



Event # 246-1

Name: Generator & Automatic transfer switch for Public Works Bldg

Description: The City of Fort Lauderdale, Florida (City) is seeking bids from qualified bidders, hereinafter referred to as the Contractor, to provide generator and associated appurtenances services & ATS Service Switch at Public Works Administration Building for the City's Public Works Department, in accordance with the terms, conditions, and specifications contained in this Invitation to Bid (ITB).

The Manufacturer/Supplier shall furnish, and acceptance test a complete and operable standby electric generating system, including all devices and equipment as well as the ATS Service Switch with five-year maintenance plan, as shown on the drawings and per specs, and as required for the service. Materials and equipment shall be new and delivered to the job site (FOB Destination) factory tested and ready for installation (Installation shall be performed by others under a separate contract).

The engine/generator set Manufacturer/Supplier and/or local Dealer shall provide a 5-year preventive maintenance proposal to the Owner and Engineer for review. The maintenance proposal shall include all maintenance, testing, and minor repairs for the complete generator system deemed to be suitable for coverage under this maintenance.

This project is located at 949 NW 38th Street Fort Lauderdale, FL 33309, in the City of Fort Lauderdale. The work to be accomplished under this contract includes, but is not limited to, furnish and deliver generator and associated equipment as well as automatic Transfer Switch as required by specifications.

Buyer: MOHAMMED, STEFAN

Status: Pending Award

Event Type: IFB

Currency: USD

Sealed Bid: Yes

Respond To All Lines: Yes

Q & A Allowed: Yes

Number Of Amendments: 1

Display Bid Tabulation: Display When Event Closed For Bidding Or Canceled

Event Dates

Preview:

Q & A Open: 01/12/2024 08:00:00 AM

Open: 01/11/2024 05:00:00 PM

Q & A Close: 01/31/2024 05:00:00 PM

Close: 02/02/2024 02:00:00 PM

Dispute Close:

Questions

| Question | Response Type | Attachment |
|--|---------------|---|
| Did you complete all the required forms? | Yes No Text | Event 246- Generator and switch gear purchase |

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| Question | Response Type | Attachment |
|----------|---------------|---------------|
| | | questions.pdf |

Attachments

| Name | Attachment |
|--|---|
| 1. General Conditions - Rev 08-2023.pdf | 1. General Conditions - Rev 08-2023.pdf |
| Event 246- Generator and transfer switch for Public Works Admin Building.pdf | Event 246- Generator & Automatic transfer switch solicitation.pdf |

Contacts

| Name | Email Address |
|-----------------|------------------------------|
| HONG XU | hxu@fortlauderdale.gov |
| STEFAN MOHAMMED | smohammed@fortlauderdale.gov |

Comments

| Title | Type | Comment | Attachment |
|--------------------|-------------------------|--|---|
| Informational Page | Print On Purchase Order | <ul style="list-style-type: none"> To Be Bid: RFQ (Request for Quotation Goods and Services) Project Manager: Hong Xu Contact #: 954-828-6011 Project #: P12806 Project Name: Generator at Public Works Administration Building | P12806 Informational Page for Bid Packet of Generator.pdf |

Event # 246-1: Generator & Automatic transfer switch for Public Works Bldg

Commodity Codes

| Commodity Code | Description |
|----------------|---|
| 285-67 | Power Systems Switchgears and Related Accessories |
| 906-38 | General Construction - Architectural |

Line Details

Line 1: Generator and Transfer switch for the public works admin bld

Description: Generator and Transfer switch for the public works admin bld

Item: 246- GENERATOR & TRANSFER SWITCH Generator and Transfer switch for the public works admin bld

Commodity Code: 906-38 General Construction - Architectural

Quantity: 1.0000 **Unit of Measure:** EA

Requested Delivery Date: 07/10/2025

Require Response: Yes **Price Breaks Allowed:** No **Allow Alternate Responses:** No

Add On Charges Allowed: No

SECTION I – INTRODUCTION AND INFORMATION

1.1 Purpose

The City of Fort Lauderdale, Florida (City) is seeking bids from qualified, experienced, and licensed firm(s), hereinafter referred to as the Contractor or Bidder, to provide generator and associated appurtenances services & ATS Service Switch at Public Works Administration Building for the City's Public Works Department, in accordance with the terms, conditions, and specifications contained in this Invitation to Bid (ITB).

1.2 Point of Contact

For information concerning procedures for responding to this solicitation, contact Procurement Specialist, Stefan Mohammed, at (954) 828- 5351 or email at Smohammed@fortlauderdale.gov. Such contact shall be for clarification purposes only.

For information concerning technical specifications, please utilize the question / answer feature provided by the [City's on-line strategic sourcing platform](#). Questions of a material nature must be received prior to the cut-off date specified in the ITB schedule. Material changes, if any, to the scope of services or bidding procedures will only be transmitted by written addendum. Bidders please note: No part of your bid can be submitted via FAX. No variation in price or conditions shall be permitted based upon a claim of ignorance. Submission of a bid will be considered evidence that the Bidder has familiarized themselves with the nature and extent of the work, and the equipment, materials, and labor required. The entire bid response must be submitted in accordance with all specifications contained in this solicitation. The questions and answers submitted in the [City's online strategic sourcing platform](#) shall become part of any contract that is created from this ITB.

1.3 Pre-bid Conference and/or Site Visit

It will be the sole responsibility of the Bidder to become familiar with the scope of the City's requirements and systems prior to submitting a bid. No variation in price or conditions shall be permitted based upon a claim of ignorance. Submission of a bid will be considered evidence that the Bidder has familiarized themselves with the nature and extent of the work, equipment, materials, and labor required.

1.4 CITY'S ON-LINE STRATEGIC SOURCING PLATFORM

The City of Fort Lauderdale uses its own on-line strategic sourcing platform to administer the competitive solicitation process, including but not limited to soliciting bids, issuing addenda, posting results, and issuing notification of an intended decision. There is no charge to register and download the ITB from the City's on-line strategic sourcing platform. Bidders are strongly encouraged to read the supplier tutorials available in the [City's on-line strategic sourcing platform](#) well in advance of their intention of submitting a bid to ensure familiarity with the use of the City's on-line strategic sourcing platform. The City shall not be responsible for a Bidder's inability to submit a Bid by the end date and time for any reason, including issues arising from the use of the City's on-line strategic sourcing platform.

It is the sole responsibility of the Bidder to ensure that their bid is submitted electronically through the City's on-line strategic sourcing platform no later than the time and date specified in this

solicitation. PAPER BID SUBMITTALS WILL NOT BE ACCEPTED. BIDS MUST BE SUBMITTED ELECTRONICALLY VIA the [City's on-line strategic sourcing platform](#)..

Version 10-2021

1.5 Electronic Bid Openings

Please be advised that effective immediately, and until further notice, all Invitation to Bids, Request for Proposals, Request for Qualifications, and other solicitations led by the City of Fort Lauderdale will be opened electronically via the [City's on-line strategic sourcing platform](#) at the date and time indicated on the solicitation. All openings will be held on the City's on-line strategic sourcing platform.

Anyone requesting assistance or having further inquiry in this matter must contact the Procurement Specialist indicated on the solicitation, via the Question-and-Answer forum on Bidsync.com before the Last Day for Questions indicated in the Solicitation.

END OF SECTION

SECTION II - SPECIAL TERMS AND CONDITIONS

2.1 General Conditions

ITB General Conditions (Form G-107, Rev. 09/20) are included and made a part of this ITB.

2.2 Addenda, Changes, and Interpretations

It is the sole responsibility of each firm to notify the Procurement Specialist utilizing the question / answer feature provided by BidSync and request modification or clarification of any ambiguity, conflict, discrepancy, omission, or other error discovered in this competitive solicitation. Requests for clarification, modification, interpretation, or changes must be received prior to the Question and Answer (Q & A) Deadline. Requests received after this date may not be addressed. Questions and requests for information that would not materially affect the scope of services to be performed or the solicitation process will be answered within the question / answer feature provided by BidSync and shall be for clarification purposes only. Material changes, if any, to the scope of services or the solicitation process will only be transmitted by official written addendum issued by the City and uploaded to BidSync as a separate addendum to the ITB. Under no circumstances shall an oral explanation given by any City official, officer, staff, or agent be binding upon the City and should be disregarded. All addenda are a part of the competitive solicitation documents, and each firm will be bound by such addenda. It is the responsibility of each to read and comprehend all addenda issued.

2.3 Changes and Alterations

Bidder may change or withdraw a Bid at any time prior to Bid submission deadline; however, no oral modifications will be allowed. Modifications shall not be allowed following the Bid deadline.

2.4 Bidder's Costs

The City shall not be liable for any costs incurred by Bidders in responding to this ITB.

2.5 Pricing/Delivery

All pricing should be identified on the Cost page provided in this ITB. No additional costs may be accepted, other than the costs stated on the Cost page. Failure to use the City's Cost page and provide costs as requested in this ITB may deem your bid non-responsive.

All pricing must include delivery and installation and be quoted FOB: Destination.

2.6 Price Validity

Prices provided in this Invitation to bid (ITB) shall be valid for at least One-Hundred and Twenty (120) days from time of ITB opening unless otherwise extended and agreed upon by the City and Bidder. The City shall award contract within this time period or shall request to the recommended awarded vendor an extension to hold pricing, until products/services have been awarded.

2.7 Invoices/Payment

Payment terms will be considered to be net 45 days after the date of satisfactory delivery at the place of acceptance and receipt of correct invoice at the office specified, whichever occurs last, in accordance with the Florida Local Government Prompt Payment Act. Bidder may offer cash discounts for prompt payment, but they will not be considered in determination of award.

2.8 Related Expenses/Travel Expenses

All costs including travel are to be included in your bid. The City will not accept any additional costs.

2.9 Payment Method

The City of Fort Lauderdale has implemented a Procurement Card (P-Card) program which changes how payments are remitted to its vendors. The City has transitioned from traditional paper checks to payment by credit card via MasterCard or Visa. This allows you as a vendor of the City of Fort Lauderdale to receive your payment fast and safely. No more waiting for checks to be printed and mailed. Payments will be made utilizing the City's P-Card (MasterCard or Visa). Accordingly, firms must presently have the ability to accept credit card payment or take whatever steps necessary to implement acceptance of a credit card before the commencement of a contract. See Contract Payment Method form attached.

2.10 Mistakes

The Bidder shall examine this ITB carefully. The submission of a bid shall be prima facie evidence that the Bidder has full knowledge of the scope, nature, and quality of the work to be performed; the detailed requirements of the specifications; and the conditions under which the work is to be performed. Ignorance of the requirements will not relieve the Bidder from liability and obligations under the Contract.

2.11 Acceptance of Bids / Minor Irregularities

2.11.1 The City reserves the right to accept or reject any or all bids, part of bids, and to waive minor irregularities or variances to specifications contained in bids which do not make the bid conditional in nature and minor irregularities in the solicitation process. A minor irregularity shall be a variation from the solicitation that does not affect the price of the contract or does not give a bidder an advantage or benefit not enjoyed by other bidders, does not adversely impact the interests of other firms, or does not affect the fundamental fairness of the solicitation process. The City also reserves the right to reissue an ITB.

2.11.2 The City reserves the right to disqualify Bidder during any phase of the competitive solicitation process and terminate for cause any resulting contract upon evidence of collusion with intent to defraud or other illegal practices on the part of the Bidder.

2.12 Modification of Services

2.12.1 While this contract is for services provided to the department referenced in this ITB, the City may require similar work for other City departments. Successful Bidder agrees to take on such work unless such work would not be considered reasonable or become an undue burden to the Successful Bidder.

2.12.2 The City reserves the right to delete any portion of the work at any time without cause, and if such right is exercised by the City, the total fee shall be reduced in the same ratio as the estimated cost of the work deleted bears to the estimated cost of the work originally planned. If work has already been accomplished and approved by the City on any portion of a contract resulting from this ITB, the Successful Bidder shall be paid for the work completed on the basis of the estimated percentage of completion of such portion to the total project cost.

2.12.3 The City may require additional items or services of a similar nature, but not specifically listed in the contract. The Successful Bidder agrees to provide such items or services and shall provide the City prices on such additional items or services. If the price(s) offered are not acceptable to the City, and the situation cannot be resolved to the satisfaction of the City, the City reserves the right to procure those items or services from other vendors, or to cancel the contract upon giving the Successful Bidder thirty (30) days written notice.

2.12.4 If the Successful Bidder and the City agree on modifications or revisions to the task elements, after the City has approved work to begin on a particular task or project, and a

budget has been established for that task or project, the Successful Bidder will submit a revised budget to the City for approval prior to proceeding with the work.

2.13 Non-Exclusive Contract

Bidder agrees and understands that the contract shall not be construed as an exclusive arrangement and further agrees that the City may, at any time, secure similar or identical services from another vendor at the City's sole option.

2.14 Sample Contract Agreement

A sample of the formal agreement template, which may be required to be executed by the awarded vendor can be found at our website:

<https://www.fortlauderdale.gov/home/showdocument?id=1212>

2.15 Responsiveness

In order to be considered responsive to the solicitation, the firm's bid shall fully conform in all material respects to the solicitation and all of its requirements, including all form and substance.

2.16 Responsibility

In order to be considered as a responsible firm, firm shall be fully capable to meet all of the requirements of the solicitation and subsequent contract, must possess the full capability, including financial and technical, to perform as contractually required, and must be able to fully document the ability to provide good faith performance.

2.17 Minimum Qualifications

To be eligible for award of a contract in response to this solicitation, the Bidder must demonstrate that they have successfully completed services, as specified in the Technical Specifications / Scope of Services section of this solicitation, are normally and routinely engaged in performing such services, and are properly and legally licensed to perform such work. In addition, the Bidder must have no conflict of interest with regard to any other work performed by the Bidder for the City of Fort Lauderdale.

2.17.1 Firm or principals shall have no record of judgments, pending lawsuits against the City or criminal activities involving moral turpitude and not have any conflicts of interest that have not been waived by the City Commission.

2.17.2 Neither firm nor any principal, officer, or stockholder shall be in arrears or in default of any debt or contract involving the City, (as a party to a contract, or otherwise); nor have failed to perform faithfully on any previous contract with the City.

2.18 Lobbying Activities

ALL CONTRACTORS PLEASE NOTE: Any contractor submitting a response to this solicitation must comply, if applicable, with City of Fort Lauderdale Ordinance No. C-11-42 & Resolution No. 07-101, Lobbying Activities. Copies of Ordinance No. C-11-42 and Resolution No. 07-101 may be obtained from the City Clerk's Office on the 7th Floor of City Hall, 100 N. Andrews Avenue, Fort Lauderdale, Florida. The ordinance may also be viewed on the City's website at <http://www.fortlauderdale.gov/home/showdocument?id=6036>.

2.19 Local Business Preference – N/a

2.20 Disadvantaged Business Enterprise Preference – N/A

2.21 Protest Procedure

2.21.1 Any Bidder who is not recommended for award of a contract and who alleges a failure by the city to follow the city's procurement ordinance or any applicable law, may follow the protest procedure as found in the city's procurement ordinance within five (5) days after a notice of intent to award is posted on the city's web site at the following link.

<https://www.fortlauderdale.gov/government/departments-a-h/finance/procurementservices/notices-of-intent-to-award>.

