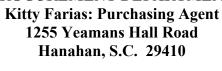


# CITY OF HANAHAN Request for Bid

Solicitation Number:	
Solicitation Date:	
Proposal Submission Deadline:	
Proposed Award Date:	

City of Hanahan Procurement 1255 Yeamans Hall Road Hanahan, South Carolina 29410 (843) 576-5254







## REQUEST FOR BID(S)

# **ELECTRICAL CONTRACTOR Hanahan Recreation and Parks Amphitheater**

<u>PROPOSAL TITLE</u>: ELECTRICAL CONTRACTOR – AMPHITHEATER

PROPOSAL NUMBER: COH#-10319

CLOSING DATE AND TIME: November 1, 2019

BID SECURITY, PERFORMANCE OR PAYMENT BONDS: Performance Bond

**CONTRACT: Project Only** 

You are invited to submit a BID in accordance with the requirements of this solicitation, which are contained herein. It is requested that your proposal be submitted to the City of Hanahan Procurement Office not later than November 1, 2019 @ 2:00 P.M. EST (local time), at which time, depending on the nature of this BID, respondents request(s) may or may not be publicly identified. In the event of possible negotiation(s) with bidders/Bidders, prices may not be divulged at the time of an open announcement.

\*Questions regarding this bid, must be submitted by October 30th, 2019 at 12 P.M EST. Questions may be emailed to kfarias@cityofhanahan.com.

### **CONTACT**:

Kitty Farias (843) 576-5254

EMAIL: kfarias@cityofhanahan.com

<u>PRE-BID MEETING:</u> A pre-bid meeting is scheduled for Thursday, October 24, 2019, 2:00 p.m. at City Hall in the Municipal Complex located at 1255 Yeamans Hall Road, Hanahan, South Carolina, 29410. Attendance is encouraged but not mandatory.

An official authorized to bind the Bidder must sign the bid proposal/documents and it shall contain a statement to the effect that the proposal shall remain valid for a period of at least (ninety) 90 calendar days from the closing date for submission of Bid. The bid submittal must be submitted in a sealed envelope showing

the above proposal title, proposal number and closing date/time and Bidder's business name and address. This Request for Bid (BID) does not commit City of Hanahan to award a contract, to pay any cost incurred in the preparation of a bid proposal or to procure or contract for the articles of goods or services. The City of Hanahan reserves the right to accept or reject any or all Bids received as a result of this request, to negotiate with all qualified Bidders, or to cancel in part or in its entirety this proposal if it is in the best interest of the City to do so.

Bidders/Bidders can download a copy of the BID document and any amendments from the City of Hanahan Web Site (preferred) or request by email to <a href="mailto:kfarias@cityofhanahan.com">kfarias@cityofhanahan.com</a>:

WEB ADDRESS: https://cityofhanahan.com/government/administration/purchasing/

GO TO: - DEPARTMENTS

- ADMINISTRATION

- PURCHASING

- SOLICITATIONS

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# SECTION 1 GENERAL INFORMATION

Bids will be considered as specified herein or attached hereto under the terms and conditions of this Request for Bids.

A proposal must be made in the official name of the firm or individual under which business is conducted (showing the official business address) and must be signed in black ink by a person duly authorized to legally bind the person, partnership, company, or corporation submitting the proposal.

Bidders are to include all applicable requested information and are encouraged to include any additional information they wish to be considered. Additional information shall be a separate section of the proposal and shall be identified as such.

Two (2) clearly identified originals of your bid are required. The proposal must be complete, clear and concise.

Bids will be received by City of Hanahan until November 1, 2019 at 2:00 P.M. on the closing date shown. Bids must be submitted to, or at the time, date and exact location specified to be considered. No late Bids, mailed, telegraphic, or telephone Bids will be accepted.

### HAND CARRY/DELIVERY SERVICE TO:

City of Hanahan Procurement Office ATTN: Kitty Farias 1255 Yeamans Hall Road Hanahan, S.C. 29410

**Bidder is required** to have printed on the envelope or wrapping containing his Bid; Bidder's business name and address, the proposal title, proposal number and the proposal closing date and time. City of *Hanahan shall not be responsible for unidentified Bids*. Failure to do so can result in a non-responsive bid.

Bids may be withdrawn by Bidder prior to, but not after, the time set for the closing. A telegraphic or (Email) request is acceptable provided it is received before the closing.

All entries shall be entered in ink or type written and shall remain valid for a period of not less than ninety (90) calendar days. Mistakes may be crossed-out and corrections inserted adjacent thereto, and shall be initialed, in ink, by the person signing the proposal.

Offers, amendments thereto or withdrawal requests must be received by the time advertised for BID closing date to be timely filed. It is the Bidder's sole responsibility to ensure that the documents are received by the person (or office) at the time indicated in the solicitation document.

By submission of an offer, you are guaranteeing that all goods, workmanship and services meet the requirements of the solicitation during the contract period.

# City of Hanahan reserves the right:

- To accept or reject any or all Bids received as a result of this solicitation, or to cancel in part or in its entirety this solicitation if it is in the best interest of the City to do so;
- To waive any or all informalities;
- To solicit additional information from the Bidders, or any one Bidder should City of Hanahan deem such information necessary;
- To consider modifications received at any time before the award is made, if such action is in the best interest of the City; and
- To negotiate contract terms, conditions and cost.

This contract will be awarded to the Bidder whose bid/proposal is within the competitive range and determined to be in the best interest of City of Hanahan.

The words "Contractor", "Vendor", "Bidder", "Consultant", "Proposer", Offeror are used interchangeably throughout this BID to define the companies submitting offers, and replace terms such as person(s), firm(s), or corporation(s).

The Bidder is responsible for clarifying any ambiguity, conflict, discrepancy; omission or other error in the BID, or it shall be deemed waived.

Failure to submit all required information may be determined as a non-responsive proposal.

This solicitation does not commit City of Hanahan to award a contract, to pay any cost incurred in the preparation of a proposal or to procure or contract for the articles of goods or services.

**AMENDMENTS**: If it becomes necessary to revise any part of this BID, an amendment will be posted on the Web Page at the address provided on the Cover Sheet. All amendments become part of the Request for Bids and are contractually binding **whether or not received by the Bidder**.

# SECTION 2 TERMS AND CONDITIONS

# **CONTRACTOR LICENSE REQUIREMENT:**

The contractor shall procure all permits and licenses and pay all charges and fees necessary and incidental to the lawful conduct of his business. He shall keep himself fully informed of existing and future Federal, State, and Local Laws, ordinances and regulations which in any manner affect the fulfillment of his contract and shall comply with the same.

### **INSURANCE:**

The successful bidder shall procure, maintain, and provide proof of, insurance coverage for injuries to persons and/or property damage as may arise from or in conjunction with, the work performed on behalf of the City by the bidder, his agents, representatives, employees or subcontractors. Proof of coverage as contained herein shall be submitted ten (10) days prior to the commencement of work and such coverage shall be maintained by the bidder for the duration of the contract period; for occurrence policies.

# **General Liability**

Coverage shall be as broad as: Comprehensive General Liability endorsed to include Broad Form, Commercial General Liability form including Products/Completed Operations.

# **Minimum Limits**

General	∟ia	bil	lity:

\$1,000,000	General Aggregate Limit
\$1,000,000	Products & Completed Operations
\$1,000,000	Personal and Advertising Injury
\$1,000,000	Each Occurrence Limit
\$50,000	Fire Damage Limit
\$5,000	Medical Expense Limit

### Automobile Liability

Coverage sufficient to cover all vehicles owned, used, or hired by the bidder, his agents, representatives, employees or subcontractors.

### **Minimum Limits**

# Automobile Liability:

\$1,000,000	Combined Single Limit
\$1,000,000	Each Occurrence Limit
\$5,000	Medical Expense Limit

# Workers' Compensation

Limits as required by the Workers' Compensation Act of SC. Employers Liability - \$1,000,000.

# **Professional Liability**

Minimum limits are \$1,000,000 per occurrence.

# **Coverage Provisions**

- 1. All deductibles or self-insured retention shall appear on the certificate(s) and shall appear on the certificate(s) and be subject to approval by the City. At the option of the City, either; the insurer shall reduce or eliminate such deductible or self-insured retention; or the bidder shall be required to procure a bond guaranteeing payment of losses and related claims expenses.
- 2. Failure to comply with any reporting provisions of the policy(s) shall not affect coverage provided by the City, its officers/officials/assigns/employees or volunteers.
- 3. The insurer shall agree to waive all rights of subrogation against eh City, its' officers/officials/assigns/agents, employees or volunteers for any act, omission or condition of premises which the parties may be held liable by reason of negligence.
- 4. The bidder shall furnish the City certificates of insurance including endorsement affecting coverage. The certificates are to be signed by a person authorized by the insurance company(s) to bind coverage on its' behalf, if executed by a broker, notarized copy of authorization to bind, or certify coverage must be attached.
- 5. The City of Hanahan, its' officers/officials, employees, agents and volunteers shall be added as "additional insured" as their interests may appear. This provision does not apply to Professional Liability or Workers' Compensation/Employers Liability.
- 6. The Offeror's insurance shall be primary over any applicable insurance or self-insurance maintained by the City.
- 7. Shall provide thirty (30) days written notice to the City before any cancellation, suspension, or void of coverage in whole or part, where such provision is reasonable.
- 8. All coverage for subcontractors of the bidder shall be subject to all of the requirements stated herein.
- 9. All insurance shall be placed with insurers maintaining A.M. Best rating of no less than an A.

# **QUALITY ESTIMATES:**

City of Hanahan does not guarantee to purchase any amount under the contract to be awarded. Estimated quantities are for the purposes of submitting proposals only and are not to be construed as a guarantee to purchase any amount.

# **SPECIFICATIONS:**

Any deviation from specifications must be clearly indicated by offeror, otherwise, it will be considered that the bid proposal is in strict compliance. Proposals will be considered on other makes, models or brands having comparable quality, style, workmanship and performance characteristics. Alternate bid proposals offering lower quality or inferior performance will not be considered.

### **ACCEPTANCE OR REJECTION OF PROPOSALS:**

The City of Hanahan reserves the right to accept or reject any or all proposals or parts of proposals, and to waive informalities therein.

### **TAXES:**

Proposal prices shall be exclusive of state sales and federal excise taxes. Where the state or city government entities are not exempt from sales taxes on sales within their state, the contractor shall add the sales taxes on the billing invoice as a separate entry. The City of Hanahan is not tax exempt.

# MODIFICATION OR WITHDRAWAL OF PROPOSALS:

Proposals may be modified or withdrawn prior to the time set for the opening of proposals. After the time set for the opening of proposals no proposal may be modified or withdrawn, unless done in response to a request for a "Best and Final Offer" from the City of Hanahan.

# PATENTS, COPYRIGHTS, ETC.:

The Contractor shall release, indemnify and hold the Buyer, its officers, agents and employees harmless from liability of any kind or nature, including the Contractor's use of any copyrighted or uncopyrighted composition, secret process, patented or unpatented invention, article or appliance furnished or used in the performance of this contract.

### **AWARD:**

The City of Hanahan <u>may award multiple contracts</u> as the result of this solicitation. Awards shall be made to the responsible offeror(s) whose bid proposal is determined to be the most advantageous to the City of Hanahan, taking into consideration price and the other evaluation factors that may be set forth in this solicitation.

### **NON-COLLUSION:**

By signing the proposal/bid the offeror certifies that the proposal submitted, has been arrived at independently and has been submitted without collusion with, and without any agreement, understanding or planned common course of action with, any other vendor of materials, supplies, equipment or services described in the Request for Bid, designed to limit independent bidding or competition. (See Attached Statement of Non-Collusion).

**CONTRACTOR PERSONNEL**: The contractor shall enforce strict discipline and good order among the contractor's employees and other persons carrying out the contract. The contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them.

### ETHICS CERTIFICATE

By submitting an offer, the offeror certifies that the offeror has and will comply with, and has not, and will not, induce a person to violate **Title 8**, **Chapter 13** of the South Carolina Code of Laws, as amended (ethics act). The following statutes require special attention: **Section 8-13-700**, regarding use of official position for financial gain; **Section 8-13-705**, regarding gifts to influence action of public

official: Section

**8-13-720**, regarding offering money for advice or assistance of public official; Sections **8-13-755** and **8-13-760**, regarding restrictions on employment by former public official; Section **8-13-775**, prohibiting public official with economic interests from acting on contracts; Section **8-13-790**, regarding recovery of kickbacks; Section **8-13-1150**, regarding statements to be filed by consultants; and Section **8-13-1342**, regarding restrictions on contributions by contractor to candidate who participated in awarding of contract.

The City may rescind any contract and recover all amounts expended as a result of any action taken in violation of this provision. If contractor participates, directly or indirectly, in the evaluation or award of public contracts, including without limitation, change orders or task orders regarding a public contract, contractor shall, if required by law to file such a statement, provide the statement required by **Section 8-13-1150** to the procurement officer at the same time the law requires the statement to be filed. [02-2A075-2]

### **CANCELLATION:**

The City may cancel its participation upon thirty days (30) written notice, unless otherwise limited or stated in the terms and conditions of this solicitation. Cancellation may be in whole or in part. Any cancellation under this provision shall not affect the rights and obligations attending orders outstanding at the time of cancellation, including any right of and Purchasing Entity to indemnification by the contractor, rights of payment for goods/services delivered and accepted, and rights attending any warranty or default in performance in association with any order. Cancellation of the contract due to contractor default may be immediate.

