Key Largo Wastewater Treatment District
Board of Commissioners Meeting
Agenda Item Summary

Meeting Date:

August 5, 2025

Agenda Item Number: M-2

Action Required:

Yes

Department:

Capital Projects

Sponsor:

Steve Suggs

Subject:

KLWTD Power Conditioning Project Change Order #3

Summary of Discussion:

Change Order #3 for the Power Conditioning Project will be submitted to the Board for approval. This change order includes the addition of receptacles and conduit around the SBR tanks, the installation of conduit for the booster pump basin, and the incorporation of a secondary fail-safe bypass to address design considerations.

Reviewed / Approved		Financial Impact	Attachments
Operations:	_____	$ 125,162.46	1. Change Order Form #3
Administration:	_____	Expense	2. Engineer's Memo
Finance:	_____	Funding Source:	
District Counsel:	_____	Grant(s)	
District Clerk:	_____	Budgeted:	
Engineering:	_____	No	

Approved By: _____ **Date:** 7-31-25

General Manager

SECTION 00950
CHANGE ORDER FORM

CONTRACTOR ("Contractor"): Pedro Falcon Contractors, Inc.	CHANGE ORDER No. 3 PROJECT TITLE: KLWTD Power Conditioning & Electrical Upgrades PROJECT No. 03105.086:151
OWNER: Key Largo Wastewater Treatment District ("Owner" or "District")	ENGINEER`: Weiler Engineering/An Apex Co. 6805 Overseas Hwy Marathon, Florida 33050
DATE OF ISSUE: August 5, 2025	EFFECTIVE DATE: August 5, 2025, contingent upon approval by the District's Board of Commissioners. Contractor shall commence work only after receipt of notification to proceed by the District's Contract Manager.

Description of Work to be Performed: The Contractor is hereby authorized and directed to perform the following Work, generally described as: Add additional receptacles and conduit around the SBR tanks, Provide conduit for the booster pump basin, and adding a secondary failsafe bypass due to design considerations.

Reason for Change: Additional Scope to be added to the project in the form of additional conduit and receptacles to replace the aged infrastructure, improve resiliency and add conduit in areas that need protection. The sure Volt automatic bypass will provide a secondary form of bypass in the case that the manufacture's electric bypass does not function in its intended function.

Work to be Performed is more specifically described as: See attached

Attachments: Pedro Falcon PCO

Total Proposed Increase (decrease) in Contract Price and Contract Time for this Change Order

Increase (decrease) in Contract Price:	**Increase (decrease) in Contract Time (Calendar days):**
$125,162.46	**13 Days**

Acknowledgments:

The aforementioned change, and work affected thereby, is subject to and governed by all provisions of the original Agreement and RFP. It is expressly understood and agreed that the approval of this Change Order shall have no effect on the original Agreement, including all GENERAL CONDITIONS, SUPPLEMENTARY CONDITIONS, and STANDARD SPECIFICATIONS, other than matters expressly provided herein.

This Change Order constitutes full and mutual accord and satisfaction for the adjustment of the Contract Price and Contract Time as a result of increases or decreases in cost and time of performance caused directly and indirectly from the change. Acceptance of this Change Order constitutes an agreement between OWNER and CONTRACTOR that the Change Order represents an equitable adjustment to the Agreement and that CONTRACTOR shall waive all rights to file a Contract Claim or claim of any nature on this Change Order. Execution of this Change Order shall constitute CONTRACTOR's complete acceptance and satisfaction that it is entitled to no more costs or time (direct, indirect, impact, etc.) pursuant to this Change Order. Owner may require consent of the Contractor's surety, if any, to the terms of this Change Order.

Original Contract Price: $2,670,450.00	**Original Contract Time: 500 Days (calendar days or dates)**

SUMMARY OF PRIOR CHANGE ORDERS			
C-O No.	**Description of Change**	**Change in Contract Price**	**Change in Contract Time**
1	Service Upgrade to 3000A	$ 277,454.87	10 Days
2	Furnish and install disconnects at Vacuum Stations	$ 136,078.20	0 Days
3		$	Days
4		$	Days
5		$	Days
6		$	Days
TOTAL OF ALL PRIOR CHANGES		**$ 413,533.07**	**10 Days**
CURRENT CONTRACT PRICE AND TIME (Adjusted by Prior Change Orders BUT before adjusting for this Change Order)		**$ 3,083,983.07**	**510 Days**
NEW CONTRACT PRICE AND TIME (Adjusted by Prior Change Orders AND this Change Order)		**$ 3,209,145.53**	**523 Days**
Original Contract Substantial Completion Date: 06/15/2026		**New Contract Substantial Completion Date: 07/08/2026**	