2.21.2 The complete protest ordinance may be found on the city's web site at the following link: https://library.municode.com/fl/fort_lauderdale/codes/code_of_ordinances?nodeId=COOR_CH2AD_ARTVFI_DIV2PR_S2-182DIREPR

2.22 Public Entity Crimes

Bidder, by submitting a bid, certifies that neither the Bidder nor any of the Bidder's principals has been placed on the convicted vendor list as defined in Section 287.133, Florida Statutes (2018), as may be amended or revised. A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in s. 287.017 for CATEGORY TWO for a period of 36 months following the date of being placed on the convicted vendor list.

2.23 Sub-Contractors

2.23.1 If the Contractor proposes to use sub-contractors in the course of providing these services to the City, this information shall be a part of the bid response. Such information shall be subject to review, acceptance, and approval of the City, prior to any contract award. The City reserves the right to approve or disapprove of any sub-contractor candidate in its best interest and to require Contractor to replace sub-contractor with one that meets City approval.

2.23.2 Contractor shall ensure that all of Contractor's sub-contractors perform in accordance with the terms and conditions of this Contract. Contractor shall be fully responsible for all of Contractor's sub-contractors' performance, and liable for any of Contractor's subcontractors' non-performance and all of Contractor's sub-contractors' acts and omissions. Contractor shall defend, at Contractor's expense, counsel being subject to the City's approval or disapproval, and indemnify and hold harmless the City and the City's officers, employees, and agents from and against any claim, lawsuit, third-party action, or judgment, including any award of attorney fees and any award of costs, by or in favor of any Contractor's sub-contractors for payment for work performed for the City.

2.23.3 Contractor shall require all of its sub-contractors to provide the required insurance coverage as well as any other coverage that the Contractor may consider necessary, and any deficiency in the coverage or policy limits of said sub-contractors will be the sole responsibility of the Contractor.

2.24 Bid Security – N/A

2.25 Payment and Performance Bond – N/A

2.26 Insurance Requirements

2.26.1 As a condition precedent to the effectiveness of this Agreement, during the term of this Agreement and during any renewal or extension term of this Agreement, the Contractor, at its sole expense, shall provide insurance of such types and with such terms and limits as noted below. Providing proof of and maintaining adequate insurance coverage are material obligations of the Contractor. The Contractor shall provide the City a certificate of insurance evidencing such coverage. The Contractor's insurance coverage shall be primary insurance for all applicable policies. The limits of coverage under each policy maintained by the Contractor shall not be interpreted as limiting the Contractor's liability and obligations under this Agreement. All insurance policies shall be through insurers authorized or eligible to write policies in the State of Florida and possess an A.M. Best rating of A-, VII or better, subject to approval by the City's Risk Manager.

2.26.2 The coverages, limits, and endorsements required herein protect the interests of the City, and these coverages, limits, and/or endorsements shall in no way be relied upon by the Contractor for assessing the extent or determining appropriate types and limits of coverage to protect the Contractor against any loss exposures, whether as a result of this Agreement or otherwise. The requirements contained herein, as well as the City's review or acknowledgement, are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by the Contractor under this Agreement.

2.26.3 The following insurance policies and coverages are required:

Commercial General Liability

Coverage must be afforded under a Commercial General Liability policy with limits not less than:

- \$1,000,000 each occurrence and \$2,000,000 aggregate for Bodily Injury, Property Damage, and Personal and Advertising Injury
- \$1,000,000 each occurrence and \$2,000,000 aggregate for Products and Completed Operations

Policy must include coverage for contractual liability and independent contractors.

The City, a Florida municipal corporation, its officials, employees, and volunteers are to be covered as an additional insured with a CG 20 26 04 13 Additional Insured – Designated Person or Organization Endorsement or similar endorsement providing equal or broader Additional Insured Coverage with respect to liability arising out of activities performed by or on behalf of the Contractor. The coverage shall contain no special limitation on the scope of protection afforded to the City, its officials, employees, and volunteers.

Business Automobile Liability

Coverage must be afforded for all Owned, Hired, Scheduled, and Non-Owned vehicles for Bodily Injury and Property Damage in an amount not less than \$1,000,000 combined single limit each accident.

If the Contractor does not own vehicles, the Contractor shall maintain coverage for Hired and Non-Owned Auto Liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Business Auto Liability policy.

Workers' Compensation and Employer's Liability

Coverage must be afforded per Chapter 440, Florida Statutes. Any person or entity performing work for or on behalf of the City must provide Workers' Compensation insurance. Exceptions and exemptions will be allowed by the City's Risk Manager, if they are in accordance with Florida Statute.

The Contractor waives, and the Contractor shall ensure that the Contractor's insurance carrier waives, all subrogation rights against the City, its officials, employees, and volunteers for all losses or damages. The City requires the policy to be endorsed with WC 00 03 13 Waiver of our Right to Recover from Others or equivalent.

The Contractor must be in compliance with all applicable State and federal workers' compensation laws, including the U.S. Longshore Harbor Workers' Act and the Jones Act, if applicable.

2.26.4 Insurance Certificate Requirements

- a.** The Contractor shall provide the City with valid Certificates of Insurance (binders are unacceptable) no later than ten (10) days prior to the start of work contemplated in this Agreement.
- b.** The Contractor shall provide to the City a Certificate of Insurance having a thirty (30) day notice of cancellation; ten (10) days' notice if cancellation is for nonpayment of premium.
- c.** In the event that the insurer is unable to accommodate the cancellation notice requirement, it shall be the responsibility of the Contractor to provide the proper notice. Such notification will be in writing by registered mail, return receipt requested, and addressed to the certificate holder.
- d.** In the event the Agreement term or any surviving obligation of the Contractor following expiration or early termination of the Agreement goes beyond the expiration date of the insurance policy, the Contractor shall provide the City with an updated Certificate of Insurance no later than ten (10) days prior to the expiration of the insurance currently in effect. The City reserves the right to suspend the Agreement until this requirement is met.
- e.** The Certificate of Insurance shall indicate whether coverage is provided under a claims-made or occurrence form. If any coverage is provided on a claims-made form, the Certificate of Insurance must show a retroactive date, which shall be the effective date of the initial contract or prior.
- f.** The City shall be named as an Additional Insured on all liability policies, with the exception of Workers' Compensation.
- g.** The City shall be granted a Waiver of Subrogation on the Contractor's Workers' Compensation insurance policy.
- h.** The title of the Agreement, Bid/Proposal/Contract number, event dates, or other identifying reference must be listed on the Certificate of Insurance.

The Certificate Holder should read as follows:

City of Fort Lauderdale
Procurement Services Division
100 N. Andrews Avenue
Fort Lauderdale, FL 33301

2.26.5 The Contractor has the sole responsibility for all insurance premiums and shall be fully and solely responsible for any costs or expenses as a result of a coverage deductible, coinsurance penalty, or self-insured retention; including any loss not covered because of the operation of such deductible, co-insurance penalty, self-insured retention, or coverage exclusion or limitation. Any costs for adding the City as an Additional Insured shall be at the Contractor's expense.

2.26.6 If the Contractor's primary insurance policy/policies do not meet the minimum requirements, as set forth in this Agreement, the Contractor may provide evidence of an Umbrella/Excess insurance policy to comply with this requirement.

2.26.7 The Contractor's insurance coverage shall be primary insurance as respects to the City, a Florida municipal corporation, its officials, employees, and volunteers. Any insurance or self-insurance maintained by the City, a Florida municipal corporation, its officials, employees, or volunteers shall be non-contributory.

2.26.8 Any exclusion or provision in any insurance policy maintained by the Contractor that excludes coverage required in this Agreement shall be deemed unacceptable and shall be considered breach of contract.

2.26.9 All required insurance policies must be maintained until the contract work has been accepted by the City, or until this Agreement is terminated, whichever is later. Any lapse in coverage shall be considered breach of contract. In addition, Contractor must provide to the City confirmation of coverage renewal via an updated certificate should any policies expire prior to the expiration of this Agreement. The City reserves the right to review, at any time, coverage forms and limits of Contractor's insurance policies.

2.26.10 The Contractor shall provide notice of any and all claims, accidents, and any other occurrences associated with this Agreement shall be provided to the Contractor's insurance company or companies and the City's Risk Management office as soon as practical.

2.26.11 It is the Contractor's responsibility to ensure that any and all of the Contractor's independent contractors and subcontractors comply with these insurance requirements. All coverages for independent contractors and subcontractors shall be subject to all of the applicable requirements stated herein. Any and all deficiencies are the responsibility of the Contractor.

2.27 Insurance – Sub-Contractors

Contractor shall require all its Sub-Contractors to provide the aforementioned coverage as well as any other coverage that the Contractor may consider necessary, and any deficiency in the coverage or policy limits of said Sub-Contractors will be the sole responsibility of the Contractor.

2.28 Insurance for Collection of Credit Card Payments – N/A

2.29 Award of Contract

This is a one-time purchase, a purchase order shall be issued to successful bidder after award by commission.

2.30 Damage to Public or Private Property

Extreme care shall be taken to safeguard all existing facilities, site amenities, irrigation systems, vehicles, etc. on or around the job site. Damage to public and/or private property shall be the responsibility of the Contractor and shall be repaired and/or replaced at no additional cost to the City.

2.31 Safety

The Contractor(s) shall adhere to the Florida Department of Transportation's Uniform manual on Traffic Control for construction and maintenance work zones when working on or near a roadway. It will be the sole responsibility of the Contractor to make themselves and their employees fully aware of these provisions, especially those applicable to safety.

2.32 Uncontrollable Circumstances ("Force Majeure")

The City and Contractor will be excused from the performance of their respective obligations under this agreement when and to the extent that their performance is delayed or prevented by any circumstances beyond their control including, fire, flood, explosion, strikes or other labor disputes, act of God or public emergency, war, riot, civil commotion, malicious damage, act or omission of any governmental authority, delay or failure or shortage of any type of transportation, equipment, or service from a public utility needed for their performance, provided that:

2.32.1 The non-performing party gives the other party prompt written notice describing the particulars of the Force Majeure including, but not limited to, the nature of the occurrence and its expected duration, and continues to furnish timely reports with respect thereto during the period of the Force Majeure;

2.32.2 The excuse of performance is of no greater scope and of no longer duration than is required by the Force Majeure;

2.32.3 No obligations of either party that arose before the Force Majeure causing the excuse of performance are excused as a result of the Force Majeure; and

2.32.4 The non-performing party uses its best efforts to remedy its inability to perform. Notwithstanding the above, performance shall not be excused under this Section for a period in excess of two (2) months, provided that in extenuating circumstances, the City may excuse performance for a longer term. Economic hardship of the Contractor will not constitute Force Majeure. The term of the agreement shall be extended by a period equal to that during which either party's performance is suspended under this Section.

2.33 Canadian Companies

In the event Contractor is a corporation organized under the laws of any province of Canada or is a Canadian federal corporation, the City may enforce in the United States of America or in Canada or in both countries a judgment entered against the Contractor. The Contractor waives any and all defenses to the City's enforcement in Canada, of a judgment entered by a court in the United States of America. All monetary amounts set forth in this Contract are in United States dollars.

2.34 News Releases/Publicity

News releases, publicity releases, or advertisements relating to this contract, or the tasks or projects associated with the project shall not be made without prior City approval.

2.35 Approved Equal or Alternative Product Bids- N/A

Manufacturer/Brand/Model Specific Request

This is a manufacturer/brand/model specification. No substitutions will be allowed.

2.36 Contract Period- N/A

2.37 Cost Adjustments – N/A

2.38 Service Test Period – N/A

2.39 Contract Coordinator – N/A

2.40 Contractor Performance Reviews and Ratings – N/A

2.41 Substitution of Personnel – N/A

2.42 Ownership of Work – N/A

2.43 Condition of Trade-In Equipment – N/A

2.44 Conditions of Trade-In Shipment and Purchase Payment – N/A

2.45 Verification of Employment Status

Any Contractor/Consultant assigned to perform responsibilities under its contract with a State agency is required to utilize the US Department of Homeland Security's E-Verify system (per Executive Order Number 11-02) to verify the employment eligibility of: (a) all persons employed during the contract term by the Contractor to perform employment duties within Florida; and (b) all persons (including subcontractors) assigned by the Contractor to perform work pursuant to the contract with the State agency.

E-VERIFY Affirmation Statement must be completed and submitted with Bidder's response to this ITB.

2.46 Service Organization Controls – N/A

2.47 Warranties of Usage

Any estimated quantities listed are for information and tabulation purposes only. No warranty or guarantee of quantities needed is given or implied. It is understood that the Contractor will furnish the City's needs as they arise.

2.48 Rules and Submittals of Bids

The signer of the bid must declare that the only person(s), company or parties interested in the proposal as principals are named therein; that the bid is made without collusion with any other person(s), company or parties submitting a bid; that it is in all respects fair and in good faith, without collusion or fraud; and that the signer of the bid has full authority to bind the principal bidder.

2.49 Bid Tabulations/Intent to Award

Notice of Intent to Award Contract/Bid, resulting from the City's Formal solicitation process may be found at: <http://www.fortlauderdale.gov/departments/finance/procurement-services/notices-ofintent-to-award>. Tabulations of receipt of those parties responding to a formal solicitation may be found at: <http://www.fortlauderdale.gov/departments/finance/procurement-services/bid-results>, or any interested party may call the Procurement Services Division at 954-828-5933.

2.50 Public Records

All bids will become the property of the City. The Bidder's response to the ITB is a public record pursuant to Florida law, which is subject to disclosure by the City under the State of Florida Public Records Law, Florida Statutes Chapter 119.07 ("Public Records Law"). The City shall permit public access to all documents, papers, letters, or other material submitted in connection with this ITB and any resulting Contract to be executed for this ITB, subject to the provisions of Chapter 119.07 of the Florida Statutes. Any language contained in the Bidder's response to the ITB purporting to require confidentiality of any portion of the Bidder's response to the ITB, except to the extent that certain information is in the City's opinion a Trade Secret pursuant to Florida law, shall be void. If a Bidder submits any documents or other information to the City which the Bidder claims is Trade Secret information and exempt from Florida Statutes Chapter 119.07 ("Public Records Laws"), the

Bidder shall clearly designate that it is a Trade Secret and that it is asserting that the document or information is exempt. The Bidder must specifically identify the exemption being claimed under Florida Statutes 119.07. The City shall be the final arbiter of whether any information contained in the Bidder's response to the ITB constitutes a Trade Secret. The city's determination of whether an exemption applies shall be final, and the Bidder agrees to defend, indemnify, and hold harmless the city and the city's officers, employees, and agent, against any loss or damages incurred by any person or entity as a result of the city's treatment of records as public records. In the event of Contract award, all documentation produced as part of the Contract shall become the exclusive property of the City.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT PRRCONTRACT@FORTLAUDERDALE.GOV, 954-828-5002, CITY CLERK'S OFFICE, 100 N. ANDREWS AVENUE, FORT LAUDERDALE, FLORIDA 33301.

Contractor shall:

1. Keep and maintain public records required by the City in order to perform the service.
2. Upon request from the City's custodian of public records, provide the City with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes (2017), as may be amended or revised, or as otherwise provided by law.
3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of this contract if the Contractor does not transfer the records to the City.
4. Upon completion of the Contract, transfer, at no cost, to the City all public records in possession of the Contractor or keep and maintain public records required by the City to perform the service. If the Contractor transfers all public records to the City upon completion of this Contract, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion of this Contract, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City, upon request from the City's custodian of public records, in a format that is compatible with the information technology systems of the City.

