Statement of Work (SOW)
Upgrade Electrical Distribution System at Fort Pulaski Visitor Center/Pump House

Required Services
The contractor shall provide all labor, supervision, tools, equipment, materials, permits, utility coordination, testing, and incidentals necessary to remove and replace the deteriorated electrical service equipment serving the Fort Pulaski Visitor Center pump house. Work includes relocation of the service equipment to a more suitable location above the required flood elevation, installation of new code-compliant service equipment with manual generator interconnection capability, replacement of deteriorated conductors and conduit as specified, utility coordination, testing, commissioning, and all work necessary to provide a complete, operational, and code-compliant electrical service.

The contractor shall verify existing field conditions and shall be responsible for final equipment sizing, conductor sizing, overcurrent protection, structural support, and installation details necessary to provide a complete code-compliant system meeting the intent of this Statement of Work.

Refer to Appendix A – Site Photos and Maps for initial reference. Photos shall not be used in place of a required site visit prior to bid.

Location of Work
Fort Pulaski National Monument Visitor Center Area
101 Fort Pulaski Road
Savannah, GA
31410

Pre-Bid Site Survey
A pre-bid site walk-through to be performed prior to bid with Contracting Officer's Representative or other authorized park management representative present is highly recommended.

Period of Performance
Within 60 days after award, unless otherwise negotiated and agreed by park and Contracting Officer.

1. General Requirements
- Site to be left clean and orderly at the end of each day. No materials are to be left onsite that are not easily secured. The park assumes no liability for any equipment not properly secured that is stolen, missing, or damaged over the course of the contract period of performance.
- Disposal of any demolished building, site, or landscape materials will be done in accordance with applicable state and local laws. Park waste management facilities may not be used for disposal of any construction material.
- Site is to be closed to all visitors and vehicle traffic while work is being performed as well as while the site is left unattended. This is to be done with signage and appropriate,

neatly placed closures such as stanchions, construction fencing, cones, or other sturdy materials.

- The contractor must exercise care and caution in all activities performed on or near historic structures, landscapes, and other National Park Service (NPS) properties. Measures must be taken to protect the landscape and surrounding areas from damage during the execution of the work, ensuring that no harm comes to the landscapes, sites, or park structures throughout the project.
- Contractor is to stop work and alert the park's contracting officer representative (COR) or other authorized management representatives of any accidental damage immediately so that it can be documented and handled according to proper NPS procedure.
- Contractor will be held responsible for all restoration of the site, both landscape and building, if damaged while work is performed. The restoration must bring the worksite to the appearance and condition that existed prior to the work being performed. The contractor is responsible for cleanup, removal, and disposal of any debris associated with their installation of equipment and restoration of the building if damaged.
- All planned service interruptions must be coordinated with the park, and the time-of-service interruption must be as short as possible. The park shall be notified of any scheduled utility or access interruptions as early as possible, but no less than 48 hours prior to any planned interruption. The contractor is expected to inform the government as soon as it is known that there may be an unplanned interruption.

2. Project Specific Requirements

2.1 Demolition and Removal

- Remove the existing corroded service disconnect enclosure, fuse blocks, and associated wiring.
- Remove all damaged conduits, fittings, and any non-compliant, deteriorated, or abandoned conductors associated with the existing service equipment.
- Dispose of all removed materials in accordance with applicable federal, state, and local laws and regulations.

2.2 Site Preparation

- Perform a site walk and verify existing conditions, site access, and required working clearances.
- Clear vegetation, as necessary, to provide safe working space around poles, electrical equipment, and trenching paths. Coordinate with the Contracting Officer's Representative (COR) and the Park Resource Manager prior to trenching or clearing any vegetation.
- If utility service must be interrupted for a duration that impacts operation of the Visitor Center water supply or septic system, the contractor shall provide, install, maintain, operate, and remove temporary power necessary to maintain continuous operation of these systems throughout the outage period. All temporary power equipment shall comply with applicable National Electrical Code (NEC) and Occupational Safety and Health Administration (OSHA) requirements.
- The Government will permit the use of temporary wood or steel construction mats, where necessary, to provide safe and stable access through wet or soft ground. The contractor

shall restore all disturbed areas to their pre-construction condition upon completion of the work.