### **DEFAULT AND REMEDIES:**

Any of the following events shall constitute cause for the City of Hanahan to declare contractor in default of the contract: 1. Nonperformance of contractual requirements; 2. A material breach of any term or condition of this contract the City of Hanahan shall issue a written notice of default providing a period in which contractor shall have an opportunity to cure. Time allowed for cure shall not diminish or eliminate contractor's liability for liquidated or other damages. If the default remains, after contractor has been provided the opportunity to cure, the City of Hanahan may do one or more of the following: 1. Exercise any remedy provided by law; 2. Terminate this contract and any related contracts or portions thereof; 3. Impose liquidated damages; 4. Suspend contractor from receiving future proposal solicitations.

### LAWS AND REGULATIONS:

Any and all supplies, services and equipment offered and furnished shall comply fully with all applicable Federal, State and City laws and regulations.

### **CONFLICT OF TERMS:**

In the event of any conflict between these standard terms and conditions and any special terms and conditions which follow; the special terms and conditions shall govern.

### **HOLD HARMLESS:**

The contractor shall release, protect, indemnify and hold the City of Hanahan and their respective, officers, agencies, employees, harmless from and against any damage, cost or liability, including reasonable attorney's fees for any or all injuries to persons, property or claims for money damages arising from acts or omissions of the contractor, his employees or subcontractors or volunteers.

### **RISK OF LOSS:**

Contractor agrees to bear all risks of loss, injury or destruction of goods and materials ordered herein which occur prior to delivery and acceptance; and such loss, injury or destruction shall not release contractor from any obligation hereunder.

### JURISDICTION

Contractor acknowledges that it is subject to the jurisdiction and process of the City of Hanahan as to all matters and disputes arising pursuant to the Agreement and the performance thereof, including any questions as to liability for taxes, licenses, or fees levied by the State or its political subdivisions. Contractor agrees to execute any and all agreements necessary to accomplish this provision.

### **AMENDMENTS:**

The terms of this contract shall not be waived, altered, modified, supplemented or amended in any manner whatsoever without prior written approval of the designated City of Hanahan contract administrator.

### **ASSIGNMENT/SUBCONTRACT:**

Contractor shall not assign, sell, transfer, subcontract or sublet rights, or delegate responsibilities under this contract, in whole or in part, <u>without the prior written approval</u> of the City of Hanahan designated contract administrator.

**NOTE**: If Contractor intends to hire subcontractors, they must be listed by the Contractor in the bid documents.

### NONDISCRIMINATION:

The offeror agrees to abide by the provisions of Title VI and Title VII of the Civil Rights Act of 1964 (42 USC 2000e), which prohibit discrimination against any employee or applicant for employment, or any applicant or recipient of services, on the basis of race, religion, color, or national origin; and further agrees to abide by Executive Order No. 11246, as amended, which prohibits discrimination on basis of sex; 45 CFR 90 which prohibits discrimination on the basis of age, and Section 504 of the Rehabilitation Act of 1973, or the Americans with Disabilities Act of 1990 which prohibits discrimination on the basis of disabilities. The offeror further agrees to furnish information and reports to requesting State(s), upon request, for the purpose of determining compliance with these statutes. Offeror agrees to comply with each individual state's certification requirements, if any, as stated in the special terms and conditions. This contract may be canceled if the offeror fails to comply with the provisions of these laws and regulations. The offeror must include this provision in very subcontract relating to purchases by the States to ensure that subcontractors and vendors are bound by this provision.

ILLEGAL IMMIGRATION REFORM ACT COMPLIANCE: By submitting an offer, Bidder certifies that it will comply with the applicable requirements of Title 8, Chapter 14 of the South Carolina code of Laws (originally enacted as Section 3 of The South Carolina Illegal Immigration act, 2008 S.C. Act No. 280) and agrees to provide upon request any documentation required to establish either: (a) the applicability of Title 8, Chapter 14 to Bidder and any subcontractor or sub-subcontractors; or (b) the compliance with Title 8, Chapter 14 by Bidder and any subcontractors or sub-subcontractors. Pursuant to Section 8-14-60, "A person who knowingly makes or files any false, fictitious, or fraudulent document, statement, or report pursuant to this chapter is guilty of a felony and, upon conviction, must be fined within the discretion of the court or imprisoned for not more than five years, or both". Bidder agrees to include in any contracts with its subcontractors' language requiring the subcontractors to (a) comply with the applicable requirements of Title 8, Chapter 14, and (b) include in any contracts with the sub-subcontractor's language requiring the sub-subcontract to comply with the applicable requirements of Title 8, Chapter 14. In the event any contractor, subcontractor and/or sub-subcontractor is found not to be in compliance with the SC Immigration Reform Act [hereinafter "The Act"], the contractor agrees to fully indemnify the City

for any loss suffered by the City as a result of such contractor, subcontractor or sub-subcontractor's failure to comply with the Act.

**FEDERAL, STATE AND LOCAL LAWS**: The contractor assumes full responsibility and liability for compliance with any and all local, state and federal laws and regulations applicable to Contractor and his employees including, but not limited to, compliance with the EEO guidelines, the Occupational Safety and Health Act of 1970, and minimum wage guidelines.

# **SEVERABILITY:**

If any provision of this contract is declared by a court to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected; and the rights and obligations of the parties shall be construed and enforced as if the contract did not contain the particular provision held to be invalid.

### **PAYMENT:**

Payment for completion of a contract is normally made within thirty (30) days following the date the entire order is delivered or the date a correct invoice is received, whichever is later. After forty-five (45) days the contractor may assess overdue account charges up to a maximum rate of one percent per month on the

outstanding balance. Payments will be remitted by mail. Payments may be made via a State or political subdivision "Purchasing Card."

### **FORCE MAJEURE:**

Neither party to this contract shall be held responsible for delay or default caused by fire, riot, acts of God and/or war which is beyond that party's reasonable control. CITY OF HANAHAN may terminate this contract after determining such delay or default will reasonably prevent successful performance of the contract.

### **HAZARDOUS CHEMICAL INFORMATION:**

The contractor will provide one set of the appropriate material safety data sheet(s) and container label(s) upon delivery of a hazardous material to the user agency. All safety data sheets and labels will be in accordance with each participating state's requirements, if applicable.

### FIRM PRICE:

Unless otherwise stated in the special terms and conditions, for the purpose of award, offers made in accordance with this solicitation must be good and firm for a period of ninety (90) days from the date of proposal opening. Prices must remain firm for the full term of the contract.

### **EXTENSION OF PRICES:**

In the case of error in the extension of prices in the proposal, the unit prices will govern.

**PROPOSAL PREPARATION COSTS**: The City of Hanahan is not liable for any costs incurred by the offeror in proposal preparation.

### **CONFLICT OF INTEREST:**

The contractor certifies that it has not offered or given any gift or compensation prohibited by the state laws of any the City of Hanahan participants to any officer or employee of the City of Hanahan to secure favorable treatment with respect to being awarded this contract.

CONTRACTOR LIABILITY: The contractor assumes full responsibility for all injuries to, or death of any person and for all damage to property, including property and employees of the City and for all claims, losses or expense which may in any way arise out of the performance of the work, whether caused by negligence or otherwise; and the contractor shall indemnify and save the City harmless from all claims, losses, expense, or suits for any such injuries, death or damages to property, and from all liens, losses, expenses, claims or causes of action of any sort which may arise out of the performance of the work, and shall defend, on behalf of the City and suit brought against the City for attorney's fees and for all other expenses incurred by the City in connection with or as a result of any such suit, claims, or loss. Under no circumstances and with no exception will City of Hanahan act as arbitrator between the contractor and any subcontractor. The contractor will be solely responsible for compliance with building code requirements, all dimensions, and all conditions relating to his work under this contract. Workmanship shall be first quality in every respect. All measures necessary to ensure a first-class job shall be taken.

### INDEPENDENT CONTRACTOR:

The contractor shall be an independent contractor, and as such shall have no authorization, express or implied to bind the City of Hanahan to any agreements, settlements, liability or understanding whatsoever, and agrees not to perform any acts as agent for City of Hanahan, except as expressly set forth herein.

### **DEBARMENT:**

The contractor certifies that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction (contract)

by any governmental department or agency. If the contractor cannot certify this statement, attach a written explanation for review by City of Hanahan.

### **GOVERNING LAW:**

This procurement and the resulting agreement shall be governed by and construed in accordance with the laws of the city and state sponsoring and administering the procurement. The construction and effect of any Participating Addendum or order against the contract(s) shall be governed by and construed in accordance with the laws of the Participating Entity's City and State. Venue for any claim, dispute or action concerning an order placed against the contract(s) or the effect of a Participating Addendum shall be in the Purchasing Entity 's City and State.

[Next Page]

# **ENTIRE AGREEMENT:**

This Agreement, and any attached exhibits hereto, and the solicitation documents, if any, constitute the entire Agreement between the parties and shall not be amended, altered or changed except after prior written approval from the City of Hanahan Procurement Office, in compliance with the S.C. Consolidated Procurement Code, and by written agreement, signed by the parties.

Accepted and executed the date stated above.
VENDOR/OFFEROR:
BY:
ITS:
CITY:
BY:
ITC.

SECTION 3 REQUIREMENTS - SOW

# **SCOPE:**

Upgrading electrical services at the Hanahan Amphitheater from single phase to a three phase 600-amp service. Please see attached Exhibits for information regarding this bid request. A Prebid meeting is scheduled for Thursday, October 24th, 2pm at the City Hall in Hanahan. Attendance is not mandatory.

# **Contact Information**:

Randy Moneymaker 3100 Mabeline Rd. Hanahan, SC 29410

(843) 266-0723

email: rmoneymaker@cityofhanahan.com

 Please include any detailed explanation of services offered, as they relate to the City Requirements provided herein, and your recommended approach to addressing the City needs.

# **License and Permits**

The contractor must be bonded and obtain all applicable licenses, and promptly pay all taxes required by the State of South Carolina, and/or City of Hanahan. Contractor is required to be licensed as a General Contractor by the State of South Carolina and shall supply a copy of all licensing.

# **Transmittal Letter**

The transmittal letter and attachments must include:

- Name of the firm responding, including mailing address, telephone number, fax number and email address.
- A statement that the offer submitted as a result of this solicitation is binding on the Bidder for ninety (90) calendar days following the BID due date.
- Signed by authorized person.
- Licenses and Certificates held by you and/or your company
- Executed/Signed Terms and Conditions
- Proposal Transmittal Agreement
- Price Proposal
- Statement of Non-Collusion

[Next Page]

# SECTION 4 PROPOSAL TRANSMITTAL AND AGREEMENT

The undersigned, having fully familiarized himself with the information contained within this Request for Bids, (including the Invitation Notice, Instructions to Bidders, General Conditions, Special Conditions (if applicable), Requirements, Bid Sheets, Affidavits of Bidder, and subsequently received written Amendment as listed below), submit the attached proposal. I verify (to the best of my knowledge and belief) this proposal to be true and correct. All requirements of the Request for Bids are hereby incorporated into the bid/proposal submitted and shall be incorporated by reference into the purchase contract or Agreement.

Respectfully submitted by:	
Respectfully submitted by:	(FIRM NAME)
Signature:	
Representative Name:	
Title:	
Address:	
Date:	
Telephone No:	
Fax Number:	
Email:	

# ATTACHMENT #1 PRICE PROPOSAL

### "ELECTRICAL CONTRACTOR-AMPHITHEATER"

Please provide sufficient detail to show all cost. (Detail cost <u>must</u> be submitted in a separate sheet and envelope and attached with this Section Sheet).

<u>Note</u>: The SOW is not a comprehensive list of all Work Materials or labor that will be required. Contractor is encouraged to attend the pre-bid meeting to ask questions regarding materials and scope of work that may be in addition to what is listed in this bid document. See Exhibits A, B, C, D and E attached hereto and incorporated into this bid request.