2.51 PCI (Payment Card Industry) Compliance

Contractor agrees to comply with all applicable state, federal and international laws, as well as industry best practices, governing the collection, access, use, disclosure, safeguarding and destruction of protected information.

Contractor and/or any subcontractor that handles credit card data must be, and remain, PCI compliant under the current standards and will provide documentation confirming compliance

upon request by the City of Fort Lauderdale, failure to produce documentation could result in termination of the contract.

END OF SECTION

SECTION III - TECHNICAL SPECIFICATIONS/SCOPE OF SERVICES

The Manufacturer/Supplier shall furnish, and acceptance test a complete and operable standby electric generating system, including all devices and equipment as well as the ATS Service Switch with fiveyear maintenance plan, as shown on the drawings and per specs, and as required for the service. Materials and equipment shall be new and delivered to the job site factory tested and ready for installation **(Installation shall be performed by others under a separate contract).**

The engine/generator set Manufacturer/Supplier and/or local Dealer shall provide a 5-year preventive maintenance proposal to the Owner and Engineer for review. The maintenance proposal shall include all maintenance, testing, and minor repairs for the complete generator system deemed to be suitable for coverage under this maintenance.

This project is located at 949 NW 38th Street Fort Lauderdale, FL 33309, in the City of Fort Lauderdale. The work to be accomplished under this contract includes, but is not limited to, furnish and deliver generator and associated equipment as well as automatic Transfer Switch as required by specifications.

The Project Manager is hereby designated by the City as Hong Xu, whose address is 101 NE 3rd Avenue, 1420, Fort Lauderdale, FL 33301, telephone number: (954) 828-6011, and email address is hxu@fortlauderdale.gov. The Project Manager will assume all duties and responsibilities and will have the rights and authorities assigned to the Project Manager in the Contract Documents in connection with completion of the Work in accordance with this Purchase Order.

SECTION 16621

DIESEL-ELECTRIC STANDBY POWER SYSTEM

PART 1 - GENERAL

1.01 SCOPE OF WORK

- A. Provide and acceptance test a complete and operable standby electric generating system, including all devices and equipment specified herein, as shown on the drawings, and as required for the service. Materials and equipment shall be new and delivered to the job site factory tested and ready for installation.
- B. Generator set ratings shall be 600kW @ 0.8 p.f., 480/277V, 3 phase, four wire, wye connected. Output capacity shall be maintained up to 500 feet elevation and at ambient temperatures between 40 and 120 degrees F.
- C. The system shall include the following:
 - 1. 1 engine-generator set, with accessories
 - 2. Automatic Transfer Switch, Service Entrance Rated
 - 3. Starting batteries
 - 4. Battery Charger, 10 amp rating

5. Other control devices, accessories, tests, documents, and services as needed to meet specifications.

D. Furnish the following items for the generator set:

1. Exhaust silencer, hospital grade, flanges, wall thimble, and flexible exhaust pipe section, sized as required for the engine and installation. All exhaust materials shall be 316 stainless steel.
2. Sound attenuated, weatherproof enclosure as specified herein.
3. Sub-base fuel tank with automatic controls as specified herein.

1.02 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

- A. Equipment and equipment installation shall meet all applicable state and local codes. Equipment supplied shall meet or exceed requirements of the following, as applicable:

NFPA 70 National Electrical Code

NFPA 110 Emergency and Standby Power Systems

NFPA 37 Installation of Stationary Engines

Underwriter's Laboratories Standard 1008 Transfer Switch Equipment

- B. It is intended that all products specified herein be of standard ratings, therefore the kW and kVA ratings, ampere ratings, withstand and closing ratings, etc., shall be the manufacturer's next larger size or rating when the specifications cannot be exactly met.

1.03 SUBMITTALS

- A. Shop Drawings: For all equipment specified, provide the following:

1. Specification and data sheets showing ratings and derating schedules, operating performance, weights, fuel consumption rates, ventilation and combustion air requirements, exhaust flow data, cooling system data, and engine and generator data, including generator breaker information.
2. Manufacturer's certification of generator set prototype testing. Transfer switch withstand and closing ratings with overcurrent device specifications.
3. Manufacturer's warranty documents and statements accepting warranty responsibility as specified herein for all equipment.
4. Itemized list of all exceptions taken to this specification.
5. Plan and elevation views with certified overall and interconnection point dimensions.

6. Electrical interconnection wiring diagrams showing all external connections required; with terminal and destination markings for all equipment, controls, and devices included in the system.
7. Manufacturer's installation, operating, and maintenance instructions.
8. All accessory equipment information.
9. Wind load calculations, signed & sealed by a structural engineer licensed in Florida, for the entire generator/enclosure assembly. These calculations shall meet the requirements of the Florida Building Code.

1.04 APPROVAL

- A. Supplier: All standby electrical generating system equipment shall be provided and tested by a single supplier who is an authorized representative of the generator set engine manufacturer. This representative shall maintain parts and service facilities, including factory trained mechanics and 24 hour service availability, for the unit supplied within 100 miles of the project site.

Approved Engine Manufacturers/System Suppliers:

1. Caterpillar by Pantropic Power Products, Inc.
 2. Cummins/Onan by Cummins Southeastern Power, Inc. or OK Generators
 2. Detroit Diesel by Florida Detroit Diesel-Allison.
- B. Warranty: The complete electrical power system (generator set, controls, and associated switches, switchgear and accessories), as provided by the single source supplier, shall be warranted by the manufacturer against defects in materials and workmanship for a period of five years or 1500 hours, whichever occurs first from the date of system start-up. Coverage shall include parts, labor, travel expenses, and labor to remove/reinstall the equipment, per the manufacturer's standard published limited warranty. There shall be no deductibles applied to the warranty.

PART 2 - PRODUCTS

2.01 DIESEL ENGINE-GENERATOR SET

- A. Performance: The generator set manufacturer shall verify the diesel engine as capable of driving the generator with all accessories in place and operating at the generator set kW rating after derating for the range of temperatures expected in service and the altitude of the installation. The manufacturer shall provide documentation demonstrating satisfactory prototype test results for the model specified and production test results for equipment supplied for this project. Generator sets that have not been factory tested at 0.8 PF will not be acceptable. Voltage regulation shall be +/- 0.5 percent of rated voltage for any constant load between no load and rated load. Frequency regulation shall be isochronous from steady state no load to steady state rated load. Total Harmonic Distortion; the sum of AC voltage waveform harmonics, from no load to full linear load, shall not exceed 5% of rated voltage (L-N, L-L, L-L-L) and no single harmonic shall exceed 3% of rated voltage. Telephone Influence Factor; TIF shall be less than 50 per NEMA MG1-22.43. The diesel engine-generator set shall be capable of single step load pick up of 100% nameplate kW and power factor, less applicable derating factors, with the engine-generator set at operating temperature.

- B. After an initial instantaneous voltage dip not to exceed 20 percent, the generator set shall be capable of sustaining a minimum of 90% of rated no load voltage with the specified kVA load at near zero power factor applied to the generator set. Maximum frequency dip shall not exceed 10 percent. Maximum recovery time shall be three seconds.
- C. AC Generator: AC generator, exciter and voltage regulator shall be designed and manufactured by the engine-generator set manufacturer as a complete generator system. The AC generator shall be; synchronous, four pole, revolving field, drip-proof construction, single pre-lubricated sealed bearing, air cooled by a direct drive centrifugal blower fan, and directly connected to the engine with flexible drive disc(s). The stator shall have skewed laminations of insulated electrical grade steel, two-thirds pitch windings. The rotor shall have amortisseur (damper) windings. The rotor shall be dynamically balanced. The exciter shall be brushless, three phase, with full wave silicon diodes mounted on the rotating shaft and a surge suppressor connected in parallel with the field winding. All insulation system components shall meet NEMA MG1 standard temperature limits for Class H insulation system. Actual temperature rise measured by resistance method at full load shall not exceed 105 degrees Centigrade. The generator shall be broad range, 12 lead reconnectable. The generator shall be capable of delivering rated output (kVA) at rated frequency and power factor, at any voltage within the broad range. The main generator and exciter insulation systems must be suitably impregnated for operation in severe environments for resistance to sand, salt, and sea spray.
- D. Provide a 120V, single phase, 60 Hz, 200 watt minimum space heater for the generator windings. Provide the appropriate control such that the heater is on when the generator set is off and off when the generator set is on.
- E. A permanent magnet generator (PMG) shall provide excitation power to the automatic voltage regulator for immunity from voltage distortion caused by non-linear SCR controlled loads on the generator. The PMG shall sustain main field excitation power for optimum motor starting and to sustain short circuit current at approximately 300% of rated current for approximately 10 seconds. The automatic voltage regulator shall be temperature compensated, solid-state design. The voltage regulator shall be equipped with three-phase RMS sensing. The regulator shall control buildup of AC generator voltage to provide a linear rise and limit overshoot. Overvoltage protection shall sense the AC generator output voltage and in the event of regulator failure or loss of reference, shut down regulator output on a sustained overvoltage of one (1) second duration. Overexcitation protection shall sense regulator output and shut down regulator output if overloads exceed ten (10) seconds duration. Both overvoltage and overexcitation protection shutdowns shall be latched, requiring the AC generator to be stopped for reset. The regulator shall include an under frequency rolloff torque-matching characteristic, which shall reduce output voltage in proportion to frequency below a threshold of 58-59 HZ. The torque-matching characteristic shall include differential rate of frequency change compensation to use maximum available engine torque and provide optimal transient load response. Regulators which use a fixed volts per hertz characteristic are also acceptable provided that the specified response characteristics are met.
- F. Engine-Generator Set Control: The control shall have a 3 position selector switch with automatic remote start capability. A panel mounted switch shall stop the engine in the STOP position, start and run the engine in the RUN position, and allow the engine to start and run by closing a remote contact, and stop by opening the remote contact when in the REMOTE position. The control shall include a cycle cranking function. The cranking cycle, nonadjustable, shall consist of an automatic crank period of approximately 15 seconds duration followed by a rest period of approximately 15 seconds duration. Cranking shall cease upon engine starting and running. Two separate means of cranking termination shall be provided, one completely redundant to the other with no common components. Failure to start after three cranking attempts (75 seconds) shall shut down and

lockout the engine, and visually indicate an overcrank shutdown on the panel. The control shall shut down and lock out the engine upon: failing to start after the specified time (overcrank), overspeed, low lubricating oil pressure, low oil level, high lube oil temperature, high engine temperature, low coolant level, low fuel level, generator breaker trip, or operation of a remote manual stop station. The control shall provide an engine monitor. A panel mounted switch shall reset the engine monitor and test all the lamps. Lamp indications on the control panel shall include:

1. Overcrank shutdown - red
2. Overspeed shutdown - red
3. Low oil pressure shutdown - red
4. Low oil level shutdown - red
5. High oil temperature shutdown - red
6. High engine temperature shutdown - red
7. Low coolant level shutdown - red
8. Generator breaker trip shutdown - red
9. High engine temperature prealarm - yellow
10. Low engine oil pressure prealarm - yellow
11. Low coolant temperature - yellow
12. Low fuel - yellow
13. Fuel leak - red
14. Run - green
15. Not in automatic start - flashing red
16. Auxiliary (2 each) - red

The engine-generator set starting battery(ies) shall power the monitor. The control shall include surge suppression for protection of solid state components. Operation of shut down circuits shall be independent of indication and prealarm circuits. Individual relay signals shall be provided for each indication for external circuit connections (not to exceed ½ amp draw). A common alarm contact for external connection shall be provided. Provide output status contacts (N.O.) for remote use for the following: Low fuel level, fuel leak, generator run (One (1) N.O. & One (1) N.C.).

- G. A NEMA 12 enclosed control panel shall be mounted on the generator set with vibration isolators. A front control panel illumination lamp with ON/OFF switch shall be provided. Control panel mounted indicating meters and devices shall include:

1. Engine Oil Pressure Gauge
2. Coolant Temperature Gauge
3. DC Voltmeter
4. Running Time Meter (hours)
5. Voltage adjusting rheostat, locking screwdriver type, to adjust voltage +/- 5% from rated value
6. Analog AC Voltmeter, dual range, 90 degree scale, 2% accuracy
7. Analog AC Ammeter, dual range, 90 degree scale, 2% accuracy
8. Analog Frequency/RPM meter, 45-65 Hz, 1350-1950 RPM, 90 degree scale, +/- 0.6 Hz accuracy
9. Seven position phase selector switch with OFF position to allow meter display of current and voltage in each generator phase.

When supplied with reconnectable generators, the meter panel shall be reconnectable for the voltage specified.

- H. Engine: The engine shall be 4 cycle, 1800 rpm, diesel fueled, direct injection, with forged steel crankshaft and connecting rods. An electronic governor; consisting of a magnetic pickup speed sensor, adjustable electronic control, and an electric actuator mounted integrally with the fuel pump, shall provide automatic engine-generator set frequency regulation adjustable from isochronous to 5% droop. The governor shall be suitable for paralleling future generator sets with the addition of load sharing controls. The engine shall be cooled by a unit-mounted closed loop radiator system including belt-driven pusher fan, coolant pump and thermostat temperature control. The cooling system shall be rated for full rated load operation in 120 degrees F ambient condition with the ambient temperature as measured at the generator air inlet. The cooling capability of the generator set shall be demonstrated by prototype tests on a representative generator set model. These tests will be conducted by the generator set manufacturer; calculated data from the radiator manufacturer only is not sufficient. Radiators shall be provided with a duct adaptor flange permitting the attachment of an air discharge duct to direct the radiator air outside according to the manufacturer's instructions. The cooling system shall be filled with 50/50 ethylene glycol/water mixture by the equipment supplier. Rotating parts shall be guarded against accidental contact.
- I. Engine Accessory Equipment: The engine-generator set shall include the engine accessories as follows:
1. An electric starter(s) capable of three complete cranking cycles without overheating, before overcrank shutdown (75 seconds).
 2. Positive displacement, mechanical, full pressure, lubrication oil pump.
 3. Full flow lubrication oil filters with replaceable spin-on canister elements and dipstick oil level indicator.
 4. An engine driven, mechanical, positive displacement fuel pump.
 5. Fuel filter with replaceable spin-on canister element.
 6. Replaceable dry element air cleaner with restriction indicator.
 7. Flexible supply and return fuel lines.
- J. Base: The engine-generator set shall be mounted on a heavy-duty steel base to maintain proper alignment between components. The engine-generator set shall incorporate a battery tray with hold down clamps within the base rails. Provisions for stub up of electrical and fuel connections shall be within the footprint of the generator set base rails.
- K. Generator Set Auxiliary Equipment:
1. Engine mounted, thermostatically controlled, water jacket heater(s) for the engine. The heater(s) shall be sized as recommended by the equipment supplier. Heater voltage shall be 120V, single phase.
 2. Generator main circuit breaker, set-mounted and wired, UL listed, rated as specified herein. Field circuit breakers shall not be acceptable for generator overcurrent protection. The circuit breaker shall include provisions for shunt trip. Provide auxiliary contact for trip status reporting (common w/engine shutdown). Tripping of the generator circuit breaker while under load shall initiate engine shutdown.

