RESOLUTION NO. 20-048

A RESOLUTION OF THE CITY COMMISSION OF WEST, FLORIDA, OF KEY APPROVING HIGGINS, PROPOSAL FROM DN INC. INSTALLATION PURCHASE AND ONE FP-3-1 OF EFFLUENT PUMP CONTROL AND TO INSTALL PE PUMP 2 VFD AT THE RICHARD A. HEYMAN ENVIRONMENTAL PROTECTION FACILITY IN AN AMOUNT NOT TO EXCEED \$246,611.32, PURSUANT TO SECTION 2-797(4)(b) OF THE CODE OF ORDINANCES, BEST INTERESTS OF THE CITY; AUTHORIZING ANY NECESSARY BUDGET ADJUSTMENTS; PROVIDING FOR AN EFFECTIVE DATE

WHEREAS, in 2018 DN Higgins was the sole bidder on a project that would have included installation of an FP-3-1 Pump and other tasks, however the bid exceeded the project budget, and the bid was rejected; and

WHEREAS, the City ordered the VFD from a sole-source provider in early 2019 to reduce costs and lead time to prepare for the project, and after nearly two years of design, bid process and order approvals the project has become dire; and

WHEREAS, DN Higgins, Inc., with Nearshore Electric as a subcontractor, provided a new proposal at the City's request, that represents a lower cost than the 2018 bid, and City staff recommends approval of the proposal pursuant to Section 2-797(4)(b), best interests of the City; and

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF KEY WEST, FLORIDA, AS FOLLOWS:

Section 1: That the attached proposal from DN Higgins, Inc. for the purchase and installation of the FP-3-1 Effluent Pump Control and to install PE Pump 2 VFD at the Richard A. Heyman Environmental Protection Facility in an amount not to exceed \$246,611.32 is hereby approved, pursuant to Section 2-797(4) of the code of ordinances.

Section 2: That this project will be funded from Sewer/WWTP/CIP account 401-3504-535-6500, and any necessary budget adjustments are hereby authorized.

Section 3: That this Resolution shall go into effect immediately upon its passage and adoption and authentication by the signature of the Presiding Officer and the Clerk of the Commission.

Passed and adopted by the City Commission at a meeting held
this <u>3rd</u> day of <u>March</u> , 2020.
Authenticated by the Presiding Officer and Clerk of the
Commission on 4th day of March, 2020.
Filed with the Clerk on March 4, 2020.
Mayor Teri Johnston Yes
Vice Mayor Sam Kaufman <u>Yes</u>
Commissioner Gregory Davila $\underline{\mathbf{Yes}}$
Commissioner Mary Lou Hoover <u>Yes</u>
Commissioner Clayton Lopez <u>Yes</u>
Commissioner Billy Wardlow Yes
Commissioner Jimmy Weekley Yes
TERÍ JOHNSTON, MAYOR
ATTEST:
CHERYL SMITH CITY CLERK



THE CITY OF KEY WEST

Post Office Box 1409 Key West, FL 33041-1409 (305) 809-3700

EXECUTIVE SUMMARY

Date:

February 3rd, 2020

To:

Greg Veliz, City Manager

From:

John Paul Castro, Director of Utilities

Cc:

Patti McLaughlin, Assistant City Manager

Subject: Approve a proposal from D.N. Higgins, Inc. for the purchase and install of the FP-3-1 Effluent Pump Control and install PE Pump 2 VFD at the Richard A. Heyman Environmental Protection Facility.

Action Statement

This resolution would approve a proposal from D.N. Higgins, Inc. for the purchase and install of a FP-3-1 effluent pump control and install of an owner provided variable frequency drive (VFD) pursuant to code of ordinances 2-797 4(b) in the amount of \$246,611.32.

Background

In 2016 PE pump 1 VFD reached the end of it's useful life and the replacement was purchased by the City and installed by OMI and Nearshore Electric. PE pump 2 VFD and the FP-3-1 main control for effluent pumping at the plant began to cause problems with operations. Jacobs Engineering was tasked with designing a bid package for the new control and 2nd VFD replacement.

In 2018 the FP-3-1 and VFD project was budgeted for \$150,000.00 and was advertised for bids. The City received only one bid from D.N. Higgins, Inc. in the amount of \$314,000.00. The budgeted amount was based on the past VFD cost and install which was \$63,000.00. The new design and control were significantly more complex and required a new transformer and cabinet for the VFD due to the new more advanced control system. The bid was rejected due to budget constraints.

City staff ordered the VFD in early 2019 to reduce cost and lead time to prepare for the project.

