

TASK ORDER NO.2024-05

CITY OF COCOA

AND

CAROLLO ENGINEERS, INC.

This Task Order is issued by the City of Cocoa (CITY) and accepted by Carollo Engineers, Inc., (ENGINEER) pursuant to the mutual promises, covenants and conditions contained in the Agreement between the above-named parties dated the 31st day of July 2023, in connection with: Jerry Sellers WRF Influent, Internal Recycle, and Transfer Pump Rehabilitation and Replacement Project Construction Services (PROJECT).

A. PROJECT UNDERSTANDING

CITY owns and operates the Jerry Sellers Water Reclamation Facility (JSWRF) located at 375 N Cocoa Blvd., Cocoa, FL 32922. The existing influent pump station (IPS) was built in 1986 and has incurred structural damage and corrosion due to the highly corrosive environment. Structural rehabilitation and replacement of the existing pumps are needed to extend the life of the structure and maintain operations. The transfer pump station (TPS) is a critical component to the facilities day to day operations. The existing transfer pumps require replacement due to their condition, and the rehabilitation of the headworks due to structural corrosion and degradation of mechanical components. The internal recycle pump station (IRPS) pumps require upgrades and piping modifications to meet the desired recycle rates for effluent treatment improvements.

ENGINEER provided the IPS and TPS improvements design services under CITY's Task Order 2019-09. Although design was completed, CITY could not move forward with its implementation until restoration of the equalization/ aeration tank and of the duplex Biological Nutrient Reactor (BNR) tanks was completed. The equalization/ aeration tank and BNR tanks improvement project is currently underway. The IRPS upgrades and additional improvements listed in the paragraph below are under design. Due to the urgency of the improvements, along with the difficulties associated with receiving competitive bids from qualified contractors in the current economic climate, CITY elected to competitively procure a pre-qualified Construction Manager at Risk (CMAR) contractor to provide construction services for the combined projects scope. Under Task Order 2023-27, ENGINEER is assisting the CITY procuring the pre-qualified CMAR services and finalizing the design of the IRPS upgrades and the following additional improvements:

- improvements to certain drain lines in the vicinity of the belt filter presses, clarifiers and headworks,
- modification and re-routing of the RAS line to prevent a portion or the entirety of the RAS flow from entering equalization basin #3,
- repairs to a door lintel in the electrical room of the dewatering building,
- MCC 3&4 building recoating, including paint removal and surface prep. (ENGINEER to produce design documentation under this Task Order).

In addition to the improvements listed above, the CITY anticipates including under the selected CMAR's services a supplemental Carbon system to be designed by ENGINEER under a separate Task Order.

Under this Task Order, it is anticipated that ENGINEER will provide Construction Services for the IPS, IRPS and TPS upgrades, the additional improvements listed above, the supplemental Carbon system and the replacement of the hydropneumatic tanks.

B. SCOPE OF WORK

Task 1 – Project Management, Meetings and Coordination

ENGINEER will make staffing assignments, review work progress, coordinate the work tasks, assure quality assurance, complete reviews, direct progress meetings, and communicate with CITY throughout the entirety of the project. ENGINEER's Project Manager will manage the budget, scheduling, and invoicing and will communicate with CITY's Project Manager throughout the entirety of the project.

ENGINEER will coordinate with the subconsultants as necessary, to manage and implement this project.

ENGINEER will attend the following meetings:

- One pre-construction conference
- Up to eighteen (18) monthly construction progress meetings
- Up to six (6) additional meetings/site visits
- Up to three (3) partial substantial completion walk-through
- One final completion walk-through (Close-out Meeting)

The meeting shall be held at the JSWRF and/or via remote connection utilizing software such as MS Teams.

Task 1 Deliverables

- Monthly Task Progress report with invoice.

Task 2 – Engineering Support

It is anticipated that field conditions, including but not limited to results of subsurface investigations, and CMAR value engineering may require design modifications and development of additional documentation. Under this task, ENGINEER will support the City evaluating and addressing design modifications to the design documents issued for construction.

Additionally, ENGINEER will prepare under this task design documentation for the replacement of the hydropneumatics tanks, with the assumption that the existing structural elements (concrete slab and supports) will be reused.

Task 2 Deliverables

- Revised design documents.

Task 3 – RAS Piping Modifications Hydraulics Review

ENGINEER will investigate the hydraulics effects on the RAS pumps and the IPS pumps after the RAS line modifications are confirmed to determine if modifications need to be made to either pump station to accommodate the RAS piping modifications.

Task 3 Deliverables

- Project Memorandum summarizing the hydraulic modeling results and recommendations.