3. Vibration isolators, spring isolators type, quantity as recommended by the generator set manufacturer.
4. Battery Charger: A 10 amp voltage regulated battery charger shall be provided for the engine-generator set. Input AC voltage and DC output voltage shall be as required. Chargers shall be equipped with float, taper and equalize charge settings. Operational monitors shall provide visual output along with individual form C contacts rated at 4 amps, 120 VAC, 30 VDC for remote indication of:
 - a. Loss of AC power - red light
 - b. Low battery voltage - red light
 - c. High battery voltage - red light
5. Starting and Control Batteries: Starting batteries, lead acid type, 12 volt DC, sized as recommended by the generator set manufacturer, shall be supplied for the generator set with battery cables and connectors.

- L. Sound Attenuated Weatherproof Enclosure: Provide a factory installed weatherproof enclosure (Level 1 sound attenuation) sized to house the engine-generator set, exhaust silencer, batteries and charger. The enclosure shall be constructed of aluminum, with stainless steel hardware. Enclosure shall be painted hunter green color. Enclosure doors shall be padlockable and conveniently placed for ease of operation and maintenance. The enclosure shall be rated for wind load in accordance with the Florida Building Code.
- M. Sub-base Fuel Tank: Provide an integrally mounted, dual wall steel, diesel fuel tank, 2,500 gallon capacity. The tank shall be U.L. listed with both inner and outer tank emergency vents per NFPA 30. The sub-base fuel tank shall be as manufactured by the Tramont Corporation, Milwaukee, Wisconsin, with the following system accessories:

1. Dual high/low fuel level switch (provide high level audible alarm on gen control panel)
2. Leak detection switch.

2.02 AUTOMATIC TRANSFER SWITCH

- A. Listed Equipment: The transfer switch shall be UL listed per UL Standard 1008, and CSA Approved. Main power switch contacts shall be rated as shown on the drawings.
- B. The withstand and closing rating shall be equal or greater than 25,000A, symmetrical. Withstand and closing ratings shall be verified by UL witnessed test and shall be the ratings listed by UL for the transfer switch equipment supplied.
- C. Construction: Transfer switches shall be double-throw construction, positively electrically and mechanically interlocked by a mechanical beam to prevent simultaneous closing (for break before make operation), and mechanically held in both normal and emergency positions. The construction features and accessories shall be as follow:
 1. Transfer switches rated through 1000 amperes shall be equipped with permanently attached operating handles and quick-break, quick-make contact mechanisms suitable for manual operation under load.
 2. The main switch contacts on contractor type transfer switches shall be high-pressure silver alloy contacts to resist burning and pitting for long life operation. Contact assemblies shall

have arc chutes of heat absorbing material and metal leaves for positive extinguishing of arcs. Arc chutes shall have insulating covers to prevent interphase flashover.

3. Transfer switches shall have one Form C, 10 Amp 250 Volt AC auxiliary switch on both normal and emergency sides, operated by the transfer switch.
4. Terminal lugs, UL listed and CSA approved as suitable for copper and aluminum conductors, shall be provided for normal, emergency, and load connections. Wire bend space shall comply with NEC Article 373.
5. Transfer switch shall be mounted in a NEMA 4X, 316 stainless steel enclosure. Where specified by NEMA Type, separate enclosures shall be UL listed. The cabinet shall provide NEC required wire bend space at point of entry as shown on the drawings. Manual operating handles and all control switches (other than key-operated switches) shall be accessible to authorized personnel only by opening the key-locking cabinet door. Transfer switches with manual operating handles and/or non key-operated control switches located on outside of cabinet do not meet this specification and are not acceptable.

D. Automatic Controls: Control shall be solid-state and mounted inside of key-locking front door. Control disconnect plugs shall be provided to de-energize control circuits to avoid shock hazard while making control adjustments. The control shall be designed for a high level of immunity to power line surges and transients and tested to IEEE Standard 587-1980. The control shall have optically isolated logic inputs, high isolation transformers for AC inputs, and relays on all outputs. Other control features shall be as follows:

1. Solid-state undervoltage sensors shall simultaneously monitor all phases of the normal source and all phases of the emergency source. Voltage sensors shall allow for adjustment to sense partial loss of voltage on any phase of normal where motor feedback voltages exist. Pick-up setting shall be adjustable from minimum of 85% to maximum of 100% of nominal voltage. Dropout settings shall be adjustable from minimum of 75% to maximum of 98% of pick-up setting with fixed dropout time delay of 0.5 seconds. Voltage sensors shall have provision for field calibration where supply voltage is higher or lower than nominal system voltage.
2. Controls shall signal the engine-generator set to start upon signal from normal source voltage sensors. Solid-state time delay start, adjustable from 0 to 120 seconds (factory set at 20 seconds) shall avoid nuisance start-ups on momentary voltage dips for momentary interruptions. Start contacts for the engine control shall be gold type, dry contacts wired to a terminal block and compatible with the generator set control equipment furnished.
3. The switch shall transfer the load to the emergency power system after the generator set reaches proper voltage and frequency. Solid-state time delay transfer, adjustable from 0 to 120 seconds (factory set at 2 seconds) shall allow the engine-generator set to stabilize before application of load.
4. The switch shall retransfer the load to the normal source after normal power restoration. Solid-state time delay retransfer, adjustable from 0 to 30 minutes (factory set at 5 minutes), shall allow normal power to stabilize before retransfer.
5. An in-phase monitor shall control the retransfer to the normal source.

6. Controls shall signal the engine-generator set to stop after load retransfer to normal source. Solid-state time delay stop, adjustable from 0 to 15 minutes (factory set at 5 minutes) shall maintain availability of emergency source in event that normal source fails shortly after retransfer and shall permit engine to run unloaded for cool down before shut down.
7. The operating power for transfer and retransfer shall be obtained from the source to which the load is being transferred. Controls shall provide an automatic retransfer of the load from emergency source to normal source if emergency source fails when normal source is available.
8. Controls shall provide built-in "control mode status indicators", consisting of light emitting diodes to indicate a sequence of functions such as the following:
 - a. Source 1 OK
 - b. Start Gen Set
 - c. Source 2 OK
 - d. Transfer Timing
 - e. Transfer Complete
 - f. Retransfer Timing
 - g. Retransfer Complete
 - h. Timing for Stop

These indicators shall allow the operator to determine that the controls are properly sequencing and shall assist in determining sequence of any malfunctions that might occur.

9. The control shall include provisions for remote transfer inhibit and area protection. Opening the transfer inhibit terminals shall prevent the transfer switch from operating from the normal source to the emergency source, even if the emergency source is good and the normal source is not. Closing the area protection/remote test terminals shall cause the control to sense a normal power failure, start the generator set, and transfer to the emergency source.
10. Provide a solid-state exerciser clock to set the day, time, and duration of generator set exercise/test period. A 100 hour battery backup power supply shall be provided to maintain clock settings during loss of normal power. Provide a with/without load selector switch for the exercise function.

E. Transfer Switch Devices: Provide devices mounted on an interior deadfront door consisting of:

1. Transfer switch position indicator lamps; Normal (green), Neutral (amber), and Emergency (red). Provide normal source available (green) and emergency source available (green) indicator lamps.
2. A four-position keyed selector switch to provide the following positions and functions:
 - a. Load Test - Simulated normal power loss to control unit for testing of generator set, including transfer of load. Controls shall include provisions to automatically return the system to the normal power source if the generator set fails during any test or exercise period.
 - b. No-Load Test - A system test without load transfer.

- c. Automatic - Normal operating position; restores the load to the normal source after test and after time delays.
- d. Stop - Engine stop.

F. Manufacturer: Transfer switches shall be service entrance rated as manufactured by ASCO, Onan, Eaton, or approved equal.

PART 3 - EXECUTION

3.01 TESTING

- A. To provide proven reliability of the system, three series of tests shall be performed: Prototype Model Tests, Production Model Tests, and Field Tests. The manufacturer shall provide documentation demonstrating satisfactory prototype and production test results. Generator sets that have not been prototype tested and factory tested at 0.8 PF will not be acceptable.
- B. Generator Set Factory Prototype Tests and Evaluation: These tests and evaluations must have been performed on a prototype generator set representative of the Model specified. A summary of the generator set testing results shall be submitted for review. The manufacturer's standard series of component development tests on the generator system, engine, and other major components shall also be performed and available for review, but shall not be acceptable as a substitute for prototype testing on the complete representative generator set prototype.
 - 1. Torsiograph Analysis and Test: The manufacturer of the generator set shall verify that the engine-generator set, as configured, is free from harmful torsional stresses. The analysis shall include correlation of empirical data from tests on a representative prototype. The empirical data must include spectrum analysis of the torsional transducer output within the operating speed range of the engine-generator set. Calculations based on engine and generator separately are not acceptable.
 - 2. Temperature Rise Test: Complete thermal evaluation of a prototype generator rotor and stator must include actual measurement of internal generator and exciter temperatures by embedded detector method, and measurement of average temperature rise by resistance method. No position measured any place in the windings may exceed the temperature rise limits of NEMA for the particular type of insulation system used. Resistance method temperature rise data shall be confirmed by a full load test on the generator set prototype to include conducted and radiated heat from the engine.
 - 3. Short Circuit Test: A test on a prototype generator set shall have demonstrated that the generator set is designed to withstand the mechanical forces associated with a short circuit condition. With the generator set operating at rated load and speed, the generator terminals must be short circuited on all three phases for a duration of 20 seconds. At the conclusion of this test, the generator set must be capable of full load operation.
 - 4. Endurance Run Test: A minimum of five hundred (500) continuous hours of endurance testing with a representative generator set prototype operating as defined by the manufacturer's standby rating shall have been performed. Endurance testing shall be used to verify structural soundness and durability.
 - 5. Maximum Power Test: With the prototype generator set at normal operating temperature and with all power consuming auxiliaries in place, the maximum power available at rated

speed shall be determined with the governor set at its fuel stop. The generator set shall maintain this power for a minimum of two minutes.

6. Linear Vibration Test: A test for in-line motion of components occurring along a repeatable path shall meet the manufacturer's acceptance criteria.
7. Cooling System Test: A cooling system test shall demonstrate the ability of the generator set cooling system to maintain normal operating temperature while operating at full rated load and power factor at the highest ambient temperature of the system rating. Cooling air requirements, radiator airflow and maximum allowable restriction at radiator discharge, shall be verified by this test.
8. Maximum Motor Starting kVA: Motor starting kVA shall be determined by test, based on a sustained RMS recovery voltage of at least 90% of no load voltage with the specified load kVA at near zero power factor applied to the generator set.
9. Transient Response, Steady-state Speed Control, and Voltage Regulation: Prototype generator set tests shall demonstrate consistent performance as follows; stable voltage and frequency at all loads from no load to full rated load, consistent frequency bandwidth with steady- state load, maximum voltage and frequency dip on load acceptance and rejection, and restoration to steady state after sudden load changes. Transient response is a complete generator set (engine, generator, exciter, and regulator) performance criteria and cannot be established based on generator data alone.

C. Transfer Equipment Prototype Tests: Prototype samples, representative of the production transfer switches supplied, shall have been tested as defined in UL 1008, including but not limited to:

1. Overload tests for the capability to make and break six (6) times the transfer switch rated current at low power factor without any electrical or mechanical malfunction.
2. Temperature rise test at 100% of rated current without exceeding temperature rise limits. Transfer switches incorporating integral overcurrent devices in the main power circuit and tested at 80% of rating shall not be permitted.
3. Endurance tests for a minimum of 3,000 mechanical operation cycles.
4. A dielectric voltage withstand test of 1,000 volts plus twice rated for one minute.
5. Withstand and Closing tests with specific overcurrent devices. All withstand and closing tests shall be performed with the overcurrent protective devices located external to the transfer switch. Tests conducted with overcurrent protective devices internal to the switch, in such a manner that the transfer switch interrupts the current rather than withstanding the current, are not acceptable under this definition of withstand.
6. The entire transfer switch shall be performance tested per the requirements of IEEE-587-1980, for voltage surge withstand capability.

3.02 FACTORY TESTS

A. Generator set factory production tests: on the equipment to be shipped, shall be performed at rated load and 0.8 PF. These tests shall include run at full load, maximum power, voltage

regulation, transient and steady-state governing, single step load pickup, and safety shutdowns. Provide a factory certified test record of the production testing.

- B. Transfer equipment production model tests: Each production model transfer switch supplied shall be factory tested before shipment. Factory tests shall include a complete functional test of the transfer switch control, including calibration of the voltage sensor potentiometers.

3.03 ON-SITE ACCEPTANCE TEST

- A. The complete installation shall be tested for compliance with the specification following completion of all site work. Testing shall be conducted by representatives of the manufacturer, with required fuel supplied by Contractor. The Engineer shall be notified in advance and shall have the option to witness the tests. Installation acceptance tests to be conducted on-site shall include a "cold start" test, a two hour full load test, and a one-step rated load pickup test in accordance with NFPA 110.
- B. Provide a resistive load bank and make temporary connections for full load test. Load bank shall be capable of definite and precise incremental loading and shall not be dependent on generator control instrumentation to read amperage and voltage of each phase. Salt water brine tanks or those load banks requiring water as a source for cooling are not acceptable for this purpose and are disallowed and shall not be utilized for this test.

3.04 SCHEDULED OIL SAMPLING

- A. In order to forecast and minimize engine failure, the supplier of the equipment must provide a yearly (every twelve (12) months) oil sampling analysis throughout the warranty period. This scheduled oil sampling shall not be of the atomic absorption spectrophotometry method as opposed to the spectrographic analysis method and shall be accurate to within a fraction of one (1) part per million for the following elements:

1. Iron
2. Copper
3. Chromium
4. Aluminum
5. Silicon

In addition, the sample shall be tested for the presence of water, fuel dilution, and anti-freeze.

- B. All equipment needed to take oil samples shall be provided in a kit at the time of acceptance and shall include the following:
 1. Sample gun kit (1)
 2. Bottles (8)
 3. Mailers (8)
 4. Written instructions (1)
- C. Immediate notification shall be provided to the OWNER when analysis results show any critical reading. If readings are normal, a report showing that the equipment is operating within established requirements shall be provided.