Purpose and Justification

The FP-3-1 control has become antiquated and needs to be controlled by an early 2000's laptop with a Windows operating system that is nearly 20 years old. Spare parts for the control are no longer made. Staff is currently bidding the install and has purchased a 3rd effluent pump that will need to run off the new control system. The FP-3-1 is the weak link the most important operation at the plant. The submittal process for the electrical drawings and control system took nearly 6 months by the sole source provider, Rexel, and the City's engineer Jacobs. After nearly 2 years of bid process and order approvals the project has become dire.

D.N. Higgins, Inc. with Nearshore Electric as a subcontractor gave the City another proposal upon request to install the new FP-3-1 control and owner supplied VFD. The owner supplied VFD saved the City \$10,200.00 in taxes and the new proposal is \$67,388.68 lower in the City's favor. D.N. Higgins and Nearshore electric are the only contractors to bid the project previously and have intimate knowledge of the design and control that needs to be ordered and installed. Nearshore Electric installed the VFD for PE pump 1 in 2016.

The city manager believes that exceptional circumstances exist to award the project in the best interest of the city pursuant to code of ordinances 2-797(4). Staff considers the price fair and reasonable. The contractor has adequate experience with the equipment and its function. Formally bidding the project again is not likely to be advantageous to the city financially and will cost approximately 3 months' time.

Financial

The VFD was budgeted and purchased by the City in FY19. Staff was analyzing possible scenarios to combine the project with other larger projects at the WWTP. The 3rd Effluent pump project budgeted for \$1,200,000 in FY20 considered the inclusion of the FP-3-1 control and install. The 3rd effluent pump, project SE35041902, has a design cost of \$49,733.00 and the pump was owner direct purchased for \$331,000. The project budget is \$1,200,000.00. The 3rd effluent pump install is estimated at \$430,000.00 leaving an approximate balance of \$389,267 to attribute to the FP-3-1 Control and VFD project. The funds are in account Sewer/WWTP/CIP, 401-3504-535-6500.

Recommendation

City staff recommends approving the proposal from D.N. Higgins, Inc. for the purchase and install of FP-3-1 control and install of the effluent VFD pursuant to code of ordinances 2-797 4(b) in the amount of \$246,611.32



CORPORATE OFFICE

3390 TRAVIS POINTE RD, SUITE A

ANN ARBOR, MI 48108

(313) 996-9500, FAX: (313) 996-8480

PROPOSAL

General Services Contract

☐REGIONAL OFFICE

5509 5th Ave #3

Key West, FL 33040

(305) 292-7889 - FAX: (305) 292-7717

ГО:	City of Key West	 •
-	P.O. Box 1409	JOB NAME: VFD FP-3-1 KW Sewer Plant
	Key West, FL 33040	
	Attn. John Paul Castro	DATE: January 16, 2020

Demo & remove existing VFD&VFD Tranformer, install new VFD & VFD Tranformer(owner supplied) and provide and install new FP-3-1 control panel with cabinet.

QUANTITY	UNIT	DESCRIPTION	PRICE	AMOUNT		
50		Superintendent	\$ 95.00	\$ 4,750.00		
617		Electrician Plus 5% markup	\$ 95.81	\$ 59,114.77		
1.74.134	-	Material, wire, conduit, hanger, fasters and misc cost plus 5 %	\$ 31,904.25	1 1		
1		FP-3-1 Control Panel Plus 15% Markup	\$132,957.25			
1	LS	Instrument & Control Technician Submittal work and review Plus 5%	\$ 1,785.00	\$ 1,785.00		
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		Subtotal - Cost of Construction		\$ 230,511.27		
		Bond \$18.00 Per \$1,000.00		\$ 4,356.65		
			•	1,		
		Subtotal - Cost of Construction		\$ 234,867.92		
		GCs, Mobilization / Demobilization and MOT at 5%	·	\$ 11,743.40		
		TOTAL PRICE		8 248 641.32		

Owner: City Of Key West

Project: Install Owner Provided VFD
Project Address: Fleming Key WWTP

Job #191034 Confidential

Scope of Work

January 15, 2020

To all concerned,

We are pleased to offer you our proposal for the electrical work required at the Fleming Key WWTP in Key West Florida. All work performed by Nearshore Electric, Inc. shall conform to current codes, regulations, and project specifications. All work performed by Nearshore Electric, Inc. shall be warranted for a period of one year. The following breakdown describes the items and services that Nearshore Electric, Inc. shall provide as well as any exclusion from our scope of work.