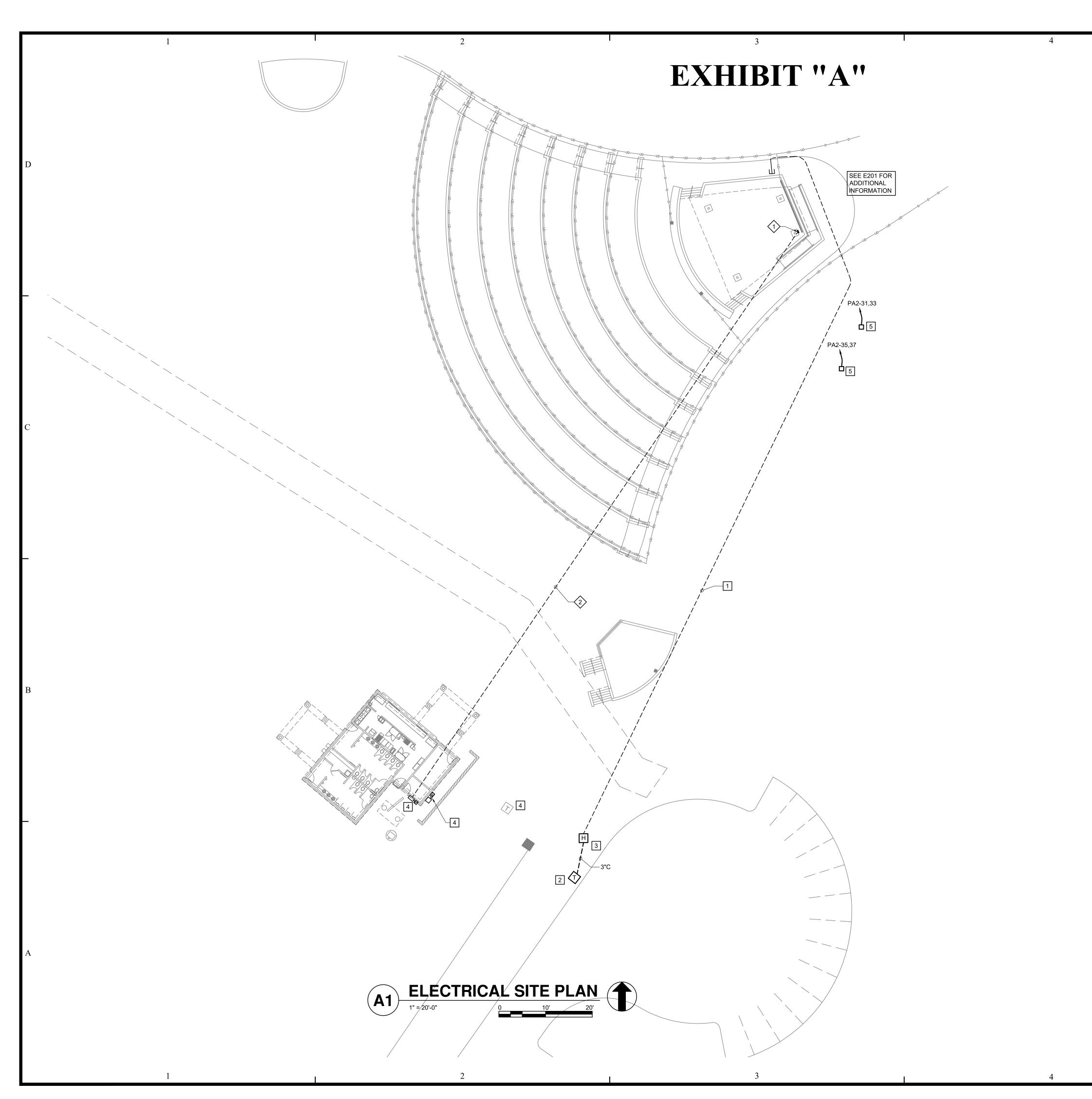
Company Name
1 7
Representative
G'
Signature of Authorized Representative

# ATTACHMENT #2 NONCOLLUSION AFFIDAVIT OF BIDDER

(1)	He is	(owner, partner, officer, representative or agent), the Bidder that has submitted the attached
(2)	He is fully informed regarding the preparation pertinent circumstances regarding such Bids:	and contents of the attached Proposal and of all
(3)	Such Proposal is genuine and is not a collusive of	r sham Proposal;
(4)	or parties in interest, including this affidavit, I agreed, directly or indirectly with any other Bid Proposal in connection with the Contract for wh refrain from quoting in connection with such Co sought by agreement or collusion or communicate person to fix the price or prices in the attached overhead, profit or cost element of the Proposal to secure through any collusion, conspiracy,	artners, owners, agents, representatives, employees has in any way colluded, conspired, connived or lder, firm or person to submit a collusive or sham ich the attached Proposal has been submitted or to ontract, or has in any manner directly or indirectly, ation or conference with any other Bidder, firm or d Proposal or of any other Bidder, or to fix any price or the Proposal price of any other Bidder or onnivance or unlawful agreement any advantage any person interested in the proposed contract; and
(5)		osal are fair and proper and are not tainted by any agreement on the part of the Bidder or any of its arties in interest, including this affidavit.
SIG	NED:	
TITI	LE:	

# **ATTACHED EXHIBITS**

A, B, C, D AND E



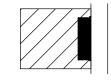
# **LEGEND**

HOMERUN OF CIRCUIT TO PANEL -CIRCUIT NUMBERS INDICATED.

PAD MOUNTED TRANSFORMER

JUNCTION BOX

ELECTRICAL METER, WEATHERPROOF ENCLOSURE



PANELBOARD, SURFACE MOUNTED. HATCHING INDICATES CLEAR SPACE IN

ELECTRICAL HANDHOLE

ELECTRICAL EARTH GROUND

# **GENERAL NOTES**

- 1. FURNISH ALL MATERIALS AND LABOR NECESSARY TO PROVIDE COMPLETE AND PROPERLY OPERATING ELECTRICAL SYSTEMS. FURNISH ALL MATERIALS AND LABOR NECESSARY TO DEMONSTRATE TO THE OWNER AND TO THE ENGINEER THAT ALL SYSTEMS ARE OPERATING PROPERLY AND AS SPECIFIED. WARRANTY ALL WORK AND ALL MATERIALS, EQUIPMENT AND DEVICES FOR A PERIOD OF ONE YEAR AFTER OWNER'S ACCEPTANCE.
- 2. ENSURE THAT ALL WORK CONFORMS TO THE LATEST EDITION OF:
- 2.1. ANSI/NFPA 70 (NATIONAL ELECTRICAL CODE)
- 2.2. NECA STANDARD OF INSTALLATION 2.3. SOUTH CAROLINA BUILDING CODE
- 2.4. NFPA 101 (LIFE SAFETY CODE)
- 2.5. ALL FEDERAL, STATE AND LOCAL CODES AND ORDINANCES
- 2.6. LOCAL UTILITY COMPANY REGULATIONS
- 3. ALL MATERIALS, EQUIPMENT AND DEVICES AS A MINIMUM SHALL MEET THE REQUIREMENTS OF U.L. (WHERE U.L. STANDARDS ARE ESTABLISHED FOR THOSE ITEMS) AND THE REQUIREMENTS OF THE NFPA 70. ALL ITEMS SHALL BE CLASSIFIED BY U.L. AS SUITABLE FOR THE PURPOSE USED.
- 4. COORDINATE WITH AND OBTAIN PERMITS AND INSPECTIONS FROM THE AUTHORITY HAVING JURISDICTION. INCLUDE
- 5. PROVIDE A LAMINATED PLASTIC NAMEPLATE FOR EACH MAJOR ITEM OF ELECTRICAL EQUIPMENT. ATTACH WITH SCREWS, BOLTS OR RIVETS. LABEL ALL SERVICE METERS AND DISCONNECTS WITH NAME AND IDENTIFY SPACE/AREA
- 6. BOND THE NEUTRAL AND GROUND BUS TOGETHER AT THE SERVICE EQUIPMENT ONLY. BOND THE GROUNDING CONDUCTOR TO THE GROUNDING ELECTRODE SYSTEM (WHICH IS COMPRISED OF A 3/4"x10' DRIVEN GROUND ROD AND CONNECTIONS TO METALLIC PIPING, BUILDING STEEL, ETC.). PROVIDE INSULATED NEUTRALS FOR ALL SUBPANELS PER N.E.C. ARTICLE 250.
- 7. PROVIDE MINIMUM SIZE OF #12 CONDUCTOR FOR 20A POWER CIRCUITS LESS THAN 75'-0" IN LENGTH. OTHERWISE, PROVIDE MINIMUM CONDUCTOR SIZE OF #10. PROVIDE MINIMUM SIZE OF #12 AWG FOR LIGHTING CIRCUITS AND #16 FOR CONTROL CIRCUITS UNLESS NOTED OTHERWISE. INSTALL ALL WIRING IN CONDUIT UNLESS NOTED OTHERWISE.
- 8. PROVIDE TYPEWRITTEN DIRECTORY FOR ALL CIRCUITS. DIRECTORY SHALL IDENTIFY PANELBOARD AND INDICATE EACH CIRCUIT NUMBER, DESCRIPTION AND LOCATION.
- 9. THE CLEARANCE AROUND PANELS SHALL COMPLY WITH NEC AND SCFC 605.3 WORKING SPACE AND CLEARANCE. A WORKING SPACE OF NOT LESS THAN 30 INCHES (762 MM) IN WIDTH, 36 INCHES (914 MM) IN DEPTH AND 78 INCHES (1981 MM) IN HEIGHT SHALL BE PROVIDED IN FRONT OF ELECTRICAL SERVICE EQUIPMENT. WHERE THE ELECTRICAL SERVICE EQUIPMENT IS WIDER THAN 30 INCHES (762 MM), THE WORKING SPACE SHALL NOT BE LESS THAN THE WIDTH OF THE EQUIPMENT. NO STORAGE OF ANY MATERIALS SHALL BE LOCATED WITHIN THE DESIGNATED WORKING SPACE. PROVIDE STRIPING ON THE FLOOR AROUND ELECTRICAL PANELS TO CLEARLY IDENTIFY/INDICATE CLEARANCE AREA/NO STORAGE AREA.
- 10. MAKE ARRANGEMENTS WITH THE POWER COMPANY TO OBTAIN PERMANENT POWER AND PROVIDE TEMPORARY ELECTRICAL SERVICE TO THE PROJECT FOR CONSTRUCTION POWER. PROVIDE SERVICE ENTRANCE AND PROVISION FOR METERING IN ACCORDANCE WITH THE POWER COMPANY'S REQUIREMENTS. INCLUDE ALL FEES IN BID.

# **DEMOLITION NOTES**

(1) EXISTING PANEL TO BE DEMOLISHED.

(2) REMOVE CONDUCTORS IN PANEL 'PA1' SERVING PANEL 'PA2' AND ABANDON/CAP CONDUIT IN PLACE. MARK CIRCUIT BREAKER IN PANEL 'PA1' AS SPARE. CONSTRUCTION PHASING SHALL BE SUCH THAT EXISTING POWER TO PANEL 'PA2' IS NOT TO BE DISCONNECTED UNTIL NEW TRANSFORMER AND POWER IS INSTALLED.

# **DRAWING NOTES**

1 EXISTING CONDUIT FOR NEW TRANSFORMER TO REMAIN. FIELD VERIFY LOCATION.

2 NEW 120/208V3Ø TRANSFORMER BY DOMINION ENERGY. FIELD COORDINATE EXACT LOCATION WITH OWNER PRIOR TO INSTALLATION. EXISTING AND NEW SITE LIGHTING (BY DOMINION ENERGY) TO BE FED FROM NEW TRANSFORMER. SEE DETAILS ON E401.

3 PROVIDE 24"X24" UNDERGROUND PULLBOX AT TERMINATION LOCATION OF EXISTING CONDUIT FROM DRAWING NOTE 1

4 EXISTING TO REMAIN.

5 PROVIDE PEDESTAL-MOUNTED POWER OUTLET ASSEMBLY WITH ONE (1) 14-50R AND ONE (1) 5-20R GFCI RECEPTACLE FOR TOUR BUS POWER. PROVIDE 2#8, 1#10G FOR 50A RECEPTACLE AND 2#10, 1#10G IN 1" CONDUIT FOR EACH ASSEMBLY. MILLBANK U5000-XL-75-C OR APPROVED EQUAL. FIELD COORDINATE EXACT LOCATION PRIOR TO

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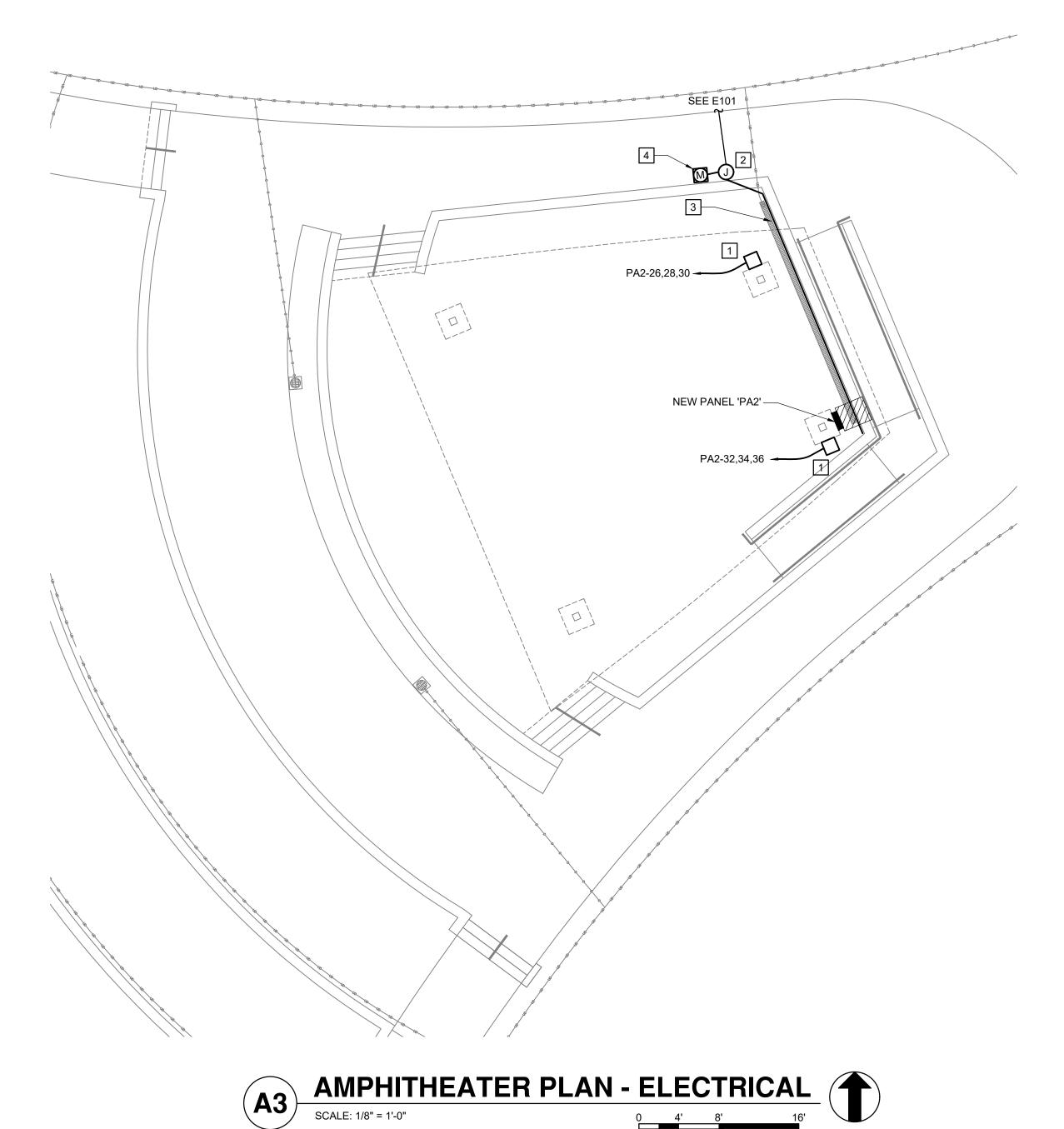