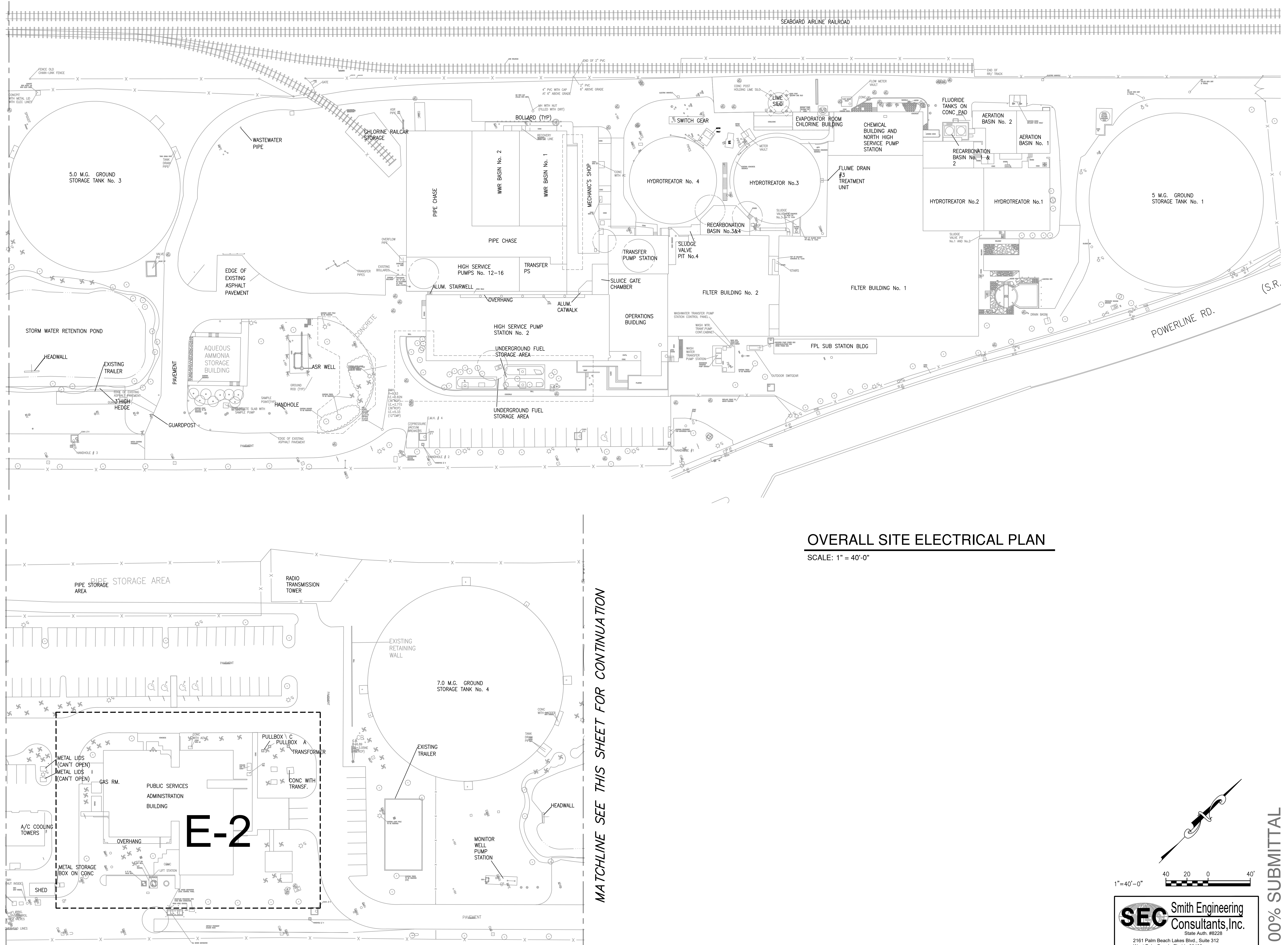
3.05 TRAINING

A. The equipment supplier shall provide training for the facility operating personnel covering operation and maintenance of the equipment provided. The training program shall be not less than 4 hours in duration and the class size shall be limited to 5 persons. Training date shall be coordinated with the facility owner.

The following Diagrams are for illustrational purposes only.

END OF SECTION

MATCHLINE SEE THIS SHEET FOR CONTINUATION



MATCHLINE SEE THIS SHEET FOR CONTINUATION

OVERALL SITE ELECTRICAL PLAN

SCALE: 1" = 40'-0"

1" = 40'-0"

SEC Smith Engineering
Consultants, Inc.
Slate Auth. #8228
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West Palm Beach, Florida 33409
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www.smithengineeringconsultants.com

100% SUBMITTAL

PROJECT # P12806
PUBLIC WORKS ADMINISTRATION BUILDING
GENERATOR REPLACEMENT
OVERALL SITE ELECTRICAL PLAN

SHEET NO.
E-1
TOTAL:
CAD FILE:
P-----ELEC
DRAWING FILE NO.

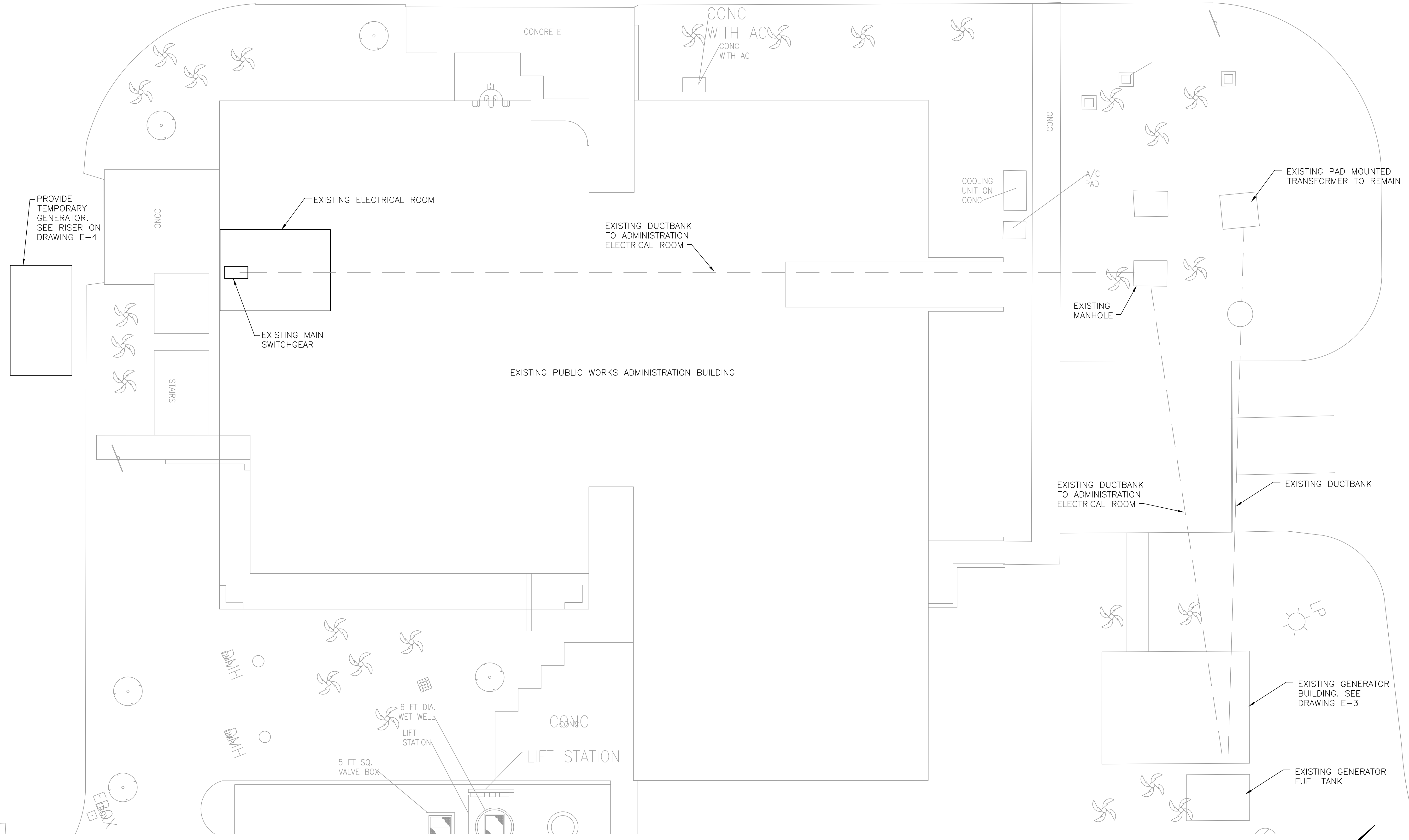
| NO. | DATE | BY | CHK'D | REVISIONS | DESCRIPTION |
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| | | | | | |

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

DRAWN BY: SPH
DESIGNED BY: SCALE: N.T.S.
CHECKED BY: L.M.S.
FIELD BOOK:

ENGINEER: Larry M. Smith, P.E.
DATE: 05/31/23
DATE PLOTTED: 05/31/23
TEL: (561) 616-3911
FAX: (561) 616-3912

T:\SEC 2023\S23010 FORT LAUDERDALE, CITY OF - PUBLIC WORKS ADMIN BLDG GENERATOR\ELECTRICAL DWGS\S23010-E-2 ENLARGE ELECTRICAL SITE PLAN.DWG



ENLARGED ELECTRICAL SITE PLAN
SCALE: 1/8" = 1'-0"



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PROJECT # P12806
PUBLIC WORKS ADMINISTRATION BUILDING
GENERATOR REPLACEMENT
ENLARGED ELECTRICAL SITE PLAN

| | |
|------------------|------------|
| SHEET NO. | E-2 |
| TOTAL: | - |
| CAD FILE: | P-----ELEC |
| DRAWING FILE NO. | ----- |

| NO. | REVISIONS | | DESCRIPTION |
|-----|-----------|----|-------------|
| | DATE | BY | |
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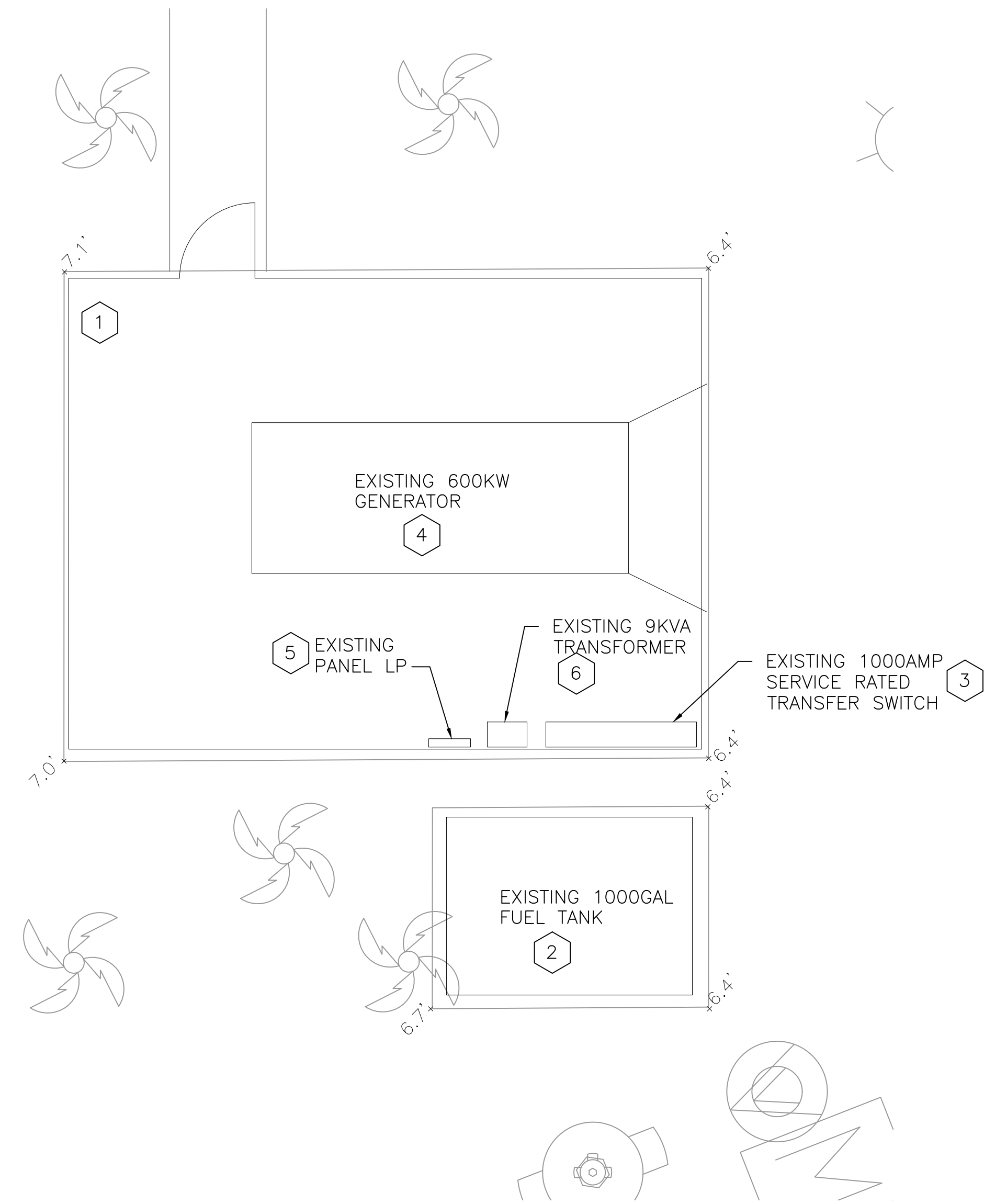
CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE

100 North Andrews Avenue, Fort Lauderdale, Florida 33301

| | | | |
|--------------|--------|--------|----------|
| DESIGNED BY: | SPH | SCALE: | N.T.S. |
| CHECKED BY: | L.M.S. | DATE: | 05/31/23 |
| FIELD BOOK: | | | |

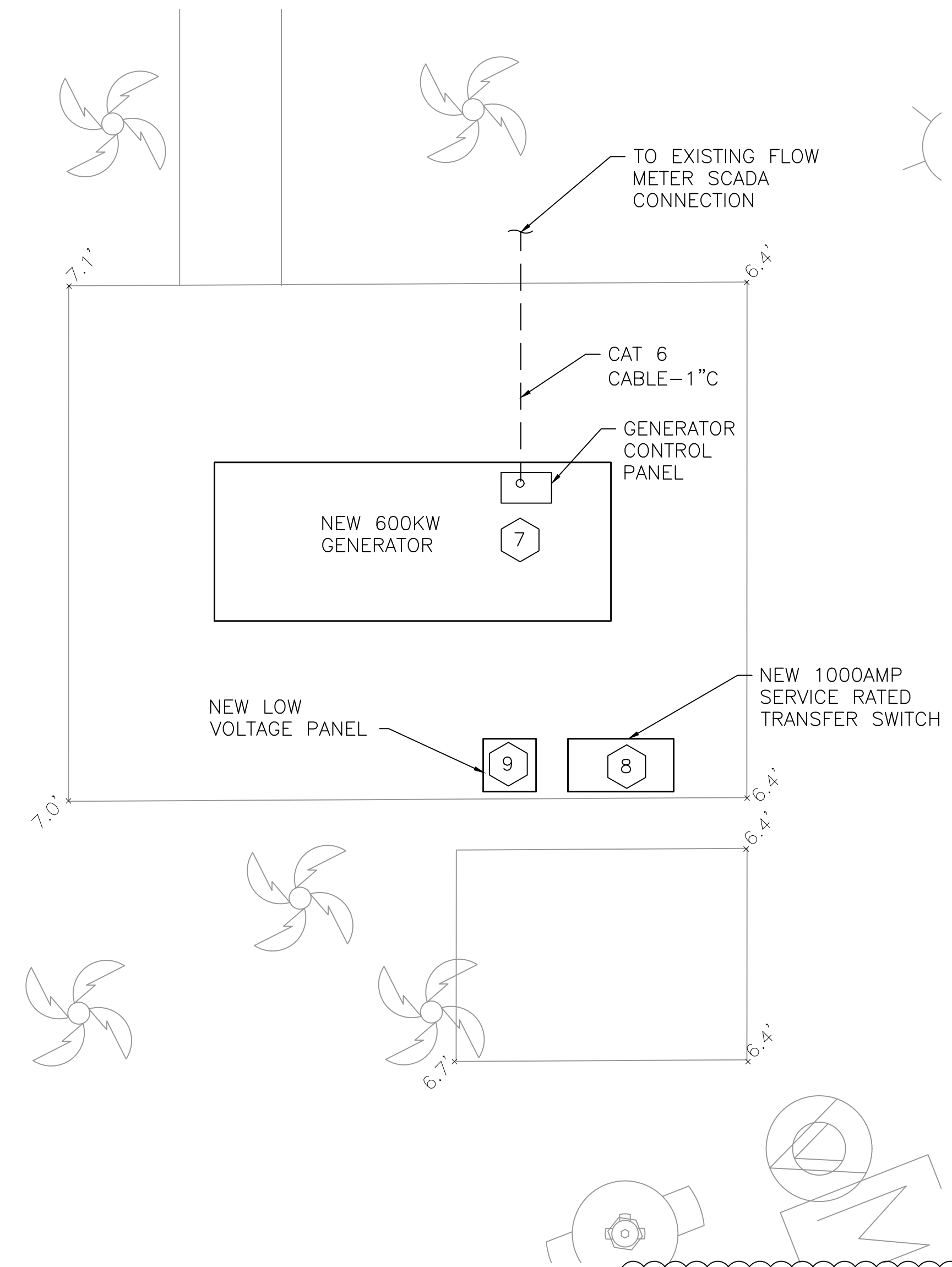
ENGINEER: Smith, P.E.
Larry M. Smith
DATE: 05/31/23
DATE PLOTTED: 05/31/23

