DEPARTMENT INPUT CONSTRUCTION CONTRACT/PROJECT MEASURE ANALYSIS AND RECOMMENDATION

Check applicable Ordinance(s): X 90-143 Responsible Wage and Benefits

03-237 (formerly 03-1) Community Workforce Program

<u>PROJECT INFORMATION</u> See attachment

Contract/Project/*Work Order No.: <u>S-897</u>

*Reference corresponding project number when submitting a work order

Contract/Project Title: <u>CD 1.07 SDWWTP DIGESTERS AND CONTROL BUILDING UPGRADES, ACID PHASE AND</u> <u>SUBSTATION 7 & 8</u>

Description/Scope of Work: See Attached

Estimated Cost: 100013867 Funding Source: Other (specify)

Location of Project (street address or beginning and ending points) i.e. 12345 NE 23rd Ct or Starts at 135 St. ends at 145 St. South District Waste Water Treatment Plant at 8590 SW 232 Street

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: Not Applicable, Project is not in a DTA

PROJECT ANALYSIS FOR GOAL RECOMMENDATION (CSBE) See attachment

Sub-Trade	Est. Cost	% of Item to Base Bid	Availability
Construction	\$9,677,068.20	9.68%	
G & S	\$761,223.00	0.76%	
	\$	0%	

RECOMMENDATION

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

Basis for Recommendation: <u>Availablility among SBE subcontractors. Also, this is highly specialize heavy industrial work</u> required for the replacement of all existing equipment, valves, piping; and appurtenances; electrical panels, conduits, cables, and lighting; instrumentation and controls; building mechanical; and architectural. In addition the project also includes the very specialized construction of 4 acid phase reactors. The project is required under the USEPA Consent Decree and must be in service by July 22, 2021.

Date submitted to DBD:<u>10/27/17</u> Contact Person:<u>Isaac Smith</u>

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, Manager Construction Contracts Section

Department: Miami-Dade Water and Sewer Department

Contract Title: CD 1.07 SDWWTP DIGESTERS AND CONTROL BUILDING UPGRADES, ACID PHASE AND SUBSTATION 7 & 8

Contract No.: S-897

Estimate Amount: \$100,013,867.80 [90,921,698.00 Construction + \$9,092,169.80 Contingency]

Funding Source: EW 660, Revenue Bonds Sold & Future WASD Revenue Bonds

Small Business Enterprise – Construction – 9.68% 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.

The WORK generally consists of furnishing all materials, labor and equipment necessary for the rehabilitation of Digester Clusters 1 and 2, construction of new substation 7 and 8 building with new equipment, upgrades to the existing hot water system and piping, and contingent construction requiring WASD direction to construct a new Acid Phase digester complex at the South District Wastewater Treatment Plant (SDWWTP) owned by the Miami-Dade Water and Sewer Department (WASD), located 23200 SW 97th Avenue, Miami, FL 33190.

The project consist of following components:

- Complete rehabilitation and repair of Clusters 1 and 2 including replacement of all existing equipment, valves, piping and appurtenances, electrical panels, conduits, cables, lighting, instrumentation and controls, building mechanical, architectural doors, windows, and louvers within Clusters 1 and 2 Control Building and inside Digester Tank Nos. 1 through 8; new digester floating covers for Digester Tank Nos. 1 through 8; extension of the existing Electrical Room at Clusters 1 and 2 Control Building; structural repairs to and recoating of Control Building and Digester Tank Nos. 1 through 8;
- 2. New hot water piping loop from existing Cogeneration building to Clusters 1, 2, 3 and new hot water supply system within the existing Cogeneration Building,

- 3. New digester gas flares, new digester gas, thickened sludge, digested sludge, utility water, potable water, and cooling water supply/return yard piping, valves, vaults, and appurtenances between the existing Sludge Concentrators, Digesters Clusters 1, 2, 3, and Cogeneration Buildings; including demolition of existing yard piping, valves, and appurtenances and support and relocation of existing utilities;
- 4. Drawing Package 2 Demolition of all electrical equipment inside existing Substation No. 7 and 8 Building; the construction of a new Substations No. 7 and No. 8 Building, including related site civil, architectural, structural, building mechanical, electrical, and instrumentation and controls; new electrical and instrumentation and control ductbanks conduit and cabling between new and existing facilities.
- 5. Acid Phase Contingent Item This project includes a portion of the WORK which is contingent upon a separate Miami Dade WASD's authorization to proceed with the construction of a new Acid Phase digester complex. This includes the construction of four (4) digester tanks, a control building, and an electrical building, including related site civil, architectural and structural, process mechanical systems, building mechanical, electrical and instrumentation and controls, painting and protective coatings; gas piping; new yard piping valves, vaults, and appurtenances to the Acid Phase Digester Complex, and support and relocation of existing utilities.

