<u>DEPARTMENT INPUT</u> <u>CONSTRUCTION CONTRACT/PROJECT MEASURE ANALYSIS AND RECOMMENDATION</u>

Check applicable Ordinance(s): 🗵 90-143 Responsible Wage and Benefits 🔲 03-237 (formerly 03-1) Community Workforce Progr						gram
	PROJECT :	INFORMATION	See attachmen	nt 🖂		
Contract/Project/*Work On *Reference corresponding project		ı work order				
Contract/Project Title: Co	onsent Decree 2.21 Pum	p station 1				
Description/Scope of Work	: See Attached					
Estimated Cost: 3055074 Fu	anding Source: Other (s	pecify)				
Location of Project (street a Pump Station 1 at 390 N			45 NE 23 rd Ct or	Starts at 13	25 St. ends at 145 St.	
PROJEC	T ANALYSIS FOR G	OAL RECOMME	NDATION (CV	WP) See	attachment 🔀	
Engineer/Department or A	gency's estimated requ	ired workforce for P	roject 🗌 Work	Order :		
Trade/Skills Required	Est.	Est. # of workforce required per trade			Est. # of total days to complete job	
N/A					- conferred jac	
N/A						
N/A						
location. Installation of the traffic restrictions may dis	e new generator may ne turb frequent recreation lder must have successf experience with ventila	ed to be accomplished all and commercial builty completed the contion and odor control	ed from a barge oat traffic. Consonstruction and ol upgrades with	sitting on sent Decre or rehabilation the last	m in a sensative downtown the riverside, where marine e Project must be complete itation of a minimum of the ten (10) years	ed by
Sub-Trade	Est. Cost	% of Item to Base I	Bid	Availabili	tv	
Construction	\$302,577	9.9%			<u> </u>	
G & S	\$42,217	1.38%				
	\$	0%				
	on: Odor complaints contremely sensative are	ould result from an a of downtown Mia	ontractor Goal improperly fu mi and fronts	nctioning on the Mia	odor control system. This ami River. Requesting use	_
					upgrades within the last	<u>ten</u>
Contact I CISUII						

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Telephone No.:
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Justification

Request to Utilize the MCC 7360 contract with appropriate SBE Goals

Miami-Dade Water and Sewer Department requests that Consent Decree Project 2.21 – Pump Station 1 be processed through the MCC 7360 Contract due to the unique location and sensitive nature of this project. This pump station, providing the largest pumping capacity in the County, is located adjacent to Garcia's Restaurant and across the street from the Freemason Scottish Rite Temple on North River Drive between NW 3rd and 4th St. One of the primary elements of this project involves the upgrading of the Odor Control System. This work is highly specialized and will require the existing Odor Control System to be taken out of service and that the contractor provide and maintain a temporary Odor Control System. Failure of this temporary Odor Control System could result in serious problems which may force the temporary closure of Garcia's Restaurant, Casa Blanca Restaurant, and the Scottish Rite Temple. The Bidder must have successfully completed the construction and/or rehabilitation of a minimum of three (3) projects demonstrating experience with ventilation and odor control upgrades within the last ten (10) years.

Background:

At the May 21, 2013 Board of Miami-Dade County Commissioners meeting, the Board approved the Consent Decree (CD) that had been negotiated with the United States Environmental Protection Agency, the United States Department of Justice and the State of Florida Department of Environmental Protection. The CD outlines the activities to be undertaken to reduce exceedances of treated effluent limitations. This includes rehabilitation and improvements at Pump Station 1 (PS1), which has been assigned the Consent Decree project number CD 2.21. PS1 is located at 390 NW North River Drive, on the north-east bank of the Miami River, and it is also referred to as the 4th Street Pump Station. PS1 is owned and operated by WASD and its effluent discharges into the Central District Wastewater Treatment Plant. PS1 is the most critical pump station in the WASD system, serving the largest gravity collection system that covers approximately 20 square miles, bounded by N.W. 92nd Avenue to the west, by Coral Gables at S.W. 120th Street to the south, by N.W. 87th Street to the north, and by Biscayne Bay to the east. This area includes most of the City of Miami, Coconut Grove, West Brickell, Coral Gables, West Miami and Miami International Airport. PS1 has an estimated capacity of 160 million gallons per day provided by its eight (8) 600 horsepower vertical centrifugal pumps.

