER
LED LIGHTING IMPROVEMENTS PR-037-23
MOBILE, ALABAMA**

DESIGNED BY: AWM
DRAWN BY: CM
CHECKED BY: AWM
DATE: 12/06/2023

SHEET TITLE:
LED LIGHTING ENLARGED TENNIS COURTS 1-8 POWER PLAN - ALTERNATE

SHEET:
EL-6.0



NUMBER	REVISION	REVISION DESCRIPTION

COPELAND-COX TENNIS CENTER
LED LIGHTING IMPROVEMENTS PR-037-23
 MOBILE, ALABAMA

DESIGNED BY:
AWM
 DRAWN BY:
CM
 CHECKED BY:
AWM
 DATE:
12/06/2023

SHEET TITLE:
ELECTRICAL
DETAILS

SHEET:
EL-7.0

PANELBOARD INFORMATION SCHEDULE

MARK	ENCLOSURE TYPE	MOUNTING STYLE	VOLTAGE	Ø	WIRE	MAIN BKR	IF MLO, SERVING BKR	SERVICE RATED	AVAILABLE SCA	KAIC RATING*	Ø BUS RATING (A)	N BUS RATING	FEEDER			NOTES
													CONDUCTORS	GROUND	CONDUIT	
4WTC	NEMA 3R	SURFACE	480Y/277	3	4	400	N/A	NO	10,089	14	400	100%	4#500	#3	4" C	
2WTC	NEMA 3R	SURFACE	208Y/120	3	4	MLO	60	NO		10	100	100%	4#4	#8	1 1/4" C	

NOTES
 ALL PANELBOARDS ARE TO HAVE COPPER BUS.
 ALL PANELBOARDS ARE TO HAVE ARC FLASH WARNING LABEL IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE ARTICLE 110.16 (SEE DETAIL).

PANELBOARD SCHEDULE

MARK:		PANEL 4WTC												
CKT #	LOAD DESCRIPTION	BREAKER		PHASE (kVA)			PHASE (kVA)			BREAKER		LOAD DESCRIPTION	CKT #	
		P	TRIP	A	B	C	A	B	C	TRIP	P			
1	COURT #1 - #2 LIGHTING *	3	30	6.6						30	3	SPARE	2	
3					6.6								4	
5							6.6							6
7	TRANSFORMER XWTC	3	15	5.0			1.4			15	1	OCCUPIED BREAKER	8	
9					5.0			1.4		20	2		OCCUPIED BREAKER	10
11							5.0							12
13	SPARE	3	30							30	3	SPARE	14	
15													16	
17														18
19	SPARE	3	30							30	3	SPARE	20	
21													22	
23														24
25	COURT #3 - #4 LIGHTING *	3	30	6.6			6.6			30	3	COURT #5 - #6 LIGHTING *	26	
27					6.6			6.6					COURT #7 - #8 LIGHTING *	28
29						6.6			6.6					30
31	SECURITY LIGHT	1	20	0.1			6.6					32		
33	SECURITY LIGHT	1	20		0.1			6.6		30	3	34		
35	SPACE											36		
37	SPACE											38		
39	SPACE											40		
41	SPACE											42		

TOTAL (kVA) ØA 18.2 ØB 18.2 ØC 18.1 HIGH PHASE (AMPS) 118.2
 TOTAL CONNECTED LOAD (kVA) 98.1 TOTAL LOAD (AMPS) 118.0

CREATE A DIRECTORY TO INDICATE INSTALLED LOADS. INDICATE LOAD TYPE (REC, LTG, AHU-1, ETC.) AND ROOM NUMBERS SERVED FOR EVERY BRANCH CIRCUIT.
 * COORDINATE FINAL POWER REQUIREMENTS WITH MANUFACTURER PRIOR TO ROUGH IN AND ADJUST AS REQUIRED.

PANELBOARD SCHEDULE

MARK:		PANEL 2WTC											
CKT #	LOAD DESCRIPTION	BREAKER		PHASE (kVA)			PHASE (kVA)			BREAKER		LOAD DESCRIPTION	CKT #
		P	TRIP	A	B	C	A	B	C	TRIP	P		
1	EXISTING CIRCUIT	1	20	0.2			0.2			20	1	EXISTING CIRCUIT	2
3	EXISTING CIRCUIT	1	20		0.2			0.2		20	1	EXISTING CIRCUIT	4
5	EXISTING CIRCUIT	1	20			0.2			0.2	20	1	EXISTING CIRCUIT	6
7	NEW SERVICE RECEPTACLE	1	20	0.2						20	1	SPARE	8
9	EXISTING CIRCUIT	1	20		0.2					20	1	SPARE	10
11	EXISTING CIRCUIT	1	20			0.2				20	1	SPARE	12
13	SPARE	1	20							20	1	SPARE	14
15	SPARE	1	20							20	1	SPARE	16
17	SPARE	1	20							20	1	SPARE	18
19	SPARE	1	20							20	1	SPARE	20
21	SPARE	1	20							20	1	SPARE	22
23	SPARE	1	20							20	1	SPARE	24

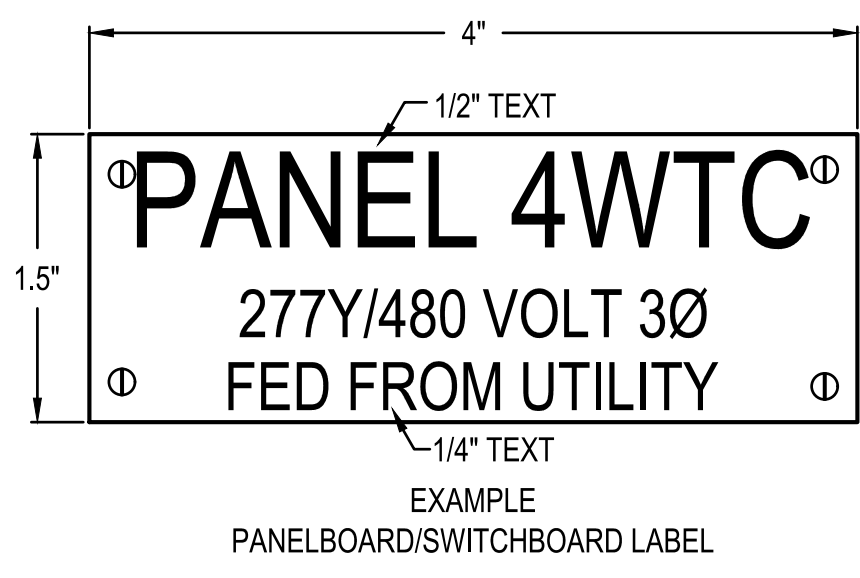
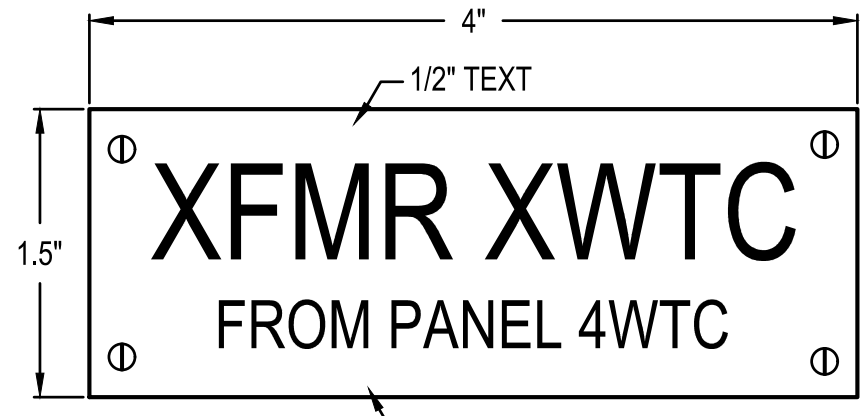
TOTAL (kVA) ØA 0.6 ØB 0.6 ØC 0.6 HIGH PHASE (AMPS) 5.0
 TOTAL CONNECTED LOAD (kVA) 1.8 TOTAL LOAD (AMPS) 5.0

CREATE A DIRECTORY TO INDICATE INSTALLED LOADS. INDICATE LOAD TYPE (REC, LTG, AHU-1, ETC.) AND ROOM NUMBERS SERVED FOR EVERY BRANCH CIRCUIT.

TRANSFORMER SCHEDULE

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

*MNT: FLR=FLOOR MOUNTED, PROVIDE CONCRETE BASE.
 **TYPE: STD=STANDARD PER SPECIFICATIONS.
 SEE TRANSFORMER MOUNTING DETAIL.



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.

2 TYPICAL EQUIPMENT LABELING DETAIL

NOT TO SCALE

NOTE: LOCATION OF MAIN BREAKERS AND FEEDERS INTO EQUIPMENT IS NOT INTENDED TO SHOW TOP OR BOTTOM MOUNTED MAIN BREAKER OR BOTTOM, TOP OR SIDE FEEDER ENTRY. THE SINGLE LINE DIAGRAM IS PURELY DIAGRAMMATIC. CONTRACTOR SHALL VERIFY PROPER BREAKER POSITIONS AND FEEDER ENTRIES INTO EQUIPMENT AND PROVIDE AS REQUIRED.

NOTE: THIS IS AN ELECTRICAL POWER DISTRIBUTION SYSTEM SINGLE LINE DIAGRAM, NOT ALL MECHANICAL EQUIPMENT CIRCUITS AND BRANCH CIRCUITS ARE SHOWN

NOTE: OCPDs ON THE SECONDARY OF DRY-TYPE XFMRs SHALL BE INSTALLED WITHIN 10' PER NEC 240.21(C)(2)

SINGLE LINE DIAGRAM LEGEND

- FAULT CURRENT TAG. AVAILABLE SYMMETRICAL FAULT CURRENT IN KA AT EQUIPMENT INDICATED. BASED ON 300kVA UTILITY TRANSFORMER.
 - CIRCUIT BREAKER
 - NORMAL POWER FEEDER/CKT.
 - DRY TYPE TRANSFORMER. SEE TRANSFORMER SCHEDULE FOR FEEDER SIZE AND TRANSFORMER SIZE.
 - GROUNDING ELECTRODE AND GROUNDING ELECTRODE CONDUCTOR
 - PANELBOARD. SEE PANELBOARD INFORMATION SCHEDULE FOR FEEDER SIZE AND PANELBOARD SIZE & DATA.
- NOTE: OTHER SYMBOLS SHOWN IN THE SINGLE LINE DIAGRAM MAY BE IDENTIFIED IN THE MAIN ELECTRICAL LEGEND

SINGLE LINE DIAGRAM NOTES

- 1 #1/0 GEC TO THREE 20' GROUND RODS ON 20' CENTERS IN EQUILATERAL DELTA ARRANGEMENT.
- 2 BASED ON AVAILABLE FAULT CURRENT FROM A 277Y/480 VOLT 3Ø 225 KVA OVERHEAD TRANSFORMER AT A DISTANCE OF 50', THE ELECTRICAL CONTRACTOR SHALL LABEL THE NEW DISCONNECT AS "SERVICE ENTRANCE RATED" AND IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE ARTICLE 110.24; AVAILABLE FAULT CURRENT 10,089 AMPS. FINAL PARAMETERS (DISTANCE, TRANSFORMER SIZE, ETC.) SHALL BE COORDINATED WITH ALABAMA POWER COMPANY PRIOR TO LABELING, ADJUST AS REQUIRED.

Installation Requirements

Installer to ensure grounding meets minimum standards required by code.

All existing poles are required to be supplied with a new lightning grounding conductor from poletop to grounding electrode for lightning protection. See Lightning Grounding Conductor Sizing below.

Support grounding conductor every 4 ft (1.2 m) max.

Protect from damage 8 ft (2.4 m) from grade. PVC conduit recommended.

When routing below grade, do not allow conductor to dip below top of grounding electrode.

If concrete pole, bond existing internal ground to new ground conductor at all available locations (per code requirements.)

