

**DEPARTMENT INPUT**  
**CONSTRUCTION CONTRACT/PROJECT MEASURE ANALYSIS AND RECOMMENDATION**

Check applicable Ordinance(s):  90-143 Responsible Wage and Benefits       03-237 (formerly 03-1) Community Workforce Program

**PROJECT INFORMATION**    See attachment

**Contract/Project/\*Work Order No.: S-930A**

\*Reference corresponding project number when submitting a work order

**Contract/Project Title: ST-2D-A ELECTRICAL DISTRIBUTION BUILDING 3**  
**SOUTH DISTRICT WASTEWATER TREATMENT PLANT**

**Description/Scope of Work: See Attached**

**Estimated Cost: 117355001**      **Funding Source: Federal funds**

**Location of Project** (street address or beginning and ending points) i.e. 12345 NE 23<sup>rd</sup> Ct or Starts at 135 St. ends at 145 St.  
**South District Waste Water Treatment Plant, located in unincorporated Miami Dade County at 8950 SW 232nd St, Miami, FL 33190.**

**PROJECT ANALYSIS FOR GOAL RECOMMENDATION (CWP)**    See attachment

Engineer/Department or Agency's estimated required workforce for Project  Work Order :

Trade/Skills Required	Est. # of workforce required per trade	Est. # of total days to complete job
N/A		
N/A		
N/A		

Comments:The project is required for compliance with the State of Florida's Ocean Outfall Legislation. It is funded by WIFIA and required Davis Beacon Wages.

**PROJECT ANALYSIS FOR GOAL RECOMMENDATION (CSBE)**    See attachment

Sub-Trade	Est. Cost	% of Item to Base Bid	Availability
<b>Construction</b>	\$11,855,039	10.10%	<b>N/A</b>
<b>G &amp; S</b>	\$1,577,526	1.34%	<b>N/A</b>
	\$	0%	

**RECOMMENDATION**

**Set-Aside:** Level 1  Level 2  Level 3  Trade Set-Aside  Sub-Contractor Goal  Workforce Goal  No Measure

**Basis for Recommendation:Project is for the proposed construction of tnew Electrical Distribution Building 3 at a wastewater plant, the contruction of which will rest on piling foundation and includes numerous expensive and high voltage electrical equipment. There are limited avilability of small business participation.**

**Date submitted to DBD:08/30/2021**

**Contact Person:Isaac Smith**

**Telephone No.:(786)552-8989**

**DEPARTMENTAL INPUT  
CONTRACT MEASURE ANALYSIS AND RECOMMENDATION**

To: Gary T. Hartfield, Division Director  
Internal Services Department  
Small Business Development Division

From: Isaac Smith, Chief  
Construction Contracts Division

Department: Miami-Dade Water and Sewer Department

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SOUTH DISTRICT WASTEWATER TREATMENT PLANT

Contract No.: S-930A

Estimate Amount: \$117,355,001.50 [\$106,685,365 Construction + \$10,668,636.50 Contingency]

Funding Source: EW 667, Revenue Bonds Sold  
Water Infrastructure Finance and Innovation Act (WIFIA)

**Small Business Enterprise – Construction – 10.10%**  
**Analysis for Recommendation (Attached)**



Department Head or Authorized Agent

**DESCRIPTION OF PROJECT:**

This project is one in a series of projects that are being processed under Section 2-8.2.12 of the Code, entitled Miami-Dade Water and Sewer Department Consent Decree and Capital Improvement Programs Accelerate Ordinance. It is part of the Miami-Dade County's compliance strategy for meeting the State of Florida's Ocean Outfall Legislation (OOL) schedule requirements.

In general, the project consists of furnishing all materials, labor, and equipment necessary for the construction of a new Electrical Distribution Building 3 (EDB 3) at the South District Wastewater Treatment Plant (SDWWTP) owned by the Miami Dade Water and Sewer Department (WASD) and located at 8950 SW 232nd Street, Miami, FL 33032. Electrical Distribution Building 1 (EDB 1) will be modified as part of this contract to be used as future electrical storage by WASD following the electrical power redistribution of process loads to be done with this work.

The scope of work includes, but is not limited to:

1. Modifications to Existing EDB 1:
  - Demolish and dispose existing 13.2kV and 4.16kV Generator Switchgear and associated generator step-up transformers.
  - Demolish and dispose existing 13.2kV – 480V Substation 5/6 transformers.
  - Remove and dispose existing 480V Switchgear that is fed from Substation 5/6 transformers.
  - Remove and dispose existing 480V feeders from the existing Switchgear to Oxygenation Trains 1-4, Headworks, and the Filtrate Building.