As shown in figure below, the PS1 site consists of the Pump Building and the Odor Control Building. The Pump Building was constructed as a conventional wet well / dry well pump station, and includes a bar screen room, motor room, dry wells (where the pumps are located), wet wells, electrical room, and other supporting facilities including the control room. The Odor Control Building was constructed to remove odor from the Pump Building that may otherwise spread to the surrounding community. The property directly to the north of PS1 along North River Drive is Garcia's restaurant whose patrons use the City of Miami Parking Lot 89 located to the south of PS1 as overflow parking.



CD 2.21 PS1 is a multi-trade project includes upgrade of the ventilation system, replacement of the odor control system equipment, and replacement of the electrical equipment. The existing ventilation system in the motor room and drywells within the Pump Building will be reconfigured to supply air through the motor room, and exhaust from the drywells and the roof of the motor room. In the Odor Control Building, the existing single-stage wet scrubber system rated for 12,000 CFM will be replaced with a new larger system capable of handling 18,000 CFM. The contractor is required to supply, install, and operate a temporary odor control system while the existing odor control system is demolished and the new permanent one is installed. The electrical system will be upgraded by replacing the MCC and installing a new 250KW generator to serve as the main back-up to the MCC loads, and reconfiguring the two existing 150KW generators to work in parallel to serve as a secondary back-up to the MCC loads. Installation of the new generator may need to be accomplished from a barge sitting on the riverside, where attracts frequent recreational and commercial boat traffic. It is utmost critical that construction work shall be executed while the facility is in operation. The contractor's activities shall not adversely affect the operations or impact the flow at the Pump Station.

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 2.21 PUMP STATION 1 AND CD 2.54(4) VENTILATION IMPROVEMENTS

RPQ.: TBD

Estimate Amount: \$3,360,581.40 [\$3,055,074.00 Construction + \$305,507.40 Contingency]

Funding Source: EW 221, Future WASD Revenue Bonds

Small Business Enterprise – Construction – 9.9%

Analysis for Recommendation (Attached)

Department Head or Authorized Agent

DESCRIPTION OF PROJECT:

This is a Consent Decree project consisting of rehabilitation upgrades of ventilation, odor control, and electrical systems to Master Pump Station No. 1, located at 390 NW North River Drive, in the City of Miami, Florida.

The scope of work consists of providing all material, labor and equipment necessary for the following:

- 1. Demolition: Demolition of existing windows and corrugated structural glass in the Motor Room walls, the CMU wall section in the Upper Screening Room, and the containment wall and tank pads in the Odor Control Building. Demolition of odor control equipment such as the FRP ductwork, blowers, wet scrubber tower and sump, chemical tanks, metering pumps and piping, fill station and fill lines to the tanks. Demolition of the existing tank, piping and valves within the hydrogen peroxide tank area, and associated hydrogen peroxide metering pumps within building. Demolition of existing ventilation supply fans in the Upper Screening Room and the Motor Room, and of roof exhaust fans in the Motor Room and the Odor Control Building. Demolition of existing 300 KVA transformer, disconnects, ATSs, MCC. Relocation of existing 30KVA transformer, disconnect switch and fire extinguisher in the mezzanine.
- 2. **Civil:** Excavation and pavement restoration for the installation of new electrical ductbank between buildings; refer to Electrical scope.
- 3. Instrumentation and Controls: Instrumentation work includes providing new instruments for the odor control system that includes the blowers, the scrubber, and the chemical tanks and metering pumps; a new gas alarm monitoring system that includes hydrogen sulfide and combustible gas sensors and transmitters, a gas alarm control panel and remote alarm stations. The work also includes new conduit and wiring for various signals that are hard-wired to the existing RTU such as HVAC, MCC and generator statuses and alarms; and new conduit and data cables for signals from the Odor Control Panel which are transmitted to the RTU via Modbus/TCP.
- 4. Architectural/Structural: Structural work includes removing existing concrete pads within the Odor Control

Building and constructing a new concrete pad for the placement of the new odor control equipment. The secondary containment area for the chemical tanks, including the existing containment wall, sump, and concrete pad will be demolished and replaced. In addition, new wall openings for ventilation, odor control equipment, and new windows will be provided. The new wall openings for ventilation equipment within the bar screen room will require demolishing of existing CMU walls. Architectural work includes installation of new corrugated structural glass in the area of the existing structural glass and windows. The exterior look will be designed to maintain uniformity with new windows and louvers.