INCLUDED IN BID:

Owner Furnished VFD

- Remove existing 1336 Plus Allen Bradley VFD
- Re-route existing controls to distribution side of existing VFD.
- ♦ Install new owner provided Allen Bradley Power Flex 755 VFD
- Remove existing isolation transformer and conduits
- Extend house-keeping slab
- Install new owner provided transformer and disconnect
- ♦ Install new conduit/wire from transformer to VFD
- Program parameters and assist in VFD commissioning
- ♦ Workers Comp/General Liability Insurance
- ◆ Taxes
- ♦ Warranty

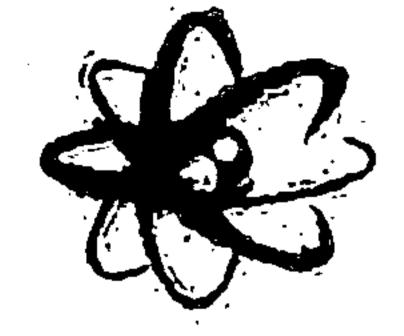
New FP3-1 PLC Cabinet

- Install house-keeping slab for new PLC cabinet
- ◆ Install new PLC cabinet next to existing PLC cabinet
- Install conduit/wire from new PLC to existing VFD
- ◆ Install conduit/wire from new PLC to new VFD
- ♦ Install conduit/wire from new PLC to existing FP12-1 control cabinet
- Install conduit/wire from new PLC to existing panel LE for power
- ◆ Install conduit/wire from new PLC to existing FP2-1 for communication and network
- ♦ Install wire in existing conduit and duct bank to FP13-1 and FP13-2 to new PLC

EXCLUDED FROM BID:

- Permit fees
- FP3-1 control panel
- ♦ VFD equipment (supplied by owner)
- Any Scope of work not clearly shown on drawings or within the bid documents and/or specifications is not included in this proposal.

Bid Summary	•		91.25	1
Labor Man Hours		617hrs	456570	a 4. 60
Labor Cost		\$56,301.00) -
Material Cost		\$30,385.00		•
Submittals Review		\$1,700.00	-	• •
We propose to furnish made in the Eighty Eight Thousand				fications, for the lump sum of:
Authorized Signature	Jeffery L Kirk ~ P	resident	Date <u>1/15/2020</u>	•



C. C. CONTROL CORP.

5760 CORPORATE WAY SUITE 100 WEST PALM BEACH, FLORIDA 33407

> PHONE: 561-293-3975 FAX: 561-293-3976

CUSTOMER:

DOUGLAS N. HIGGINS, INC.

ATTN:

PAUL WATERS

PROJECT:

EFF PUMP FP-3-1 CONTROL & VFD REPLACEMENT

CITY OF KEY WEST

DATE: 1/8/2020

DESCRIPTION

QUAN

C. C. CONTROL CORP. PROPOSES TO FURNISH THE FOLLOWING SECTIONS COMPLETE WITH EXCEPTIONS AS LISTED:

SECTION 40 90 01 - INSTRUMENTATION AND CONTROL FOR PROCESS SYSTEMS

EXCEPTIONS:

- A) QUOTE DOES NOT INCLUDE CONDUIT SYSTEM.
- B) QUOTE DOES NOT INCLUDE WIRE/CABLE.
- C) QUOTE DOES NOT INCLUDE INSTALLATION
- D) QUOTE DOES NOT INCLUDE FIELD TERMINATIONS.
- E) QUOTE DOES NOT INCLUDE ANY PANEL MTG. RACKS
- F) QUOTE DOES NOT INCLUDE ANY ELEC. OR PNEUMATIC OP. VALVES.
- G) QUOTE DOES NOT INCLUDE SOLENOIDS.
- H) QUOTE DOES NOT INCLUDE ANY PIPE TAPS OR PIPE SADDLES.
- I) QUOTE DOES NOT INCLUDE ANY PANEL OR J-BOX MOUNTING HARDWARE
- J) QUOTE DOES NOT INCLUDE JUNCTION OR TERMINATION BOXES
- K) QUOTE DOES NOT INCLUDE VFD INSTALLATION, TESTING OR START-UP

