

**DEPARTMENTAL INPUT
CONTRACT MEASURE ANALYSIS AND RECOMMENDATION**

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

From: Paul Adams, Manager
Construction Contracts Division

Department: Miami-Dade Water and Sewer Department

Contract Title: Clarifiers and HLD (ST-2B) South District Wastewater Treatment Plant

Contract No.: S-932

Estimate \$63,298,310 (Construction \$55,087,000 + Allowances & Contingency \$8,211,310)

Funding Source: EW 101

Small Business Enterprise – Construction – 0.9%
Analysis for Recommendation (Below)



Department Head or Authorized Agent

DESCRIPTION OF PROJECT:

This is an Ocean Outfall project that consists of furnishing all labor, materials and equipment necessary for the construction of a new junction box to split the flow from the oxygenation tanks into two new clarifiers (one is future); construction of one new clarifier (clarifier 12) including inlet and outlet piping and Return Activated Sludge (RAS) piping; modification of existing RAS Pump Station No.3 with three (3) additional RAS pumps with piping system; replacement of a pipe segment at RAS Pump Station No.1, construction of a Transfer Pump Station (TPS) Bypass channel (North side); construction of 6 new filters; and associated yard piping at the South District Wastewater Treatment Plant owned by the Miami Dade Water and Sewer Department (WASD) and located at 23300 SW 88th Avenue Miami, FL 33032.

LICENSES REQUIRED:

Below are the types of Licenses that may be required for the execution of this Work. The trades authorized by each individual license may overlap with other licenses listed. Therefore, not all the licenses may be required as long the scope of work is covered by the licenses presented by the General Engineering Contractor and/or his subcontractors.

- a. General Engineering Contractor
- b. Plant Construction Engineer Contractor
- c. Pipeline Engineering Contractor
- d. Structural Engineering Contractor
- e. Pile Driving and Foundation Engineering Contractor
- f. Paving Engineering Contractor
- g. Excavating and Grading Engineering Contractor
- h. Electrical Contractor
- i. Soil Compaction and Tamping Engineering
- j. Demolition Contractor
- k. And/or other categories as applicable by Chapter 489 of the Florida Statutes or Chapter 10 of Miami-Dade County Code

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MINIMUM EXPERIENCE REQUIRED:

The Bidder must have successfully completed the construction and/or rehabilitation of a minimum of three (3) projects in construction at wastewater treatment facilities with capacities of 10-MGD or larger with secondary treatment process within the last ten (10) years. The projects must have included installation of process equipment, construction of clarifiers, construction of filters, installation of stainless steel and cast-iron sluice gates (with dimensions of 48"x48" opening or larger); installation of Prestressed Cylinder Pipe (PCCP) 60-inch or larger; large bypass pumping; installation of HVAC equipment; and installation of instrumentation and controls including connections into an existing SCADA. The Bidder shall be experienced in performing work while maintaining operations of a wastewater facility.

The Bidder or Bidder's Electrical Subcontractor shall have successfully completed a minimum of three (3) projects demonstrating experience with medium and low voltage power supply.

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.

CONSIDERATIONS FOR ANALYSIS OF PROPOSED CONSTRUCTION GOALS:

1. The Department has evaluated the project for possible opportunities for SBE – Construction participation. Based on the scope and nature of the work, we have concluded that there are limited opportunities for participation on this project.
 - The relatively small distribution of SBE is due to the specialized nature and complexity of wastewater treatment equipment and structures that are included in this project, and the large diameter pipelines that will be installed
 - The expected construction items available for the SBEs are limited compared to other conventional projects.
 - The trades/services recommended for SBE Construction availability included the following: demolition, hauling of excavated material, earthwork and site preparation, small diameter PVC piping, metal railings and grates, HVAC systems without cooling towers, erosion control measures, grading, and asphalt pavement, among others.
 - The Scope of Work of the project consist mainly in the construction of a clarifier with its corresponding junction box, six new filters and the installation of three RAS pumps. The clarifiers and filters are specialized wastewater treatment structures and equipment that are not recommended to be performed by SBEs. For the RAS pumps, each of the three units has a capacity of 8,000 gpm. Due to the pump size and the size of the fittings and pipes required for the pump installation, this work is not recommended for SBEs.
 - Most to the pipelines to be installed range between 24-inch and 96-inch diameter. This work is not recommended for SBEs.
2. The project site shall be within an existing treatment facility.

