

**CITY OF PALM BAY, FL**

**Lift Station Permanent Bypass Pump Installations**

**In accordance with City's Master Agreement 36-0-2020 Dated July 28, 2020**

**May 8, 2024**

**TASK ORDER NO. 24-09-WT**

**SECTION I: PROJECT BACKGROUND AND INFORMATION**

The City of Palm Bay (City) currently uses portable diesel pumps to provide back-up pumping for most lift stations. The City has identified critical lift stations to install permanent diesel bypass pumps to improve system reliability.

A new self-priming, diesel driven pump (Goodwin Pump, Thompson Pump, Power Prime, or equal) will be evaluated and designed to pump wastewater flow under station failure. Each station will be evaluated to determine if the pump will also be capable of supplementing the existing submerged pumps during high flows.

The project at each station will include a pad-mounted float-controlled diesel pump with integrated fuel tank, a dedicated pump suction pipe run above grade and cored down through the wet well top slab, and above-grade discharge piping with check and isolation valves that connects to the below-grade discharge pipe. The work will be limited to the existing City property and right of way, no easement acquisition or property acquisition is anticipated.

The design includes limited I&C design to provide run status, temperature, and fuel level of the diesel pumps to the existing panels at the lift stations. Design or modification of RTUs is not included in this design. No electrical modifications are included in this design.

The three lift stations will be designed in one bid and permitting package.

The three lift stations included in this task order are:

- LS 44: 3310 Dixie Highway NE, Palm Bay, FL 32905
- LS 46: 1369 Worth Ct. NE, Palm Bay FL 32905
- LS 51: 3107 Bay Blvd. NE, Palm Bay, FL 32905

## **SECTION II: SCOPE OF WORK**

Wade Trim agrees to perform the following tasks to complete the design:

### **Task 1 – Kick-Off and Field Investigation**

- a) **Kick-Off Meeting:** Wade Trim will conduct a kick-off meeting with the City following receipt of Notice to Proceed to establish lines of communication, the City's definition of success, and establish expectations of the project. The meeting will be held at Wade Trim's office at 3790 Dixie Highway NE and will include verification of scope of work, a walk-through of all three sites, discussion with City staff, and taking field measurements. Wade Trim will provide an agenda and supporting documents via email. Meeting minutes will be distributed electronically by Wade Trim.
- b) **Record Drawing Review:** Wade Trim will review record drawings for the existing lift stations provided by the City. These drawings will serve as the basis for the design.
- c) **Survey:** Wade Trim will perform a survey of the three stations to confirm critical dimensions and elevations in the record drawings.
- d) **Pump Calculations:** Review the service area to determine the design flow for the station. Review historical water use and pump run time data to confirm the design flow. Estimate the system curve based on model information available to determine the design discharge head required.

### **Task 2 – 60% Design Documents**

- a) **60% Design Drawings:** Wade Trim will develop design drawings to a 60% design level.
- b) **Specifications:** Wade Trim will develop technical specifications in a 60% Specifications submittal package.
- c) **Construction Cost Estimate:** Wade Trim will develop a Class III Engineer's Opinion of Probable Construction Cost (EOPCC).
- d) **Permitting:** Wade Trim will prepare a Draft FDEP permit application for construction a domestic wastewater collection/transmission system for review by the City.
- e) **60% Design Workshop:** Wade Trim will conduct a 60% design workshop to review the City's comments provided on the 60% submittal package. Meeting minutes will be recorded and submitted to the City for review. A list of comments from the City and those comments discussed at the workshop meeting will be generated to be incorporated into the following design and permit submittals.

### **Task 3 – 90% Design Documents**

- a) **90% Design Drawings:** Wade Trim will progress the 60% design drawings to a 90% design level based on comments received from the City during the 60% plan review.



#### **SECTION IV: PERMITTING**

An FDEP construction of a domestic wastewater collection/transmission system permit is required. No other permits are anticipated. Wade Trim will assist in permitting as described in Section II.

#### **SECTION V: CITY'S RESPONSIBILITY**

The City is responsible for, but not limited to, the following in order to complete the design:

- Provide service area boundaries for each lift station
- Provide site access to the three sites
- Provide any public relations necessary
- Provide the following information for each site:
  - Record Drawings
  - Pump Data
  - Design Flow Requirements
  - Pump Discharge Pressure

## **SECTION VI: DELIVERABLES**

It is anticipated that the following design drawing sheets will be provided at the deliverable stages listed below.

Sheet Name	60%	90%	Final
G-1 Cover	X	X	X
G-2 General Notes	X	X	X
C-1 Civil General Notes	X	X	X
C-2 LS 44 - Existing Site Layout	X	X	X
C-3 LS 44 - Proposed Site Layout	X	X	X
C-4 LS 44 - Civil Details	X	X	X
C-5 LS 46 - Existing Site Layout	X	X	X
C-6 LS 46 - Proposed Site Layout	X	X	X
C-7 LS 46 - Civil Details	X	X	X
C-8 LS 51 - Existing Site Layout	X	X	X
C-9 LS 51 - Proposed Site Layout	X	X	X
C-10 LS 51 - Civil Details	X	X	X
S-1 Structural Details	X	X	X
P-1 Process General Notes	X	X	X
P-2 Typical Details	X	X	X
P-3 LS 44 - Process Plan and Details	X	X	X
P-4 LS 44 - Pump Details	X	X	X
P-5 LS 46 - Process Plan and Details	X	X	X
P-6 LS 46 - Pump Details	X	X	X
P-7 LS 51 - Process Plan and Details	X	X	X
P-8 LS 51 - Pump Details	X	X	X
I-1 LS 44 – I&C General Notes, Legend, and Abbreviations	X	X	X
I-2 LS 44 - I&C Site Plan and Details		X	X
I-3 LS 46 - I&C General Notes, Legend, and Abbreviations	X	X	X
I-4 LS 46 - I&C Site Plan and Details		X	X
I-5 LS 51 - I&C General Notes, Legend, and Abbreviations	X	X	X
I-6 LS 51 - I&C Site Plan and Details		X	X