ITEM NO. 1

EFFLUENT PUMP PLC CONTROL PANEL FP-3-1 SCHAEFER'S SPN12D-726024 NEMA 12 STEEL FREESTANDING DOUBLE DOOR ENCLOSURE WITH THE FOLLOWING: A) SIZE: 72"H X 60"W X 24"D B) REMOVABLE LIFTING EYES C) 3PT. KEYLOCKING HANDLE D) INTERNAL LIGHT BRACKET E) SUBPANEL: SP-72P60F1 F) STUDS FOR DOOR SWITCH G) PRINT POCKET H) INTERNAL FOLDING SHELF HOFFMAN AHCI10E CORROSION INHIBITOR SQD 9007 AP221 DOOR SWITCH EDCO HSP-121A 15A 120VAC LINE SURGE ARRESTER PROGRESS ENERGY P7008-30 36" FLUORESCENT FIXTURE HUBBELL CS120-1 SINGLE 20A TOGGLE SWITCH HUBBELL SS1 S.S.SINGLE TOGGLE SW. PLATE HUBBELL GF15ILA GFI DUPLEX 15A RECEPT. HUBBELL SS26 S.S. DUPLEX GFI PLATE SQD QOU130 120V 30A 1P CIRCUIT BREAKERS SQD QOU115 120V 15A 1P CIRCUIT BREAKERS HUBBELL HBL2610 L5-30R 30A RECEPTACLE

	HUBBELL SS7 S.S. SINGLE RECEPT. PLATE			2		
	FALCON SG3K-1T ON-LINE UPS, 3000VA, 120VAC	•		2	-	•
	FALCON MB3K-1 EXTERNAL MAINTENANCE BY-PASS	•		2 .	•	•
•	FALCON UA88376-SSG-HW DRY RELAY CONTACT CLOSURE CARD		-	2		
•	CUSTOM UPS CABLE			2 .		•
	CUSTOM UPS SHELF			2		;
•	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	>>>>>>>	>>>>>>>	>>		•
	PLC RACK				•	•
•	ALLEN BRADLEY 1756-A13 13 SLOT CONTROLLOGIX CHASSIS	•		1		
•	ALLEN BRADLEY 1756-PA75 POWER SUPPLY			1		
•	ALLEN BRADLEY 1756-L71 PROCESSOR			1		
	ALLEN BRADLEY 1756-EN2T ETHERNET COMMUNICATION MODULE			1	•	•
	ALLEN BRADLEY 1756-IA16 16 POINT 120VAC DISCRETE INPUT MODULE			3		
	ALLEN BRADLEY 1756-OW16I 16 POINT RELAY OUTPUT MODULE		•	1	•	
•	ALLEN BRADLEY 1756-IF8I ANALOG INPUT 8CH., INDIVIDUALLY ISOLATED			3	•	•
	ALLEN BRADLEY 1756-OF8I ANALOG OUTPUT 8CH., INDIVIDUALLY ISOLATE	ΞD		. 1		•
	ALLEN BRADLEY 1756-TBCH WIRING ARM, 36-POINT			2		•
•	ALLEN BRADLEY 1756-TBNH WIRING ARM, 20-POINT	•		8		
	ALLEN BRADLEY 1756-N2 EMPTY SLOT COVER			3		
	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	>>`>>>>>	·>>>>>>>	>>		
•	PANEL MOUNT OIT				•	
•	ALLEN-BRADLEY 2711P-T10C22A9P-B PANELVIEW PLUS HMI			1		
	ALLEN-BRADLEY 1784-SD2 2GB SD MEMORY CARD	•		1		-
•	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	>>>>>>	>>>>>>	>>	•	
•	ALLEN BRADLEY 1783-MS06T STRATIX 8000 6 PORT ENET SWITCH	•		1		
	ALLEN BRADLEY 1783-SFP100FX 100BASE SFP FIBER MODULE	•	-	2	•	1 •
	FIS F1-EW12BLK 12 PORT WALL MOUNT FIBER OPTIC PATCH PANEL	•		, 1	•	
	FIS F1-LC6DBKMUL MULTIMODE LC LOADED PLATE			2		
	ETHERNET COPPER JUMPER CABLES		-	2		
•	ETHERNET FIBER JUMPER CABLE	-	•	2	•	
	FINDER 60.13.8.120.0040 120VAC 3PDT PLUG-IN RELAY			17		
-	FINDER 90.03 11-PIN RELAY SOCKETS	•		17		
	EDCO PC642C-036-X DUAL SIGNAL SURGE PROTECTOR W/ SOCKET		•	12	•	
•	PHOENIX CONTACT 3044102 UT4 TERMINAL BLOCK	•	•	10	•	
	PHOENIX CONTACT 3047248 END COVER, YELLOW	•	· ·	2		
	PHOENIX CONTACT 3044128 UT4 PE GROUND TERMINAL BLOCK	•		10	•	
	PHOENIX CONTACT 3047028 D-UT 2,5/10 END COVER			2	-	
	PHOENIX CONTACT 3044814 UTTB 4 DOUBLE-LEVEL TERMINAL BLOCK			16		
	PHOENIX CONTACT 3047293 END COVER, UTTB TERMINAL, GRAY		-	1		•
•	PHOENIX CONTACT 3047303 SPACER PLATE, UTTB TERMINAL			1	_	
•	PHOENIX CONTACT 3032224 FBS 50-6, 50-POSITION PLUG-IN BRIDGE, 6.2ml			1		
·	PHOENIX CONTACT 3214259 UT 2.5-3L TRIPLE LEVEL FEED THRU TERMINA	AL, GRAY		24	- ·	
	PHOENIX CONTACT 3214314 END COVER, UT 2:5-3L TERMINAL, GRAY	, 	•	1	-	'
	PHOENIX CONTACT 3038930 FBS 50-5, 50-POSITION PLUG-IN BRIDGE, 5.2mi	m PITCH		1.		
	PHOENIX CONTACT 1201413 E/UK 1 HIGH END STOP			8		
• •	PHOENIX CONTACT PREPRINTED TERMINAL MARKERS	•		LOT		
	DINRAIL SUPPORT BRACKETS	•		8	•	
•	PANDUIT UGB2/0-414-12 GROUND BAR KIT		-	ો ત		
	PANDUIT UGB-IN-SO STANDOFF KIT			1 4	•	
	PANDUIT CLMAR2/0-14-Q 2/0 LUG			1 4	•	
	PANDUIT PAN-LUG COPPER LUG WIRE, DUCT & NAMEPLATES			LOT		
	UL 508A LABEL			LOT		•
	UL SUOM LADEL			ro i	_	
	ITEM NO. 2	. •			-	
	EFFLUENT PUMP NETWORK TBJ-1					
•	PANDUIT IAZ2424C INDUSTRIAL ETHERNET ENCLOSURE WITH THE FOLLO	WING.		1		
•	A) SIZE: 24"H X 24"W X 12"D			•		•
-	B) (2) 16.7" LONG DIN RAILS				•	•
	C) (2) DIN RAIL MOUNT 8-PORT PATCH MODULES					
	D) (8) COPPER PORTS AND CAT6 PATCH CABLES				-	
•	E) (1) FIBER PATCH MODULE W/ (2) LC ADAPTER MODULES AND (2) LC PA	ATCH COR	RDS			
	ALLEN-BRADLEY 1783-BMS06SL STRATIX 5700 ETHERNET SWITCH WITH TI			1		
	A) (4) 100BASE-T.COPPER & (2) 100BASE-FX SFP PORTS				-	