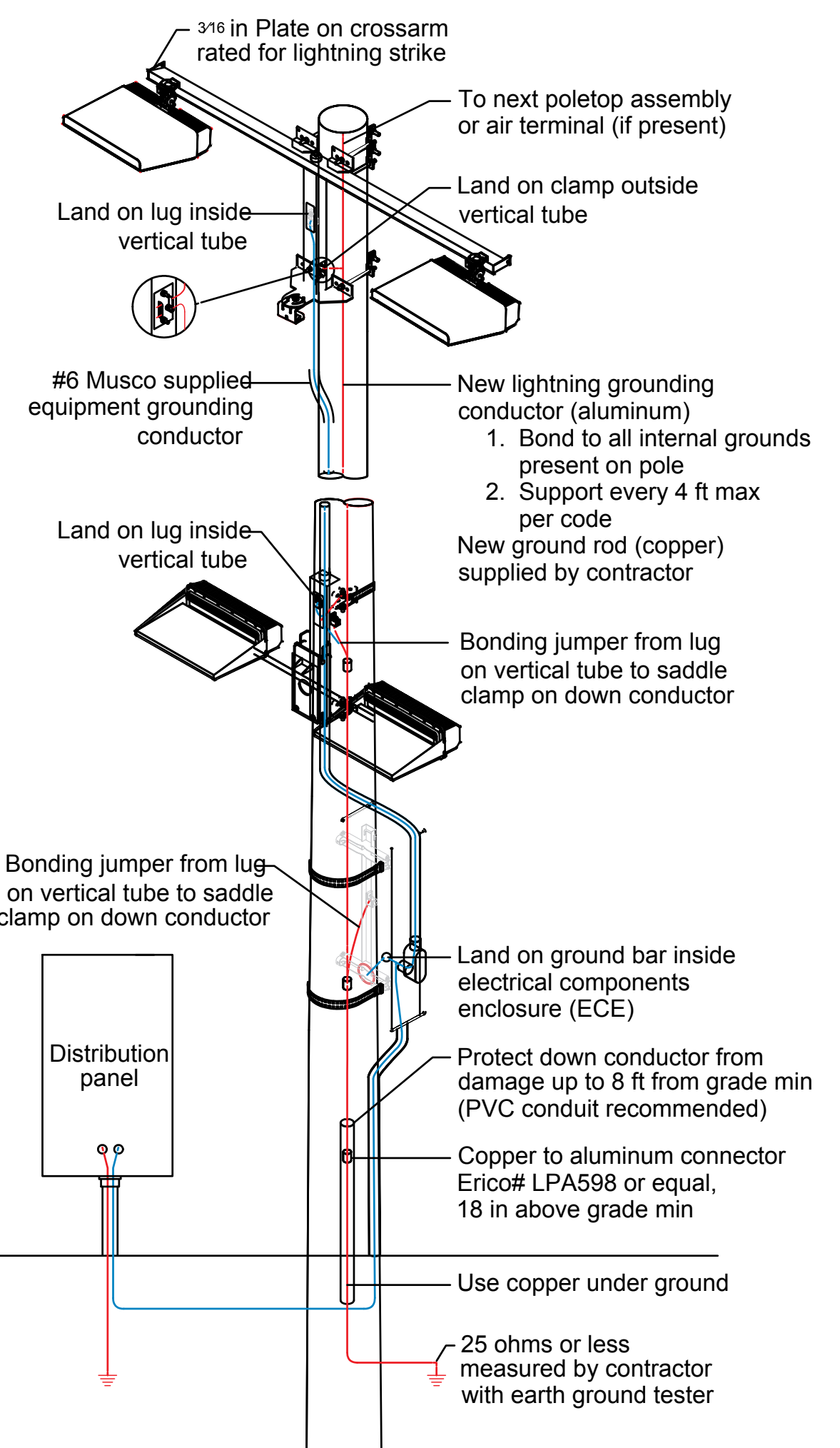
Ensure all components of the lighting system are bonded to both the lightning ground (shown in red) and the equipment grounding conductor (shown in blue). See Bonding Jumper Sizing below.

Excavate location near pole to depth of at least 2 ft (0.6 m). Drive grounding electrode into ground. In case of shallow bedrock or obstruction, you may drive electrode at 45° or shallower angle.

Use driving sleeve to prevent deforming end of electrode. Trim any deformed portion for proper exothermic fusion-welding.

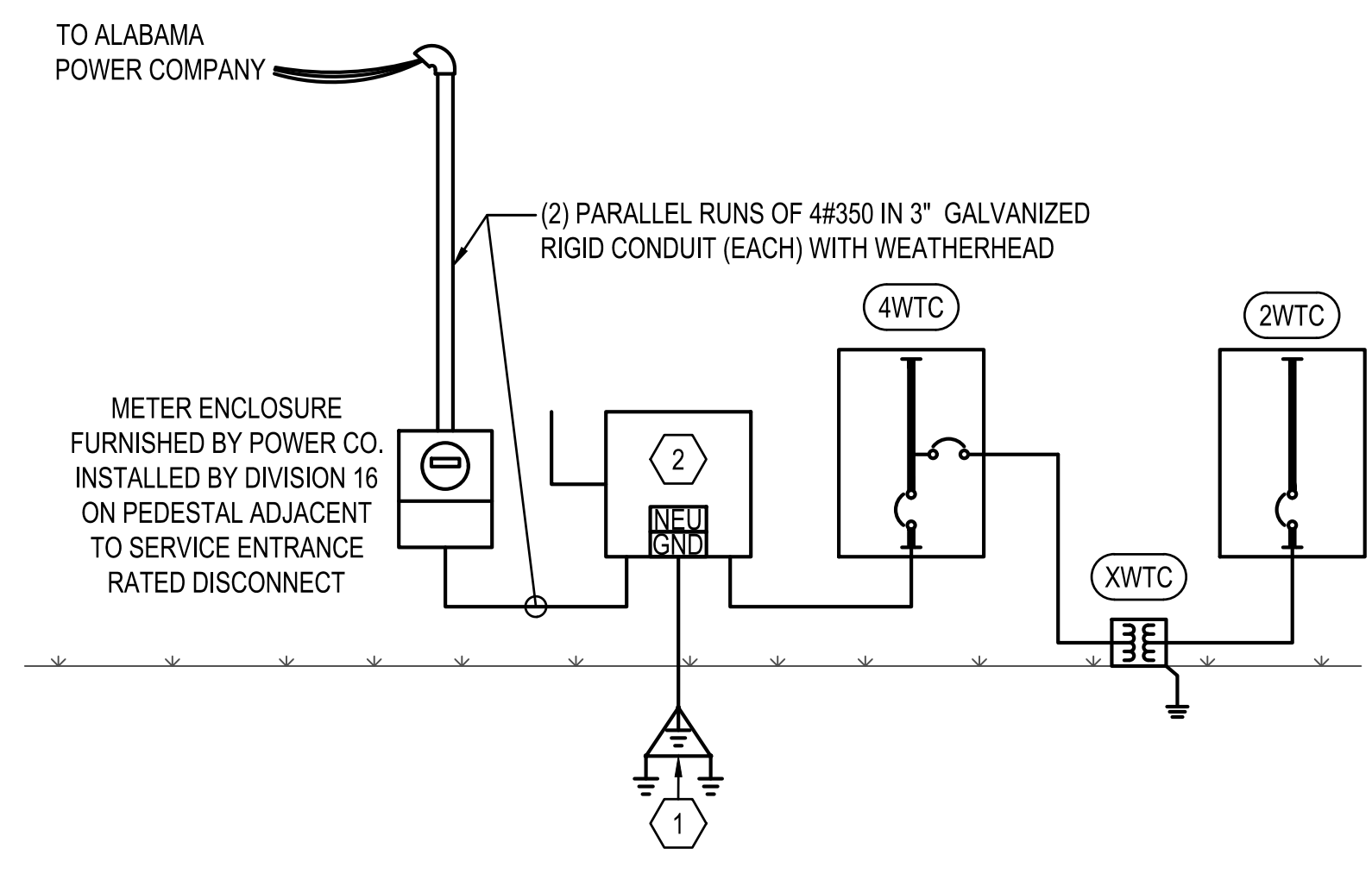
Bond conductor to electrode using exothermic fusion-welding kit with ignitor and brush. Follow instructions inside kit.

Ground resistance must be 25 ohms or less and verified by a 3-point test with an earth ground tester.



1 GROUNDING DETAIL FOR EXISTING POLE

NOT TO SCALE



1 SINGLE LINE DIAGRAM - ALTERNATE #2

NOT TO SCALE

Copeland-Cox Tennis Center Tent Electrical Improvements PR-037-23

FOR

The City of Mobile, Alabama

851 Gaillard Drive
Mobile, Alabama

BY



Electrical Engineering
Alabama Certificate Number CA-4146-E
813 Downtowner Blvd., Suite D
Mobile, AL 36609
P: 251-316-0015 F: 850-453-6612
Dell Consulting project: 23-023

12/04/2023

AREA OF WORK



SUMMARY OF WORK - MOBILE TENNIS CENTER

THIS PORTION OF THE PROJECT INVOLVES UPGRADING THE ELECTRICAL DISTRIBUTION SERVICE THAT SUPPORTS THE TENTS ON THE EAST SIDE AND SUPPLYING POWER TO THE NEW TENT ON THE WEST SIDE.

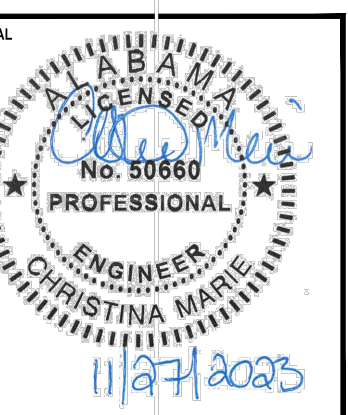
BASE BID:

UNLESS OTHERWISE NOTED THE ELECTRICAL CONTRACTOR IS TO COMPLETELY REMOVE THE EXISTING SERVICE SUPPLYING POWER TO THE TENTS ON THE EAST AND PROVIDE AND INSTALL A NEW UPGRADED SERVICE. THE ELECTRICAL CONTRACTOR IS TO PROVIDE AND INSTALL A POWER PEDESTAL AND GENERAL RECEPTACLES AT EACH EAST TENT LOCATION (TYPICAL OF THREE).

ALTERNATE #1:

THE ELECTRICAL CONTRACTOR IS TO PROVIDE AND INSTALL A POWER PEDESTAL AT THE NEW WEST TENT LOCATION. THE ELECTRICAL CONTRACTOR IS TO PROVIDE AND INSTALL ASSOCIATED BREAKER, CONDUIT, CONDUCTORS, ETC. AS REQUIRED FOR THE NEW POWER PEDESTAL. THE ELECTRICAL CONTRACTOR IS TO COMPLETELY REMOVE DAMAGED / ABANDONED CONDUIT, CABLING, ETC. THAT PREVIOUSLY SERVED THE OLD TENT THAT WAS DAMAGED IN A WEATHER EVENT.

DRAWING #	DRAWING DESCRIPTION:
TP-1.0	TITLE SHEET
EP-1.0	LEGEND & SPECIFICATIONS
EP-2.0	OVERALL ELECTRICAL PLAN
EP-3.0	ENLARGED ELECTRICAL PLAN - BASE BID
EP-4.0	ENLARGED ELECTRICAL PLAN - ALTERNATE
EP-5.0	NOT USED
EP-6.0	ELECTRICAL SCHEDULES
EP-7.0	ELECTRICAL DETAILS



NUMBER	REVISION	REVISION DESCRIPTION

**COPELAND-COX TENNIS CENTER
TENT ELECTRICAL IMPROVEMENTS PR-037-23
MOBILE, ALABAMA**

DESIGNED BY:
AWM

DRAWN BY:
CM

CHECKED BY:
AWM

DATE:
12/04/2023

SHEET TITLE:
TENT POWER
TITLE SHEET

SHEET:
TP-1.0

ELECTRICAL LEGEND

GENERAL ELECTRICAL DEVICES:

➔ 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 HOODS ARE TO BE LISTED AND IDENTIFIED AS "EXTRA-DUTY".
84" - MOUNTING HEIGHT OF DEVICE AFF.
21 - # INDICATES PANELBOARD CKT NUMBER

● SPECIAL NEMA TYPE RECEPTACLE. VERIFY WITH EQUIPMENT BEING SUPPLIED. MOUNTED 10" AFF, UNLESS NOTED OTHERWISE.

DISTRIBUTION & POWER EQUIPMENT:

☑ PANELBOARD. MOUNT AS INDICATED. SEE PANELBOARD SCHEDULES.

☑ DISTRIBUTION PANELBOARD. MOUNT AS INDICATED. SEE PANELBOARD SCHEDULES.

☑ NON-FUSED GENERAL DUTY SAFETY SWITCH. SIZE FOR LOAD BEING SERVED.

☑ FLOOR MOUNTED TRANSFORMER WITH CONCRETE HOUSEKEEPING PAD. SEE TRANSFORMER SCHEDULE FOR SIZE AND TYPE.