**DESIGNED BY:** DRAWN BY **CHECKED BY:** JOB NUMBER

19-080

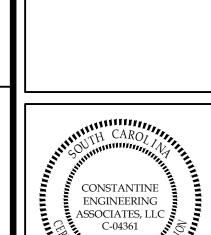
E101 PERMIT DOCUMENTS

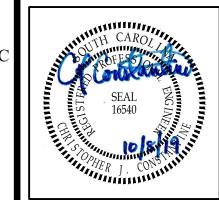
# EXHIBIT "B"



# **DRAWING NOTES**

- PROVIDE 200A/3P BRANCH CIRCUIT TO NEW NEMA 3R JUNCTION BOX TO BE INSTALLED ON COLUMN. JUNCTION BOX TO SERVE AS CONNECTION POINT FOR DISTRO BOXES (PROVIDED BY OTHERS) AND CONTAIN CAM-LOCK CONNECTIONS AS WELL AS A DIRECT-CONNECT OPTION. OWNER'S AVV PRODUCTION CONSULTANT TO TO PROVIDE SPECIFIC CONNECTOR SPECIFICATION. FIELD COORDINATE BOX MOUNTING HEIGHT WITH OWNER PRIOR TO ROUGH-IN. PROVIDE A \$3000 ALLOWANCE PER BOX IN BID.
- 2 PROVIDE JUNCTION BOX AND TERMINATE EXISTING CONDUITS STUBBED UP IN THIS AREA INTO BOX.
- PROVIDE 2-1/2"C FROM JUNCTION BOX IN DRAWING NOTE 2 TO BE ROUTED AS SHOWN ON GROUND ALONG BACK WALL BETWEEN WALL AND EXISTING FLOOR DRAIN. WHERE CONDUIT CROSSES FLOOR OVER TO COLUMN, PROVIDE PIPE
- 4 INSTALL NEW METER SERVING PANEL 'PA2' ON UNISTRUT STAND IN THIS AREA.





DESIGNED BY: JOB NUMBER

19-080

SHEET NUMBER **E201** 

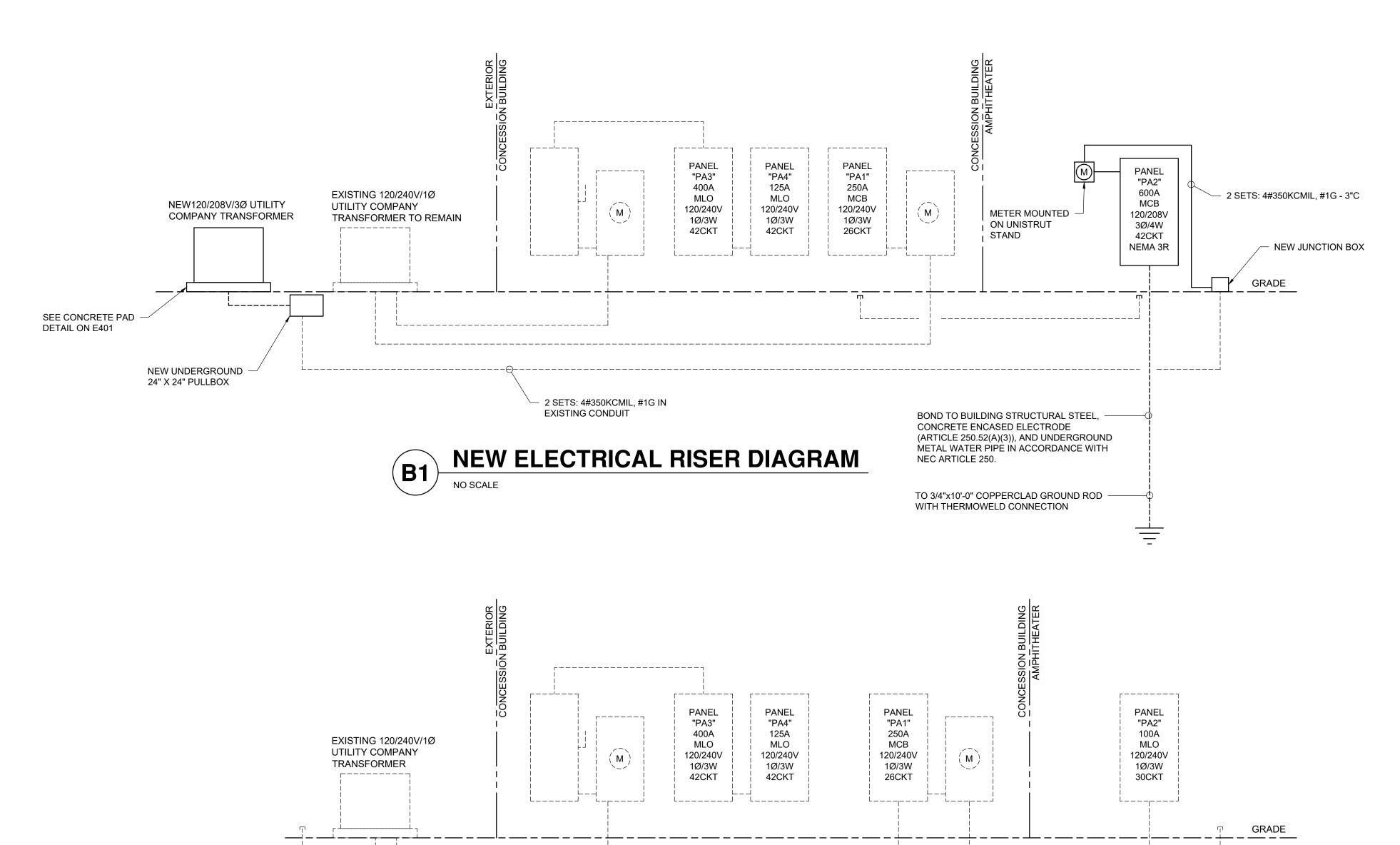
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EXHIBIT "C"

ELECTRICAL PANEL "PA2" SCHEDULE (NEW)*														
•	VOLTS	/PHASE/WIRE:	PANEL SIZE & TYPE:	MAIN	SIZE &	TYPE:	(	CABINET	•	MIN SCC:	FED FROM:	NO	ΓES:	
	12	20-208/3/4	600A	6	00A MC	В	;	SURFACI	E	22KAIC XFMR NEMA 3R; T SERVICE-E RAT		NTRANCE		
NO	TRIP	AREA	A SERVED	Α	В	С	Α	В	С		AREA SERVED		TRIP	NO
1	20	EXISTING		1920			1920			EXISTING			20	2
3	20	EXISTING			1920			1920		EXISTING			20	4
5	20	EXISTING				1920			1920	EXISTING			20	6
7	20	EXISTING		1920			1920			EXISTING			20	8
9	20	EXISTING			1920			1920		EXISTING			20	10
11	20	EXISTING				1920			1920	EXISTING			20	12
13	20	EXISTING		1920			1920			EXISTING			20	14
15	20	EXISTING			1920			1920		EXISTING			20	16
17	20	EXISTING				1920			1920	EXISTING			20	18
19	20	EXISTING		1920			1920			EXISTING			20	20
21	20	EXISTING			1920			1920		EXISTING			20	22
23	20	EXISTING				1920			1920	EXISTING			20	24
25	20	SPARE		Х			19200			]				26
27	30	EXISTING			2496			19200		CAM-LOCK	BOX		200	28
29		Externite				2496			19200					30
31	50	TOUR BUS PEDES	STAL	4160			19200							32
33					4160			19200		CAM-LOCK BOX			200	34
35	50	TOUR BUS PEDES	STAL			4160			19200					36
37			· · · · <del>- ·</del>	4160			Х			SPARE			20	38
39	20	SPARE			Х			Х		SPARE			20	40
41	20	SPARE				Х			Х	SPARE			20	42
тот	AL CO	NNECTED LOAD =	182912	VA	тоти	AL DEM	AND =	182	912	VA TOT	AL DEMAND =	508	AMI	PS

\* EXISTING BRANCH CIRCUITS SHALL BE RECONNECTED IN NEW PANEL TO THE SAME CIRCUIT NUMBER AS CURRENTLY INSTALLED. ALL BREAKERS ARE NEW. MAXIMUM LOADS PER BRANCH CIRCUIT ARE SHOWN FOR REFERENCE ONLY.

-----



**EXISTING ELECTRICAL RISER DIAGRAM** 

# **ELECTRICAL SPECIFICATIONS**

- 1.A. Summary: Building wires and cables and associated splices, connectors, and terminations for
- 2. WIRES AND CABLES 2.A. Building Wires and Cables: Type THHN/XHHW copper conductor rated for operation at 90° C.
- 2.B. Connectors and Splices: Wiring connectors of size, ampacity rating, material, and type and class for application and for service indicated. Terminals to be rated for operation at 75°C.
- - 3.A.3. Electrical Metallic Tubing: ANSI C80.3.
- 3.B. Wireways: Hinged type, with manufacturer's standard finish.
- 3.D. Pull and Junction Boxes: Small sheet metal boxes.
- 4. INSTALLATION
- 4.B. Wiring at Outlets: Install with at least 12 inches of slack conductor at each outlet.
- 4.C.1.Exposed: Rigid or intermediate metal conduit.
- 4.C.3. Underground, Single Run: Rigid nonmetallic conduit.

- 4.E. Raceways Embedded in Slabs: Install in middle third of the slab thickness where practical, and
- 4.F. Install exposed raceways parallel to or at right angles to nearby surfaces or structural
- members, and follow the surface contours as much as practical.
- bonding bushings or wedges at connections subject to vibration. Use bonding jumpers where joints cannot be made tight. Use insulating bushings to protect conductors.
- 4.H. Install pull wires in empty raceways. Use No. 14 AWG zinc-coated steel or monofilament plastic line having not less than 200-lb tensile strength. Leave not less than 12 inches of c
- conduit may be used 6 inches above the floor.

# 4.J. Install a separate green ground conductor in all raceways.

# WIRING DEVICES

- 1. SECTION REQUIREMENTS
- 2.B. Color: White.
- 3. INSTALLATION
- 3.B. Mount devices flush, with long dimension vertical, and grounding terminal of receptacles on
- 2.A. Surface-mounted, NEMA PB 1, Type 1.
- 2.B. Molded-Case Circuit Breaker: NEMA AB 1; no tandem circuit breakers; single handle for
- 3.A. Install panelboards and accessory items according to NEMA PB 1.1. Indicate installed circuit loads on a typed circuit directory, after balancing panelboard loads, showing as-built
- 3.B. Wiring in Panelboard Gutters: Arrange conductors into groups, bundle and wrap with wire ties.

# WIRING METHODS

- 1. SECTION REQUIREMENTS
- wiring systems rated 600 V and less, and twisted-pair cable; and raceways and boxes.
- 2.C. Use of type MC Cable is permitted in accordance with NEC.
- RACEWAYS
- 3.A. Conduit: Comply with the following:
  - 3.A.1. Rigid Steel Conduit: ANSI C80.1. 3.A.2. Intermediate Metal Conduit: ANSI C80.6.
  - 3.A.4. Rigid Nonmetallic Conduit: NEMA TC 2, Schedule 40.
- 3.C. Floor Boxes: Concrete, fully adjustable, rectangular.
- 4.A. Install wires and cables according to the NECA's "Standard of Installation."
- 4.C. Outdoors Wiring Methods: As follows:
- 4.C.2. Concealed: Rigid or intermediate metal conduit.
- 4.C.4. Underground, Grouped: Rigid nonmetallic conduit. 4.D. Use Raceway fittings compatible with raceway and suitable for use and location. For
- intermediate steel conduit, use threaded rigid steel conduit fittings, unless otherwise indicated.
- leave at least 1-inch concrete cover.
- 4.G. Join raceways with fittings designed and approved for the purpose and make joints tight. Use
- slack at each end of the pull wire. 4.I. Stub-up Connections: Extend conductors to equipment with rigid steel conduit; flexible metal

- 1.A. Submit Product Data
- 2. DEVICES
- 2.A. General Purpose Wiring Devices: Comply with NEMA WD1.
- 2.C. Receptacles: UL 498, general-use grade except as indicated otherwise.
- 3.A. Install devices and assemblies plumb and secure.
- 3.C. Protect devices and assemblies during painting.