- Remove and dispose temporary primary 13.2KV power feeders for the new Substations 5/6 and Substations 15/16, including a second feed tapped off of the load side of the circuit breakers in EDB1 that currently feeds the existing Substations 5/6 and Substations 15/16.
- No changes to the building HVAC, plumbing, or structural will be performed.
- Upgrade fixtures to LED type.
- Provide new finish coatings.
- Demolish engine generators; and salvage radiators and turn over to Owner.
- Demolish fuel storage tanks 1 through 5, Truck Filling Station, and Fuel Transfer Pump Room with all corresponding equipment, piping, concrete pads/slabs, platforms. Salvage and turn over to Owner fuel storage tanks 6, 7, 8, and 9 and instruments for the generators for EDB1. Contractor to coordinate with Owner the specific tanks and instruments to be salvaged.

## 2. Rehabilitation of Substations 1/2

- Modify existing Oxygen Production Facility 1 to add an enclosed space for the following new electrical equipment:
  - New 13.2kV-480V transformers 1 and 2.
  - New 480V arc-resistant Switchgear fed from transformers 1 and 2.
  - New 480V feeders from switchgear to Oxygenation Plant 1.
- Remove and dispose of asbestos containing material and lead based paint as noted in the *Asbestos and Lead Survey Sub-Stations 1&2* (ATC, December 2020) attached as Appendix K.
- Replace existing Motor Control Centers (MCC) located in the mezzanine area of Oxygen Production Facility 1.
- Connect Substations 1/2 controllers (GE RX3i programmable logic controllers) to the nearest RTU for incorporation into SCADA.
- Furnish and install air conditioning in the electrical room and transformer vaults.

## 3. New Electrical Distribution Building 3 (EDB3)

- Construct the superstructure and foundation including:
  - Air Compressor Room
  - Generator Room
  - Day Tank Rooms
  - Lubricant Waste Oil Storage Room
  - Air Tank Area
  - Fuel Transfer Pump/DEF transfer Pump Room
  - Control Room
  - Breakroom
  - Transformer Rooms
  - Switchgear Room
  - Bathrooms/Locker Rooms
  - A/C Mechanical Room
  - Diesel Workshop Area
  - Engineering and Document Storage Room
  - Bunk-bed Area Room
- Furnish and install air conditioning for the EDB3 building
- Furnish and install plumbing including sanitary and potable water distribution with hot water to plumbing fixtures and emergency eyewash/showers, including condensate drainage collection and reclamation for makeup water for cooling towers.
- Furnish and install fire protection, including sprinklers, fire alarm panels and signaling interconnected with existing plant-wide fire alarm system.
- Install new RTU for EDB3.

- Interconnection of RTU with existing SCADA network.
  - Interconnection of SWGR package PLCs to new RTU for data transmission to the SCADA network.
  - Connect EDB3 sanitary sewer and potable water to site utilities and services.
  - Furnish and install paving, grading and drainage for new EDB3 building and the new fuel transfer facility as per drawings and specifications.
4. Diesel Emissions Fluid (DEF) Facilities
- Furnish and install two exterior DEF storage tanks to be located at the north west side of EDB3 building, including platforms, railing, piping, lighting, trenches, instruments, panels, and ancillary equipment.
5. Fuel Facility
- Furnish and install one Fuel Storage Tank Facility located at the north west side of the building. This facility includes six (6) elevated storage tanks located on a concrete slab, platforms, railing, piping, lighting, trenches, instruments, panels and ancillary equipment.
6. Florida Power and Light (FPL) Switches and Meter Platform
- Coordinate with FPL to install two new dedicated feeders from existing FPL substation at the South District Wastewater Treatment Plant (SDWWTP).
  - Construct FPL meter platform located at the north east side of the building to provide access to FPL switches for maintenance.
  - Furnish and install duct banks, transformer pad, and metering section per FPL requirements.
7. Electrical Distribution Equipment
- Furnish and install Arc Resistant 15kV, main-tie-tie-main service entrance switchgear.
  - Furnish and install Arc Resistant 5kV, main-tie-tie-main engine-generator switchgear.
  - Furnish and install 5kV – 15kV step-up transformers for generator power distribution to plant switchgear.
  - Furnish and install 15kV – 480V step-down transformers for building service loads.
  - Furnish and install Arc Resistant 480V switchgear, switchboards, motor control centers as indicated in drawings and specifications. Building loads including lighting, HVAC, water heating, filtration, ventilation, fire alarm and receptacle loads will be 480V with step down transformers for 120V.
8. Standby Engine-Generators
- Install eleven (11) 13.2 kV Engine-Generators with exhaust silencer and provisions for a future twelfth 13.2kV Engine-Generator.
  - Furnish and install associated process piping.
  - Furnish and install Engine-Generator control systems.
  - Furnish and install Engine-Generator fuel storage and transfer system.
  - Furnish and install diesel exhaust fluid system for the diesel-fueled Tier 4 engine-generators in EDB3 only.
  - Furnish and install service air throughout building for engine air starting and pneumatic tool usage.
9. Building Services
- Furnish and install Lighting/Convenience Receptacles.