MISCELLANEOUS EQUIPMENT:

⊕ ELECTRICAL CONNECTION TO EQUIPMENT. VERIFY LOCATION WITH EQUIPMENT PROVIDER.

SITE EQUIPMENT:

☐ HANDHOLE. SEE DETAIL.

☑ PAD-MOUNTED TRANSFORMER.

LIGHTING CONTROL EQUIPMENT:

☑ PROGRAMMABLE LIGHTING CONTROL PANEL. SEE DETAIL.

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 INDICATES CIRCUIT DESIGNATION.

① SHEET NOTE TAG.

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

⤿ LEADERS.

UNDERGROUND CONDUIT SYSTEM LEGEND

⤿ TELECOMMUNICATIONS

⤿ SITE LIGHTING

⤿ POWER

ELECTRICAL SPECIFICATIONS

1. GENERAL ELECTRICAL:

- 1.1. 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.
- 1.2. THE CONTRACTOR SHALL CAREFULLY EXAMINE THE ARCHITECTURAL, STRUCTURAL, ELECTRICAL AND MECHANICAL DRAWINGS PRIOR TO SUBMITTING HIS BID. THE CONTRACTOR WILL BE REQUIRED TO FURNISH, INSTALL AND CONNECT ALL ITEMS AS INDICATED ON THE DRAWINGS.
- 1.3. THE ARCHITECT SHALL BE NOTIFIED OF ANY CONFLICTS, OR INTERFERENCES THAT OCCUR BETWEEN INDIVIDUAL DRAWINGS.
- 1.4. ALL MATERIALS AND EQUIPMENT SHALL BE INSTALLED IN A NEAT, FIRST CLASS, WORKMANLIKE MANNER, TO THE APPROVAL OF THE ARCHITECT/ENGINEER AND GOVERNING AUTHORITIES.
- 1.5. 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.
- 1.6. THE LOADS SHOWN FOR APPLIANCES AND EQUIPMENT ARE BASED ON DESIGN INFORMATION. THE CONTRACTOR SHALL VERIFY ALL APPLIANCE LOADS PRIOR TO RUNNING THE CIRCUIT. THE MINIMUM CIRCUIT REQUIREMENTS SHALL BE BASED ON THE APPLIANCE NAMEPLATE VALUE OR CODE REQUIREMENTS, WHICHEVER IS MORE STRINGENT. ADDITIONAL COMPENSATION SHALL NOT BE ALLOWED FOR APPLIANCE MODIFICATIONS BY THE CONTRACTOR.
- 1.7. 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 APPROVAL WILL BE IN THE FORM OF AN ADDENDUM.

2. CODES & STANDARDS:

- 2.1. INSTALLATION AND MATERIALS SHALL COMPLY WITH THE LATEST ADOPTED EDITION OF THE FOLLOWING CODES & STANDARDS:
 - 2.1.1. NATIONAL ELECTRICAL CODE.
 - 2.1.2. NFPA 72. NATIONAL FIRE PROTECTION CODE.
 - 2.1.3. INTERNATIONAL BUILDING CODE.
 - 2.1.4. INTERNATIONAL ENERGY CONSERVATION CODE.
 - 2.1.5. NFPA 101.
 - 2.1.6. ADA.
 - 2.1.7. ANSI.
 - 2.1.8. NEMA.
 - 2.1.9. OSHA.
 - 2.1.10. UL.

3. ALTERATIONS & ADDITIONS TO EXISTING WORK:

- 3.1. PROVIDE ALL NECESSARY ADDITIONS AND ALTERATIONS TO EXISTING WORK AS REQUIRED TO PROVIDE AND MAINTAIN A COMPLETE AND PROPER ELECTRICAL INSTALLATION.
- 3.2. AS NECESSARY, RELOCATE EXISTING ELECTRICAL WORK SO OTHER TRADES CAN PURSUE THEIR WORK.
- 3.3. MAINTAIN POWER TO EXISTING PORTIONS OF BUILDINGS FED FROM OR THROUGH AREA IN SCOPE OF THIS CONTRACT.
- 3.4. COORDINATE ALL REQUIRED OUTAGES WITH OWNER.

4. BASIC MATERIALS & METHODS:

- 4.1. ALL POWER AND DISTRIBUTION CABLING SHALL BE COPPER TYPE THWN/THHN.
- 4.2. ALL ELECTRICAL EQUIPMENT, DEVICES, ETC. LOCATED OUTDOORS SHALL BE WEATHERPROOF.
- 4.3. 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.
- 4.4. 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.
- 4.5. JUNCTION BOXES LOCATED ABOVE CEILING SHALL BE INSTALLED FACING DOWN AND SHALL BE ACCESSIBLE AFTER INSTALLATION.
- 4.6. COORDINATE ALL ELECTRICAL WORK WITH OTHER TRADES AND STRUCTURAL COMPONENTS.
- 4.7. THE CONDUIT MATERIAL SHALL BE AS FOLLOWS:
 - 4.7.1. BELOW GRADE - RNC (POWER & SITE LIGHTING ONLY). ELBOWS >1-1/2" SHALL BE RGS.
 - 4.7.2. RISER FROM 36" BELOW GRADE - RGS.
 - 4.7.3. CONCEALED RISER FROM 36" BELOW GRADE - RNC (POWER ONLY).
 - 4.7.4. ABOVE GRADE SUBJECT TO PHYSICAL ABUSE - RGS.
 - 4.7.5. ABOVE GRADE NOT SUBJECT TO PHYSICAL ABUSE OR WEATHER - EMT.
 - 4.7.6. INDOORS NOT SUBJECT TO PHYSICAL ABUSE - EMT, OR METAL CLAD CABLE (AS ALLOWED BY LOCAL AUTHORITY HAVING JURISDICTION).
 - 4.7.7. FINAL CONDUIT CONNECTIONS TO HEAT PUMPS, AIR HANDLERS, EXHAUST FANS, AND WATER HEATERS SHALL BE LFMC WHETHER INTERIOR OR EXTERIOR.
- 4.8. CONDUIT FITTINGS SHALL BE AS FOLLOWS:
 - 4.8.1. 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.

4.8.2. RGS - THREADED GALVANIZED STEEL.

4.8.3. PVC - PVC APPROVED FOR THE USE.

4.8.4. FMC - ZINC-PLATED STEEL OR CADMIUM-PLATED MALLEABLE IRON SCREW TYPE WITH INSULATED THROAT.

4.8.5. 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. ELECTRICAL CONTRACTOR SHALL WORK CLOSELY WITH THE MASONRY CONTRACTOR ON THE INSTALLATION OF ALL ELECTRICAL BOXES, CABINETS, RINGS, ETC. IN MASONRY WALLS. THE BOXES SHALL BE INSTALLED AT THE UNIFORM HEIGHTS CALLED FOR ON THE DRAWINGS AND SPECIFICATIONS. PROVIDE APPROPRIATE DEPTH MASONRY RINGS FOR ALL OUTLETS IN MASONRY WALLS TO INSURE PROPER CUTTING AND FITTING. THE FACE OF THE CABINETS, BOXES, RINGS, ETC. SHALL BE PLUMB AND FLUSH WITH THE FACE OF THE FINISH MATERIAL. ANY CABINET, OUTLET BOX, ETC. NOT MEETING THE ABOVE REQUIREMENT SHALL BE REMOVED AND REINSTALLED AT NO ADDITIONAL COST TO THE OWNER.

4.11. ALL SIDEWALKS AND PARKING LOT ASPHALT AREAS THAT ARE CUT DUE TO NEW ELECTRICAL SERVICES SHALL BE REPAIRED TO MATCH EXISTING.

4.12. ALL DIMENSIONS TO DEVICES AFF SHALL BE TO CENTERLINE UNLESS NOTED OTHERWISE.

4.13. WALL OUTLETS SHALL NOT BE INSTALLED BACK TO BACK.

4.14. COORDINATE LOCATIONS OF ELECTRICAL EQUIPMENT, DEVICES, OUTLETS, FIXTURES, ETC., WITH ARCHITECTURAL PLANS, ELEVATIONS AND REFLECTED CEILING PLANS PRIOR TO ROUGH-IN WORK.

5. GROUNDING & BONDING:

- 5.1. PROVIDE AN INSULATED EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS.
- 5.2. GROUND RODS SHALL BE 3/4"X20" COPPERCLAD STEEL.
- 5.3. BELOW GRADE CONNECTIONS SHALL BE EXOTHERMIC TYPE.
- 5.4. ALL CABLES SHALL BE COPPER, ALL BOLTED CONNECTIONS SHALL BE BRONZE.
- 5.5. PROVIDE A #6AWG MINIMUM GROUND IN EMT FROM EACH TELCOM BACKBOARD TO THE MAIN ELECTRICAL SERVICE GROUND.
- 5.6. WHERE AVAILABLE, BOND TO BUILDING STRUCTURAL STEEL, BUILDING FOUNDATION STEEL, METAL WATER SERVICE PIPING.
- 5.7. 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:

- 6.1. PROVIDE ENGRAVED 1"X3" PHENOLIC LABELS FOR ALL PANELBOARDS, SAFETY SWITCHES, TRANSFORMERS, CABINETS, ETC.
- 6.2. PAINT THE RACEWAY SYSTEM COUPLINGS AND BOX COVERS ABOVE CEILINGS FOR THE FOLLOWING SYSTEMS AS FOLLOWS:
 - 6.2.1. 208 VOLT SYSTEMS - BLACK.
 - 6.2.2. 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.

7. GENERAL WIRING DEVICES:

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

8. SAFETY SWITCHES:

- 8.1. GENERAL DUTY, VISIBLE BLADE, LOCKABLE, QUICK-MAKE/QUICK-BREAK, HORSEPOWER RATED, FUSED WHERE INDICATED.
- 8.2. PROVIDE WITH GROUND LUG KIT.
- 8.3. INTERIOR - NEMA 1.
- 8.4. EXTERIOR - NEMA 3R.
- 8.5. APPROVED MANUFACTURERS - SQUARE D, GENERAL ELECTRIC, CUTLER-HAMMER SIEMENS.

9. PANELBOARDS:

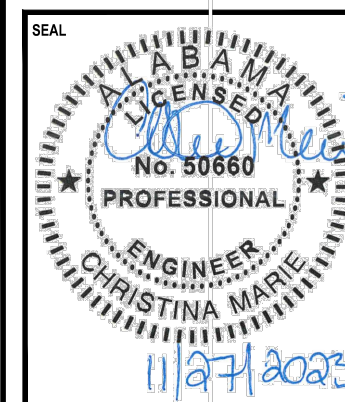
- 9.1. FRONT ACCESSIBLE, BOLT-ON MOLDED CASE CIBs, COPPER PHASE & NEUTRAL BUSSING, COPPER GROUND BAR, FULLY RATED (SERIES RATING NOT ALLOWED).
- 9.2. ENCLOSURES SHALL BE DOOR-IN-DOOR CONSTRUCTION.
- 9.3. INTERIOR - NEMA 1.
- 9.4. ALL INTERIOR PANELBOARDS ARE TO HAVE FOUR SPARE 3/4" CONDUITS INSTALLED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

10. DRY-TYPE TRANSFORMERS <600V:

- 10.1. 150° RISE.
- 10.2. COPPER WINDINGS.
- 10.3. PROVIDE WITH 4" HIGH CONCRETE HOUSEKEEPING PAD.
- 10.4. GROUND SECONDARY TO NEAREST BUILDING STEEL.
- 10.5. APPROVED MANUFACTURERS - SQUARE D, GENERAL ELECTRIC, CUTLER-HAMMER, SIEMENS.