QUALIFICATIONS OF BIDDERS:

Bidders shall submit proof that his/her firm has at least the minimum successful contract experience as requested below:

- a. The Contractor shall be experienced in the construction of new or rehabilitation of existing wastewater treatment plant biosolids systems, which include sludge digestion systems.
- b. The Contractor must have successfully completed the construction of three (3) projects which included new wastewater digester tanks or rehabilitation of existing wastewater digester tanks. A minimum of one (1) project shall include the installation of new digester tank floating cover.
- c. The Contractor or Contractor's Electrical Subcontractor shall have successfully completed a minimum of three (3) projects demonstrating experience with medium or high voltage power supply systems, including transformers and switchgear.
- **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: Not Applicable, project is not located in a DTA.

DEPARTMENTAL INPUT CONTRACT MEASURE ANALYSIS AND RECOMMENDATION

- To: Gary T. Hartfield, Division Director Internal Services Department Small Business Development Division
- From: Isaac Smith, Manager Construction Contracts Section

Department: Miami-Dade Water and Sewer Department

Contract Title: CD 1.07 SDWWTP DIGESTERS AND CONTROL BUILDING UPGRADES, ACID PHASE AND SUBSTATION 7 & 8

Contract No.: S-897

Estimate Amount: \$100,013,867.80 [90,921,698.00 Construction + \$9,092,169.80 Contingency]

Funding Source: EW 660, Revenue Bonds Sold & Future WASD Revenue Bonds

Small Business Enterprise – Goods & Services – 0.76% 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.

The project, including mobilization and demobilization, consists of furnishing all materials, labor and equipment necessary for the rehabilitation of Digester Clusters 1 and 2, construction of new substation 7 and 8 building with new equipment, upgrades to the existing hot water system and piping, and contingent construction requiring WASD direction to construct a new Acid Phase digester complex at the South District Wastewater Treatment Plant (SDWWTP) owned by the Miami-Dade Water and Sewer Department (WASD), located 23200 SW 97th Avenue, Miami, FL 33190.

CONSIDERATIONS FOR ANALYSIS:

- 1. The project involves the construction of a new and rehabilitation of a wastewater treatment plant biosolids system.
- 2. This sub-system of the plant includes very large, expensive and specialized equipment. During normal operations the metal digester covers float above the structure.
- 3. The major portions of the work involves the replacement of new equipment (linear motion mixers, heat exchangers, recirculation pumps, transfer pumps and gas booster pumps), piping, valves, and appurtenances within the central Control Building and inside digester tanks. Each

of the digester tanks will be equipped as primary digestion tanks with the installation of new equipment, valves, and piping inside the Control Building.

- 4. The project also includes construction of new Acid Phase Complex, including Acid Phase Reactor Tanks No. 1, 2, 3, and 4, a centrally located Control Building, and an Electrical Building. Installation of new equipment, piping, valves, and appurtenances within Acid Phase Control Building and inside Acid Phase Reactors No. 1, 2, 3, and 4. Each of the reactors will be equipped with fixed cover, mixing, heating, transfer, and gas systems. This new equipment includes reactor fixed covers, mixing pumps and nozzles, recirculation grinders, recirculation pumps, heat exchangers, transfer grinder, transfer pumps, gas handling and safety equipment, and gas booster blowers.
- 5. The work shall be executed while the wastewater plant is in operation. The contractor's activities shall not adversely affect the operations or impact the treatment capacity of the plant.
- 6. 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 a wide range of opportunities for participation on this project. The recommended areas of participation for SBE Goods & Services providers includes the possible areas:

Analysi	Analysis for Small Business Enterprise – Goods and Services Recommendation						
Item	Goods & Services	Prime Contractor	Sub- Contractor	SBE Availability			
1.	GOODS: Mechanical Process Equipment Biosolids Systems Electrical Switchgear Instrumentation & Controls Piping, Valves & Fittings Backfill & Bedding Doors, windows, etc	X X X X X	X X X	X X X			
2.	SERVICES Structural Electrical Instrumentation Testing & Compaction Paving Civil Site work Systems Integration Hauling Utility Piping Finishing Painting Plumbing	X X	X X X X X X X X X X X X	X X X X X X X X X X X			