- Furnish and install Fire Protection/Suppression System (including foam system for the day tanks).
- Furnish and install Lightning Protection
- Furnish and install Grounding
- Furnish and install electrical provisions for Security system as shown in the drawings.

#### 10. Duct Bank System

- Furnish and install Primary Selective Feeders routed through duct bank system from switchgear to process areas.
- Furnish and install 480V Duct banks.
- Furnish and install Signal Duct banks

It is suspected asbestos may be encountered and abatement may be required as part of this Work. Based on the Asbestos and Lead Survey Sub-Stations 1&2 (ATC, December 2020), no asbestos has been detected in the existing buildings onsite. However, all existing electrical equipment must be tested for final determination regarding asbestos. Reference the Appendices of this Specification for a copy of the December 2020 Reports.

It is Miami-Dade Water and Sewer Department's intent to obtain a completely functional and satisfactory installation under this project, and any items of labor, equipment or materials which may be reasonably assumed as necessary to accomplish this and shall be supplied whether or not they are specifically shown on the plans or stated in the specifications. The Contractor shall provide all sheeting, shoring, bracing and all other labor, material or equipment required to preclude damage to, or loss of functionality of, any existing facility or system.

#### **QUALIFICATIONS OF BIDDERS:**

1. With the bid, the successful Bidder shall submit proof that the firm has at least the minimum successful contract experience as required below for this Contract. Such proof shall consist of a list of projects, completed prior to the bid date, with the names and telephone numbers of the Department's or representatives that the Department can contact to confirm the listed experience.
2. In addition to submittal requirements stated elsewhere, to qualify for WORK on this CONTRACT, the Bidder shall have successfully completed a minimum of one (1) project demonstrating experience with electrical distribution building construction projects having a total construction value of greater than \$75 million and three (3) projects demonstrating experience with large wastewater treatment upgrade projects having a total construction (for each project) of greater than \$25 million. These projects shall have been performed within the past ten (10) years from the date of the Invitation to Bid.
3. The Bidder's proposed project manager shall have successfully completed a minimum of two (2) projects demonstrating project management experience with large wastewater treatment upgrade projects having a total construction value (for each project) of greater than \$50 million. These projects shall have been performed within the past ten (10) years from the date of the Invitation to Bid.
4. The Bidder must have successfully completed the construction and/or rehabilitation of a minimum of two (2) electrical distribution rooms with at least 6 diesel engine type generators along with fuel storage tanks and accessories and construction of fuel pipe system. The Bidder shall be experienced in performing the WORK while maintaining operations of a wastewater facility. These projects shall have been performed within the past ten (10) years from the date of the Invitation to Bid.