# PANELBOARDS

- 1. SECTION REQUIREMENTS
- 1.A. Submit Product Data.
- 2. PANELBOARDS AND LOAD CENTERS
- 2.A.1. Front: Secured to box with concealed trim clamps.
- 2.A.2. Bus: Hard drawn copper of 98 percent conductivity.
- multiple circuit breakers.
- 3. INSTALLATION

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C-04361

**DESIGNED BY:** DRAWN BY **CHECKED BY:** DATE:

JOB NUMBER

19-080 E301

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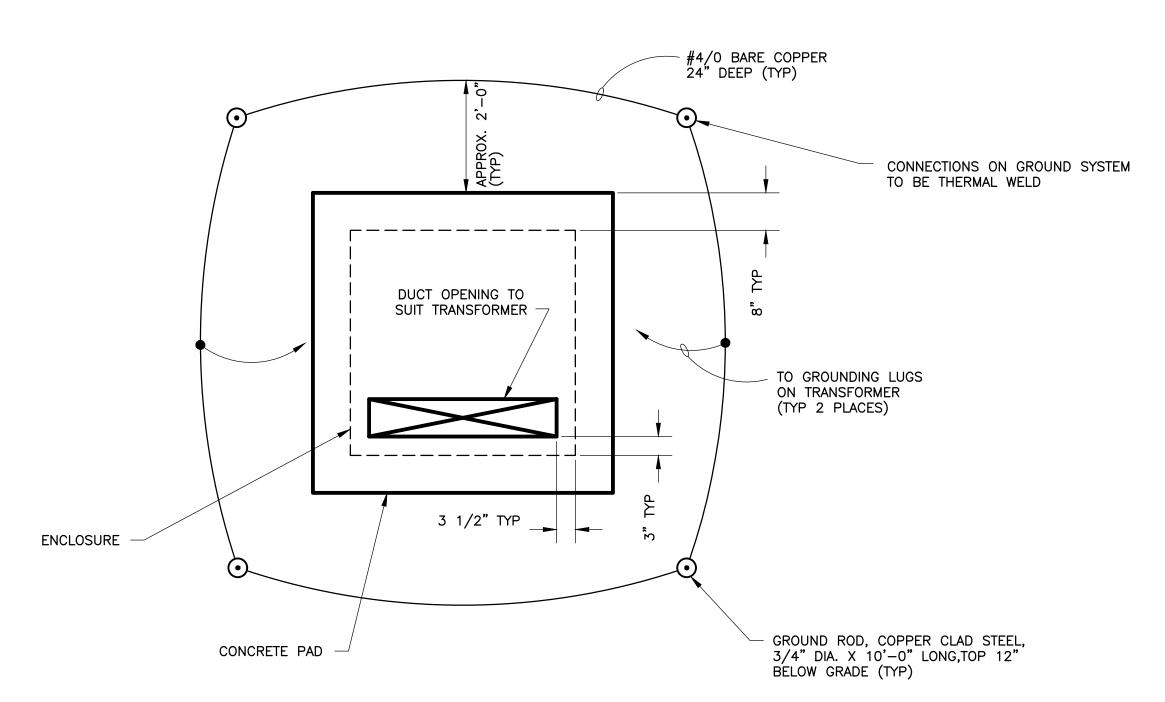
# EXHIBIT "D"

MAIN PANELOARD -NEUTRAL BUS -MAIN BONDING -JUMPER - EXISTING BUILDING PANELBOARD — SYSTEM GROUND BUS. GROUND BUS - GROUNDING CLAMP WITHIN 5 FEET OF ENTRANCE POINT OF PIPE STRUCTURAL STEEL (IF AVAILABLE) - WATER SERVICE AT STREET SIDE - BUILDING BUILDING SERVICE OF WATER METER. UNDERGROUND **TRANSFORMER** METAL WATER PIPE GREATER THAN 3.05 METERS LONG. TRANSFORMER **GROUND BUS** BUILDING SUPPLEMENTAL GROUND ROD, TYPICAL

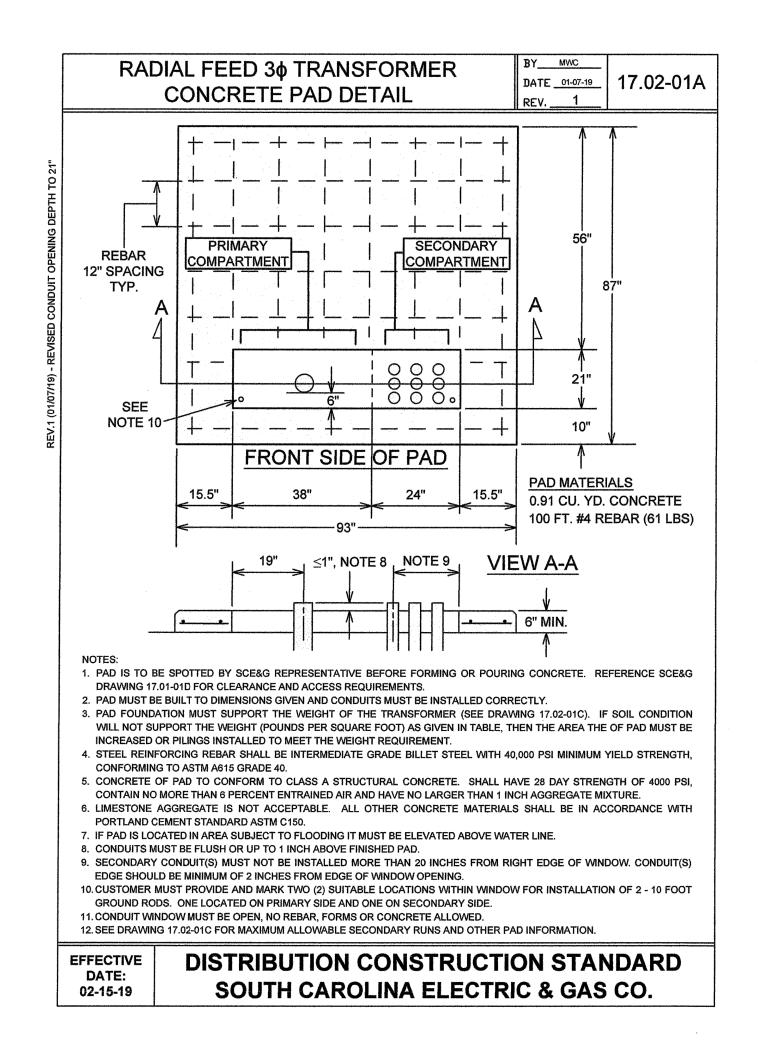
# JEND.

- INDICATES BOLTED CONNECTION.
- INDICATES EXOTHERMIC WELD CONNECTION, COMPATIBLE WITH MATERIALS BEING JOINED.
- 1) #4/0 AWG INSULATED COPPER GROUND CONDUCTOR IN 30mm CONDUIT.
- (2) #2/0 AWG INSULATED COPPER GROUND CONDUCTOR IN 30mm CONDUIT.
- (3) #4/0 AWG BARE COPPER GROUND CONDUCTOR.
- 19mm x 3050mm 3 (3/4" x 10'-0" EACH) LONG COPPER-CLAD GROUND ROD DRIVEN IN TRIAD CONFIGURATION WITH TOP 300mm (12") BELOW GRADE. PER NEC SECTION 250.

# BUILDING GROUNDING ELECTRODE SYSTEM NO SCALE



# TRANSFORMER SLAB & GROUNDING DETAIL NO SCALE



# UTILITY COMPANY TRANSFORMER PAD DETAIL NO SCALE

HANAHAN RECREATION CE

CONSTANTINE

ENGINEERING

ASSOCIATES, LL

DESIGNED BY: CLN
DRAWN BY: CLN
CHECKED BY: CJ
DATE: 10/08/3

JOB NUMBER
19-080

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SHEET NUMBER
E401





# Recreational Vehicle Park

**Electrical Products & Accessories** 





# Milbank Overview

# Energy At Work since 1927

Milbank designs and manufactures electrical solutions that move and manage power for the residential, commercial, industrial, utility and transportation sectors. With more than 90 years of expertise in electrical engineering design and manufacturing, Milbank's portfolio includes metering equipment, enclosures and enclosed controls. Founded in 1927, Milbank is a family-owned, American manufacturer headquartered in Kansas City, Mo. For more information, please visit milbankworks.com.



# METERING

As a market leader in electrical metering equipment, Milbank has set the standard for quality since 1927. Hundreds of configurations are available, including many sizes, knockout configurations, terminal configurations, bypass options, hubs, locks and connectors. Milbank has the socket you need with thousands of active products to meet your utility's requirements.



# **ENCLOSURES**

Milbank's line of enclosures include commercial junction boxes, panel mount enclosures, transformer cabinets, wireway, and troughs. Built with high-quality craftsmanship and materials which meet or exceed industry standards, Milbank enclosures are made to protect controls and equipment from dust, dirt and other harmful elements found in a wide variety of environments based on various NEMA rating Milbank offers.



### **ENCLOSED CONTROLS**

Milbank doesn't just build empty enclosures. We can deliver the entire package, complete with custom control equipment built to your exact specifications by our engineers. Milbank enclosed controls are an attractive, secure, easy to install and cost-effective solution when underground remote site power distribution and control equipment is required, replacing unsightly and inefficient strut and backboard structures.





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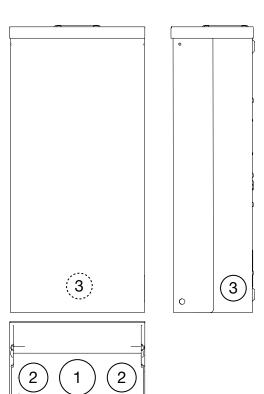


# MILLENNIUM SERIES SURFACE MOUNT POWER OUTLETS

# **Surface Mount Power Outlet**

125 Amps | Unmetered | 120/240 VAC





# **Specifications**

- UL listed 125 Amps, 120/240 Volt, 1Ø power outlet.
- Short circuit current withstand rating 10,000 RMS symmetrical amperes.
- Type 3R welded enclosure for durable outdoor use.
- Enclosure constructed with galvanized 16 gauge steel.
- ANSI 61 grey polyester powder coat finish.
- Convenient concentric knock-out configurations and mounting embosses.
- Hub opening with closure plate allows for meter retrofit.
- Wire terminations accept copper or aluminum conductors for loop feed wiring.
   Line: (2) 1/0-#12 Ground: (2) 1/0-#14 & (4) #6-#14 Neutral: (2) 1/0-#14 & (4) #6-#14
- Six circuit plated copper interior accepts standard plug-in type circuit breakers. Rated up to 125 Amps.
- Three position self-grounded receptacle bridge accepts most standard NEMA receptacles with mounting plates.
- Components factory wired with stranded copper wire.
- Lockable hinge cover and dead front are removable for installation and maintenance. Stay-open hinge cover has safety interlock on dead front. Dead front cover must be removed before hinge cover can be removed.





# **Surface Mount Power Outlet**

125 Amps | Unmetered | 120/240 VAC

SERIES SURFACE MOUNT POWER OUTLETS

# 125 Amps | Surface Mount Power Outlets

Catalog	Receptacle	Circuit Breaker	Loop	Connectors -	Dir	nensi	ons	Knockouts		
Number	Configuration	Configuration	Feed	Line	D"	W"	Н"	1	2	3
U5000-XL	_	_	Yes	(2) 1/0-#12	5⅓	81/8	191⁄4	2	1½	11/4
U5000-XL-332	А	W	Yes	(2) 1/0-#12	5⅓	81/8	191⁄4	2	1½	11/4
U5000-XL-41	В	X	Yes	(2) 1/0-#12	5⅓	87/8	191⁄4	2	1½	11/4
U5000-XL-55	С	Y	Yes	(2) 1/0-#12	5⅓	87/8	191⁄4	2	1½	11/4
U5000-XL-75	D	Z	Yes	(2) 1/0-#12	5⅓	87/8	191⁄4	2	1½	11/4

Receptacle Configura	ations		
Α	В	С	D
(2) TT30R, (1) 5-20R GFI	(1) TT30R, (1) 5-20R GFI	(1) 14-50R, (1) 5-20R GFI	(1) 14-50R, (1) TT30R, (1) 5-20R GFI

# **Circuit Breaker Configurations**

W	X	Υ	Z
		HII	
(2) 30A, 1P, 120V (1) 20A, 1P, 120V	(1) 30A, 1P, 120V (1) 20A, 1P, 120V	(1) 50A, 2P, 120/240V (1) 20A, 1P, 120V	(1) 50A, 2P, 120/240V (1) 30A, 1P, 120V (1) 20A, 1P, 120V

# **Notes**

• 20 Amps GFI receptacles are weather resistant and tamper resistant.



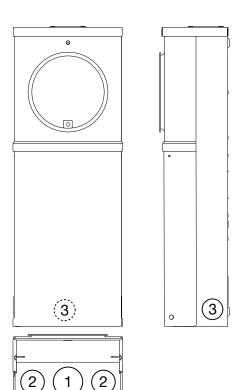


# **Surface Mount Power Outlets**

125 Amps | Metered | 120/240 VAC







U5100-XL-75

# **Specifications**

- UL listed 125 Amps, 120/240 Volt—1Ø power outlet.
- Short circuit current withstand rating 10,000 RMS symmetrical amperes.
- Type 3R welded enclosure for durable outdoor use.
- Enclosure constructed with galvanized 16 gauge steel.
- ANSI 61 grey polyester powder coat finish.
- Convenient concentric knock-out configurations and mounting embosses.
- Hub opening with closure plate.
- Wire terminations accept copper or aluminum conductors. Loop feed not available.
- Line: (2) #6-250 kcmil Ground: (2) 1/0-#14 & (4) #6-#14 Neutral: (2) 1/0-#14 & (4) #6-#14
- Six circuit plated copper interior accepts standard plug-in type circuit breakers. Rated up to 125 Amps.
- Three position self-grounded receptacle bridge accepts most standard NEMA receptacles with mounting plates.
- Four terminal, ring type meter socket with aluminum sealing ring. Ringless type meter socket available. Use U5101 prefix.
- Components factory wired with stranded copper wire.
- Lockable hinge cover and dead front are removable for installation and maintenance. Stay-open hinge cover has safety interlock on dead front. Dead front must be removed before hinge cover can be removed.
- LED or fluorescent site light kits available. Factory or field installable. See accessories page.
- Unit weight: 26 lbs.