Task 4 – Construction Services

Task 4.1 Engineering Services During Construction

The construction for PROJECT is assumed to be completed within 18 months. ENGINEER will receive, review, and evaluate, and distribute shop drawings as submitted by the CMAR. An estimated fifty (55) shop-drawing submittals and up to fifteen (15) RFI's submittals are anticipated at this time. The estimated number of submittals includes the initial review and resubmittals.

ENGINEER shall review and provide CITY with recommendations on CMAR proposed change orders and payment applications.

ENGINEER shall review for conformance with the bid documents and compliance with the contract documents. Such review or other action shall not extend to means, methods, sequences, techniques, or procedures of construction selected by the CMAR or to safety precautions and programs.

ENGINEER shall receive and review (for general content as required by the contract documents) operation and maintenance manuals, guarantees, and certifications of inspection, which are to be assembled by the CMAR.

ENGINEER will review and return shop drawings and operation and maintenance manuals within 14 calendar days of receipt.

ENGINEER will work with CITY and CMAR to issue necessary interpretations and clarify contract documents to ensure consistency with CITY standards. Prior to construction, ENGINEER will work with CITY and CMAR to ensure the quality meets CITY requirements.

ENGINEER shall render all interpretations or decisions in good faith and per the contract documents' provisions.

Task 4.2 Inspection Site Visits and Construction Observations

For budgeting purposes, it is anticipated that ENGINEER's Construction Services Inspector (CSI) or Resident Project Representative (RPR) will conduct weekly site visits over an estimated eighteen (18) months construction duration to observe the construction progress. Field inspections visits may occur more or less frequently than twice per week, not to exceed the total budgeted amount. Some weeks may require no inspection site visits, others may require multiple days per week, depending on the phase of construction. The ENGINEER will coordinate the weekly schedule with CITY and the CMAR. The site visits will also include specialty inspections such as electrical, instrumentation, mechanical, and structural as deemed

necessary at critical phases of the construction. In addition, the ENGINEER will coordinate with CITY and the CMAR site visits to observe installation and functional testing and start up procedures. The site visit budget is based on a 78-week construction schedule, assuming for budgetary purposes two and a half (2.5) visits per week, ten (10) hours per site visit [assuming eight (8) hours on site and two (2) hours roundtrip travel time]. ENGINEER will coordinate closely with CITY and CMAR to efficiently schedule site visits. The CSI/RPR will provide weekly reports, including observations, log of activities witnessed, and relevant photographic evidence.

Task 4.2 Deliverables

- Weekly CSI/RPR reports, including observations, log of activities witnessed, and relevant photographic evidence.

Task 5 – Post-Construction Services

ENGINEER will review CMAR's as-built drawings for conformance with the contract documents and prepare record drawings. CMAR will be solely responsible for the accuracy of the as-built drawings.

ENGINEER will also review all O&M manuals from the equipment vendors and compile them in an O&M manual in electronic format. It is assumed that the O&M manual will include only the new equipment/process. ENGINEER will assist in the start-up and testing of the facility. CMAR will coordinate with the equipment manufacturers to provide training to the plant staff.

The following documents are to be assembled and provided by the CMAR:

- Operation and Maintenance (O&M) manuals
- Guarantees
- Certifications of inspection

Under this task, ENGINEER will assist the CITY staff during equipment performance testing. It is assumed that these services will require four (4) 8-hour days of on-site attendance (budget assumptions include 2 hours roundtrip travel time).

The following deliverables will be provided as part of this task.

Task 5.0 Deliverables

- Electronic punch list based on the substantial completion inspection meeting
- Cost estimate of punch list items (in compliance with FL SB 346)
- Two (2) sets of 11" x17" Record drawings
- Two (2) sets of 22" x34" Record drawings
- Signed and Sealed Electronic PDF and AutoCAD drawings of the Record design drawings
- Electronic PDF of the O&M manual

Task 5.1 PLC and SCADA programming development services

ENGINEER will provide PLC and SCADA programming development services as specified in specification section 17101 for the following areas of the JSWRF.

1. Bracco Pond Valve.
2. Influent Pump Station.
3. Transfer Pump Station.
4. Internal Recycle Pump Station.
5. Supplemental Carbon System (if needed).

Additionally, ENGINEER will provide:

1. Limited coordination services with the VFD and applicable equipment vendors to ensure the new equipment is compatible and coordinated with the existing plant SCADA system.
2. Cutover planning coordination with contractor and equipment vendors (including system configuration, data migration, and data validation).
3. Submittal review of the applicable new equipment.
4. Testing: Complete End to End Testing (CEET) with CMAR, equipment vendors, ICSC, and others. SFT (Software Functional Testing) with CITY staff to ensure the new system operates as specified.
5. Training: ENGINEER will provide operator training for the new SCADA programming as necessary.