ABBREVIATIONS

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	NEC	NATIONAL ELECTRICAL CODE
BKR	CIRCUIT BREAKER	NEC	NATIONAL ELECTRICAL CODE
BLDG	BUILDING	NEC	NATIONAL ELECTRICAL CODE
BOD	BASIS OF DESIGN	NEC	NATIONAL ELECTRICAL CODE
C	CONDUIT	NEC	NATIONAL ELECTRICAL CODE
C/B	CIRCUIT BREAKER	NEC	NATIONAL ELECTRICAL CODE
CL	CURRENT LIMITING	NEU	NEUTRAL
C/L	CENTERLINE	OCPD	OVERCURRENT PROTECTION DEVICE
CLG	CEILING	OFOI	OWNER FURNISHED OWNER INSTALLED
CKT	CIRCUIT	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
CT	CURRENT TRANSFORMER	OH	OVERHEAD
CU	COPPER	OHE	OVERHEAD ELECTRIC
DDC	DIRECT DIGITAL CONTROL	OHP	OVERHEAD PRIMARY
DEMO	DEMOLISH	OHS	OVERHEAD SECONDARY
EC	ELECTRICAL CONTRACTOR	PBD	PANELBOARD
EGC	EQUIPMENT GROUNDING CONDUCTOR	PF	POWER FACTOR
ELEC	ELECTRICAL	PNL	PANELBOARD
EMGB	ELECTRICAL MAIN GROUNDING BUSBAR	PT	POTENTIAL TRANSFORMER
EF	EXHAUST FAN	PWR	POWER
EX	EXISTING TO REMAIN	REC	RECEPTACLE
EXT	EXTERIOR	REQD	REQUIRED
EWC	ELECTRIC WATER COOLER	RM	ROOM
EMT	ELECTRICAL METALLIC TUBING	RGS	RIGID GALVANIZED STEEL CONDUIT
EQUIP	EQUIPMENT	RNC	RIGID NON-METALLIC CONDUIT
FMC	FLEXIBLE METAL CONDUIT	RVSS	REDUCED VOLTAGE SOLID STATE
FACP	FIRE ALARM SYSTEM CONTROL PANEL	SA	SURGE ARRESTER
FU	FUSE	SCA	SHORT CIRCUIT AMPS
F/A	FIRE ALARM	SF	SUPPLY FAN
FLA	FULL LOAD AMPS	SPEC	SPECIFICATION
FLR	FLOOR	SWBD	SWITCHBOARD
FVNR	FULL VOLTAGE NON-REVERSING	SWGR	SWITCHGEAR
GFI	GROUND FAULT INTERRUPTER	TBB	TELECOMMUNICATIONS BONDING BACKBONE
G	GROUND (OR GFI FOR RECEPTACLE SUBSCRIPT)	TR	TELECOMMUNICATIONS ROOM
GC	GENERAL CONTRACTOR	TGB	TELECOMMUNICATIONS GROUNDING BUSBAR
GND	GROUND	TMGB	TELECOMMUNICATIONS MAIN GROUNDING BUSBAR
GEC	GROUNDING ELECTRODE CONDUCTOR	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
HH	HANDHOLE	TYP	TYPICAL
HOA	HAND-OFF-AUTOMATIC	UFR	UNDERFLOOR RACEWAY
HP	HEAT PUMP OR HORSEPOWER	UG	UNDERGROUND
HVAC	HEATING, VENTILATION & AIR-CONDITIONING	UGE	UNDERGROUND ELECTRIC
IG	ISOLATED GROUND	UGP	UNDERGROUND PRIMARY
IMC	INTERMEDIATE METAL CONDUIT	UGS	UNDERGROUND SECONDARY
JB	JUNCTION BOX	UL	UNDERWRITERS' LABORATORIES
k	KILO	UNO	UNLESS NOTED OTHERWISE
KAIC	KILO-AMPERE INTERRUPTING CAPABILITY	UPS	UNINTERRUPTIBLE POWER SUPPLY
KCMIL	THOUSAND CIRCULAR MILS	V	VOLT
LCP	LIGHTING CONTROL PANEL	VA	VOLT-AMPERES
LTG	LIGHTING	VAR	VOLT-AMPERES REACTIVE
LFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT	VAV	VARIABLE AIR VOLUME UNIT
LV	LOW VOLTAGE	W	WATTS
MAX	MAXIMUM	WAO	WORK AREA OUTLET
MCA	MINIMUM CIRCUIT AMPACITY	WP	WEATHERPROOF
MCC	MOTOR CONTROL CENTER	WSR	WITHSTAND RATING
MCE	MAIN COMMUNICATIONS EQUIPMENT ROOM	XFMR	TRANSFORMER
		XP	EXPLOSION PROOF
		φ	PHASE
		72°	DEGREES
		Δ	DELTA
		Ω	OHMS



NUMBER	REVISION	REVISION DESCRIPTION

**COPELAND-COX TENNIS CENTER
TENT ELECTRICAL IMPROVEMENTS PR-037-23
MOBILE, ALABAMA**

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AWM

DRAWN BY:
CM

CHECKED BY:
AWM

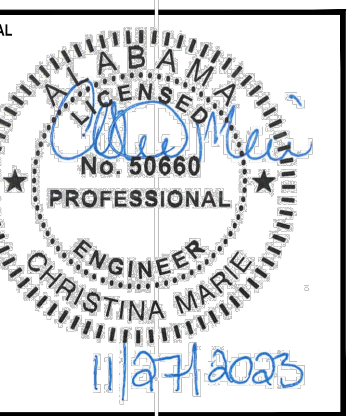
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12/04/2023

SHEET TITLE:

TENT POWER
LEGEND AND
SPECIFICATIONS

SHEET:

EP-1.0



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 TENT ELECTRICAL IMPROVEMENTS PR-037-23
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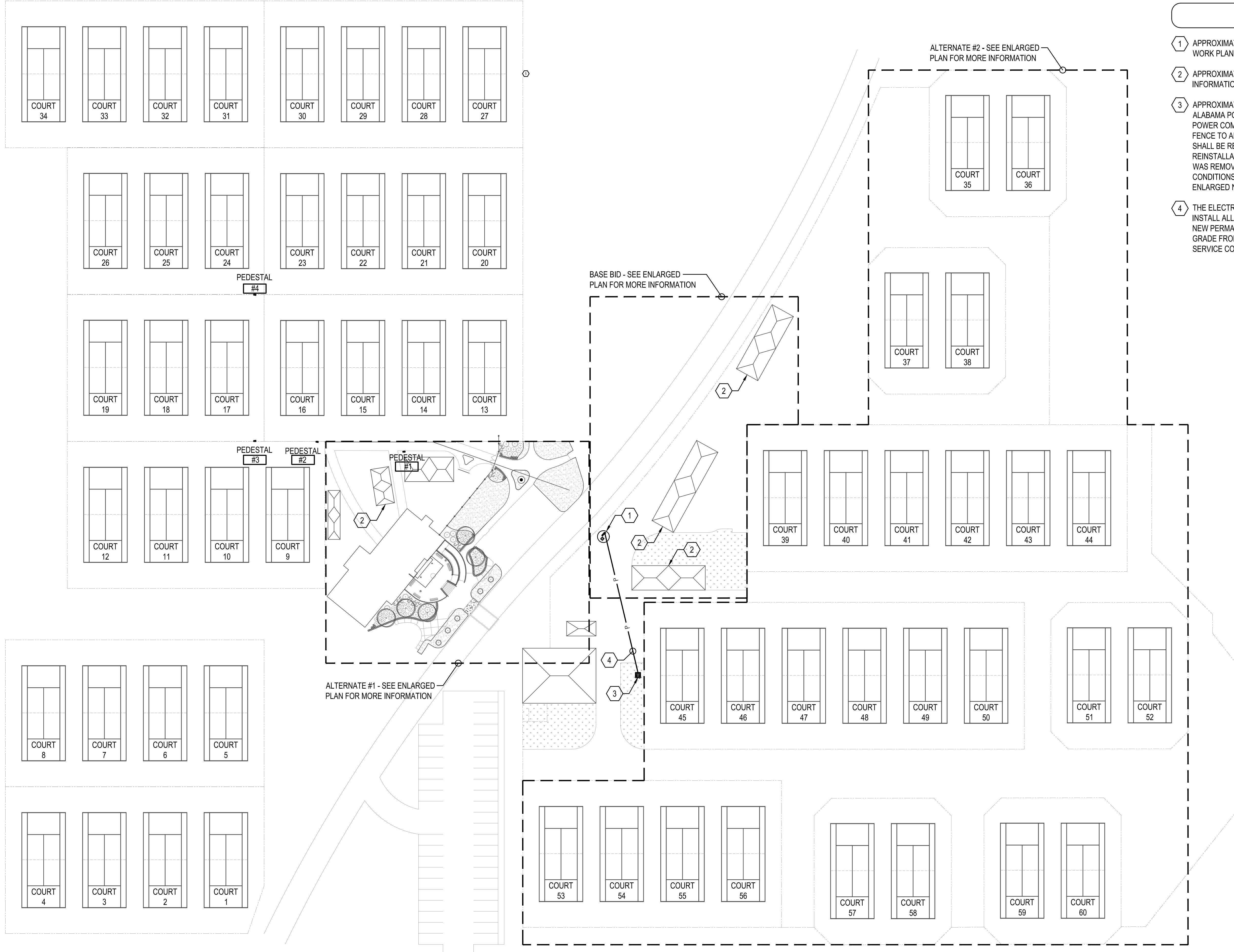
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 DATE:
12/04/2023


SHEET TITLE:
TENT POWER
OVERALL ELECTRICAL
PLAN

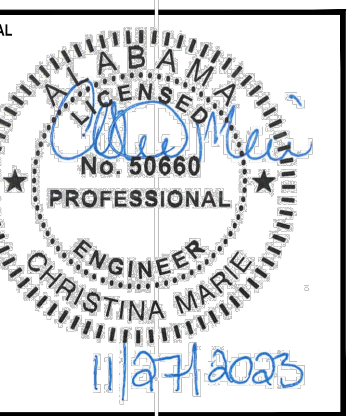
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SHEET NOTES

- 1 APPROXIMATE LOCATION OF EXISTING SERVICE TO BE REMOVED AND REPLACED NEW PER NEW WORK PLANS - SEE ENLARGED NEW WORK PLAN FOR MORE INFORMATION.
- 2 APPROXIMATE LOCATION OF EXISTING TENT - SEE ENLARGED NEW WORK PLAN FOR MORE INFORMATION.
- 3 APPROXIMATE LOCATION OF EXISTING UTILITY TRANSFORMER TO BE REMOVED AND REPLACED BY ALABAMA POWER COMPANY. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH ALABAMA POWER COMPANY AND THE MOBILE TENNIS CENTER ON TEMPORARY PARTIAL REMOVAL OF THE FENCE TO ALLOW ACCESS FOR THE TRANSFORMER REPLACEMENT. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL, STORING AND REINSTALLATION OF THE FENCE. THE REINSTALLATION SHALL BE DONE SO THAT IT IS IN THE SAME OR BETTER CONDITION THAN WHEN IT WAS REMOVED. THE CONTRACTOR SHALL DOCUMENT AND TAKE PHOTOS OF THE EXISTING CONDITIONS (OF FENCE AND SIDEWALK) PRIOR TO REMOVING ANY PORTION OF THE FENCE. SEE ENLARGED NEW WORK PLAN FOR MORE INFORMATION.
- 4 THE ELECTRICAL CONTRACTOR IS TO COORDINATE WITH ALABAMA POWER COMPANY, PROVIDE AND INSTALL ALL CONDUIT, WIRE, ETC. TO COMPLETE THE ELECTRICAL SERVICE AND METER FOR THE NEW PERMANENT TENT POWER. THE ELECTRICAL CONTRACTOR SHALL BORE 36" BELOW FINISHED GRADE FROM THE NEW SERVICE POINT THE THE EXISTING UTILITY TRANSFORMER FOR THE NEW SERVICE CONDUCTORS. SEE SINGLE LINE RISER DIAGRAM FOR MORE INFORMATION.