APPROVAL AND CHANGE ORDER AUTHORIZATION

Contractor: Pedro Falcon Contractors, Inc. _____ By (Signature) Christian Brisson, Owner (Printed Name and Title of Officer) (Date)_____ ATTEST: _____ (Secretary) (Corporate Seal)	Owner: Key Largo Wastewater Treatment District _____ By (Signature) Peter Rosasco, General Manager (Printed Name and Title of Officer) (Date)_____ ATTEST: _____ District Clerk (Seal)

WEILER ENGINEERING CORPORATION
WEC
An Apex Company

6805 OVERSEAS HIGHWAY
MARATHON, FL 33050
TEL: (305) 289-4161
FAX: (305) 289-4162

MEMORANDUM

To: Peter Rosasco, General Manager

From: Steve Suggs, PE

Date: August 5th, 2025

Re: Power Conditioning Change Order #3

1. Additional Receptacles, Conduit, and Boxes around SBR Tanks
At District's staff request, the contractor ran new 120V receptacles throughout the WWTP as well as replaced several existing ones on each SBR. This improvement was requested by the District to give the staff more flexibility with tools used when cleaning the diffusers and replacing the aeration socks.

2. Conduit for Wiring in Booster Pump Basin
At District's staff request, new conduit was installed for power and controls wiring to each booster pump, to protect the wiring harness from UV exposure.

3. Secondary Failsafe Bypass
The SureVolt system regulates voltage and surges as they come from the grid. However, if the SureVolt is in need of service or if it fails for some reason, the unit must be by-passed until it is made operational again. The ability to bypass the unit and redundancy in systems is a key point in design of critical infrastructure such as WWTPs. In order to provide this redundancy, the following excerpt from project's Technical Specifications was included as a requirement for the unit.

Tech Spec Section 16200 Excerpt:

3.1.19	Internal Bypass:	The unit shall have an internal automatic electronic bypass that actuates automatically on malfunction or component failure and maintains load current while protecting the unit. Unit shall not require de-energizing to actuate the internal bypass and shall be capable of operation on internal bypass indefinitely. All unit functionality, except voltage regulation, shall be operable while the internal bypass is active

WEC worked in good faith with the manufacturer, UST, to ensure the unit meets the unique redundancy requirements of wastewater infrastructure. During submittals, UST confirmed compliance with the specs, as shown in Submittal 16-16200-1.

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Submittal 16-16200-1:

3.1.19 Internal Bypass: The unit shall have an internal automatic electronic bypass that actuates automatically on malfunction or component failure and maintains load current while protecting the unit. Unit shall not require de-energizing to actuate the internal bypass and shall be capable of operation on internal bypass indefinitely. All unit functionality, except voltage regulation, shall be operable while the internal bypass is active	Comply

However, a recent incident at another facility revealed the provided "bypass" is not a true bypass. When an AC unit on a SureVolt failed, the unit overheated and went into "bypass," which only rerouted power internally away from the transformer. The unit continued to heat past its 120°F max operating temperature and then shut down entirely—including the electronic bypass—resulting in total loss of power and triggering the generator via the ATS.

Upon review, it became clear the manufacturer's bypass was not a true electrical bypass. WEC is working with the manufacturer and contractor on that project to resolve the issue, though the solution is neither simple nor inexpensive.

Fortunately, KLWTD's unit has not yet been built, and a true bypass can still be integrated. Despite efforts by WEC and Pedro Falcon to avoid added costs, the manufacturer insists on a price increase. Alternative manufacturers like EATON were considered, but no more competitive options were found. UST has offered a $5,000 discount off their original price.
If the bypass is not installed, the system will still function. However, if the SureVolt fails, the WWTP would rely solely on its generator until repairs are made. While that offers some level of redundancy, WEC recommends installing the true bypass to ensure uninterrupted operation.

Please advise if the District would prefer to escalate the specification issue with the manufacturer or proceed with the change order.

Summary:
These additions, including the advanced capabilities of the SureVolt automatic voltage regulator with its secondary bypass system, are critical in response to a documented failure incident, evolving design considerations, and aging infrastructure. A summary of the cost implications for each item is shown below, with the total cost being $125,162.46 should the District elect to proceed.

PCO Item	**Cost Implication**
Additional Receptacles, Conduit, and Boxes around SBR Tanks	$51,680.76
Conduit for Wiring in Booster Pump Basin	$13,383.85
Secondary Failsafe Bypass	$60,097.85
Total	**$125,162.46**