TEL: (561) 616-3911
FAX: (561) 616-3912



ELECTRICAL DEMOLITION PLAN

SCALE: 1/2" = 1'-0"



PROPOSED ELECTRICAL PLAN

SCALE: 1/2" = 1'-0"

FLOOD ZONE:
ZONE AH EL8

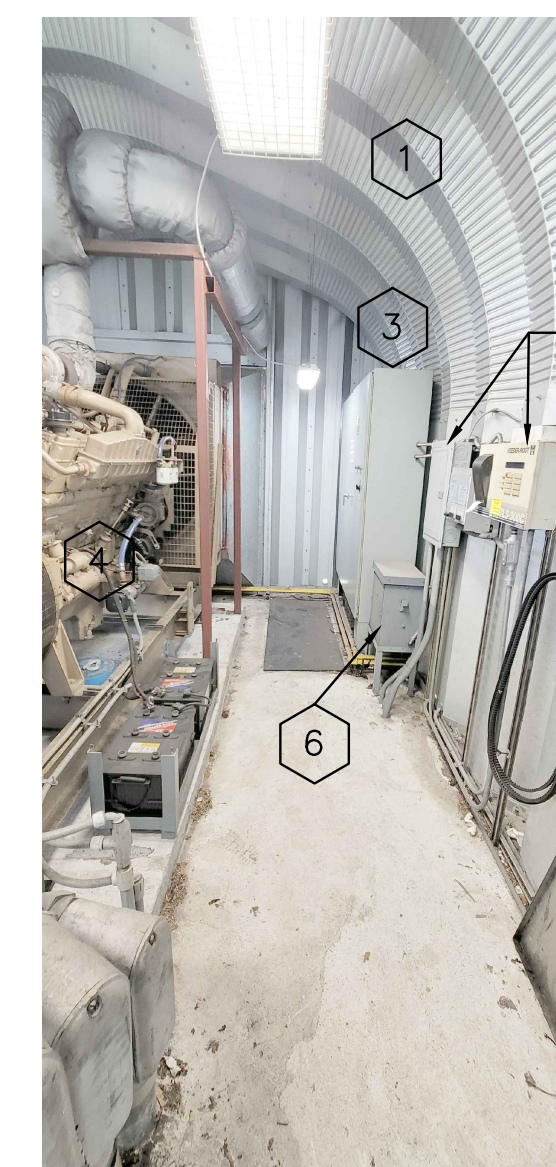
NOTE:
ALL NEW EQUIPMENT SHALL BE MOUNTED 2'
ABOVE THE 100 YEAR BASE FLOOD LEVEL.
ADJUST NEW EQUIPMENT AS NECESSARY.

- 1 CONTRACTOR SHALL REMOVE EXISTING BUILDING COMPLETE. EXISTING SLAB SHALL REMAIN.
- 2 CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING FUEL TANK COMPLETE.
- 3 CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING ATS COMPLETE.
- 4 CONTRACTOR SHALL DISCONNECT EXISTING GENERATOR AND REMOVE COMPLETELY.
- 5 CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING PANEL COMPLETE.
- 6 CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING TRANSFORMER COMPLETE.
- 7 CONTRACTOR SHALL PROVIDE AND INSTALL NEW OUTDOOR GENERATOR ON EXISTING SLAB. CONTRACTOR SHALL ADJUST THE EXISTING CONDUITS AND SLAB AS NECESSARY FOR THE NEW GENERATOR.
- 8 PROVIDE AND INSTALL NEW MAIN/ATS CABINET. MAKE ALL CONNECTIONS NECESSARY FOR A COMPLETE WORKING SYSTEM IN PLACE.
- 9 CONTRACTOR SHALL PROVIDE AND INSTALL NEW PANEL AND TRANSFORMER COMPLETE,



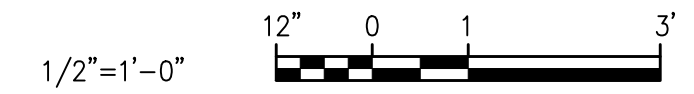
EXISTING CONDUITS TO BE REUSED. SEE RISER ON E-4

EXISTING SLAB TO BE REUSED AS NECESSARY



ELECTRICAL BUILDING PHOTOS

SCALE: 1" = 40'-0"



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100% SUBMITTAL

ENGINEER: Smith, P.E.
Larry M. #9897
DATE: 05/31/23

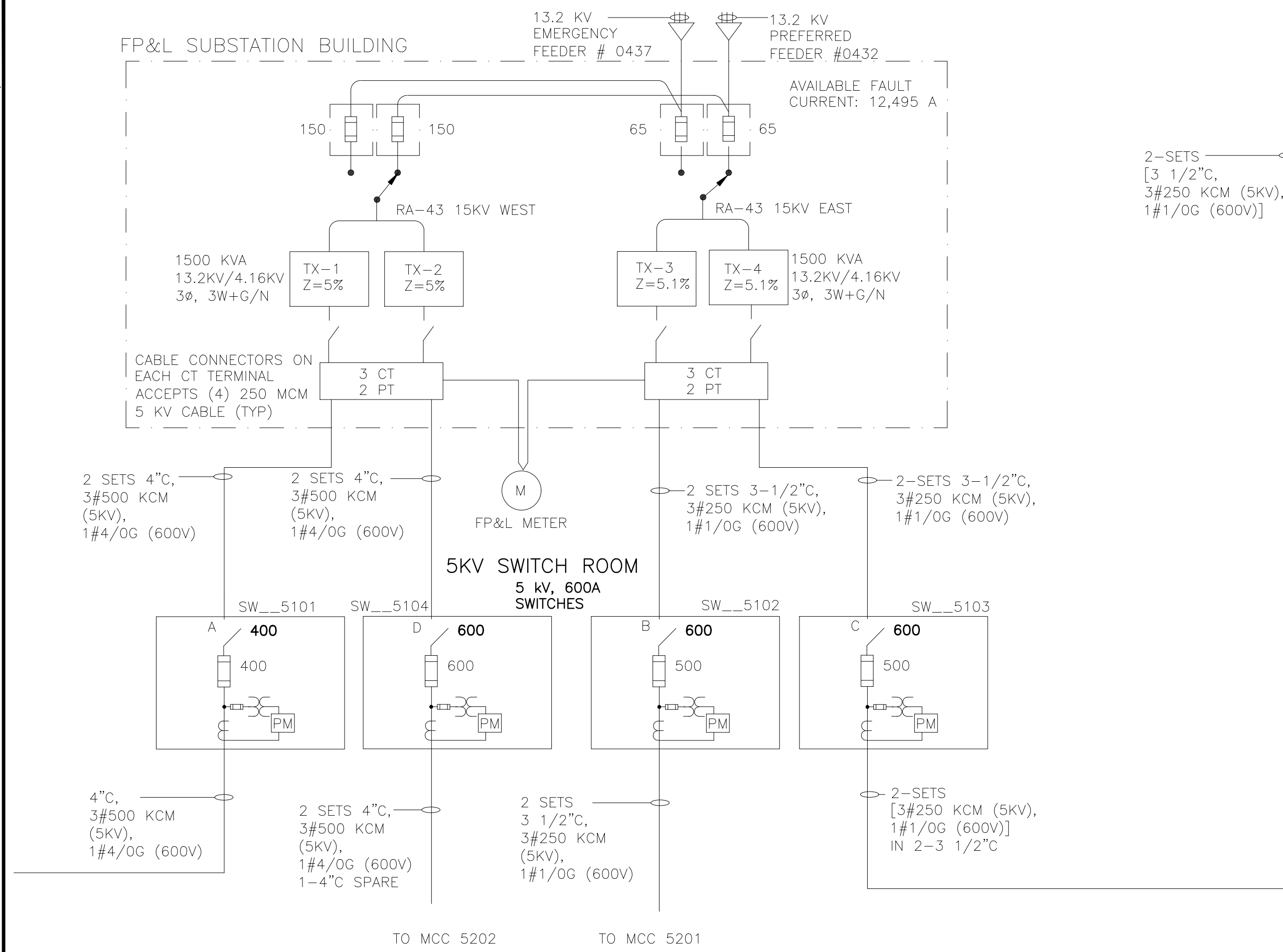
DRAWN BY: SPH
DESIGNED BY: SCALE: N.T.S.
CHECKED BY: L.M.S.
FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

| NO. | DATE | BY | REVISIONS | | DESCRIPTION |
|-----|----------|-----|-----------|--------------|-------------|
| | | | CHK'D | BLDG DEPART. | |
| 1 | 05/30/23 | SPH | LMS | | COMMENT |

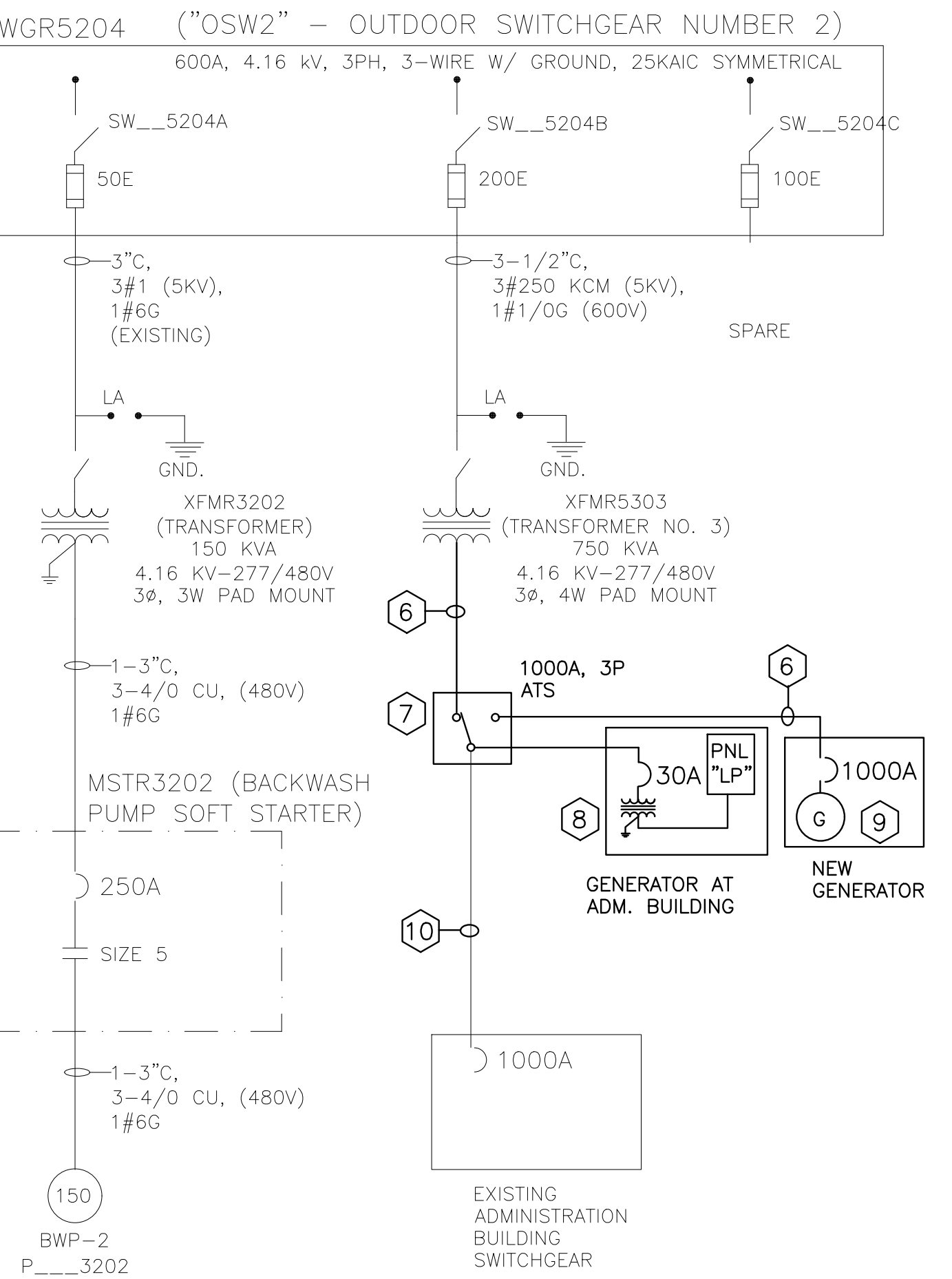
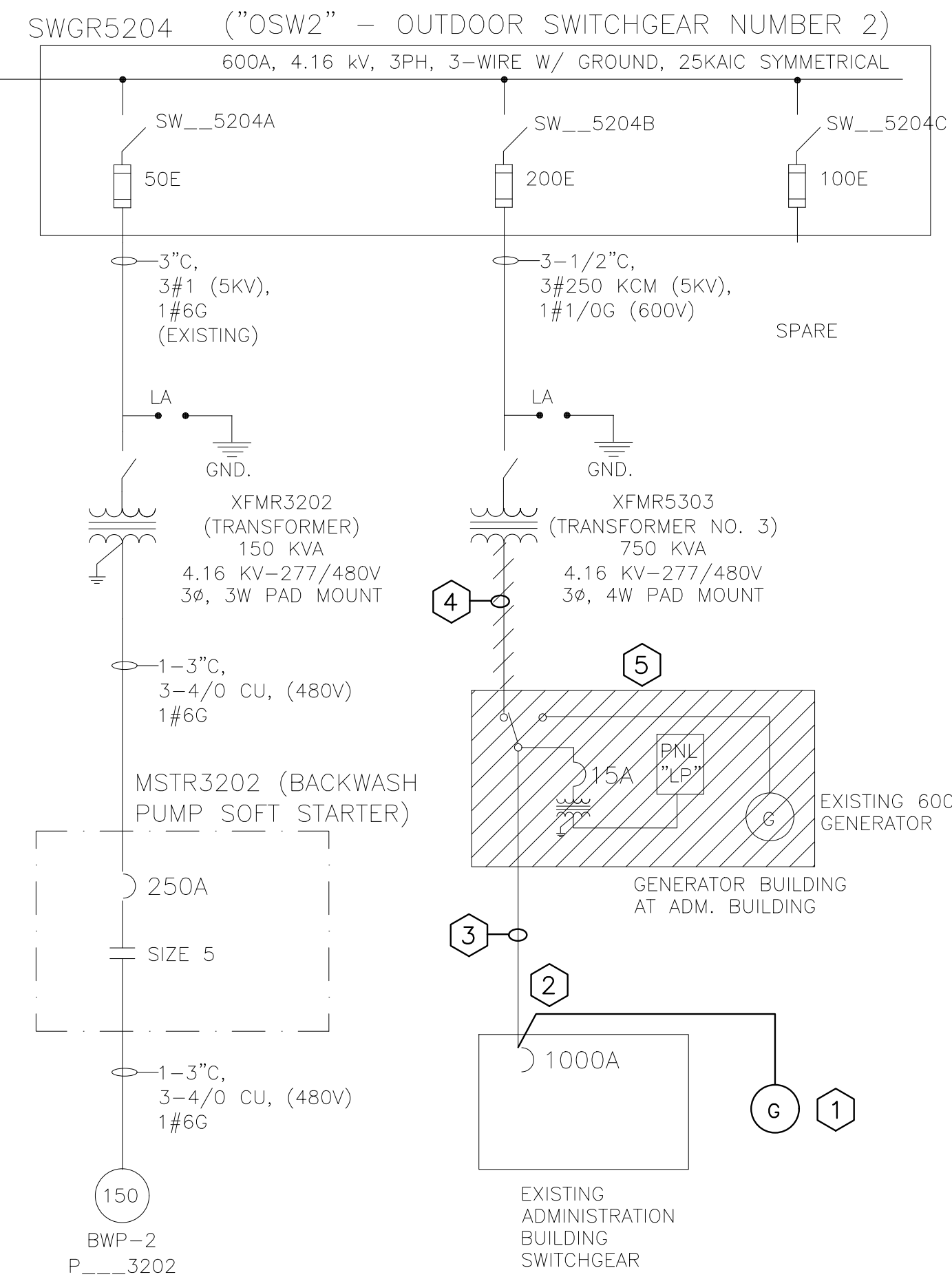
PROJECT # P12806
PUBLIC WORKS ADMINISTRATION BUILDING
GENERATOR REPLACEMENT
GENERATOR AREA PLAN