1 **OVERALL ELECTRICAL PLAN**
 SCALE: 1"=40'-0"



NUMBER	REVISION	REVISION DESCRIPTION

**COPELAND-COX TENNIS CENTER
 TENT ELECTRICAL IMPROVEMENTS PR-037-23
 MOBILE, ALABAMA**

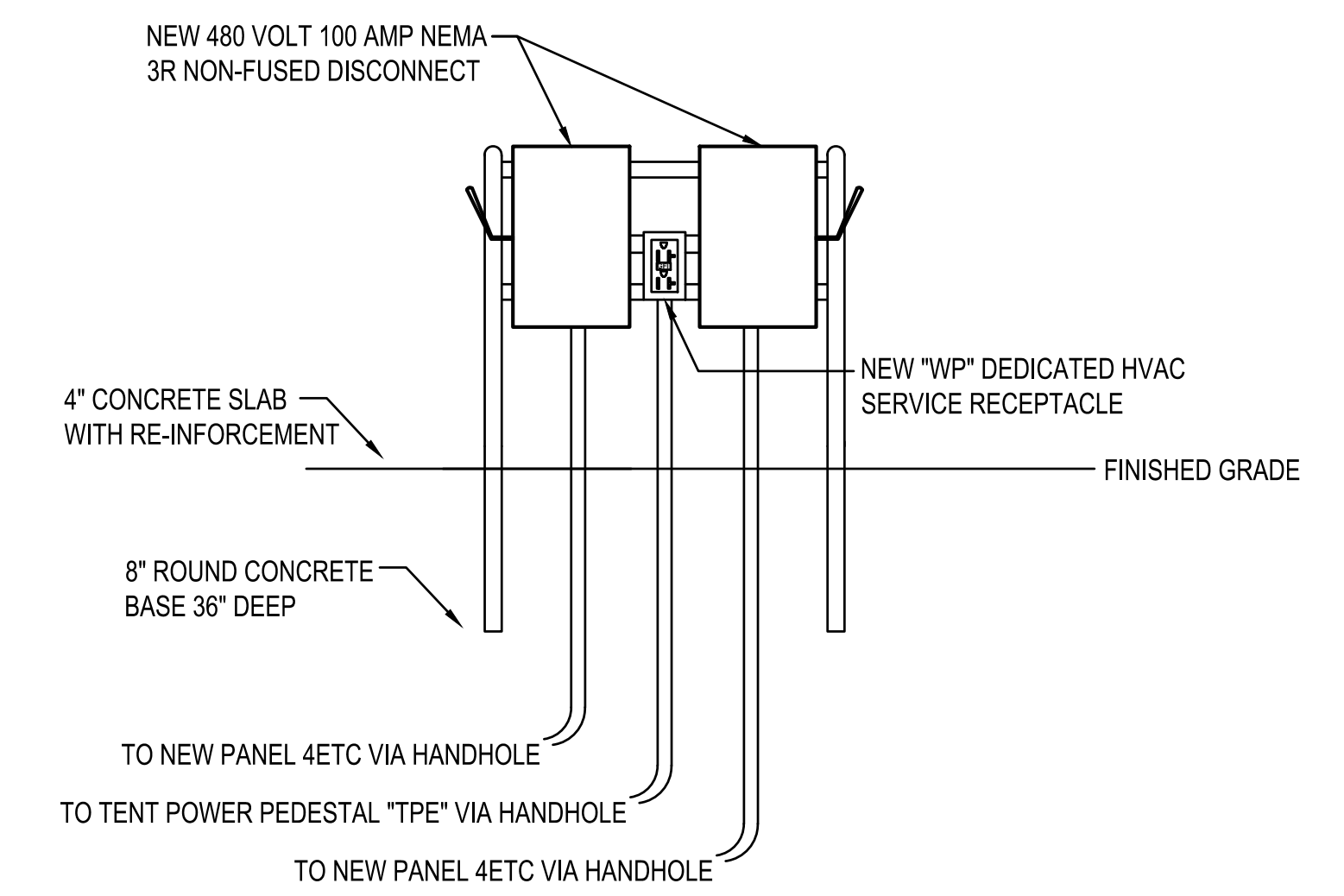
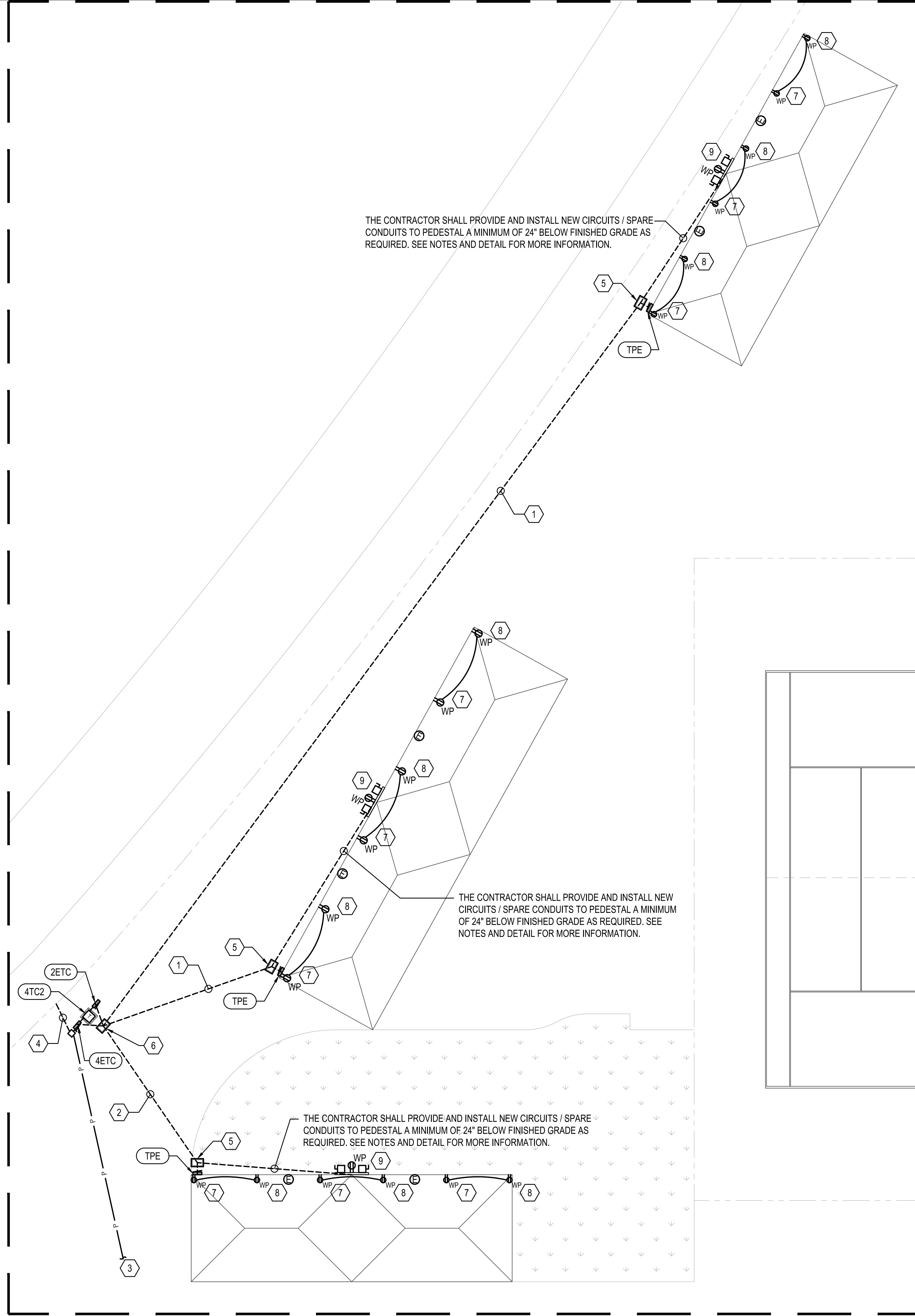
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SHEET TITLE:
ENLARGED EAST
TENT POWER
BASE BID

SHEET:
EP-3.0

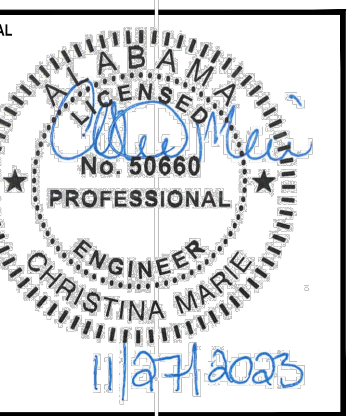
SHEET NOTES

- 1 THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL THE FOLLOWING (36" BELOW FINISHED GRADE):
 1. (1) RUN OF 3#1, #6G IN 1-1/2" CONDUIT FROM NEW 100/2 BREAKER IN PANEL "2ETC" TO SERVE THE NEW TENT POWER PEDESTAL (MIDWEST U014C010 OR APPROVED EQUAL).
 2. (1) RUN OF 3#3, #8G IN 1-1/4" CONDUIT FROM (1) NEW 90/3 BREAKER IN PANEL "4ETC" TO SERVE ONE NEW A/C UNIT (VIA HANDHOLE) AT THIS TENT.
 3. (1) RUN OF SPARE 1-1/4" CONDUIT WITH PULL STRING FROM PANEL "4ETC" TO A/C DISCONNECT ON PEDESTAL VIA HANDHOLE FOR FUTURE A/C UNITS AT THIS TENT.
- 2 THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL THE FOLLOWING (36" BELOW FINISHED GRADE):
 1. (1) RUN OF 3#1, #6G IN 1-1/2" CONDUIT FROM NEW 100/2 BREAKER IN PANEL "2ETC" TO SERVE THE NEW TENT POWER PEDESTAL (MIDWEST U014C010 OR APPROVED EQUAL).
 2. (2) RUNS OF SPARE 1-1/4" CONDUIT WITH PULL STRING FROM PANEL "4ETC" TO A/C DISCONNECT ON PEDESTAL VIA HANDHOLE FOR FUTURE A/C UNITS AT THIS TENT.
- 3 THE ELECTRICAL CONTRACTOR IS TO COORDINATE WITH ALABAMA POWER COMPANY, PROVIDE AND INSTALL ALL CONDUIT, WIRE, ETC. TO COMPLETE THE ELECTRICAL SERVICE AND METER FOR THE NEW PERMANENT TENT POWER. THE ELECTRICAL CONTRACTOR SHALL BORE 36" BELOW FINISHED GRADE FROM THE NEW SERVICE POINT THE THE NEW UTILITY TRANSFORMER FOR THE NEW SERVICE CONDUCTORS. SEE SINGLE LINE RISER DIAGRAM FOR MORE INFORMATION.
- 4 BOND FENCE TO ELECTRODE SYSTEM WITH #2/0 BARE COPPER CONDUCTOR.
- 5 THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL A NEW HANDHOLE AT THIS APPROXIMATE LOCATION. SEE DETAIL FOR MORE INFORMATION.
- 6 EXISTING HANDHOLE TO BE REUSED FOR NEW WORK. THE ELECTRICAL CONTRACTOR TO COMPLETELY REMOVED ALL UNUSED AND ABANDONED WIRE CONDUIT FROM THE EXISTING HANDHOLE. THE ELECTRICAL CONTRACTOR SHALL CLEAR THE EXISTING HANDHOLE FROM ANY DEBRIS, OVERGROWTH, ETC. TO ENSURE ALL COMPONENTS ARE READILY ACCESSIBLE.
- 7 THE ELECTRICAL CONTRACTOR SHALL MOUNT THE RECEPTACLE ON THE TENT FRAME AT 6' ABOVE FINISHED GRADE. THE CONDUIT SERVING THE RECEPTACLE SHALL BE ROUTED UNDERGROUND FROM THE PEDESTAL TO THE FRAME, UP THE FRAME TO THE BOX. THE CONDUIT SHALL BE PVC UNDERGROUND AND GRS ABOVE GROUND. THE CONDUIT SHALL TRANSITION AT THE 90° TURN BELOW GRADE.
- 8 THE ELECTRICAL CONTRACTOR SHALL MOUNT THE RECEPTACLE ON THE TENT FRAME AT 6' ABOVE FINISHED GRADE. THE CONDUIT SERVING THE RECEPTACLE SHALL BE ROUTED OVERHEAD ALONG THE FRAME STRUCTURE FROM THE RECEPTACLE UPSTREAM. THE CONDUIT SHALL BE GRS.
- 9 APPROXIMATE LOCATION OF NEW A/C DISCONNECT PEDESTAL.