# **Surface Mount Power Outlets**

125 Amps | Metered | 120/240 VAC

SERIES SURFACE MOUNT POWER DUTLETS

# 125 Amps | Surface Mount Power Outlets

Catalog	Meter	Receptacle	Circuit Breaker	Loop Connectors -		Dir	nensi	ons	Kn	ocko	uts
Number	Type	Configuration	Configuration	Feed	Line	D"	W"	Н"	1	2	3
U5100-XL	Ring Type	_	_	No	#6-250	5⅓	87/8	25	2	1½	11/4
U5101-XL	Ringless	_	_	No	#6-250	5⅓	87/8	25	2	11/2	11/4
U5100-XL-41	Ring Type	А	X	No	#6-250	5⅓	87/8	25	2	1½	11/4
U5100-XL-55	Ring Type	В	Y	No	#6-250	5⅓	87/8	25	2	1½	11/4
U5100-XL-75	Ring Type	С	Z	No	#6-250	5⅓	87/8	25	2	1½	11/4

### **Receptacle Configurations**

Α	В	С
(1) TT30R, (1) 5-20R GFI	(1) 14-50R, (1) 5-20R GFI	(1) 14-50R, (1) TT30R, (1) 5-20R GFI

# **Circuit Breaker Configurations**

Х	Υ	Z		
	<b>H</b>			
(1) 30A, 1P, 120V (1) 20A, 1P, 120V	(1) 50A, 2P, 120/240V (1) 20A, 1P, 120V	(1) 50A, 2P, 120/240V (1) 30A, 1P, 120V (1) 20A, 1P, 120V		

### **Notes**

- 20 Amps GFI receptacles are weather resistant and tamper resistant.
- 20 Amps GFI required at each RV site by UL and NEC 551-71.
- LED or fluorescent site light kits available. Factory or field installable. See accessories page.
- Contact factory for additional configurations not shown here.

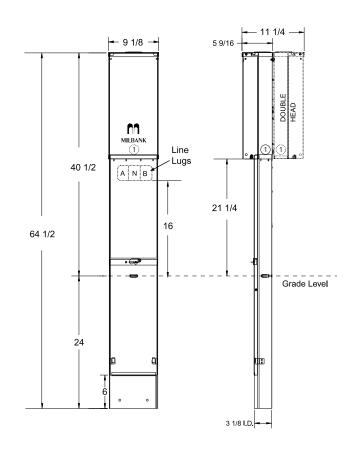


# MILLENNIUM SERIES POWER OUTLET PEDESTALS

# **Power Outlet Pedestals**

125 Amps | Unmetered | 120/240 VAC





U5200-XL-75

# **Specifications**

- UL listed 125 Amps, 120/240 Volt—1Ø power outlet.
- Short circuit current withstand rating 10,000 RMS symmetrical amperes.
- Type 3R welded enclosure for durable outdoor use.
- Enclosure constructed with galvanized 16 gauge steel.
- Direct burial or pad mounted post constructed with 16 gauge galvanized steel. Two removable front covers for ease of installation. Accepts up to (3) 2 1/2" conduits.
- ANSI 61 grey polyester powder coat finish.
- Convenient concentric knock-out configurations.
- Hub opening with closure plate allows for meter retrofit.
- Wire terminations accept copper or aluminum conductors for loop feed wiring.

- Line: (2) #6-350 kcmil per phase, ground: (2) #14-2/0, neutral: (2) #6-350 kcmil
- Six circuit plated copper interior accepts standard plug-in type circuit breakers. Rated up to 125 Amps.
- Three position self-grounded receptacle bridge accepts most standard NEMA receptacles with mounting plates.
- Components factory wired with stranded copper wire.
- Lockable hinge cover and dead front are removable for installation and maintenance. Stay-open hinge cover has safety interlock on dead front. Deadfront must be removed before hinge cover can be removed.
- LED or fluorescent site light kits available. Factory or field installable. See accessories page.
- Unit weight single: 48 lbs., double: 70 lbs.





# **Power Outlet Pedestals**

125 Amps | Unmetered | 120/240 VAC



# 125 Amps | Unmetered Power Outlet Pedestals

Catalog	Mounting	Dl.	Receptacle	Receptacle	Circuit Breaker Lo	Loop	Connectors	Dimensions			Knockouts
Number	Туре	Powerheads	Configuration	Configuration	Feed	(Line)	D"	W"	Н"	1	
U5200-XL	Direct Burial	Single	_	_	Yes	#6-350	5%16	811/16	64½	11/4	
U5200-XL-332	Direct Burial	Single	Α	W	Yes	#6-350	5%16	811/16	64½	11/4	
U5200-XL-41	Direct Burial	Single	В	X	Yes	#6-350	5%16	811/16	64½	11/4	
U5200-XL-55	Direct Burial	Single	С	Υ	Yes	#6-350	5%16	811/16	64½	11/4	
U5200-XL-75	Direct Burial	Single	D	Z	Yes	#6-350	5%16	811/16	64½	11/4	
U5210-XL	Pad Mount	Single		_	Yes	#6-350	5%16	811/16	40½	11/4	
U5220-XL	Direct Burial	Double		_	Yes	#6-350	1111/4	811/16	64½	11/4	
U5220-XL-41	Direct Burial	Double	В	X	Yes	#6-350	1111/4	811/16	64½	11/4	
U5220-XL-75	Direct Burial	Double	D	Z	Yes	#6-350	1111/4	811/16	64½	11/4	
U5230-XL	Pad Mount	Double	_	_	Yes	#6-350	1111/4	811/16	40½	11/4	

# **Receptacle Configurations**

Α	В	С	D
(2) TT30R, (1) 5-20R GFI	(1) TT30R, (1) 5-20R GFI	(1) 14-50R, (1) 5-20R GFI	(1) 14-50R, (1) TT30R, (1) 5-20R GFI

# **Circuit Breaker Configurations**

W	Χ	Υ	Z		
		P+0 0	0+0 0 0		
(2) 30A, 1P, 120V (1) 20A, 1P, 120V	(1) 30A, 1P, 120V (1) 20A, 1P, 120V	(1) 50A, 2P, 120/240V (1) 20A, 1P, 120V	(1) 50A, 2P, 120/240V (1) 30A, 1P, 120V (1) 20A, 1P, 120V		

### **Notes**

- 20 Amps GFI receptacles are weather resistant and tamper resistant.
- 20 Amps GFI required at each RV site by UL and NEC 551-71.
- LED or fluorescent site light kits available. Factory or field installable. See accessories page.
- Contact factory for additional configurations not shown here.





# MILLENNIUM SERIES POWER OUTLET PEDESTALS

# **Power Outlet Pedestals**

125 Amps | Metered | 120/240 VAC



9 1/8 --5 9/16-40 7/8 Meter 46 1/4 Line Lugs A N B 70 1/4 21 1/4 16 Grade Level 24 A=3/4, 1, 1 1/4, 1 1/2, 2 -3 1/8 I.D. B=(2) 1/2, 3/4, 1, 1 1/4

U5300-O-75

# **Specifications**

- UL listed 125 Amps, 120/240 volts—1Ø power outlet.
- Short circuit current withstand rating 10,000 RMS symmetrical amperes.
- Type 3R welded enclosure for durable outdoor use.
- Enclosure constructed with galvanized 16 gauge steel.
- Direct burial or pad mounted post constructed with 16 gauge galvanized steel. Two removable front covers for ease of installation. Accepts up to (3) 2 1/2" conduits.
- ANSI 61 grey polyester powder coat finish.
- Wire terminations accept copper or aluminum conductors for loop feed wiring. Line: (2) #6-350 kcmil per phase Ground: (2) #14-2/0 Neutral: (2) #6-350 kcmil
- Six circuit plated copper interior accepts standard plug-in type circuit breakers. Rated up to 125 Amps.

- Three position self-grounded receptacle bridge accepts most standard NEMA receptacles with mounting plates.
- Four terminal, drawn ring type meter socket with aluminum sealing ring.
- Components factory wired with stranded copper wire.
- Lockable hinge cover and dead front are removable for installation and maintenance. Stay-open hinge cover has safety interlock on dead front. Dead front must be removed before hinge cover can be removed.
- LED or fluorescent site light kits available. Factory or field installable. See accessories page.
- Unit weight single: 53 lbs., double: 80 lbs.





# **Power Outlet Pedestals**

125 Amps | Metered | 120/240 VAC

SERIES POWER OUTLET **PEDESTALS** 

# 125 Amps | Metered Power Outlet Pedestals

Catalog	Mounting	Danis de la de	Receptacle	Circuit Breaker Loo	Loop	Connectors	Din	nensi	ons	Knockouts
Number	Туре	Powerheads	Configuration	Configuration	Feed	(Line)	D"	W"	Н"	1
U5300-O	Direct Burial	Single	_	_	Yes	#6-350	55/16	811/16	701/4	11/4
U5300-O-41	Direct Burial	Single	Α	X	Yes	#6-350	55/16	811/16	701/4	11/4
U5300-O-55	Direct Burial	Single	В	Y	Yes	#6-350	<b>5</b> ⁵⁄₁6	811/16	701/4	11/4
U5300-O-75	Direct Burial	Single	С	Z	Yes	#6-350	55/16	811/16	701/4	11/4
U5310-O	Pad Mount	Single	_	_	Yes	#6-350	55/16	811/16	461/4	11/4
U5320-O	Direct Burial	Double	_	_	Yes	#6-350	113/16	811/16	701/4	11/4
U5320-O-75	Direct Burial	Double	С	Z	Yes	#6-350	11 <sup>3</sup> ⁄16	811/16	701/4	11/4
U5330-O	Pad Mount	Double	_	_	Yes	#6-350	11 <sup>3</sup> ⁄16	811/16	461/4	11/4

# **Receptacle Configurations**

Α	В	С
(1) TT30R, (1) 5-20R GFI	(1) 14-50R, (1) 5-20R GFI	(1) 14-50R, (1) TT30R, (1) 5-20R GFI

# **Circuit Breaker Configurations**

X	Υ	Z
		H-1 1 1
(1) 30A, 1P, 120V (1) 20A, 1P, 120V	(1) 50A, 2P, 120/240V (1) 20A, 1P, 120V	(1) 50A, 2P, 120/240V (1) 30A, 1P, 120V (1) 20A, 1P, 120V

# **Notes**

- 20 Amps GFI receptacles are weather resistant and tamper resistant.
- 20 Amps GFI required at each RV site by UL and NEC 551-71.
- LED or fluorescent site light kits available. Factory or field installable. See accessories page.
- Contact factory for additional configurations not shown here.



# Millennium Series

Multiple hole grounding bar

multiple hole neutral bar Insulated bondable

Self-grounded universal bridge for up to three receptacles

GFI receptacle with miswire/trip indicator light

Pad lockable deadfront provision Left & right locking cover provisions Glass-filled lug landing with twin #6-350 kcmil line connectors for loop feed wiring



Six circuit, 125 Amps interior with plated copper stabs & glass filled circuit breaker base Receptacles molded from drawn ring type meter socket Milbank utility grade 125 Amps

Standard copper factory wiring on all receptacles and circuit breakers

durable nylon material

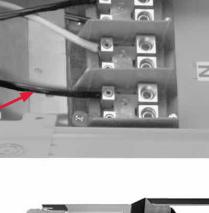
Optional left or right installation photo-electric light control

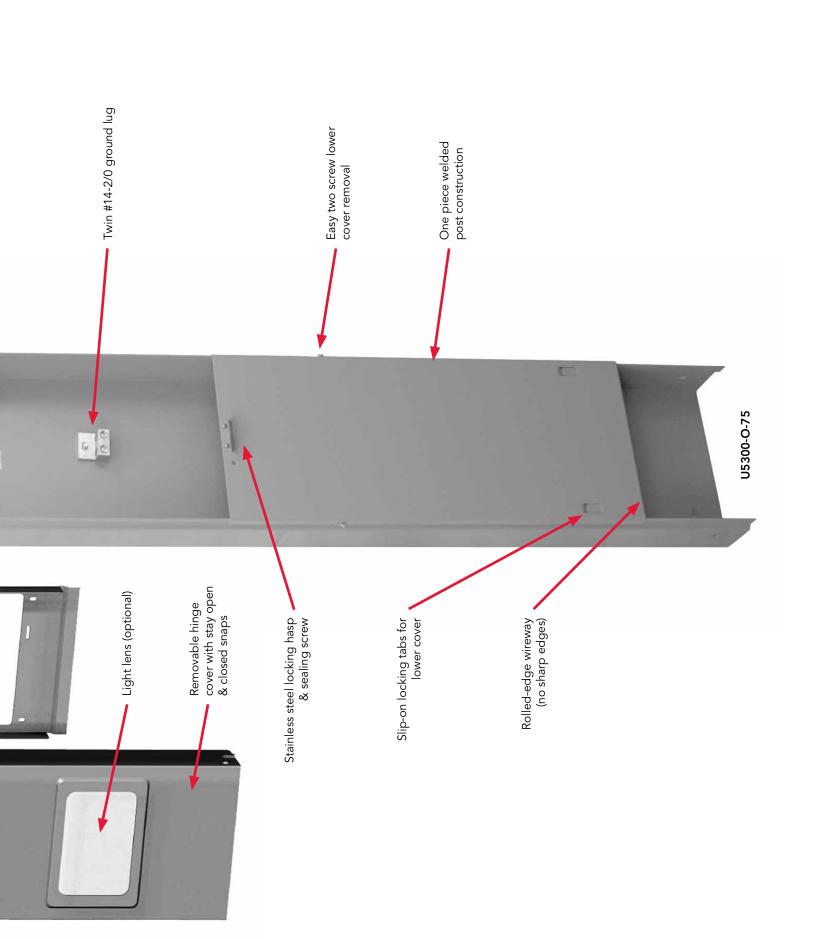
Removable deadfront

Low wattage fluorescent light (optional)

between receptacles & breakers Tamper resistant barrier



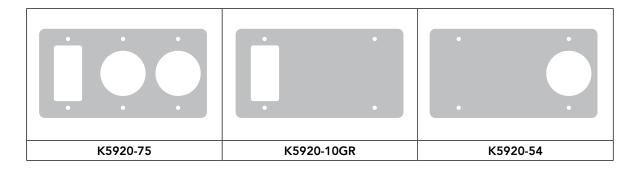


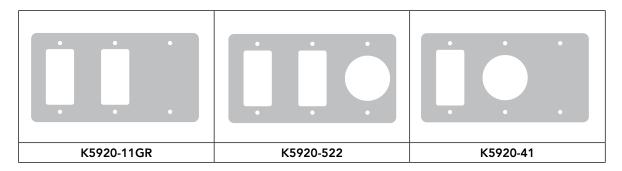


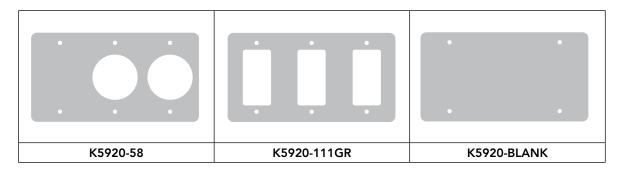
# 14 REPLACEMENT RECEPTACLE PLATES

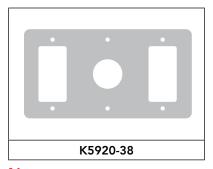
# Replacement Receptacle Plates

For Millennium Series RV Products









### **Notes**

• For application details, consult factory.