There will be up to six (6) site visits included in this scope and fee for the programming effort.

C. PROJECT ASSUMPTIONS

Due to the nature of this project, certain assumptions apply to this Scope of Services. To the extent possible, these assumptions are stated within this document and are reflected in the budget. If the project task requirements are different from the assumptions presented here or if CITY desires additional services, the resultant changes in scope will serve as the basis for amending this project assignment or initiating the development of a new project assignment as agreed to by both ONWER and ENGINEER.

It is assumed that the existing electrical infrastructure at JSWRF is sufficient to support the required new loads.

The following items are not included in this Scope of Services:

- Full time inspector. It is assumed that the CITY will be responsible to supervise the day-to-day construction activities for the duration of the project.
- Materials testing. It is assumed that any materials testing will be performed by CITY or CMAR.
- Surveying. It is assumed that any surveying services will be performed by CITY or CMAR.
- Other field services not specified with the scope of services.

D. SCHEDULE

The time periods for the performance of ENGINEER’s services will commence upon the issuance of an executed Purchase Order (P.O.) and end upon CITY acceptance of the construction’s final completion. It is assumed that the PROJECT will be substantially completed within 18 months from the CMAR executed Guaranteed Maximum Price (GMP) amendment. It is also assumed CITY will accept final completion within 20 months from the CMAR executed GMP amendment.

E. COMPENSATION

Compensation for Services of ENGINEER described in this Task Order will be billed based on actual time in accordance with the billing rates provided in Attachment A of the Master Services Agreement (Appendix B), and therefore budgets between tasks are interchangeable. Reimbursable expenses will be billed at actual costs in accordance with the Master Services Agreement.

Compensation for Task 1, 2 and 3 will be based on a lump sum fee of \$220,770.00.

Compensation for Task 4 and 5 will be based on a not-to-exceed fee of \$639,645.00.

SUBCONSULTANT compensation is based on a not-to-exceed fee of basis of \$17,182.88 as detailed in Appendix A.

The total compensation fee is \$877,597.88, as detailed in the estimate of labor and costs table presented in Appendix A.

F. EFFECTIVE DATE

This Task Order is effective as of _____.

IN WITNESS WHEREOF, duly authorized representatives of CITY and of ENGINEER have executed this Task Order evidencing its issuance by CITY and acceptance by ENGINEER.

CAROLLO ENGINEERS, INC.