FRONT VIEW
A/C DISCONNECT PEDESTAL DETAIL
 2 TYPICAL OF (3)
 NOT TO SCALE

1 ENLARGED (EAST) TENT POWER PLAN - BASE BID
 SCALE: 3/32"=1'-0"



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 TENT ELECTRICAL IMPROVEMENTS PR-037-23
 MOBILE, ALABAMA**

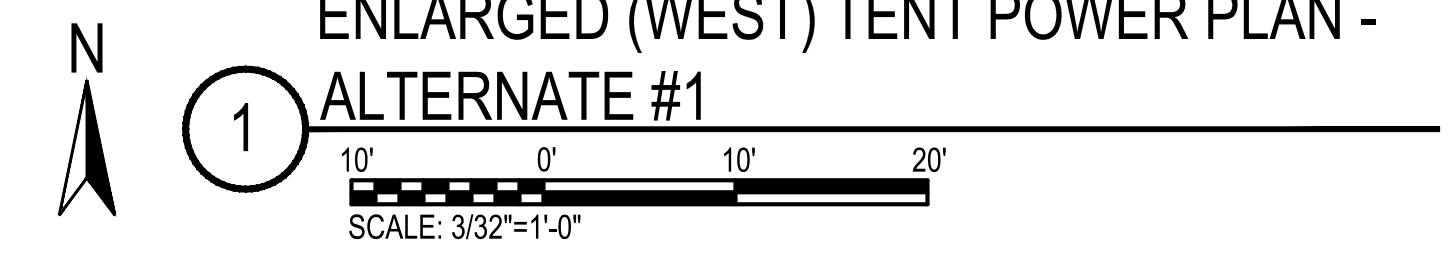
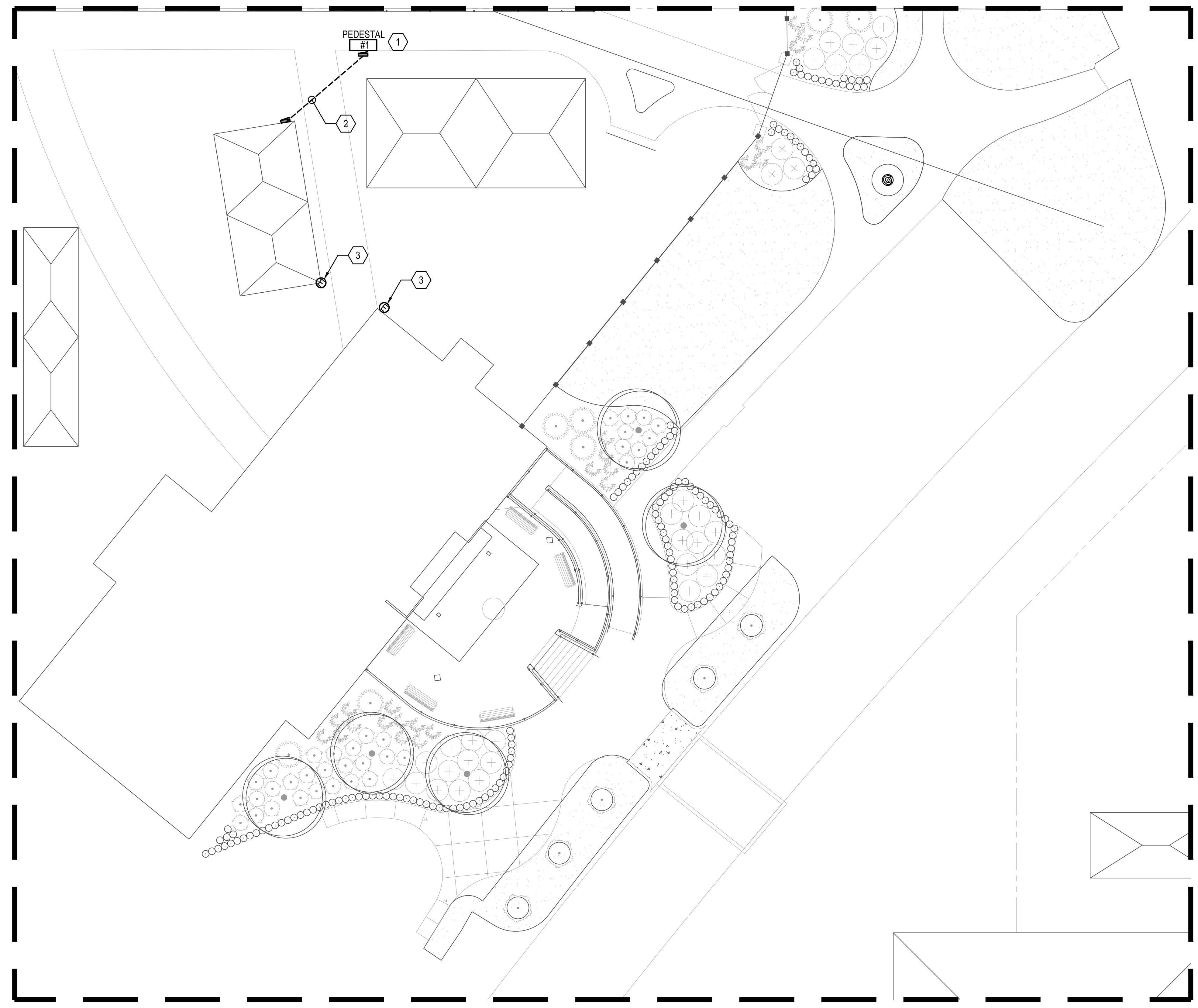
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SHEET TITLE:
ENLARGED WEST
TENT POWER
ALTERNATE

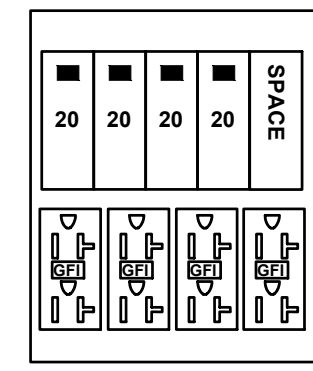
SHEET:
EP-4.0

SHEET NOTES

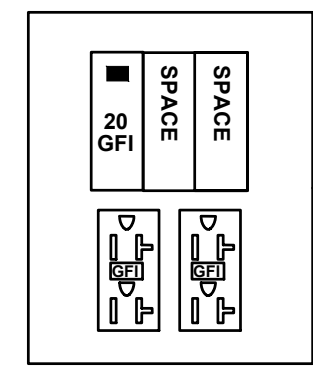
- 1 APPROXIMATE LOCATION OF THE EXISTING 240 VOLT SERVICE PEDESTAL FOR COURTS
13,14,15,16,20,21,22,23.
- 2 THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL THE FOLLOWING (36" BELOW FINISHED GRADE):
1. (1) RUN OF 3#4, #8G IN 1-1/4" CONDUIT FROM NEW 70/2 BREAKER IN EXISTING 200A PANEL ON PEDESTAL #1 TO SERVE THE NEW TENT POWER PEDESTAL (MIDWEST U361G OR APPROVED EQUAL).
- 3 THERE IS EXISTING CONDUCTORS THAT ARE ABANDONED THAT PREVIOUSLY SERVED THE TENT POWER. THESE CONDUCTORS WERE DAMAGED IN A WEATHER EVENT AND ARE TO BE REMOVED BY THE ELECTRICAL CONTRACTOR.
 - 1. THE FREE AIR ABANDONED OVER HEAD CONDUCTORS ATTACHED TO THE BUILDING ARE TO BE COMPLETELY REMOVED BACK TO THE NEAREST JUNCTION BOX TO REMAIN.
 - 2. THE ABANDONED UNDERGROUND CONDUCTORS ARE TO BE COMPLETELY REMOVED BACK TO THE NEAREST JUNCTION BOX TO REMAIN. ABANDONED CONDUIT TO BE CUT BELOW GRADE, CAPPED WATER TIGHT AND COVERED TO MATCH SURROUNDING LANDSCAPE.



**1 ENLARGED (WEST) TENT POWER PLAN -
ALTERNATE #1**



MIDWEST
U014C010
(4) 5-20R2GFCI



MIDWEST
U361G
(2) 5-20R2

PANELBOARD SCHEDULE													
MARK: EAST TENT PEDESTAL "TPE" (TYPICAL OF 3)													
CKT #	LOAD DESCRIPTION	BREAKER		PHASE (kVA)			BREAKER			LOAD DESCRIPTION		CKT #	
		P	TRIP	A	B	C	A	B	C	TRIP	P		
1	INTEGRAL GFCI	1	20	1.8			1.8			20	1	INTEGRAL GFCI	2
3	INTEGRAL GFCI	1	20		1.8			1.8		20	1	INTEGRAL GFCI	4
5	TENT POWER	1	20	1.8			1.8			20	1	TENT POWER	6
7	TENT POWER	1	20		1.8			0.2		20	1	HVAC SERVICE RECEPTACLE	8
9	SPACE												10
				3.6	3.6	3.6	2.0						
TOTAL (kVA) ØA				7.2	ØB	5.6	HIGH PHASE (AMPS)			60.0			
TOTAL CONNECTED LOAD (kVA)				12.8			TOTAL LOAD (AMPS)			53.3			

CREATE A DIRECTORY TO INDICATE INSTALLED LOADS. INDICATE LOAD TYPE (REC, LTG, AHU-1, ETC.) AND RM NOS FOR EVERY BRANCH CIRCUIT.
MIDWEST U014C010 OR APPROVED EQUAL

PANELBOARD SCHEDULE													
MARK: WEST TENT PEDESTAL "TPW" (TYPICAL OF 1)													
CKT #	LOAD DESCRIPTION	BREAKER		PHASE (kVA)			BREAKER			LOAD DESCRIPTION		CKT #	
		P	TRIP	A	B	C	A	B	C	TRIP	P		
1	INTEGRAL GFCI	1	20	1.8			1.8			20	1	SPARE	2
3	INTEGRAL GFCI	1	20		1.8			1.8					4
				1.8	1.8	1.8							
TOTAL (kVA) ØA				3.6	ØB	1.8	HIGH PHASE (AMPS)			30.0			
TOTAL CONNECTED LOAD (kVA)				5.4			TOTAL LOAD (AMPS)			22.5			

CREATE A DIRECTORY TO INDICATE INSTALLED LOADS. INDICATE LOAD TYPE (REC, LTG, AHU-1, ETC.) AND RM NOS FOR EVERY BRANCH CIRCUIT.
MIDWEST U361G OR APPROVED EQUAL

PANELBOARD SCHEDULE														
MARK: PANEL 4ETC														
CKT #	LOAD DESCRIPTION	BREAKER		PHASE (kVA)			PHASE (kVA)			BREAKER		LOAD DESCRIPTION	CKT #	
		P	TRIP	A	B	C	A	B	C	TRIP	P			
1	SPARE	1	20				25.0						2	
3	SPARE	1	20					25.0			65	3	TRANSFORMER 4TC2	4
5	SPARE	1	20						25.0				6	
7				20.0			20.0						8	
9	TENT HVAC	3	75		20.0			20.0			75	3	TENT HVAC	10
11						20.0							12	
13				16.6			16.6						14	
15	FUTURE TENT HVAC	3	75		16.6			16.6			75	3	FUTURE TENT HVAC	16
17						16.6			16.6				18	
19				16.6			16.6						20	
21	FUTURE TENT HVAC	3	75		16.6			16.6			75	3	FUTURE TENT HVAC	22
23						16.6			16.6				24	
25	SPARE	1	20							20	1	SPARE	26	
27	SPARE	1	20							20	1	SPARE	28	
29	SPARE	1	20							20	1	SPARE	30	
				53.2	53.2	53.2	78.2	78.2	78.2					
TOTAL (kVA) ØA				131.4	ØB	131.4	ØC	131.4	HIGH PHASE (AMPS)			474.4		
TOTAL CONNECTED LOAD (kVA)				394.2			TOTAL LOAD (AMPS)			474.1				

CREATE A DIRECTORY TO INDICATE INSTALLED LOADS. INDICATE LOAD TYPE (REC, LTG, AHU-1, ETC.) AND ROOM NUMBERS SERVED FOR EVERY BRANCH CIRCUIT.

PANELBOARD SCHEDULE														
MARK: PANEL 2ETC														
CKT #	LOAD DESCRIPTION	BREAKER		PHASE (kVA)			PHASE (kVA)			BREAKER		LOAD DESCRIPTION	CKT #	
		P	TRIP	A	B	C	A	B	C	TRIP	P			
1	TENT POWER PEDESTAL	2	100	9.0						20	1	SPARE	2	
3				5.4				9.0			100	2	TENT POWER PEDESTAL	4
5	TENT POWER PEDESTAL	2	100		9.0				5.4				6	
7				5.4						20	1	SPARE	8	
9	SPARE	1	20							20	1	SPARE	10	
11	SPARE	1	20							20	1	SPARE	12	
13	SPARE	1	20							20	1	SPARE	14	
15	SPARE	1	20							20	1	SPARE	16	
17	SPARE	1	20							20	1	SPARE	18	
19	SPARE	1	20							20	1	SPARE	20	
21	SPARE	1	20							20	1	SPARE	22	
23	SPARE	1	20							20	1	SPARE	24	
				14.4	5.4	9.0	9.0	5.4						
TOTAL (kVA) ØA				14.4	ØB	14.4	ØC	14.4	HIGH PHASE (AMPS)			120.0		
TOTAL CONNECTED LOAD (kVA)				43.2			TOTAL LOAD (AMPS)			119.9				

CREATE A DIRECTORY TO INDICATE INSTALLED LOADS. INDICATE LOAD TYPE (REC, LTG, AHU-1, ETC.) AND ROOM NUMBERS SERVED FOR EVERY BRANCH CIRCUIT.