SHEET NO.
E-3
TOTAL: -
CAD FILE: P-----ELEC
DRAWING FILE NO. -----



EXISTING ONE LINE DIAGRAM

SCALE: NOT TO SCALE



ONE LINE DIAGRAM MODIFICATIONS

SCALE: NOT TO SCALE

ELECTRICAL KEY NOTES:

- 1 CONTRACTOR SHALL PROVIDE 600 KW TEMPORARY GENERATOR TO 24 HOUR OPERATION TO THE BUILDING. CONTRACTOR SHALL MAINTAIN FUEL AND OPERATION OF THE GENERATOR DURING THE PROJECT.
- 2 CONTRACTOR SHALL PROVIDE AND INSTALL 3 SETS OF 4#400 KCMIL, 1#2/0G TEMPORARY WIRING FROM THE TEMPORARY GENERATOR TO THE EXISTING MAIN SWITCHGEAR. CONTRACTOR SHALL DISCONNECT THE EXISTING FEEDER CABLES AND CONNECT THE TEMPORARY WIRE FOR A COMPLETE WORKING SYSTEM IN PLACE.
- 3 EXISTING WIRE SHALL BE PROTECTED WHILE CONSTRUCTION IS BEING COMPLETED.
- 4 CONTRACTOR SHALL REMOVE EXISTING WIRES FROM THE TRANSFORMER TO THE EXISTING ATS COMPLETE.
- 5 CONTRACTOR SHALL DISCONNECT EXISTING ATS, PANEL "LP", FUEL MONITORING SYSTEM, TRANSFORMER AND GENERATOR COMPLETE AND REMOVE. CONTRACTOR SHALL ALSO DEMO EXISTING METAL BUILDING COMPLETE. EXISTING CONCRETE SLAB IS TO REMAIN AND BE REUSED.
- 6 CONTRACTOR SHALL PROVIDE AND INSTALL 3 SETS OF 4#500KCMIL, 1#2/0G IN EXISTING 4"C. CONTRACTOR SHALL RUN A MANDREL THRU CONDUIT PRIOR TO INSTALLING NEW CONDUCTORS.
- 7 CONTRACTOR SHALL PROVIDE AND INSTALL 1000A, 480V, 3 PHASE, 4 WIRE TRANSFER SWITCH. SERVICE ENTRANCE RATED. ENCLOSURE SHALL BE NEMA 4X 316 STAINLESS STEEL. INSTALL TRANSFER SWITCH OVER THE EXISTING CONDUITS AS NECESSARY. CONTRACTOR SHALL ADJUST THE EXISTING CONDUIT AS NECESSARY TO CONNECT TO NEW TRANSFER SWITCH.
- 8 CONTRACTOR SHALL PROVIDE AND INSTALL NEW PANEL AND TRANSFORMER. SEE DRAWING E-5 FOR INFORMATION.
- 9 CONTRACTOR SHALL PROVIDE AND INSTALL NEW 600KW, 480V, 3 PHASE, 4 WIRE GENERATOR IN AN OUTDOOR ALUMINUM ENCLOSURE AND A 1000 GALLON SUB-BASE FUEL TANK. SEE GENERATOR SPECIFICATIONS. NEW GENERATOR SHALL BE INSTALLED ON EXISTING BUILDING SLAB. CONTRACTOR SHALL MODIFY EXISTING SLAB AS NECESSARY FOR THE NEW GENERATOR.
- 10 CONTRACTOR SHALL REMOVE THE TEMPORARY GENERATOR AND RECONNECT EXISTING CONDUCTORS FOR A COMPLETE WORKING SYSTEM IN PLACE.

100% SUBMITTAL

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West Palm Beach, Florida 33409
(561) 616-3911 Fax (561) 616-3912
www.smithengineeringconsultants.com

ENGINEER: Larry M. Smith, P.E.
DATE: 05/31/23
DESIGNED BY: SPH
CHECKED BY: L.M.S.
FIELD BOOK:

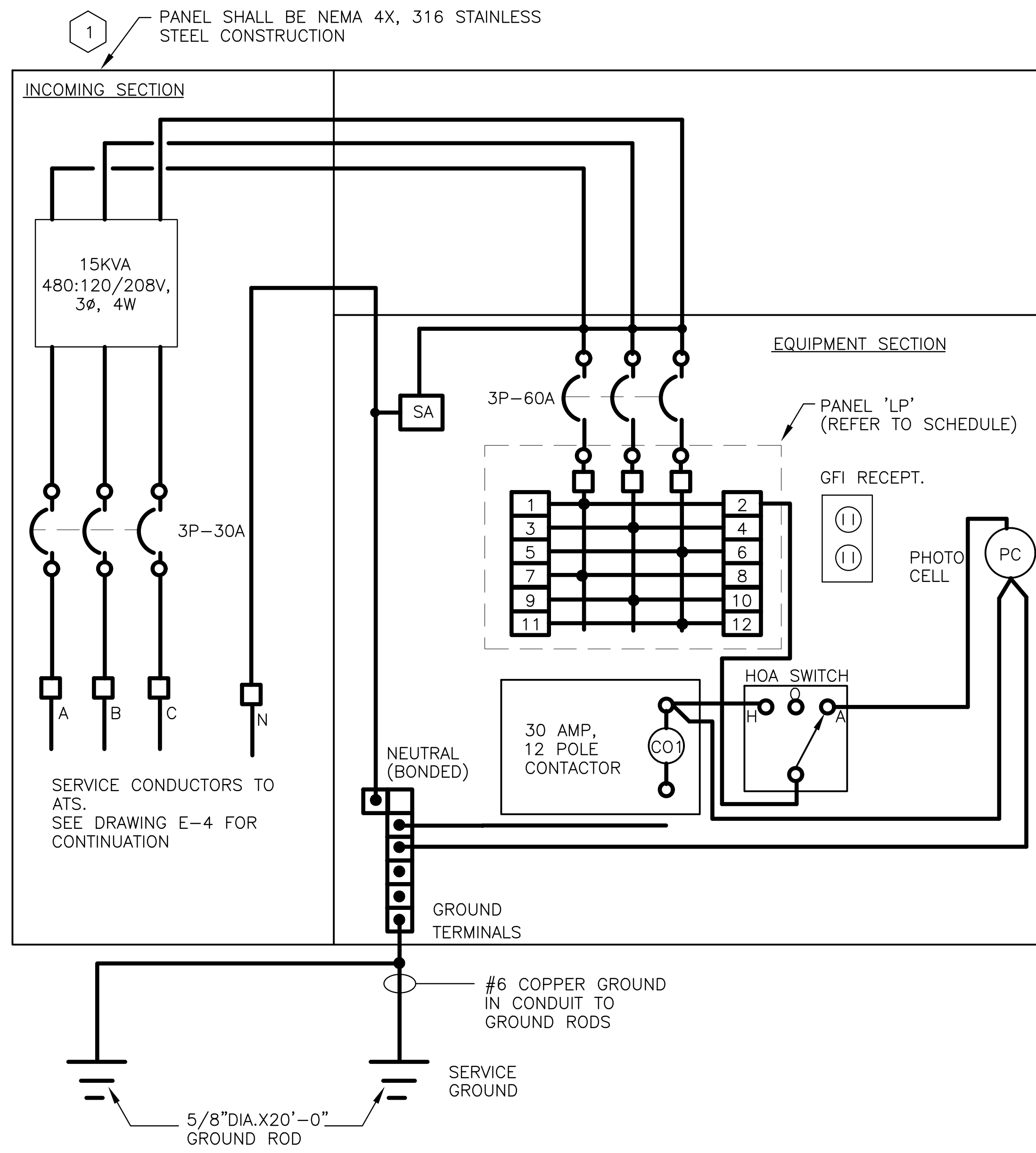
CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

PROJECT # P12806
PUBLIC WORKS ADMINISTRATION BUILDING
GENERATOR REPLACEMENT
ELECTRICAL ONE LINE DIAGRAM
MODIFICATIONS

| NO. | DATE | BY | CHK'D | DESCRIPTION |
|-----|------|----|-------|-------------|
| | | | | |
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SHEET NO. **E-4**

TOTAL: -
CAD FILE: 0-E-4P-ONE LINE CD DIAGRAM.DWG
DRAWING FILE NO. -



PANEL 'LP' RISER DIAGRAM
480V:120/208V, 3 PHASE, 4 WIRE

PANLEBOARD "LP" SCHEDULE

| WIRE | BUS AMPS | | | LOAD | POLES | AMPS | BUS | | AMPS | POLES | LOAD | BUS AMPS | | | WIRE |
|------|----------|---|------|-------------------------|-------|------|-----|----|------|-------|----------------------------|----------|-----|-----|------|
| | A | B | C | | | | A | B | | | | A | B | C | |
| 10 | 15.0 | | | GENERATOR JACKET HEATER | 2 | 30 | 1 | 2 | 20 | 1 | CONTROL, CONTACTOR | 1.0 | | | 12 |
| 10 | 15.0 | | | | 1 | | 3 | 4 | 20 | 1 | FLAG POLE LTG (EXISTING) | | 4.0 | | 12 |
| 12 | | | 10.0 | BATTERY CHARGER | 1 | 20 | 5 | 6 | 20 | 1 | FUEL LEVEL SYSTEM (FUTURE) | | | 4.0 | 12 |
| 12 | 8.0 | | | GENERATOR SPACE HEATER | 1 | 20 | 7 | 8 | 20 | 1 | GFI RECEPTACLE | 3.0 | | | 12 |
| | | | | SPARE | 1 | 20 | 9 | 10 | | | SPACE | | | | |
| | | | | SPARE | 1 | 20 | 11 | 12 | | | SPACE | | | | |
| | | | | SPARE | 1 | 20 | 13 | 14 | | | SPACE | | | | |
| | | | | SPARE | 1 | 20 | 15 | 16 | | | SPACE | | | | |
| | | | | SPARE | 1 | 20 | 17 | 18 | | | SPACE | | | | |
| | | | | SPARE | 1 | 20 | 19 | 20 | | | SPACE | | | | |