- 5. Building Mechanical: Building Mechanical work includes replacement of the existing motor room roof exhaust fans with new roof supply fans, installation of new smaller roof exhaust fans to promote the exhaust of hot air generated from the operation of the motors, replacement of the existing drywell supply fans with new larger exhaust fans, replacement of all the drywell ductwork with new ductwork, and installation of a new automatic temperature control panel.
- 6. Process Mechanical: Process Mechanical work includes installation of a new odor control system capable of handling 18,000 CFM which includes: replacement of the existing chemical wet scrubber and recirculation pumps, replacement of existing blowers, replacement of the existing chemical tanks and metering pumps, and installation of a new odor system control panel. In addition, new emergency eye wash showers will be installed in the Odor Control Building. Process mechanical work will include the installation of new fuel supply and return connections to the building's existing diesel fuel lines.
- 7. Electrical: Electrical work includes replacing the existing MCC with a new arc-resistant MCC inside of the existing electrical room that is located in the upper mezzanine on the east side of the building, installing a new 250KW generator within the hydrogen peroxide tank area to serve as the main back-up to the MCC loads, and reconfiguring the two existing 150KW generators within the motor room to work in parallel to serve as a secondary back-up to the MCC loads. Electrical work shall also include new panelboards, equipment disconnects, transformers, new conduits and wiring, and new ductbank between buildings.

CONSIDERATIONS FOR ANALYSIS:

- 1. This project involves specialized mechanical work involving the replacement of a large odor control system in a sensitive downtown location. The following minimum experience qualifications are: "The Bidder must have successfully completed the construction and/or rehabilitation of a minimum of three (3) projects demonstrating experience with ventilation and odor control upgrades within the last ten (10) vears".
- 2. Installation of the new 250 KW generator may need to be accomplished from a barge sitting on the riverside, where marine traffic restrictions may disturb frequent recreational and commercial boat traffic.
- 3. This work is highly specialized and will require the existing Odor Control System to be taken out of service and that the contractor provide and maintain a temporary Odor Control System.
- 4. Recommended opportunity for SBE-Construction participation is in the area of demolition, finishing, mechanical for ductwork and fans.
- 5. Therefore, this project is recommended for SBE-Const participation goal of 9.9%.

LICENSES: The types of licenses required are: General Engineering, State Underground, Pipeline 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

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Internal Services Department

Small Business Development Division

From: Isaac Smith, Manager

Construction Contracts Section

Department: Miami-Dade Water and Sewer Department

Contract Title: CD 2.21 PUMP STATION 1 AND CD 2.54(4) VENTILATION IMPROVEMENTS

RPQ.: TBD

Estimate Amount: \$3,360,581.40 [\$3,055,074.00 Construction + \$305,507.40 Contingency]

Funding Source: EW 221, Future WASD Revenue Bonds

Small Business Enterprise – Goods & Services – 1.38%

Analysis for Recommendation (Attached)

Department Head or Authorized Agent

DESCRIPTION OF PROJECT:

This is a Consent Decree project for rehabilitation upgrades of ventilation, odor control, and electrical systems to Master Pump Station No. 1, located at 390 NW North River Drive, in the City of Miami, Florida.

CONSIDERATIONS FOR ANALYSIS:

- 1. This pump station provides the largest pumping capacity in the County. It is located in busy downtown Miami in an area located adjacent to Garcia's Restaurant and across the street from the Freemason Scottish Rite Temple on North River Drive between NW 3rd and 4th St. Should there be a failure with the temporary odor control system to be implemented this may force the temporary closure of Garcia's Restaurant, Casa Blanca Restaurant, and the Scottish Rite Temple.
- 2. Installation of the new generator may need to be accomplished from a barge sitting on the riverside, where it would be exposed to frequent recreational and commercial boat traffic
- 3. 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 are limited opportunities for participation in this project.
- 4. The possible areas of subcontracting are in the area of painting, caulking, coating, sandblasting, handrailing and ladders.
- 5. Therefore, for SBE- Goods and Services the recommended participation goal of 1.38%.

Analysis for Small Business Enterprise – Goods and Services Recommendation								
Item	Goods & Services	Prime Contractor	Sub- Contractor	SBE Availability				
1.	GOODS: Odor Control System Generator Set Suitable Backfill	X X	X X	Х				
2.	SERVICES Demolition Excavation Instrumentation Coating & Finishing Marine Barge Building Construction Electrical Work Instrumentation	X X X X	X X X X X	X X X X				