MECHANICAL EQUIPMENT ELECTRICAL SCHEDULE												
MARK	ITEM	VOLTAGE/Ø	MCA	LOAD	MEANS OF DISCONNECT*	C/B TRIP (AMPS)	CIRCUIT			SERVING PANEL	NOTES	
							Ø	GROUND	CONDUIT			
A/C	TENT A/C AND HEATING SYSTEM	480/3	75	50 KVA	C/B	90	3#3	#8	1 1/4" C	4ETC	1	

NOTES: *N1=NEMA 1, N3R=NEMA 3R, SS=SAFETY SWITCH, FSS=FUSED SAFETY SWITCH, C/B=SERVING C/B, TS=MANUAL TOGGLE SWITCH, TSM=MOTOR RATED TS, FOR FUSED SAFETY SWITCHES THE 1ST # IS FUSE SIZE, THE 2ND # IS FRAME SIZE (90/100/3 N1, FSS INDICATES A 3 POLE 100A FUSED SAFETY SWITCH WITH 90A FUSES)
1. COORDINATE FINAL POWER REQUIREMENTS WITH FINAL PRODUCT SELECTION PRIOR TO ROUGH IN AND ADJUST AS REQUIRED BY THE MANUFACTURER.

PANELBOARD INFORMATION SCHEDULE																
MARK	ENCLOSURE TYPE	MOUNTING STYLE	VOLTAGE	Ø	WIRE	MAIN BKR	IF MLO, SERVING BKR	SERVICE RATED	AVAILABLE SCA	kAIC RATING	Ø BUS RATING (A)	N BUS RATING	FEEDER			NOTES
													CONDUCTORS	GROUND	CONDUIT	
4ETC	NEMA 3R	SURFACE	480Y/277	3	4	600	N/A	NO	16,044	25	600	100%	2 RUNS 4#350	#1	3" C EA	
2ETC	NEMA 3R	SURFACE	208Y/120	3	4	250	N/A	NO		22	250	100%	4#250	#4	3" C	
TPE	NEMA 3R	SURFACE	120/240	1	3	MLO	100	NO		10	100	100%	3#1	#6	1 1/2" C	1
TPW	NEMA 3R	SURFACE	120/240	1	3	MLO	70	NO		10	100	100%	3#4	#8	1 1/4" C	

NOTES: 1. TYPICAL OF THREE TENT POWER (TP) PEDESTALS.
ALL PANELBOARDS ARE TO HAVE COPPER BUS.
ALL PANELBOARDS ARE TO HAVE ARC FLASH WARNING LABEL IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE ARTICLE 110.16 (SEE DETAIL).

TRANSFORMER SCHEDULE												
MARK	PRIMARY VOLTAGE	SECONDARY VOLTAGE	Ø	WIRE	KVA	*MNT	**TYPE	PRIMARY FEEDER SIZE	SIZE GEC TO 3/4"X10" GND ROD	SIZE GEC TO FOUNDATION REBAR, WATER & BLDG STEEL	NOTES	
											1	2
4TC2	480 DELTA	208Y/120	3	4	75	FLR	STD	3#1, #6G, 1 1/2" C	#2	#2		

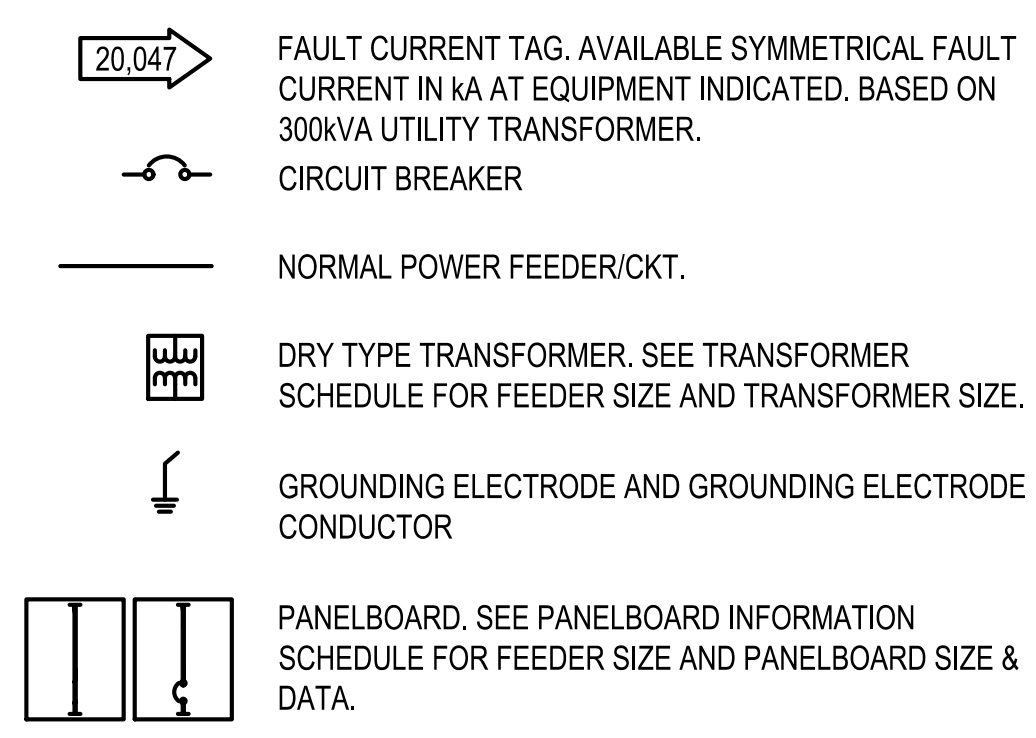
*MNT: FLR=FLOOR MOUNTED, PROVIDE CONCRETE BASE.
**TYPE: STD=STANDARD PER SPECIFICATIONS.
SEE TRANSFORMER MOUNTING DETAIL.

NOTE: THIS IS AN ELECTRICAL POWER DISTRIBUTION SYSTEM SINGLE LINE DIAGRAM, NOT ALL MECHANICAL EQUIPMENT CIRCUITS AND BRANCH CIRCUITS ARE SHOWN

NOTE: OCPDs ON THE SECONDARY OF DRY-TYPE XFMRs SHALL BE INSTALLED WITHIN 10' PER NEC 240.21(C)(2)

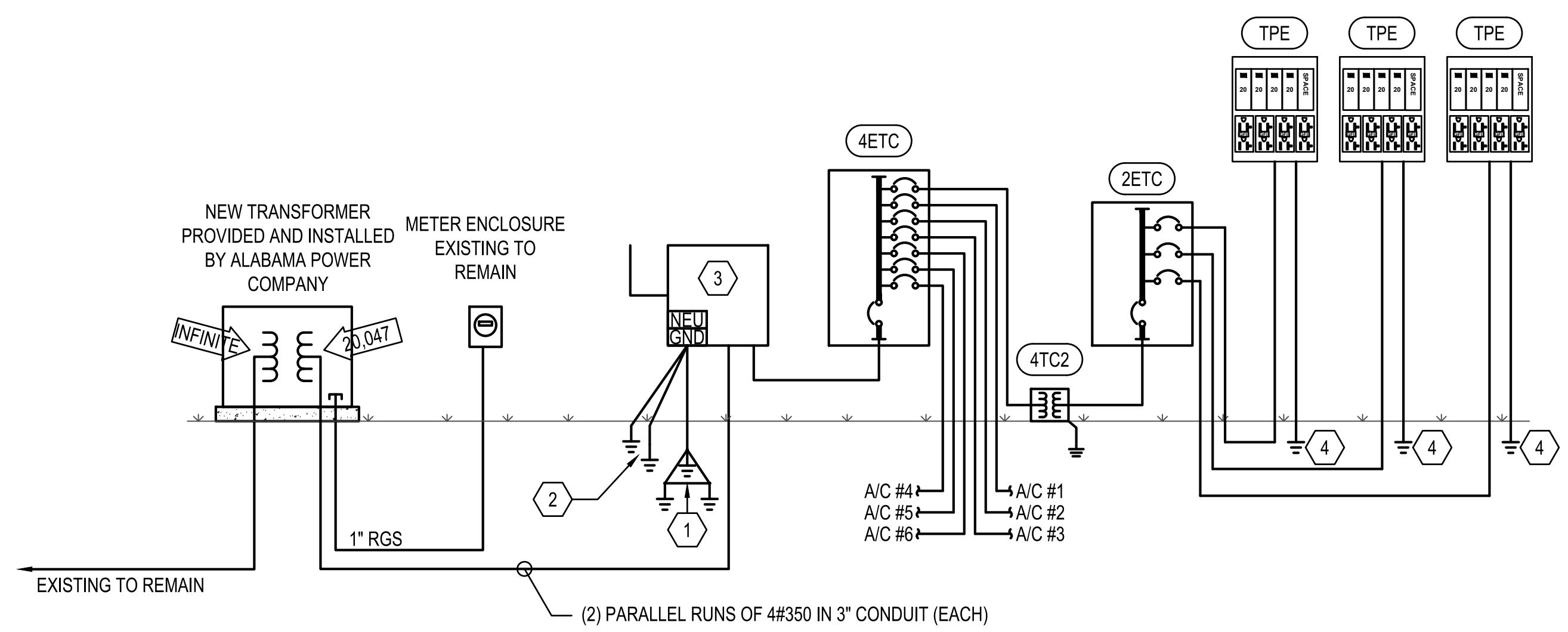
NOTE: LOCATION OF MAIN BREAKERS AND FEEDERS INTO EQUIPMENT IS NOT INTENDED TO SHOW TOP OR BOTTOM MOUNTED MAIN BREAKER OR BOTTOM, TOP OR SIDE FEEDER ENTRY. THE SINGLE LINE DIAGRAM IS PURELY DIAGRAMMATIC. CONTRACTOR SHALL VERIFY PROPER BREAKER POSITIONS AND FEEDER ENTRIES INTO EQUIPMENT AND PROVIDE AS REQUIRED.

SINGLE LINE DIAGRAM LEGEND

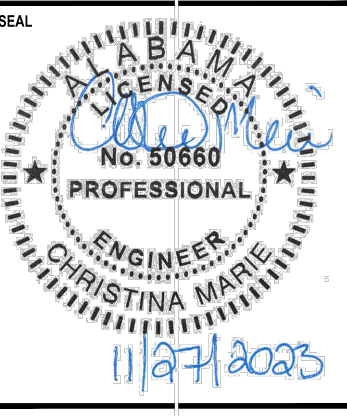


SINGLE LINE DIAGRAM NOTES

- #2/0 GEC TO THREE 20' GROUND RODS ON 20' CENTERS IN EQUILATERAL DELTA ARRANGEMENT.
- #2/0 BONDS TO FOUNDATION REBAR AND ADJACENT CHAIN LINK FENCING.
- THE ELECTRICAL CONTRACTOR SHALL LABEL THE NEW NEMA 3R 480 VOLT 3Ø 600 AMP SERVICE DISCONNECT IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE ARTICLE 110.24; AVAILABLE FAULT CURRENT 15,347 AMPS.
- 20' GROUND ROD WITH #2/0 GEC BOND TO ASSOCIATED METAL TENT. ENSURE ALL METAL PORTIONS OF THE TENT(S) ARE BONDED.