CITY

By: 
Vic Godlewski, P.E.,
Vice President

By: _____
Stockton Whitten,
City Manager

By: 
Scott Richards, P.E.,
Vice President

APPENDIX A

EXHIBIT 1 - CAROLLO ENGINEERING SERVICES FEE

CAROLLO ENGINEERS INC. - Engineering Services Fee FY 2023 Jerry Sellers WRF Influent, Internal Recycle and Transfer Pump Stations Improvements CS		Lead Project Professional ES VII (Project Engineer)	Senior Professional ES VIII (Project Manager)	Senior Professional ES VIII (Electrical and I&C)	Lead Project Professional ES VII (Electrical and I&C)	Professional ES IV	Resident Project Representative	Project Professional ES V	Document Processing	Total Hours	Total Labor Cost (Not-to-Exceed)	Travel and ODCs	Task Total
Engineering Services		Labor Rate											
	TASK AND DESCRIPTION	\$ 250.00	\$ 275.00	\$ 275.00	\$ 250.00	\$ 180.00	\$ 190.00	\$ 195.00	\$ 105.00				
1	Project Management, Meetings and Coordination	216	144	0	0	0	0	0	18	378	\$95,490	\$4,320	\$99,810.00
1.1	Project Meetings and Coordination	144	144				0			288	\$75,600	\$4,320	\$79,920.00
1.2	Project Management	72							18	90	\$19,890		\$19,890.00
2	Engineering Support	160	60	24	24	60	0	160	0	488	\$111,100	\$0	\$111,100.00
2.1	Design Decisions Support and Modifications	160	60	24	24	60		160		488	\$111,100		\$111,100.00
3	RAS Piping Modifications Hydraulics Review	32	6	0	0	0	0	0	2	40	\$9,860	\$0	\$9,860.00
3.1	Hydraulic Model Analysis	24	4							28	\$7,100		\$7,100.00
3.2	Project Memo	8	2							12	\$2,760		\$2,760.00
4	Construction Services	140	85	124	24	148	1950	0	0	521	\$495,615	\$7,200	\$502,815.00
4.1	<i>Engineering Services During Construction</i>												
	Review Submittals	110	55	32	24	60				281	\$68,225		\$68,225.00
	Respond to RFI's	30	30	12		8				80	\$20,490		\$20,490.00
4.2	<i>Inspection Site Visits and Construction Observations</i>												
	CSI/RPR Inspections						1950				\$370,500	\$6,240	\$376,740.00
	Specialty Inspections			80		80				160	\$36,400	\$960	\$37,360.00
5	Post-Construction Services	95	49	191	12	100	0	120	16	313	\$135,830	\$1,000	\$136,830.00
5.1	PLC and SCADA programming development services		24	166							\$52,250	\$250	\$52,500.00
5.2	Equipment Start-up and Performance Testing	40				40					\$17,200	\$250	\$17,450.00
5.3	Record Drawings and Final O&Ms Review	55	25	25	12	60		120	16	313	\$66,380	\$500	\$66,880.00
	Total Project Hours and Labor Costs (CAROLLO ENGINEERS INC.)	483	284	315	36	248	1950	120	36	1252	\$736,795	\$12,520	\$860,415.00
		\$ 120,750.00	\$ 78,100.00	\$ 86,625.00	\$ 9,000.00	\$ 44,640.00	\$ 370,500.00	\$ 23,400.00	\$ 3,780.00				
SUBCONSULTANT													
S	Wekiva Engineers												\$17,182.88
	Total Project Costs (SUBCONSULTANT)												\$17,182.88
	Task 1, 2, 3 Lump Sum Fee												\$220,770.00
	Task 4, 5 Not-To-Exceed Fee												\$639,645.00
	SUBCONSULTANT Not-To-Exceed Fee												\$17,182.88
	TOTAL PROJECT FEE												\$877,597.88

APPENDIX B



711 N Orange Ave, Suite A
Winter Park, FL 32789
Phone: (321) 972-4989

Wekiva Project Number: 22-144

March 22, 2023

Vic Godlewski, PE
Carollo Engineers, P.C.
200 East Robinson Street, Suite 1400
Orlando, FL 32801

Re: Proposal for Structural Engineering Services
City of Cocoa Sellers WRF Miscellaneous Improvements Construction Services
City of Cocoa, Florida

Dear Mr. Godlewski,

Wekiva Engineering, LLC (Wekiva) is pleased to submit this proposal to provide structural engineering services to Carollo Engineers (Carollo) for the above referenced project. This scope of services is intended to cover the services during construction associated with several individual design projects performed by Wekiva. These include the pump station improvements (Wekiva project 22-244), supplemental carbon system (Wekiva project 23-152), and CMU lintel repair (Wekiva project 20-162).

SCOPE OF SERVICES

Wekiva proposes the following work task associated with the designs noted above:

Task 1: Services during Construction: Wekiva staff will assist Carollo during the construction process by performing the following:

- Reviewing shop drawings (assumed to be 26)
- Responding to RFI's (assumed to be 8)
- Perform six (6) site visits during construction to view construction progress
- Perform one (1) substantial completion site visit
- Record drawings will also be provided which will be based on redlines provided by the Contractor

COST AND SCHEDULE

Wekiva proposes to undertake the work described above on a time and expense fee basis at a not-to-exceed price of **\$17,182.88**. The attached Table 1 indicates the proposed fee per task.

TERMS AND CONDITIONS

Wekiva will begin work immediately upon your notice to proceed. We will issue monthly invoices for the work accomplished during the calendar month. We appreciate the opportunity to submit this proposal to Carollo and we look forward to a successful collaboration on this project. If you have any questions or need further information, please call.

Sincerely,

A handwritten signature in black ink, appearing to read 'John Sobczak', with a period at the end.

John Sobczak, P.E.
Member

Table 1 - Structural Engineering Services Fee

Fee Estimate: Structural Engineering Services
 City of Cocoa Sellers WRF Miscellaneous Improvements
 Date: March, 2023

<i>Task No</i>	<i>Task Description</i>	<i>Man-hours By Category</i>					<i>Totals</i>	
		<i>Principal</i>	<i>Project Engineer</i>	<i>Engineer</i>	<i>Drafting</i>	<i>Clerical</i>	<i>Hrs</i>	<i>Cost</i>
		\$185.90	\$137.28	\$108.68	\$68.64	\$51.48		
1	Services during Construction	52	26	30	4	8	120	\$ 17,182.88
Total Cost							\$	17,182.88