**DEPARTMENTAL INPUT
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| Analysis for SBE - Construction | | | | | | |
|---------------------------------|------------------------------------|-------------------------|-------------------|------------------------------------|-----------------------------------|--|
| Recommendation - 0.9% | | | | | | |
| ID | OPCC Item | OPCC Amount | % of Construction | SBE Construction-Availability (\$) | SBE Construction-Availability (%) | Description of SBE Construction Work |
| 1 | Mobilization | \$ 2,625,000.00 | 4.77% | \$0.00 | 0.00% | None |
| 2 | Junction Box 11/12 | \$ 1,365,000.00 | 2.48% | \$0.00 | 0.00% | |
| 3 | Clarifier 12 | \$ 21,122,000.00 | 38.34% | \$311,110.00 | 1.47% | Site demolition, Pavement Restoration, Asphalt Milling, Minor |
| | | | | \$120,840.00 | | Demolition and Minor Grading |
| | | | | \$59,360.00 | | Asphalt Pavement, Limerock Base and Subgrade Prep |
| | | | | \$114,480.00 | | Potable Water, 4" and 8" DIP CL |
| | | | | \$10,070.00 | | Asphalt Milling |
| | | | | \$6,360.00 | | Sodding |
| 4 | RAS PS 3 | \$ 3,675,000.00 | 6.67% | \$68,900.00 | 1.87% | |
| | | | | \$8,480.00 | | Minor Concrete Demolition |
| | | | | \$60,420.00 | | HVAC 15TN and 3TN AC Units and associated ductwork |
| 5 | Transfer Pump Station North Bypass | \$ 1,680,000.00 | 3.05% | \$0.00 | 0.00% | |
| 6 | Filters 31 to 36 | \$ 19,426,000.00 | 35.26% | \$88,298.00 | 0.45% | Pavement Restoration, Minor Demolition, Asphalt Milling and HVAC |
| | | | | \$28,620.00 | | Asphalt Pavement, Limerock Base and Subgrade Prep |
| | | | | \$6,678.00 | | Asphalt Milling |
| | | | | \$25,440.00 | | Concrete Ramp Demo |
| | | | | \$27,560.00 | | Wall Louvers and Fans |
| 7 | Backwash and Air Scour System | \$ 1,713,000.00 | 3.11% | \$0.00 | 0.00% | |
| 8 | 96-inch Filtered Water Bypass Pipe | \$ 3,397,000.00 | 6.17% | \$38,478.00 | 1.13% | Concrete Ramp Demo |
| | | | | \$38,478.00 | | Concrete Ramp Demo |
| 9 | 24-inch pipe inside the RAS PS 1 | \$ 84,000.00 | 0.15% | \$0.00 | 0.00% | |
| | Total | \$ 55,087,000.00 | | \$506,786.00 | | |
| | % Total | | | 0.9% | | |

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Estimate \$63,298,310 (Construction \$55,087,000 + Allowances & Contingency \$8,211,310)

Funding Source: EW 101

Small Business Enterprise – Goods & Services – 1.7%

Analysis for Recommendation (Below)



Department Head or Authorized Agent

DESCRIPTION OF PROJECT:

This is an Ocean Outfall project that consists of furnishing all labor, materials and equipment necessary for the construction of a new junction box to split the flow from the oxygenation tanks into two new clarifiers (one is future); construction of one new clarifier (clarifier 12) including inlet and outlet piping and Return Activated Sludge (RAS) piping; modification of existing RAS Pump Station No.3 with three (3) additional RAS pumps with piping system; replacement of a pipe segment at RAS Pump Station No.1, construction of a Transfer Pump Station (TPS) Bypass channel (North side); construction of 6 new filters; and associated yard piping at the South District Wastewater Treatment Plant owned by the Miami Dade Water and Sewer Department (WASD) and located at 23300 SW 88th Avenue Miami, FL 33032.