- Locate and mark all existing underground utilities prior to excavation.
- Implement erosion and sediment control measures, as required, for all disturbed areas.
- Maintain the required working clearances around electrical equipment in accordance with NEC Article 110.26.

2.3 New Service Equipment Installation

- Furnish and install a service-entrance-rated manual transfer switch suitable for outdoor use (minimum NEMA 3R enclosure).
- The transfer switch shall:
    - Be rated for the available fault current and service voltage.
    - Serve as the main service disconnect.
    - Provide integral overcurrent protection (main circuit breaker) or be installed with properly rated upstream or downstream overcurrent protection, as required by the National Electrical Code (NEC) and the equipment listing.
- The transfer switch enclosure shall be constructed of stainless steel (minimum Type 304; Type 316 preferred for coastal or saltwater environments) and furnished with stainless steel hardware.
- The equipment shall have an interrupting rating adequate for the available fault current. The contractor shall verify the available fault current with the serving utility prior to equipment procurement.
- The service disconnect shall be readily accessible and installed in accordance with applicable NEC requirements.
- The new service equipment shall be relocated landward toward the Fort onto stable ground outside of routinely inundated areas, subject to field verification and approval by the Contracting Officer's Representative (COR).
- Provide a new service support structure or elevated mounting platform to position all service equipment above the applicable Base Flood Elevation (BFE) or Design Flood Elevation (DFE), as required by the Authority Having Jurisdiction (AHJ), and in accordance with applicable codes and utility requirements.
- Service disconnects, the transfer switch, the generator receptacle, and all associated electrical equipment shall be mounted above the applicable design flood elevation.
- The contractor shall utilize the current FEMA National Flood Hazard Layer (NFHL) mapping and applicable local code requirements to establish the minimum installation elevation. If additional engineering analysis is required, the contractor shall utilize a qualified design professional to determine the appropriate installation elevation.
- The existing service pole shall be evaluated prior to the start of work. If it is determined to be structurally deficient, deteriorated, damaged, or otherwise unsuitable for continued service, the contractor shall furnish and install a new treated utility pole or other approved support structure in accordance with applicable utility company requirements.

2.4 Conductors and Conduit

- Install new service conductors from the utility service point to the transfer switch, as required.

- Replace or install conduit (PVC, rigid metal conduit (RMC), or other approved raceway appropriate for the installation environment and applicable code requirements).
- Size all conductors in accordance with the connected load, voltage drop, and environmental conditions.
- Unless otherwise approved by the COR, all new service conductors shall be copper conductors listed for the intended application.
- Exposed raceways shall be rigid metal conduit (RMC) or stainless steel, as appropriate for the installation. Underground raceways shall be Schedule 80 PVC where subject to physical damage and Schedule 40 PVC where permitted by the NEC.
- Provide appropriate fittings, strain relief, and weatherproof terminations for all conduit and conductor installations.
- Install underground conduit at burial depths and with protection in accordance with the National Electrical Code (NEC).
- Provide conductors, raceways, fittings, and terminations required to serve the generator receptacle specified in Section 2.5. All conductors shall be sized in accordance with the connected load, equipment ratings, and applicable NEC requirements.
- Provide a weatherproof enclosure for the generator receptacle assembly suitable for outdoor, wet-location service and listed for the intended application.
- Replace all existing conduits below the existing service equipment.
- Visually inspect and perform insulation resistance testing on all existing conductors serving the Visitor Center and pump house/shed prior to reuse. Replace any conductors determined to be deteriorated, damaged, undersized, failing insulation resistance testing, or otherwise unsuitable for continued service.
- Replace existing overhead conductors and conduit entering the top of the existing service equipment where deterioration, corrosion, physical damage, or code deficiencies are identified. The contractor shall replace these components, as necessary, to provide a complete, code-compliant installation.