# **Lighting Accessories**

# For Millennium Series RV Products



## Internal Light Kits for Unmetered Power Outlets (U5000 & U5200)

Application	Internal light kit for unmetered power outlets	
Features	Includes 5-watt fluorescent or LED lamps, socket, lamp shield and opaque hinge cover lens. Factory wired to 20 Amps GFI circuit. May be wired to separate 20 Amps circuit breaker. Order Q120 separately.  Cover on unmetered power outlet is 191/8" in height.	
Ordering	Order with <b>-L</b> suffix (after catalog number) for factory installed fluorescent and <b>-LD</b> for factory installed LED. Order catalog number <b>K5411</b> for field installed 5-watt fluorescent lamps. Order catalog number <b>K6212</b> for field installed LED lamps.	

### Internal Light Kits for Metered Power Outlets (U5100 & U5300)

Application	Internal light kit for metered power outlets	
Features	Includes 5-watt fluorescent or LED lamps, socket, lamp shield and opaque hinge cover lens. Factory wired to 20 Amps GFI circuit. May be wired to separate 20 Amps circuit breaker. Order Q120 separately.  Cover on unmetered power outlet is 15½" in height.	
Ordering	Order with <b>-L</b> suffix (after catalog number) for factory installed fluorescent and -LD for factory installed LED. Order catalog number <b>K5412</b> for field installed 5-watt fluorescent lamps. Order catalog number <b>K6213</b> for field installed LED lamps.	

## **Photoelectric Light Control Kit**

Application	Photoelectric light control kit for <b>K5411</b> , <b>K5412</b> , <b>K6212</b> , <b>K6213</b> light kits.	
Features	2.5 Amps, 120 volt photo electrical control wired in series with K5411, K5412, K6212, K6213 light kits.	0
Ordering	Order with <b>-LPC</b> suffix for factory installed fluorescent light and PE control. Order with <b>-LDP</b> suffix for factor installed LED light and PE control Order catalog number <b>K5413</b> for field installed.	

### **WARNING!**

Always disconnect power prior to installing these devices.



# **Telecom and Pedestal Accessories**

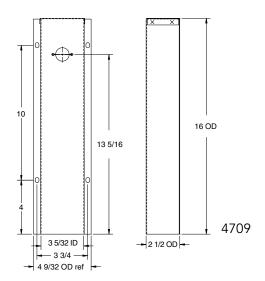
For Millennium Series RV Products

# Telephone and Cable TV Kit

<del>-</del>		
Application	Mounts to rear of pedestal series <b>U5200</b> and <b>U5300</b> . May also be adaptable to a wooden or similar structure.	
Features	Single: 16" galvanized raceway, (1) RJ11 telephone jack and (1) Type F coaxial CATV jack. (K4709-02)  Dual: 16" galvanized raceway, (2) RJ11 telephone jacks and (1) Type F coaxial CATV jack. (K4709-03)  Includes mounting hardware and instructions.	
Ordering	Single line telephone and cable TV kit order <b>K4709-02</b> .	
Note	Confirm acceptability with Cable TV and Telephone provider before ordering or installing these devices.	K4709-02-3R K4709-02

### Water Shroud with Hardware

Application	Used to cover water pipe and provide means to mount hose bib to rear of pedestal.	
Features	Includes mounting hardware and instructions.  Matches <b>K4709</b> kits when mounted side-by-side.	
Ordering	Order catalog number <b>K4709-WS</b> .	





# **Pedestal Mounting Accessories**

PEDESTAL MOUNTING ACCESSORIES

For Millennium Series RV Products

### Field-Installed Pad Mount Kit

Application	Field installed pad mount kit with (6) ¾" mounting holes.	
Features	Includes ¼-20 stainless steel hardware to attach pad mount base to post.  Anchor bolt kit sold separately (order catalog number K5421).	
Ordering	Order catalog number <b>K5410</b> .	

### Stabilizer Foot with Hardware

Application	Stabilizes direct burial type posts in unstable soil conditions.	
Features	Includes ¼-20 hardware to attach to <b>U5200</b> and <b>U5300</b> pedestals.	
Ordering	Order catalog number <b>K5415</b> .	

# **Anchor Bolt Kit**

Application	Concrete anchor bolt kit designed to attach pad mount base to concrete.	
Features	(4) sets of zinc-plated %-11 x 10" bolt with 2" toe. Includes nut and flat washer.	
Ordering	Order catalog number <b>K5421</b> .	





# Metering & Receptacle Accessories

For Millennium Series RV Products

### Field-Installed Meter Kits

Application	Field installed meter kit for <b>U5000</b> and <b>U5200</b> power outlets.		
Features	<ul> <li>100 Amps cast meter socket, CL200 E-Z Read Meter, sealing ring, security seal, 1" Milbank hub, nipple and mounting screws.</li> <li>See CL200 for Watt-hour meter specification.</li> </ul>	CHARLES CHARLES CONTROL OF STREET CONTROL OF STR	Control of the contro
Ordering	Order catalog number <b>K4800-01</b> for analog meters, and <b>K4800-D</b> for digital meters.	K4800-01 subject to availability	

### **E-Z Read Watt-Hour Meters**

Application	200 Amps E-Z read watt-hour meter designed to be field installed on the U5100 and U5300 metered power outlets.	777	
Features	<ul> <li>200 Amps form 2S 120/240 volt.</li> <li>Numeric readout in full kilowatt increments. No "tenths" dial.</li> <li>Remanufactured to 1% accuracy.</li> </ul>	0.000.00	
Ordering	Order catalog number <b>CL200</b> for analog meters, and <b>CL200-D</b> for digital meters.	CL200 subject to availability	

### Single Receptacle Only Power Outlet

Application		ground power out emporary service, a		
Features	<ul> <li>Lockable cover</li> </ul>	40 volt single pha : :luded (in receptac		
Ordering	Order catalog nu	mber from chart b	, 1	
Receptacle Options	P-10GWR 20A 5-20GR 120V GFI	P-13 30A TT-30R 120V	P-54 50A 14-50R 120/240V	ANGES FALIGRO  THE STATE OF THE

### **WARNING!**

Always disconnect power prior to installing these devices.



# **Replacement Parts & Accessories**

For Millennium Series RV Products

19
REPLACEMENT
PARTS &
ACCESSORIES



Z918449-AC (19" unmetered) Z918447-AC (15" metered) Hinge cover



Z818052-SC (19" unmetered) Z818480-SC (15" metered) Deadfront



MR-2
Snap action sealing ring



Neutral assembly shown with 2 insulator supports (Z706230-MO), a ground connector (Z705790-AC) and bonding screw (Z707365-SC)



**Q120** 20 Amps, 1 pole circuit breaker



**708784-MO** 20 Amps, 1 pole GFI circuit breaker



**Q130** 30 Amps, 1 pole circuit breaker



**Q250** 50 Amps, 2 pole circuit breaker



**Z918466-AC** Lug landing base



**Z917602-AC** Circuit breaker base (6-circuit)



**Z915141-AC** Left or right meter block assembly



**Z708080-MO** 20 Amps GFI receptacle NEMA 5-20GR



**Z701776-MO** 30 Amps receptacle NEMA TT-30



**Z708767-MO** 50 Amps receptacle NEMA 14-50R



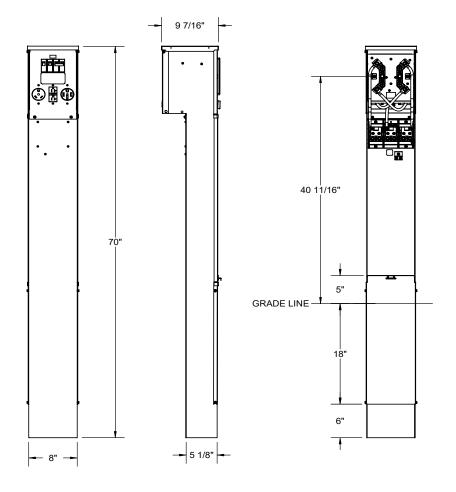


# **Voyager Series Pedestal Power Outlet**

100 Amps | 120/240 VAC







# **Specifications**

- UL listed 100 Amps, 120/240 volts—1Ø power outlet.
- Ring-type version only.
- Metered and unmetered versions available.
- $\bullet\,$  Short circuit current with stand rating 10,000 RMS symmetrical amperes.
- Type 3R welded enclosure for durable outdoor use.
- Direct burial or pad mounted post constructed with 14 gauge galvanized steel. Removable covers for ease of installation.
- ANSI 61 grey polyester powder coat finish.
- Wire terminations accept copper or aluminum conductors for loop feed wiring.
   Line: (4) #6-350 kcmil
   Ground: (2) #14-2/0
   Neutral: (2) #6-350 kcmil
- Four circuit plated copper interior accepts standard plug-in type circuit breakers. Rated up to 100 Amps.
- Components factory wired with stranded aluminum wire.
- Lockable hinge cover and dead front are removable for installation and maintenance.
- Unit weights: direct burial, metered (55 lbs.); direct burial, unmetered (37 lbs.); pad mount, metered (44 lbs.); pad mount, unmetered (26 lbs.).



# **Voyager Series Pedestal Power Outlet**

100 Amps | 120/240 VAC

VOYAGER
SERIES
PEDESTAL
POWER OUTLETS

## 100 Amps | Voyager Series Pedestal Power Outlets

Catalog	Metered/	Mounting	Receptacle	Circuit	Loop	Connectors	Dimensions		
Number	Unmetered	Method	Config.	Breaker Config.	Feed	(Line)	D"	W"	Н"
U5950-O-41	Unmetered	Direct Burial	А	W	Yes	#6-350	31/4	8	60
U5950-O-55	Unmetered	Direct Burial	В	Χ	Yes	#6-350	31/4	8	60
U5950-O-332	Unmetered	Direct Burial	С	Υ	Yes	#6-350	31/4	8	60
U5950-O-75	Unmetered	Direct Burial	D	Z	Yes	#6-350	31/4	8	60
U5951-O-41	Unmetered	Pad Mount	А	W	Yes	#6-350	31/4	8	36
U5951-O-55	Unmetered	Pad Mount	В	Х	Yes	#6-350	31/4	8	36
U5951-O-332	Unmetered	Pad Mount	С	Υ	Yes	#6-350	31/4	8	36
U5951-O-75	Unmetered	Pad Mount	D	Z	Yes	#6-350	31/4	8	36
U5952-O-41	Metered	Direct Burial	А	W	Yes	#6-350	51/8	8	70
U5952-O-55	Metered	Direct Burial	В	Х	Yes	#6-350	51/8	8	70
U5952-O-332	Metered	Direct Burial	С	Υ	Yes	#6-350	51/8	8	70
U5952-O-75	Metered	Direct Burial	D	Z	Yes	#6-350	51/8	8	70
U5953-O-41	Metered	Pad Mount	А	W	Yes	#6-350	51/8	8	46
U5953-O-55	Metered	Pad Mount	В	Х	Yes	#6-350	51/8	8	46
U5953-O-332	Metered	Pad Mount	С	Υ	Yes	#6-350	51/8	8	46
U5953-O-75	Metered	Pad Mount	D	Z	Yes	#6-350	51/8	8	46

## **Receptacle Configurations**

Α	В	С	D
(1) TT30R, (1) 5-20R GFI	(1) 14-50R, (1) 5-20R GFI	(2) TT30R, (1) 5-20R GFI	(1) 14-50R, (1) TT30R, (1) 5-20R GFI

# **Circuit Breaker Configurations**

W	X	Υ	Z
	<b>P+0 0</b>		
(1) 30A, 1P, 120V (1) 20A, 1P, 120V	(1) 50A, 2P, 120/240V (1) 20A, 1P, 120V	(1) 50A, 2P, 120/240V (1) 30A, 1P, 120V (1) 20A, 1P, 120V	(1) 50A, 2P, 120/240V (1) 30A, 1P, 120V (1) 20A, 1P, 120V