1 SINGLE LINE DIAGRAM - BASE BID
NOT TO SCALE



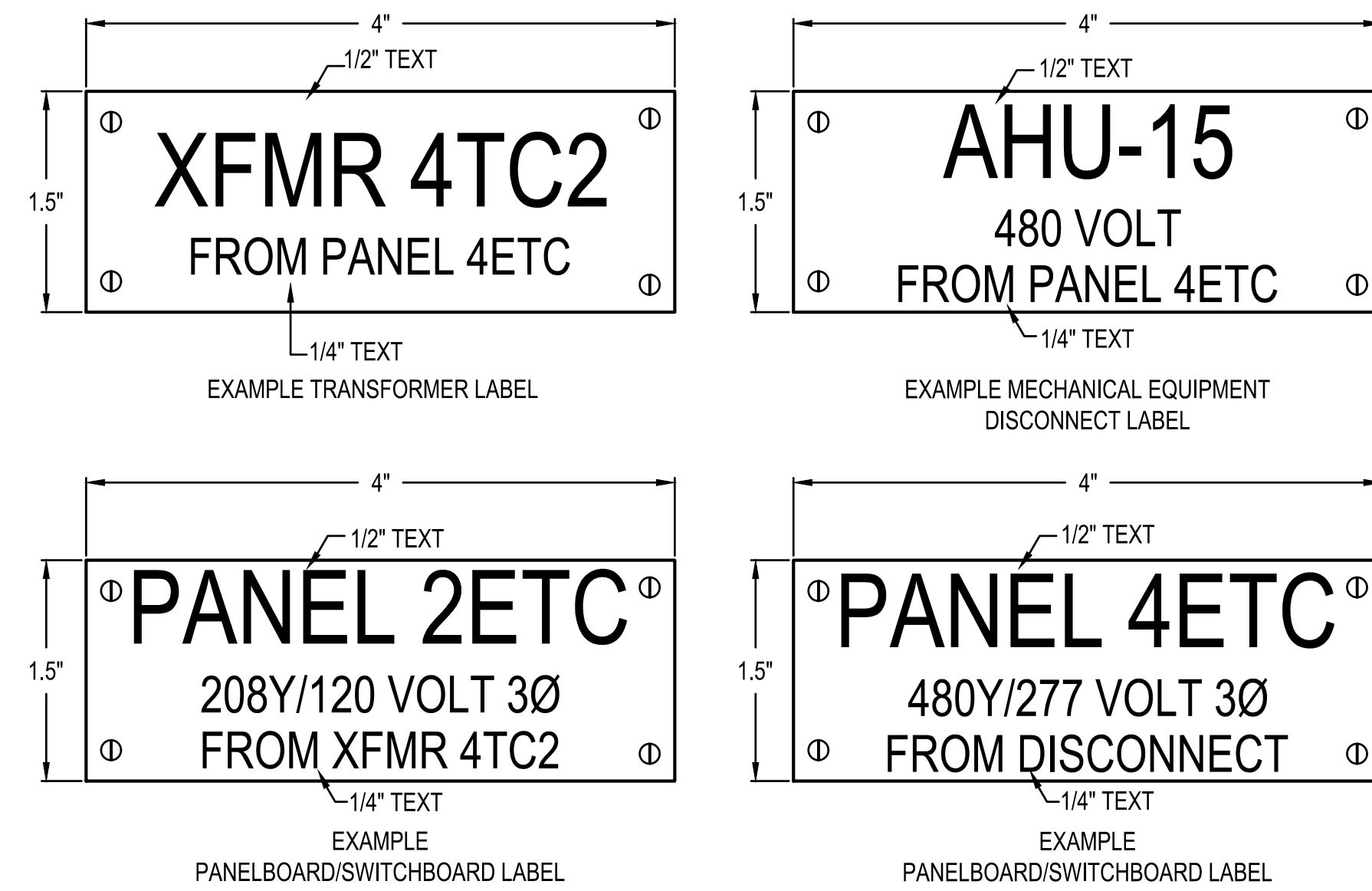
REVISION DESCRIPTION	
NUMBER	REVISION

COPELAND-COX TENNIS CENTER
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MOBILE, ALABAMA

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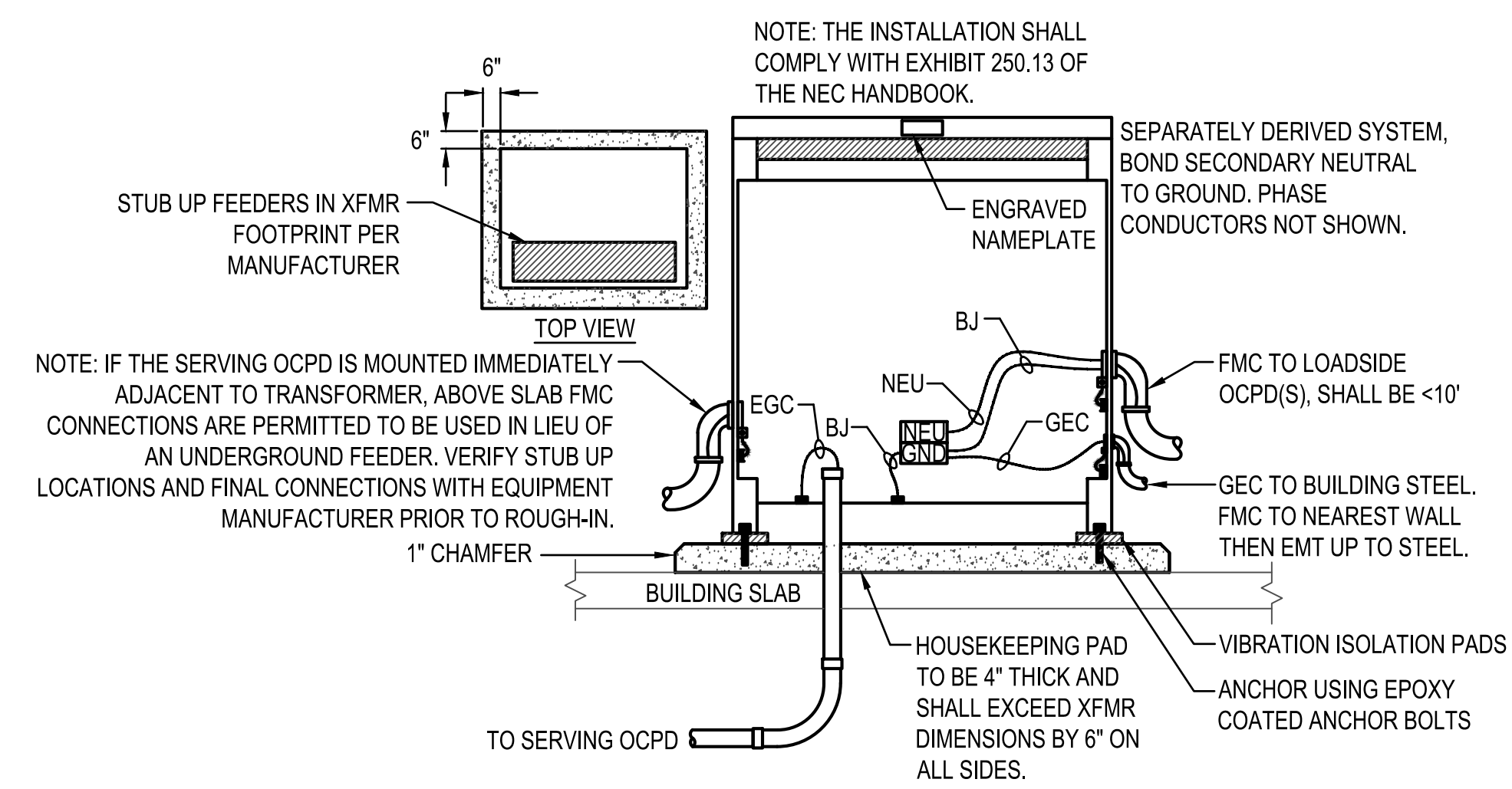
SHEET TITLE:
ELECTRICAL SCHEDULES

SHEET:
EP-6.0

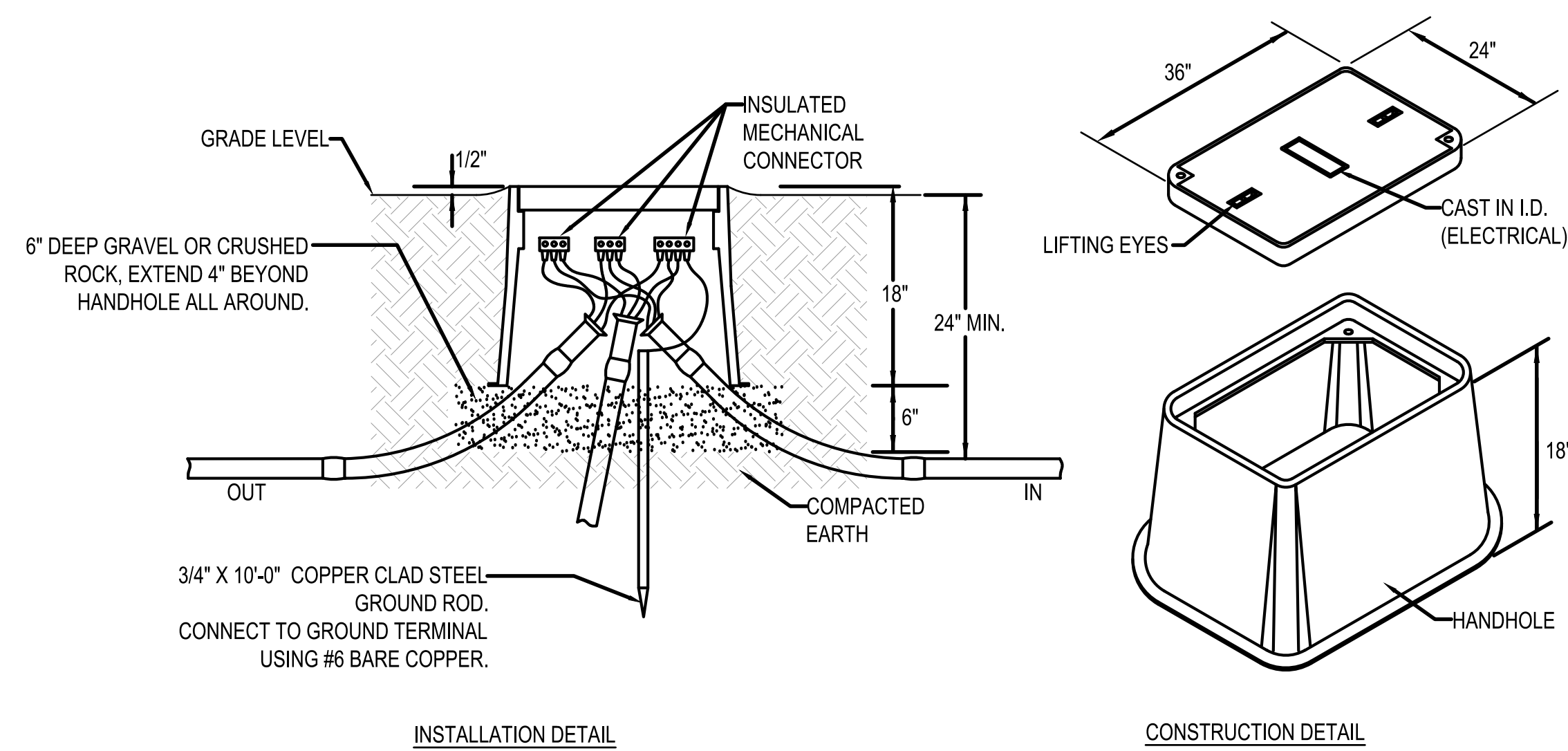


ENGRAVED PLASTIC TAG WITH BLACK LETTERS ON WHITE BACKGROUND (RED BACKGROUND FOR EMERGENCY EQUIPMENT). TAG SHALL HAVE ALL EDGES BEVELED AND SMOOTH. SECURE TAG WITH 4 CHROME (STAINLESS STEEL FOR WET OR DAMP LOCATIONS) SCREWS. ADHESIVE BACKING, TAPE, ETC IS NOT ALLOWED. DIMENSIONS ARE MINIMUM, TAG SHALL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

1 TYPICAL EQUIPMENT LABELING DETAIL
NOT TO SCALE

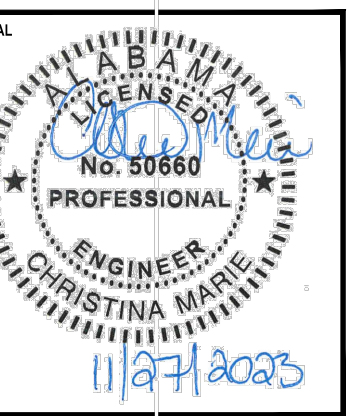


2 DRY TYPE FLOOR MOUNTED TRANSFORMER DETAIL
NOT TO SCALE



- HANDHOLE NOTES:**
- HANDHOLE SHALL HAVE LOGO CAST IN COVER (LOGO-ELECTRICAL). INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS AND THESE REQUIREMENTS.
 - TERMINATE CONDUITS ENTERING HANDHOLE WITH END BELL. CONSTRUCT CONDUIT RISE TO ENTER BOX FROM SIDE WITH 22-1/2" SWEEP ELBOWS.
 - CONDUITS ENTERING AND LEAVING HANDHOLE SHALL BE SEALED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE ARTICLES 514 AND 501.15.

3 ELECTRICAL HANDHOLE DETAIL
NOT TO SCALE



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ELECTRICAL
DETAILS

SHEET:
EP-7.0