2.5 Generator Interconnection

- For purposes of this Statement of Work, the term "generator receptacle assembly" includes the industrial pin-and-sleeve receptacle, enclosure, cover, mounting hardware, wiring, terminations, and all accessories required for a complete installation.
- Provide and install a heavy-duty industrial pin-and-sleeve generator receptacle assembly suitable for connection to a portable generator. The receptacle shall be rated not less than 200 amperes and shall be compatible with the system voltage, phase, frequency, and transfer switch rating. The receptacle shall be Appleton Powertite Series or approved equal and shall be suitable for outdoor, wet-location, and coastal service.
- The contractor shall verify the existing electrical service voltage, phase, and conductor configuration during the field investigation and shall furnish a 200-ampere, 600-volt industrial pin-and-sleeve generator receptacle assembly compatible with the verified electrical system, the selected manual transfer switch, and the Government's intended portable generator.
- The generator receptacle assembly shall incorporate a positive mechanical locking connection and shall include a weatherproof, gasketed cover, corrosion-resistant enclosure, and stainless-steel hardware. The receptacle shall be listed and labeled for the

intended application and installed in accordance with the manufacturer's written instructions.

- Ensure the manual transfer switch provides a mechanical interlock that prevents the simultaneous connection of utility and generator power sources.
- Verify the generator interconnection is configured to prevent backfeeding in accordance with the National Electrical Code (NEC).
- The grounding electrode system shall include ground rods, bonding conductors, and associated grounding hardware, as required by the NEC, unless the existing grounding electrode system is verified to be code-compliant and suitable for reuse.
- Mount the generator receptacle assembly on the service pole or other approved support structure above the applicable design flood elevation.
- The generator receptacle assembly shall match the final transfer switch rating and the Government's intended portable generator with respect to voltage, phase, amperage, pole configuration, and grounding arrangement. The contractor shall verify compatibility of all equipment prior to procurement.
- Provide the generator receptacle assembly with a listed, weatherproof, while-in-use cover suitable for outdoor installation.
- The generator receptacle assembly, transfer switch, and associated equipment shall be listed and labeled by a Nationally Recognized Testing Laboratory (NRTL) and installed in accordance with the manufacturer's written instructions.
- The contractor shall furnish the mating generator plug compatible with the installed receptacle. The plug shall be fully assembled, listed for the intended application, and sized for the conductors required to serve the intended portable generator.

2.6 Grounding and Bonding

- Install or upgrade the grounding electrode system, as required, including ground rods, grounding electrode conductors, bonding conductors, clamps, and associated grounding hardware.
- Ensure all grounding and bonding are installed in accordance with the National Electrical Code (NEC) and that the neutral-to-ground bond is configured as required for the service equipment.
- Unless the existing grounding electrode system is verified to be code-compliant and suitable for reuse, provide a new grounding electrode system meeting all applicable NEC requirements.
- Perform continuity testing of the grounding and bonding system and document the results as part of the project closeout package.

2.7 Load Connection

- Reconnect the existing Visitor Center service (approximately 300 amps) and the existing pump house/shed service (approximately 100 amps) to the new service equipment.
- The contractor shall verify the existing service configuration and service ratings during the field investigation prior to procurement of equipment.
- Provide a new lockable, service-rated, 100-amp fused disconnect for the pump house/shed service.

- Government records indicate an approximately 300-amp Visitor Center service and a separate 100-amp pump house/shed service. The contractor shall verify field conditions and furnish a service-entrance-rated transfer switch sized in accordance with the verified service configuration, available fault current, and calculated connected load.

2.8 Labeling and Identification

- Clearly label the following:
  - Service disconnects.
  - Generator receptacle (200A Industrial Pin-and-Sleeve Connection)
  - Transfer switch positions (UTILITY / GENERATOR).
- Provide permanent, engraved phenolic or laminated plastic labels suitable for outdoor service and resistant to weather, ultraviolet (UV) exposure, moisture, and corrosion.
- Labels shall be permanently affixed, legible, and installed in accordance with the National Electrical Code (NEC).