The following will be provided in electronic format (PDF):

### **Task 1 – Kick-Off and Field Investigation**

- Kick-off Meeting Minutes

### **Task 2 – 60% Design Documents:**

- 60% Engineering Plans
- 60% Technical Specifications
- 60% EOPCC
- Draft FDEP Application
- 60% Review Meeting Minutes

**Task 3 – 90% Design Documents:**

- 90% Engineering Plans
- 90% Technical Specifications
- Submit FDEP Application
- Responses to RAIs
- 90% Review Meeting Minutes

**Task 4 – Final Design Documents:**

- Final EOPCC
- Signed and Sealed Bid Plans
- Signed and Sealed Bid Specifications

**SECTION VII: SCHEDULE**

Milestone	Weeks	From
Kick-off Meeting	3	NTP
60% Submittal	20	Kick-off Meeting
90% Submittal	4	60% Review Meeting
Bid Set	7	90% Review Meeting

**SECTION VIII: BASIS OF COMPENSATION**

The fee for the scope of work described in Section II is a total lump sum fee of **\$113,635**. The City shall periodically compensate Wade Trim a portion of the total lump sum fee based on mutually agreed upon percentages of completion of each task. The following are the lump sum amounts broken down per task:

TASK	DESCRIPTION	FEE
1	Kick-Off and Field Investigation	\$ 17,705.00
2	60% Design Documents	\$ 60,420.00
3	90% Design Documents	\$ 22,180.00
4	Final Design Documents	\$ 13,330.00
	<b>TOTAL</b>	<b>\$ 113,635.00</b>

At the direction of the City, Wade Trim may be requested to provide additional services. These additional services will be billed at the standard hourly billing rates.

## SECTION IX. ESTIMATED CONSTRUCTION COST

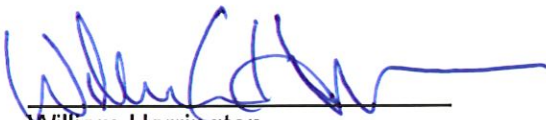
The estimated cost of construction for the project will be provide and updated with the deliverable milestones as noted above.

## SECTION X: ACCEPTANCE

If the above scope and fees meet your approval, please indicate by your signature in the space provided below and return one signed copy which shall constitute an "Agreement and Notice to Proceed" for the accomplishment of this work. The Master Agreement 36-0-2020, dated July 28, 2020, supersedes the purchase order terms and conditions.

WADE TRIM, INC.

City of Palm Bay, Florida



William Harrington  
Projects Directors

\_\_\_\_\_  
George Barber, CPPO, CPPB  
Chief Procurement Officer

5/10/24

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date



Project: Lift Statiopn Permanent Bypass Pumps  
Client: PBUD  
Prepared By: M Demko  
Date: May 8, 2024

**Project Cost  
Estimating Sheet**

TO# 24-09-WT

TASKS		Task 1 Kick-off & Survey	Task 2 60% Design	Task 3 90% Design	Task 4 Final Design	Task 5 ALOT		HEOCDRTSO EI SCTT	
CLASSIFICATION	RATE	HOURS \$	HOURS \$	HOURS \$	HOURS \$	HOURS \$	HOURS \$		
Principal/Associate	\$	2500.00 15 \$3,750.00	90 \$22,500.00	34 \$8,500.00	22 \$5,500.00		161 \$40,250.00	Subconsultants Aerial Photos Soils Eng.	
Senior Technical Professional	\$	2250.00 0 \$00.0	0 \$00.0	0 \$00.0	0 \$00.0	0 \$00.0	0 \$00.0		
Professional Engineer 2	\$	1500.00 55 \$8,250.00	160 \$24,000.00	40 \$6,000.00	25 \$3,750.00		280 \$42,000.00	Survey Mechanical Electrical	\$ 40,250.00
Technician 6	\$	1200.00 14 \$1,680.00	116 \$13,920.00	64 \$7,680.00	34 \$4,080.00		228 \$27,360.00	Environmental Stormwater Management Permitting	
	\$	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	Sub Total	\$4,025.00
	\$	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	Direct Cost	
	\$	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	CADD	
	\$	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	Computers	
	\$	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	Equipment	
	\$	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	Photocopies	
	\$	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	Color Copies	
	\$	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	Graphics	
	\$	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	Computer	
	\$	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	Travel	
	\$	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	Scanner	
	\$	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	OCE Printer	
	\$	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	Sub Total	\$0.00
	\$	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	OTHER DIRECT COSTS TOTAL	\$4,025.00
	\$	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	Labor Multiplier (=1 for billing rate schedule)	1.00
	\$	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	0 \$0.00	TOTAL DIRECT LABOR	\$ 1096,100.0
TOTAL		84 \$	366 \$136,800.0	138 604,200.0	81 221,800.0	0 \$ 133,300.0	669 \$199,610.0	TOTAL COST	\$113,635.00

BUDGET \$ \$ \$177,050.0 604,200.0 221,800.0 \$ 133,300.0 -\$113,635.00