ALLEN BRADLEY 1783-SFP100FX 100BASE SFP FIBER MODULE ALLEN-BRADLEY 1606-XLP15E 24VDC POWER SUPPLY ALLEN-BRADLEY 1606-XLS240-UPS 240W UPS ALLEN-BRADLEY 1606-XLSBATASSY1 7.5AH BATTERY ASSEMBLY WITH MOUNTING BKRT WIRE, DUCT & NAMEPLATES	•	2 1 1 LOT
ITEM NO. 3 CATEGORY 6 ETHERNET COPPER CABLE AND CONNECTORS CAT6 SHIELDED RISER RATED BULK CABLE BLACK BOX EZ-RJ45 MODULAR PLUGS	•	500 1
ITEM NO. 4 SPARE PARTS FALCON BA04315 UPS REPLACEMENT BATTERY, (8) REQUIRED PER UPS	• • • • • • • • • • • • • • • • • • •	32
PROJECT SERVICES ENGINEERING SUBMITTALS EFFLUENT PUMP PLC CONTROL PANEL PROGRAMMING MODIFICATIONS TO EXISTING FACTORYTALK SE HMI MODIFICATIONS TO EXISTING HISTORIAN CONFIGURATION OF NEW NETWORK SWITCH IN TBJ-1 PREPARATION AND ATTENDANCE OF HMI AND PLC DESIGN MEETINGS START-UP TRAINING O & M MANUALS WARRANTY, 1-YEAR		LOT LOT LOT LOT LOT LOT

SELL:

\$109,000.00 + TAX

IF APPLICABLE

6540.00 690 TAL

75,00 monroe co TAL

115,615.00

FOB: J TERMS: N

NET OF DAY

TERMS: NET 30 DAYS

(SUBJECT TO CREDIT APPROVAL)

WARRANTY:

ALL WARRANTIES SHALL EXPIRE ONE (1) YEAR FROM DATE OF START-UP FROM SELLER TO BUYER UNLESS SPECIALLY INDICATED OTHERWISE AND WILL BE NULL AND VOID UNLESS MATERIALS ARE STORED UNDER PROPER

CONDITIONS DETERMINED BY C.C. CONTROL CORP.

J.P. MAHIEU

17,342.25 00 15 Markup

132,957.25