2.9 Testing and Commissioning

- Test the operation of the transfer switch.
- Verify proper voltage, phase rotation (where applicable), and load operation.
- Confirm proper operation of all overcurrent protection devices.
- Verify proper isolation between utility and generator power sources.
- Confirm continuity of the grounding and bonding system.
- Verify that any temporary power system, if utilized, maintained uninterrupted operation of the Visitor Center water supply and septic systems throughout the utility outage.
- Perform insulation resistance testing on all new conductors prior to energization.
- Record and document operating voltage measurements under both utility and generator power (if generator testing is performed).
- Demonstrate proper operation of the manual transfer switch through a complete transfer sequence from utility power to generator power and back to utility power.
- Verify proper engagement and disengagement of the generator receptacle assembly and mating plug, including positive mechanical locking and secure electrical connection.

2.10 Temporary Controls and Public Coordination

- The contractor shall coordinate directly with Georgia Power for all required utility disconnects, reconnects, inspections, scheduling, and re-energization activities. The contractor shall be responsible for all associated utility coordination, fees, scheduling, and costs necessary to complete the work. All such costs shall be included in the contractor's bid.
- Secure the work area with barriers, cones, fencing, or other approved means to restrict unauthorized access.
- Post appropriate safety signage, including but not limited to "High Voltage" and "Authorized Personnel Only," in accordance with applicable OSHA and project safety requirements.
- Maintain safe ingress and egress for park staff, contractors, emergency responders, and authorized visitors, while minimizing disruption to park operations and surrounding areas.

2.11 Closeout

- Restore all disturbed areas, including backfilling, grading, and vegetation stabilization, to their pre-construction condition or better.
- Remove all debris, temporary protection measures, equipment, and unused materials from the project site.
- Provide record (as-built) drawings showing the final locations of service equipment, conduit routing, conductors, grounding electrode system, generator receptacle equipment, and electrical connections.
- Submit product data, manufacturer warranties, contractor warranties, and operation and maintenance (O&M) manuals for all newly installed equipment.
- Provide owner training or a walkthrough covering the safe operation and maintenance of the transfer switch and generator receptacle equipment, if applicable.
- Deliver all required inspection approvals, test reports, and project closeout documentation.

3. Additional Requirements

3.1 Field Verification of Quantities Prior to Bid

- It is recommended that the contractor perform a site visit prior to bid submission to verify existing electrical conditions, access constraints, and extent of work.
- Information provided in drawings, photos, or documentation is approximate and for reference only.
- Contractor shall verify:
    - Existing service ampacity.
    - Existing conductor condition.
    - Existing conduit condition.
    - Existing utility pole condition.
    - Existing flood elevations affecting the installation.
    - Suitability of relocating the service equipment onto higher ground
- Failure to perform field verification shall not be grounds for additional compensation.
- Contractor shall account for all labor, materials, protection, and coordination necessary to complete the work as described.
- Any discrepancies between observed conditions and contract documents shall be brought to the attention of the Contracting Officer's Representative (COR) prior to bid submission.

3.2 Permits and Code Compliance

- All work will be performed in a safe, professional manner according to accepted, required, and mandated industry standards.
- Contractor is responsible for all permits from State, County, or Local offices.
- Perform work in accordance with the National Electrical Code (NEC) and local jurisdiction requirements.

3.3 Qualifications

- The contractor shall be a licensed electrical contractor in the project jurisdiction.
- All work shall be performed under the supervision of a licensed electrician.
- Personnel performing electrical work shall have documented training in electrical safety, including NFPA 70E, Standard for Electrical Safety in the Workplace.
- The contractor shall demonstrate experience with the installation, replacement, and commissioning of electrical service equipment, transfer switches, and generator interconnection systems.
- The contractor shall have a minimum of five (5) years of experience performing work of similar scope and complexity.
- The contractor shall provide documentation of current electrical licensing and applicable safety training upon request by the Government.