5. The Bidder or the Bidder's Electrical Subcontractor shall have successfully completed a minimum of three (3) projects demonstrating experience procuring and installing main electrical equipment, medium and low voltage electrical power systems, including transformers and switchgear. The Bidder shall be experienced in performing the WORK while maintaining operations of a wastewater facility. These projects shall have been performed within the past ten (10) years from the date of the Invitation to Bid.
6. The Bidder or Bidder's Electrical Subcontractor Lead Electrician shall have successfully completed a minimum of one (1) project demonstrating experience with medium or high voltage power supply systems, including transformers and switchgear. The BIDDER shall be experienced in performing WORK while maintaining operations of a wastewater facility. These projects shall have been performed within the past ten (10) years from the date of the Invitation to Bid.
7. The Bidder or Bidder's Instrumentation and Controls Subcontractor shall have successfully completed a minimum of one (1) project demonstrating experience with instrumentation and controls including connections into an existing SCADA. The experience may be demonstrated by the general CONTRACTOR or a specialty sub-consultant for their discipline work. The BIDDER shall be experienced in performing WORK while maintaining operations of a wastewater facility. These projects shall have been performed within the past ten (10) years from the date of the Invitation to Bid.
8. The Bidder or Bidder's HVAC Subcontractor shall have successfully completed a minimum of one (1) project demonstrating experience with HVAC equipment including cooling towers. The Bidder shall be experienced in performing WORK while maintaining operations of wastewater facility. These projects shall have been performed within the past ten (10) years from the date of the Invitation to Bid.
9. In the event a firm is established by executives, supervisors and other senior field staff (key employees) that would have met these minimum experience requirements with a prior firm, OWNER reserves the right to qualify the firm based on OWNER's sole determination and evaluation of the knowledge and prior experience of these key employees employed by the new firm. The experience of key senior personnel with other firms may be counted towards the experience requirement, if acceptable to the ENGINEER. Should such evidence not be satisfactory to the ENGINEER, whose decision shall be final, the bid will be considered non-responsive, and the second lowest bidder will be considered for award. The qualifying proof shall be submitted in a separate sealed envelope with the bid.

**LICENSES:** The types of licenses required are: General Engineering, General Building Contractor and/or other categories as applicable by Chapter 489 of the Florida Statutes or Chapter 10 of Miami-Dade County Code.

### **COMMUNITY WORKFORCE PROGRAM**

**CWP PARTICIPATION: CWP is not applicable. Project not in a DTA.**

### **SPECIAL FUNDING SOURCES & REQUIREMENTS**

Funding has been approved from the Water Infrastructure Finance Innovation Act (WIFIA) Program, which requires the use of Davis Bacon Wages.

Bidders shall take into consideration and be prepared to fully comply with the requirements provided in the Florida Department of Environmental Protection Supplementary Conditions.

**DEPARTMENTAL INPUT  
CONTRACT MEASURE ANALYSIS AND RECOMMENDATION**

To: Gary T. Hartfield, Division Director  
Internal Services Department  
Small Business Development Division

From: Isaac Smith, Chief  
Construction Contracts Division

Department: Miami-Dade Water and Sewer Department

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Contract No.: S-930A

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Water Infrastructure Finance and Innovation Act (WIFIA)

**Small Business Enterprise – Goods & Services – 1.34%**

Analysis for Recommendation (Attached)



Department Head or Authorized Agent

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**SPECIAL FUNDING SOURCES & REQUIREMENTS**

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**CONSIDERATIONS FOR ANALYSIS:**

1. The project involves the construction at an operating wastewater treatment plant.
2. The project involves Modifications to Existing EDB 1.
3. The project also includes Rehabilitation of Substations 1/2
4. Construction of New Electrical Distribution Building 3 (EDB3)
5. Construction of Diesel Emissions Fluid (DEF) Facilities
6. Construction of Fuel Facility
7. Coordination with FPL to install two new dedicated feeders from existing FPL substation at the South District Wastewater Treatment Plant (SDWWTP).
8. The project also involves Electrical Distribution Equipment, Standby Engine-Generators and Duct Bank System
9. The Department has evaluated the project for possible opportunities for participation in the area of SBE – Goods and Services. Based on the scope and nature of the work, we have concluded that there are limited opportunities for participation on this project. The recommended areas of participation for SBE Goods & Services providers includes the possible areas:

<b>Analysis for Small Business Enterprise – Goods and Services Recommendation</b>				
Item	Goods & Services	Prime Contractor	Sub-Contractor	SBE Availability
1.	<b>GOODS:</b> Structural Fill Storm Drain Structure & Piping Electrical Switchgear Instrumentation & Controls Electrical Ductbanks Sitework Architectural Doors, Windows & Hardware Floor Tiles & Acoustical Tiles Lightning Protection 13.2kV Engine Generators	X X X X X	X X X X X X X X	X X X X
2.	<b>SERVICES</b> Structural Electrical Instrumentation Testing & Compaction Civil Site work Systems Integration Utility Piping Painting Auger Cast Piling Fuel Services HVAC	X X	X X X X X X X X X	X X X X X X