TOTAL AMPS: BUS A 27.0 BUS B 19.0 BUS C 14.0 CONNECTED Kva 7.2

RATED VOLTAGE: 120/208 3 PHASE, 4 WIRE BRANCH POLES 12 18 20 24 30 36 42

RATED AMPS: 60 150 200 SURFACE FLUSH CABINET ENCLOSURE TYPE NEMA 4X

FULL NEUTRAL BUS GROUND BUS HINGED DOOR KEYED DOOR LATCH ENCLOSURE TYPE NEMA 4X

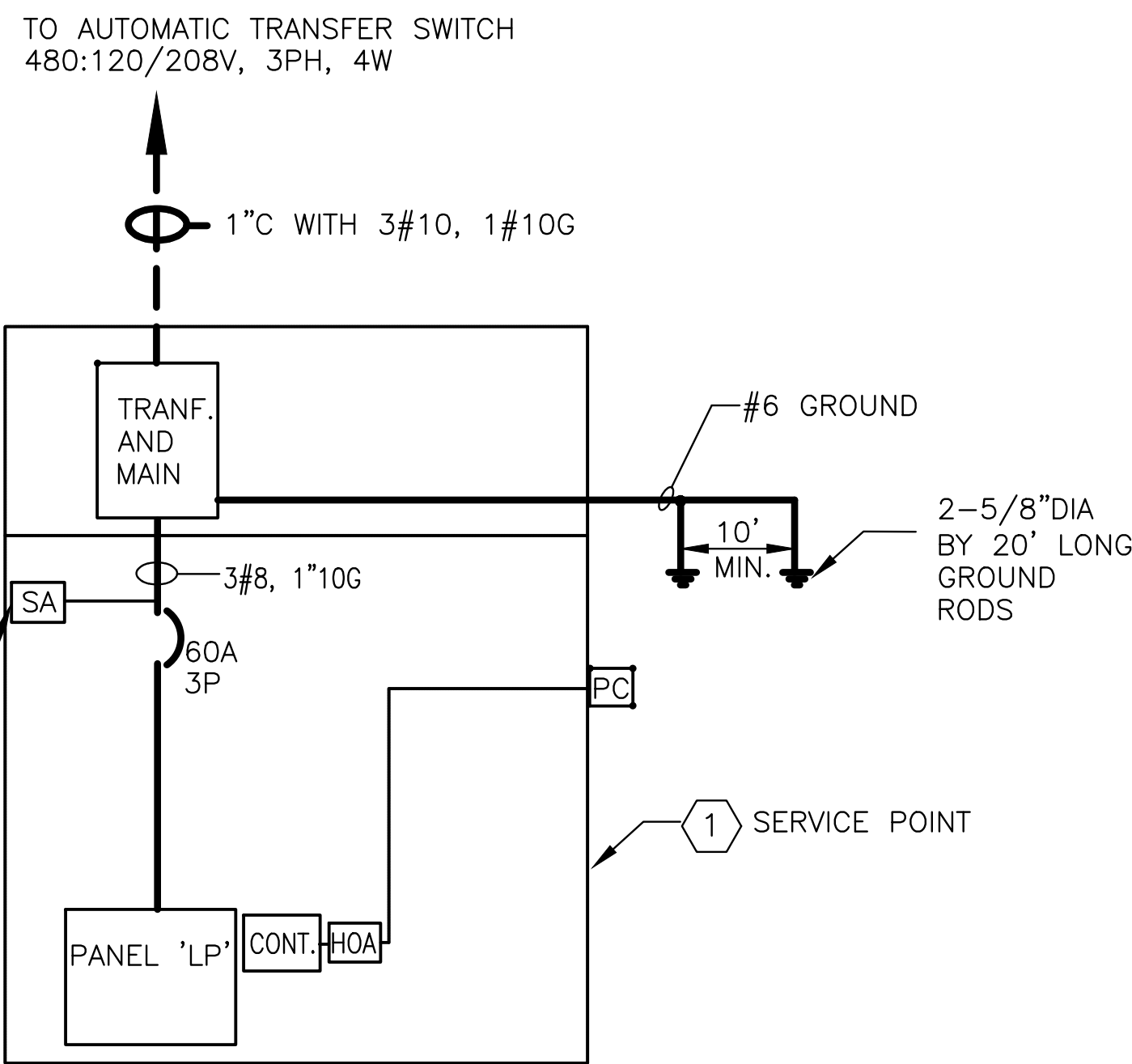
FUSED CIRCUIT BREAKER (BOLT-ON) BRANCH DEVICE FEED IS TO BE BOTTOM TOP

MAIN LUGS ONLY MAIN AMPS BREAKER FUSED SWITCH TO BE GFI BREAKERS

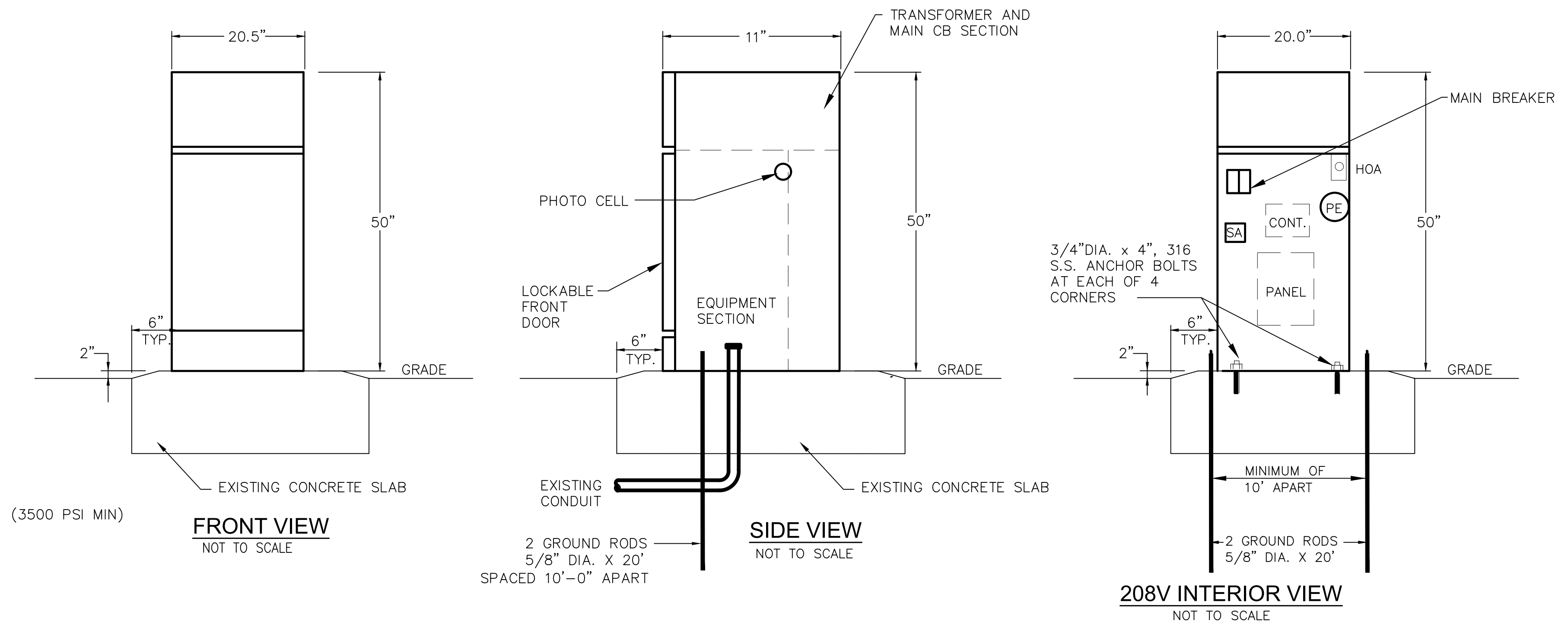
ALL BREAKERS MUST BE RATED TO INTERRUPT A SHORT CIRCUIT ISC OF 22,000 AMPS SYMMETRICAL

APPROVED MFRS SQUARE D, GE

NOTE:
ONLY PHASE CONDUCTOR SIZES ARE SHOWN ON SCHEDULES. PROVIDE NEUTRAL CONDUCTORS SAME SIZE AS PHASE CONDUCTORS WHERE REQUIRED. PROVIDE GROUND CONDUCTORS PER NEC IN ALL CONDUITS. SIZE CONDUITS PER NEC.

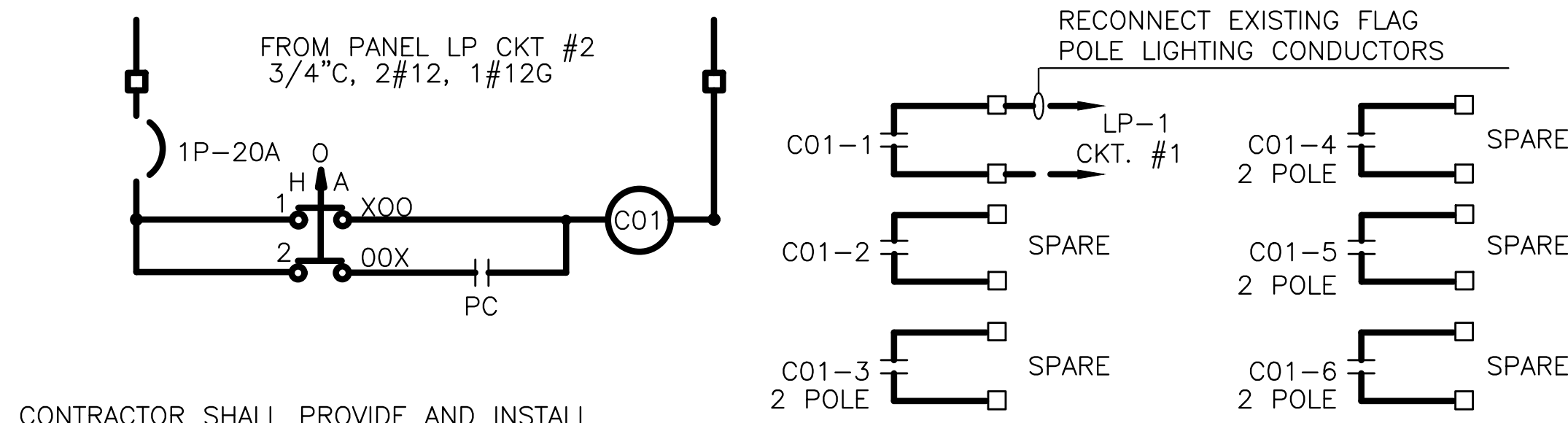


PANEL 'LP' ONE LINE DIAGRAM
480V:120/208V, 3 PHASE, 4 WIRE



PANEL 'LP' DETAIL
NOT TO SCALE

NOTE: ALL INSTALLATIONS SHALL BE SUITABLE FOR WIND LOAD IN ACCORDANCE WITH THE FLORIDA BUILDING CODE. THE CONTRACTOR SHALL INCLUDE WITH THE SHOP DRAWING SUBMITTAL, A WIND LOADING CALCULATION SEALED BY A STRUCTURAL ENGINEER REGISTERED IN FLORIDA SHOWING THAT THE PROPOSED INSTALLATION WILL MEET THE WIND LOADING REQUIREMENT.



CONTRACTOR SHALL PROVIDE AND INSTALL ELECTRICALLY HELD LIGHTING CONTACTORS, 120V, 1P COIL, 30A 240V RATED CONTACTS IN NEMA 1 ENCLOSURE. MAKE ALL NECESSARY CONNECTIONS FOR A COMPLETE WORKING SYSTEM IN PLACE.

LIGHTING CONTROL SCHEMATIC
SCALE: NONE

NOTES:

- ALL INTERIOR WIRING SHALL BE SIZE AS PER NEC CODE.
- CONTRACTOR SHALL PROVIDE ALL CIRCUIT BREAKERS, INTERIOR WIRING, GROUNDING RODS, ETC. FOR A COMPLETE WORKING SYSTEM IN PLACE.
- SERVICE POINT CABINET SHALL BE NEMA 4X, 316 STAINLESS STEEL.
- SERVICE POINT CABINET SHALL BE BUILT BY AN APPROVED UL SHOP AND CARRY A UL LABEL ON THE PANEL AND EQUIPMENT.

KEYED NOTES :

- PROVIDE AND INSTALL 480V:120/208V, 3 PHASE, 4W, 60 AMP SERVICE PANEL COMPLETE AS PER DETAIL ON THIS SHEET. SERVICE PANEL SHALL BE MILBANK, CAT. #CP3A1111TN (UNMETERED) OR APPROVED EQUAL. PANEL SHALL INCLUDE UTILITY SECTION, TRANSFORMER, 30A, 480V MAIN BREAKER, 60 AMP 120/208V, 3 ϕ , 4W PANEL, CIRCUIT BREAKERS AS PER PANEL SCHEDULE, SURGE ARRESTOR, MISCELLANEOUS CONTROL AND ALL WIRING AND CONDUIT FOR A COMPLETE WORKING SYSTEM IN PLACE. www.milbankworks.com

ENGINEER: Smith, P.E.
Larry M. Smith
DATE: 05/31/23

DRAWN BY: SPH
DESIGNED BY: SCALE: N.T.S.
CHECKED BY: L.M.S.
FIELD BOOK:

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

| NO. | DATE | BY | CHK'D | REVISIONS DESCRIPTION |
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PROJECT # P12806
PUBLIC WORKS ADMINISTRATION BUILDING
GENERATOR REPLACEMENT
LOW VOLTAGE PANEL DETAILS

SHEET NO.

E-5

TOTAL: -
CAD FILE: 0-E-5-ONE LINE DIAGRAM.DWG
DRAWING FILE NO. -

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Executive Summary Report

Of

Event: 246-1 - Generator & Automatic transfer switch for Public Works Bldg

Buyer: STEFAN MOHAMMED

Date Range: 01/11/2024 05:00:00 PM - 02/02/2024 02:00:00 PM

Suppliers Notified: 95

**Notified Suppliers 1
Responding:**

**All Suppliers 4
Responding:**

Suppliers Responding

| Supplier | Contact | Phone Number | E Mail | City | State Or Province | Total Bid Amount | Total Awarded | Response Attachment Exists |
|------------------------------|-----------------|--------------|-------------------------------|-----------------|-------------------|------------------|---------------|----------------------------|
| Advanced Power Technologies | Brandon Lopez | 446-8684 | brandon.l@aptinc.net | Lafayette | IN | 0.00 | 0.00 | No |
| Stewart & Stevenson FDDA LLC | Lenin Hernandez | 9543274440 | l.hernandez@kirbycorp.com | Fort Lauderdale | FL | 252,322.00 | 0.00 | Yes |
| Pantropic Power | Robert Cosgrove | 7864020964 | robert_cosgrove@pantronic.com | Miami | FL | 418,990.00 | 0.00 | Yes |
| Cummins Inc. | Miguel Lara | 7863380683 | miguel.lara@cummins.com | Miami Lakes | FL | 0.00 | 0.00 | No |

Event Lines And Responses

| Item | Description | Unit of Measure | Quantity |
|-----------------------------------|--|-----------------|----------|
| 246- GENERATOR & TRANSFER SWITCH- | Generator and Transfer switch for the public works admin bld | EA | 1.0000 |

Responses

| Supplier | Bid Quantity | Unit of Measure | Unit Price | Award Amount |
|------------------------------|--------------|-----------------|------------------|--------------|
| Advanced Power Technologies | 0.0000 | EA | 0.00000000 | 0.00 |
| Stewart & Stevenson FDDA LLC | 1.0000 | EA | 252,322.00000000 | 0.00 |

continued...

Responses

| Supplier | Bid Quantity | Unit of Measure | Unit Price | Award Amount |
|-----------------|--------------|-----------------|------------------|--------------|
| Pantropic Power | 1.0000 | EA | 418,990.00000000 | 0.00 |
| Cummins Inc. | 0.0000 | EA | 0.00000000 | 0.00 |

Header Questions And Responses

QUESTION

Did you complete all the required forms?

Question Responses

| Supplier | Response | Has Attachment |
|------------------------------|---|----------------|
| Stewart & Stevenson FDDA LLC | Yes-Please find attached City of Ft Lauderdale Bid P12806_Questions and ITB Variances by Stewart & Stevenson FDDA LLC | Yes |
| Pantropic Power | Yes-yes | Yes |

Contacts

| Name | Email |
|-----------------|------------------------------|
| STEFAN MOHAMMED | smohammed@fortlauderdale.gov |
| HONG XU | hxu@fortlauderdale.gov |

Q And A

| Supplier | Question | Answer |
|------------------------------|--|--|
| Stewart & Stevenson FDDA LLC | The technical specifications indicate a 2500 gallon UL | The generator subbase fuel tank shall be 2500 gallons as |

continued...

| Supplier | Question | Answer |
|-----------------|--|--|
| | subbase fuel tank but drawing E-4 indicates a 1,000 gallon subbase fuel tank. Can you please confirm the size? | per specifications. |
| Pantropic Power | Electrical drawing E-4 note 9 indicates sub-base tank should have a capacity of 1,000 gallons written specifications indicate tank should have a capacity of 2,500 gallons? What is the required capacity as they conflict with each other? | The generator subbase fuel tank shall be 2500 gallons as per specifications. |
| Cummins Inc. | Section 16621-2.01L calls for enclosure to be rated for wind load in accordance with the Florida Building Code. Can you please confirm this means the enclosure needs to be certified HVHZ Impact rated and what would be the wind load rating required? | Enclosure shall be rated for wind in accordance with the latest Florida Building Code Section 1609 Wind Loads and from ASCE 7 and per local codes. The enclosure shall also be HVHZ as per code. |

Header Comments

| Title | Comment |
|--------------------|--|
| Informational Page | <ul style="list-style-type: none">• To Be Bid: RFQ (Request for Quotation Goods and Services)• Project Manager: Hong Xu• Contact #: 954-828-6011• Project #: P12806• Project Name: Generator at Public Works Administration Building |