4. Deliverables

- Pre-Project
    - Project schedule.
    - Quality control plan.
    - Product data for all major newly installed equipment: manual transfer switch, generator receptacle, enclosures, breakers, and overcurrent devices. These should include at a minimum load rating, NEMA ratings, and manufacturer's specs.
    - Contractor qualifications for licensing and safety training (NFPA 70E, OSHA.)
    - Safety plan including lockout/tagout procedures, arc flash precautions, and site safety controls.
    - Submittal register.
    - Utility locate report.
    - Documentation identifying the design flood elevation utilized for installation.
    - As-built drawings showing the final service location and finished mounting elevations.
    - Documentation of all replaced conductors and conduit.
- Closeout
    - Final site inspection report signed by contractor and COR/authorized park management representative.
    - As-builts, including final one-line diagram, conduit routing, all replacement material specifications, and locations of any abandoned utilities.
    - O&M information for transfer switches, breakers, and generator receptacle assembly.
    - Warranty documentation for manufacturer warranties and contractor warranties.
    - Training and turnover documentation demonstrating staff training for operating transfer switch and safe generator connection.

In the absence of other agreements negotiated with respect to time provided for government review, deliverables will be inspected and the contractor notified of the COR or other authorized management representative findings within 15 business days of normally scheduled review. If the deliverables are not acceptable, the COR or other authorized management representative will notify contractor immediately.

5. Government Furnished Staff, Property, Materials & Supplies

None.

6. Business Hours
The contractor shall complete on-site work during normal business hours of 7:30 am to 4:30 pm, Monday through Friday, excluding Federal holidays. The contractor shall coordinate specific on-site work schedule with the Contracting Officer and Contracting Officer Representative five days prior to performance start date. While on site, the COR or authorized management representative may be reached by mobile phone during normal business hours. Any work outside of normal business hours shall be pre-approved by the COR or other authorized management representative.

7. Site Access and Use
The NPS issues access to government property as needed. The contractor shall initiate and coordinate all necessary access approvals no later than 15 days before the project's start date.

Access and use of NPS sites and property is limited to scheduled execution of contract work only. Contractor personnel shall not:

a) enter closed sites outside of approved working hours
b) use access credentials such as keys or codes for any purposes other than authorized work
c) visit, tour, recreate, or otherwise remain on the site for personal reasons at the end of the workday unless entering as a private citizen in accordance with park visitation rules and regulations of applicable entrance fees and operating hours, Superintendents Compendium, and other policy and law
d) bring non-authorized personnel onto the site during working hours, or
e) use site facilities, roads, trails, vehicles, equipment, utilities, or communications systems for personal or non-work purposes.

Misuse of site access can result in removal from the site, revocation of access, or termination for cause. Contractors shall ensure all subcontractors and suppliers comply with this clause.

8. Performance Management
The contractor shall manage the total work effort in accordance with effective and efficient management principles and safe working practices to ensure the successful completion of contract work. The contractor shall immediately bring problems or potential problems affecting performance to the attention of the COR or other authorized management representative. Problems affecting a particular action should be resolved prior to starting the specific task.

10. Contracting Officer's Representative or Authorized Park Management Representative
Emily Forlenza
Chief of Facility Management
Emily_forlenza@nps.gov

9. Onsite Project Manager
Primary Project Manager:
Emily Forlenza
Chief of Facility Management

Emily_forlenza@nps.gov

Secondary Project Manager:
Miguel Roman
Work Supervisor
Celso_roman@nps.gov

11. Safety & Environmental Compliance

- The contractor shall comply with pertinent provisions of the Occupational Safety and Health Act (OSHA), and state, local, safety, laws.
- The contractor shall comply with pertinent Environmental Protection Agency laws and regulations.
- The COR or authorized management representative has the authority to issue restraint or cease-and-desist orders to the contractor when violations or unsafe acts are present and threaten Government and contractor employees or damage Government property.
- The contractor shall immediately stop work and report officer all accidents resulting in employee injury or death or damage to property while performing this contract to the COR or other authorized management representative of all accidents resulting in employee injury or death or damage to property while performing this contract.

12. Applicable Standards and Regulations

The Contractor shall conform to, and be compliant with, all applicable Federal Communications Commission (FCC) rules and regulations, local construction codes, and established industry standards. Other applicable standards include:

- National Electrical Code (NEC)
- National Electrical Safety Code (NESC)
- NFPA 70E
- Georgia Power service requirements
- Applicable FEMA floodplain requirements

The standards shall be applied during the engineering, fabrication, assembly, wiring, installation, testing, operation, maintenance, and management of the system(s) and service(s). If a conflict arises between standards, the contractor shall submit written request for clarification citing the specific particulars to the Contracting Officer. The Contracting Offer will respond with written direction.