CONSIDERATIONS FOR ANALYSIS:

1. The Department has evaluated the project for possible opportunities for SBE – Goods and Services participation. Based on the scope and nature of the work, we have concluded that there are limited opportunities for participation on this project.
 - The relatively small distribution of SBE is due to the specialized nature and complexity of wastewater treatment equipment and structures that are included in this project, and the large diameter pipelines that will be installed
 - The expected Goods and Services items available for the SBEs are limited compared to other conventional projects.
 - The trades/services recommended for SBE - G&S availability included the following: demolition, hauling of excavated material, earthwork and site preparation, small diameter PVC piping, metal railings and grates, HVAC systems without cooling towers, erosion control measures, grading, and asphalt pavement, among others.
 - The Scope of Work of the project consist mainly in the construction of a clarifier with its corresponding junction box, six new filters and the installation of three RAS pumps.

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The clarifiers and filters are specialized wastewater treatment structures and equipment, providing few G&S opportunities for SBEs. For the RAS pumps, each of the three units has a capacity of 8,000 gpm, which due to their size and the size of the fittings and pipes required for their installation provide few G&S opportunities for SBEs.

2. The project site shall be within an existing treatment facility.

| SBE Goods & Services | | | | | |
|---------------------------------|------------------------------------|-------------------------|-----------------------------|----------------------------|---|
| Recommendation – 1.7% | | | | | |
| ID | OPCC Item | OPCC Amount | SBE G&S - Availability (\$) | SBE G&S - Availability (%) | Description of SBE Goods & Services Work |
| 1 | Mobilization | \$ 2,625,000.00 | \$ 79,500.00 | 3.03% | Vacuum Truck and Driver |
| | | | \$ 79,500.00 | | Vacuum Truck and Driver |
| 2 | Junction Box 11/12 | \$ 1,365,000.00 | \$ 45,580.00 | 3.34% | Metals |
| | | | \$ 45,580.00 | | Metal Railing and grates |
| 3 | Clarifier 12 | \$ 21,122,000.00 | \$ 265,278.78 | 1.26% | Metals, erosion Control and furnish aggregates |
| | | | \$ 200,618.78 | | Metal Railing and Grates Fabrication and Installation |
| | | | \$ 32,860.00 | | Silt Fence |
| | | | \$ 31,800.00 | | Furnish and Haul No. 57 Stone |
| 4 | RAS PS 3 | \$ 3,675,000.00 | \$ 46,640.00 | 1.27% | Metal Railing and Grates Fabrication and Installation |
| | | | \$ 46,640.00 | | Metal Railing and Grates Fabrication and Installation |
| 5 | Transfer Pump Station North Bypass | \$ 1,680,000.00 | \$ 0.00 | 0.00% | |
| 6 | Filters 31 to 36 | \$ 19,426,000.00 | \$ 471,700.00 | 2.43% | Metal Railing and Grates Fabrication and Installation |
| | | | \$ 471,700.00 | | Metal Railing and Grates Fabrication and Installation |
| 7 | Backwash and Air Scour System | \$ 1,713,000.00 | \$ 0.00 | 0.00% | |
| 8 | 96-inch Filtered Water Bypass Pipe | \$ 3,397,000.00 | \$ 25,440.00 | 0.75% | Furnish Aggregates |
| | | | \$ 25,440.00 | | Furnish and Haul No. 57 Stone |
| 9 | 24-inch pipe inside the RAS PS 1 | \$ 84,000.00 | \$ 0.00 | 0.00% | |
| | Total | \$ 55,087,000.00 | \$ 934,138.78 | | |
| | % Total | | 1.7% | | |