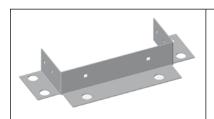




# ZZ VOYAGER SERIES ACCESSORIES & REPLACEMENT PARTS

# **Voyager Series Pedestal Power Outlet**

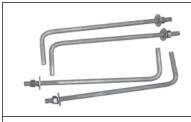
Accessories and Replacement Parts



**K5959**Field-installed pad mount kit



**K5415**Stabilizer foot with hardware



**K5421** Anchor bolt kit



**CL200**Analog E-Z read watt-hour meter



**CL200-D**Digital E-Z read watt-hour meter



**Z708080-MO** 20 Amps GFI receptacle NEMA 520



**Z701776-MO** 30 Amps receptacle NEMA TT30



**Z708767-MO** 50 Amps receptacle NEMA 1450



**Q120** 20 Amps, 1 pole circuit breaker



**Q130** 30 Amps, 1 pole circuit breaker



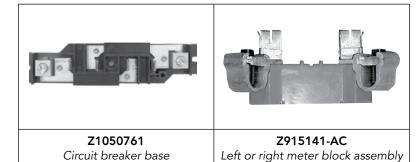
**Q250** 50 Amps, 2 pole circuit breaker

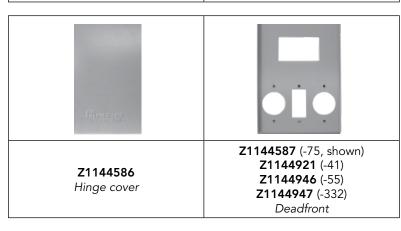


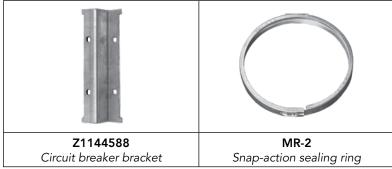
# **Voyager Series Pedestal Power Outlet**

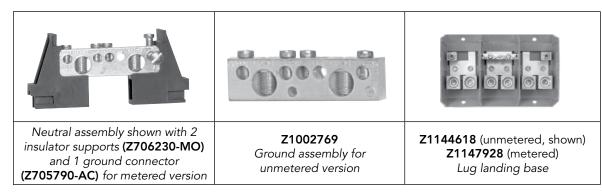
Accessories and Replacement Parts

23
VOYAGER SERIES &
ACCESSORIES &
REPLACEMENT
PARTS













# **Dry Type Transformers**

With distribution for RV & mobile home park applications



# **Specifications**

- Built in accordance with NEMA, ASA and AIEEE standards. Designed and tested to withstand 150% of rated load for two hours continuously.
- Integrated design of the enclosure, core and coil, and secondary distribution panel permits convenient vertical line and load terminations.
- Primary and/or secondary main circuit breaker protection available. Single fuse primary overcurrent protection provided on 2400 volt and above units. Second primary line fuse available if required.
- Other primary voltages available: 4160, 4800, 7200, 7960, & 12,470. Consult factory.

# **Core and Coil**

- Aluminum wound (copper available)
- Standard voltage taps @ 2FCAN and 4FCBN
- Rated at 150°C temperature rise

### **Distribution Bus**

- 1600 Amps tin plated aluminum
- Space available for up to (12) circuit breakers (1600 Amps maximum)
- Uses Milbank type UQFP-100 through 200 Amps circuit breakers

### **Enclosure**

- Type 3R enclosure
- Powder coated galvanized steel (aluminum available)
- Lockable primary and secondary doors
- Fork lift slots provided

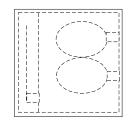


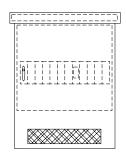
# **Dry Type Transformers**

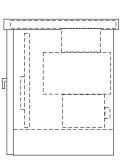


With distribution for RV & mobile home park applications









### **Distribution Transformers**

Catalog	KVA	Volts to	100 12545 4	Weight	Dimensions			
Number	KVA	120/240 1Ø	UL Listed	(lbs.)	D"	W"	Н"	
7URMD	75	480	Yes	850	40	38	48	
10URMD	100	480	Yes	1050	40	38	48	
16URMD	167½	480	Yes	1400	40	38	48	
20URMD	<b>1D</b> 200 480		Yes	1650	40	38	48	
25URMD	250	480	No	2200	40	38	48	
7URMD24	75	2400	No	1050	53	41	48	
10URMD24	<b>0URMD24</b> 100 2400		No	1200	53	41	48	
16URMD24	167½ 2400		No	1650	53	41	48	
20URMD24	200	2400	No	1900	53	41	48	
25URMD24	250	2400	No	2200	53	41	48	

# **Notes**

• Replacement Bus Kit: For a replacement bus kit, order K5425.





# **Pad Mounted Panel Boards**

600/1200 Amps | 120/240 VAC







# **Specifications**

- 600 to 1200 Amps, 120/240 volts, 1Ø distribution bus accepts up to (6) 2 pole, 200 Amps circuit breakers. Order from chart below.
- Costly main breaker not required per NEC 230-71.
- Economical alternative to costly wall hung or strut-mounted panel boards and load centers.
- Low profile, aesthetic design can be located near utility transformers or fed from a main service to a convenient location.
- Pad mounted Type 3R powder coated aluminum enclosure—standard color is gray.
- Hinge door and lift off rear service door are lockable and sealable for security.
- Note: Consult local code enforcement for pad size requirements. Order CP-24-PDMNT-CALT pad mount base or CP-ABK5/8 anchor bolt kit separately.

### **Pad Mounted Panel Boards**

Catalog Number	Among	Phase	Volts	Connectors	Di	mensio	ns
Catalog Number	Amps	Filase	VOILS	(Line)	D"	W"	Н"
CP3B-AUX-1200	1200	1Ø	Yes	(3) 1-600 per phase or (3) 2-250 per phase	17	24	41



UQFP

### Plug-In Circuit Breakers | 200 Amps Frame | 10K AIC | Two Pole Common Trip

Catalog Number	2-Pole Rating	Package Quantity	Wire Range			
Catalog Number	2-Pole Rating	Раскаде Quantity	CU	AL		
UQFP-100	100	1 #3-#1		#1-1/0		
UQFP-125	125	1	#3-#1	#1-1/0		
UQFP-150	150	1	1/0-300 kcmil	2/0-300 kcmil		
UQFP-175	175	1	1/0-300 kcmil	2/0-300 kcmil		
UQFP-200	200	1	1/0-300 kcmil	2/0-300 kcmil		

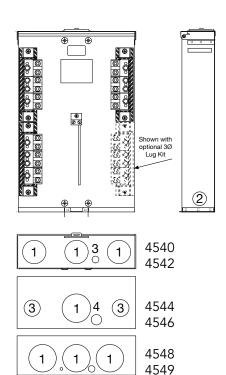


# **Terminal Box**

# 27 TERMINAL

# 100-400 Amps | 120/240 Volts





Terminal Boxes | 120/240 Volts

Catalog	Amana	Phase	Volts	Hub	Connectors	1Ø to	Di	mensio	ns		Knoc	kouts	
Number	Amps	rnase	VOILS	пир	CU7AL	3Ø Kit	D"	W"	Н"	1	2	3	4
U4544-XL	100	1	120/240	C.P.	(6) #12-1/0	K4543	41/8	913/16	18	2	1	1/4,1/2	_
U4546-XL	100	3	600	C.P.	(6) #12-1/0	N/A	41/8	913/16	18	2	1	1/4,1/2	_
U4540-XL	200	1	120/240	C.P.	(6) #6-350	K4539	41/8	1413/16	23	2½	2½	11/4	1/4,1/2
U4542-XL	200	3	600	C.P.	(6) #6-350	N/A	41/8	1413/16	23	2½	2½	11/4	1/4,1/2
U4548-RXL	400	1	120/240	C.P.	(3) #6-350 or (2) #4-600	K4547	5	15½	27	3	3	1/4,1/2	1/4
U4549-RXL	400	3	600	C.P.	(3) #6-350 or (2) #4-600	N/A	5	15½	27	3	3	1/4,1/2	1/4

### **Notes**

- Hub: Standard hub opening on top with closing plate attached.
- Features: UL Listed pad lockable Type 3R enclosure.
- 3Ø 120/240V Application: Field installable 3Ø lug kit converts 1Ø unit to 3Ø unit.







# **Energization of Electrical Equipment**

# Important Information for Installers

# **Important Note**

In addition to national and local electrical codes, many utilities have specific requirements for metering equipment. Always consult the serving utility for their specifications and requirements prior to ordering or installing Milbank meter mounting equipment.

# **Before Energizing**

- A. Give equipment a thorough visual examination to determine that:
  - 1) No shipping or installation damage exists.
  - 2) Proper clearances have been maintained.
  - 3) All connections have been made.
  - 4) Equipment is clean and dry.
- B. Make a thorough examination to:
  - 1) Verify tightness of all bolted connections (see table below).
  - 2) Manually operate all circuit breakers, switches, relays, etc.
  - 3) Check rigidity of all mountings, bus bars and components.
  - 4) Use test equipment to check continuity of circuitry and integrity of insulation.
- C. All switches and circuit breakers should be in the "off" position.
- D. Verify that manual meter bypass (if applicable) is in non-bypass position.
- E. Install cover and/or close doors.
- F. If installation is not being energized at this time, follow "after-energizing" steps listed below. These steps will secure the installation in case of accidental energization.

# When Energizing

- A. Use caution and follow established safety procedures:
  - 1) Wear safety apparel.
  - 2) Use safety equipment.
  - 3) Take action to prevent injury to yourself and others in the event of failure of the installation.
  - 4) Take action to prevent/decrease damage to property in the event of failure of the installation.
  - 5) If you are unsure how to safely energize the installation, get someone who is knowledgeable to do it.

# **After Energizing**

- A. Secure the installation:
  - 1) To prevent accidental contact with energized parts, cover all openings with approved filler devices.
  - 2) To prevent unauthorized access, secure all covers and/or doors with approved security devices.
  - 3) Attach/post information to advise others of potential hazards associated with the installation.

### Recommended Torque for General Applications\*

Nominal		Joint Description	Head Type	Torque
Size	Screw	Nut	пеас туре	(Inch Lbs.)
10	Brass	Brass Nut or Extruded Hole	All	20-25 inch lbs.
10	Steel	Copper or Aluminum Busbar ≤ 1/8"	All	25-30 inch lbs.
10	Steel	Steel Nut or Extruded Hole; CU or AL Busbar > 1/8"	All	30-35 inch lbs.
12	Steel	Aluminum Extruded Hole	All	30-35 inch lbs.
12	Steel	Steel Nut or Extruded Hole	All	40-50 inch lbs.
1/4	Steel	Aluminum Extruded Hole	All	40-50 inch lbs.
1/4	Steel	Steel Nut or Extruded Hole; CU or AL Busbar	All	50-60 inch lbs.
5/16	Steel	Aluminum Extruded Hole	Hex	60-70 inch lbs.
5/16	Steel	Steel Nut or Extruded Hole; CU or AL Busbar	Hex	100-150 inch lbs.
3/8	Steel	Steel Nut	Hex	150-200 inch lbs.
1/2	Steel	Steel Nut	Hex	200-250 inch lbs.

\* Interior labels typically indicate the required torque for wire connectors and studs, and should be referenced first. **CU:** Copper

AL: Aluminum



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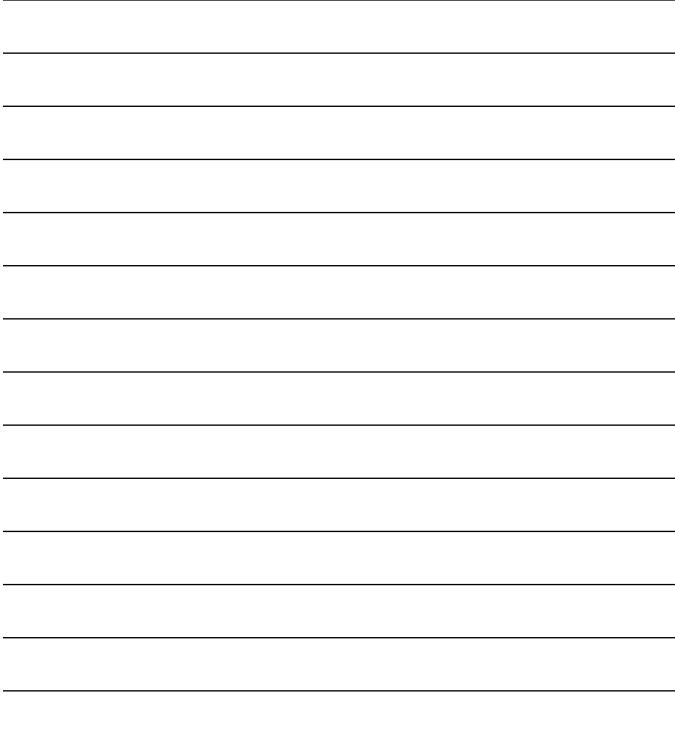


10URMD25	K5920-7514	U5200-XL-/5	9
10URMD2425	K5920-BLANK14	U5210-XL	9
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20URMD2425	MR-223	U5230-XL	9
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25URMD2425	P-10GWR18	U5300-O-41	11
708784-MO19	P-1318	U5300-O-55	11
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7URMD2425	Q1207,19	U5310-O	11
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Z705790-AC19,23
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Z708767-MO19,22
Z818052-SC19
Z818480-SC19
Z915141-AC19,23
Z917602-AC19
Z918447-AC19
Z918449-AC19
Z918466-AC19



# Notes





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