13. Insurance

The Contractor shall be insured in accordance with Chatham County, GA insurance regulations. The Government is not responsible for damage to Contractor's equipment, vehicles, tools or materials or their employees and the personal property brought on-site. The Government will not accept any liability due to contractor employee negligence.

Workers Compensation and Liability: The contractor shall maintain workers compensation insurance to the Contracting Officer for those employees performing work related to this contract and shall comply with the Workman's Compensation Laws of Georgia. The Contractor shall maintain a level of insurance that will protect the contractor and the Government from any

claims as a result of bodily injury (including death) and property damage which may arise from and during the performance of this contract.

14. Invoices

Invoices must show item details or work order references. Invoices without correct details will be returned as improper invoices.

Appendix A – Site Photos and Maps

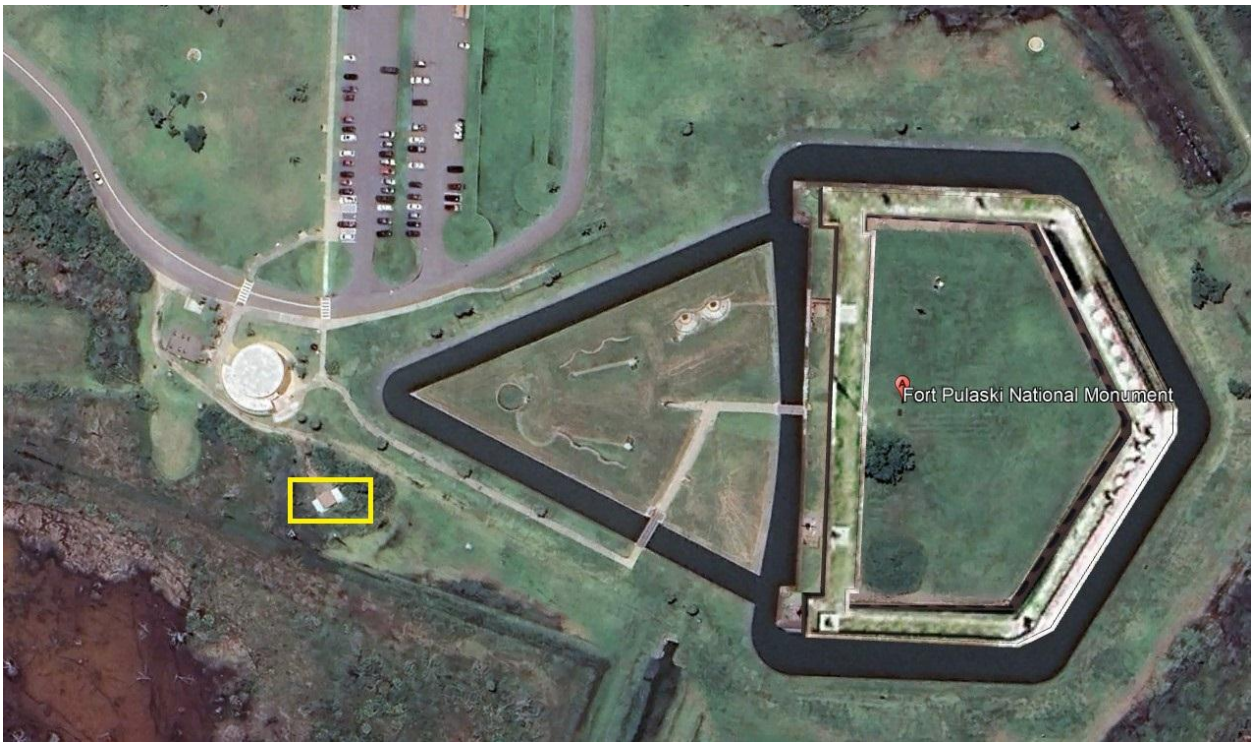

Figure 1 – Location of Work to be Performed in Context of VC/Fort Area

Figure 2 – Location of Work to be Performed

Figure 3 – Distribution Setup Behind VC Pumphouse

Figure 4 – Service Disconnect and Fuse Panel

Figure 5 -Service Disconnect and Fuse Panel

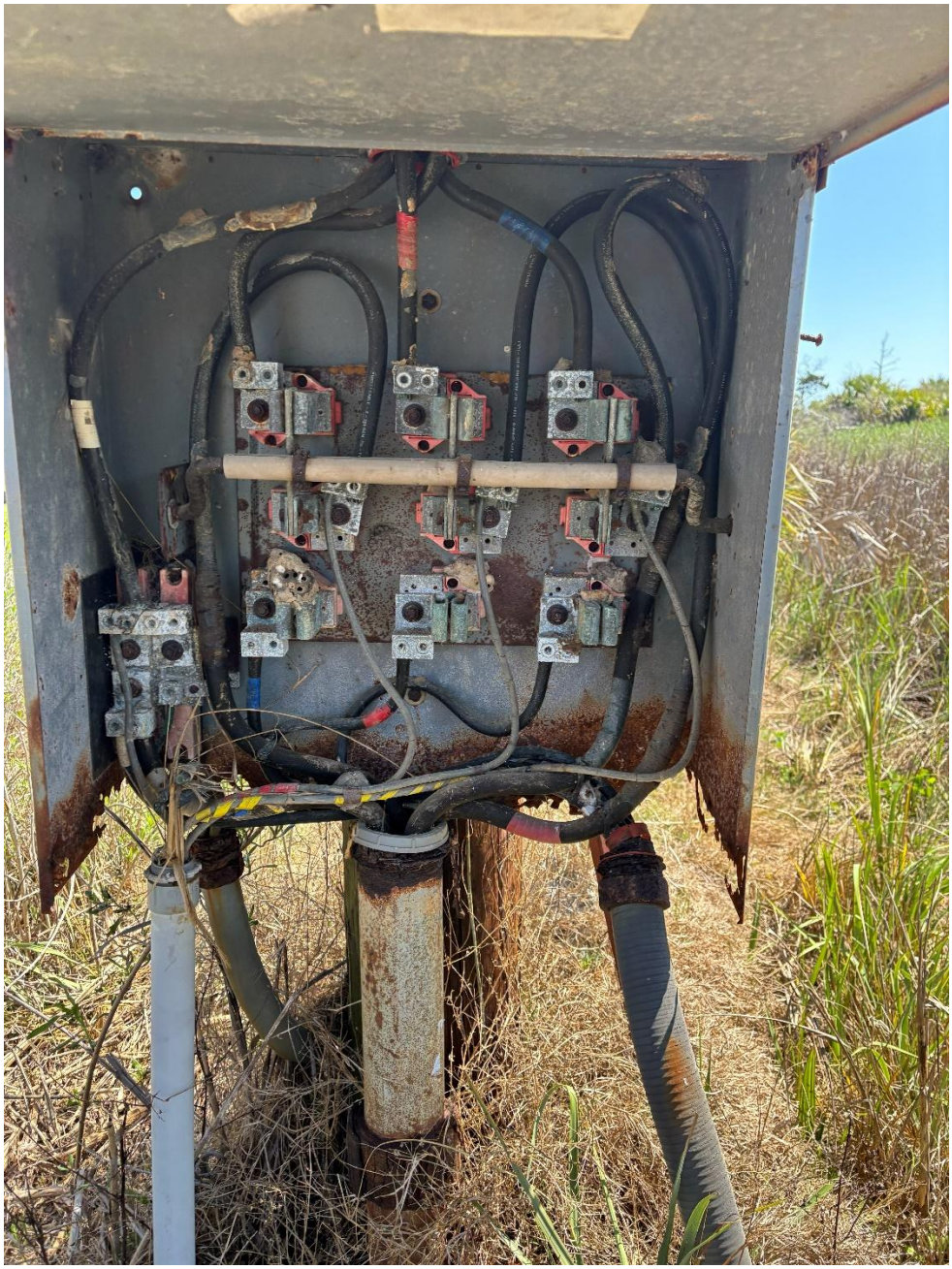

Figure 6 -Service Disconnect and Fuse Panel Interior

Figure 6 – Generator Receptacle