

City of Cocoa Task Order 2022-22

FY 2022 Engineering Services for the Water System – Sea Ray Drive – 36-inch Water Main Sykes Creek Crossing

Objective

Pursuant to the Agreement awarded by the City of Cocoa on February 5, 2020, JACOBS Engineering Group (JACOBS), work in this Task Order will be performed in accordance with the Agreement for Continuing Engineering Services for Water System described in this scope of work.

The City of Cocoa's (City) water distribution system includes a water main crossing across Sykes Creek on Sea Ray Drive in Merritt Island. This crossing provides potable water service to east Merritt Island and beach side customers. The beach side area of the City's water distribution system serves several municipalities including the cities of Cape Canaveral and Cocoa Beach, Patrick Air Force Base, and various unincorporated areas of Brevard County.

The existing water main crossing Sykes Creek is attached to the south side of the Sea Ray Drive bridge. Due to planned bridge repairs, the water main must be relocated.

The City has requested Jacobs to perform engineering and permitting services for this project.

The JACOBS team will be providing these services, with a majority of the services conducted by our subconsultant, CHA Consulting, Inc. (CHA). This scope of services is described in the pages that follow.

Scope of Services

Task 1 – Project Management

Task 1.1 Project Management and Administration

JACOBS will perform general project coordination and management activities, as well as administrative activities and coordination with City staff. JACOBS will prepare progress reports and invoices to be submitted on a monthly basis, or as requested by the City for the duration of the project. The services provided by CHA under this Task are identified in Attachment B.

Task 1.2 Kickoff Meeting

JACOBS will attend a project kickoff meeting with City staff to discuss the intentions, goals and expectations for this project. The kickoff meeting will also include discussion of the project schedule, deliverables and major milestones review meeting frequency. The services provided by CHA under this Task are identified in Attachment B.

Task 1.3 Project Meetings and Progress Updates

JACOBS will attend project meetings as needed or requested by the City. JACOBS will perform general project coordination and management activities between CHA and the City. The services provided by CHA under this Task are identified in Attachment B.

Task 1 Deliverables as provided by CHA

- Kick-off Meeting Agenda – electronic draft copy (MS Word) for editing; 10 hard copies at meeting.
- Kick-off Meeting Summary – electronic draft copy (MS Word); electronic final copy (PDF).
- Monthly Project Progress Meeting Agenda – electronic draft copy (MS Word) for editing; 10 hard copies at meeting.
- Monthly Project Progress Meeting Summaries – electronic draft copy (MS Word); electronic final copy (PDF).
- Monthly Progress Report – one (1) electronic copy (PDF).

Task 2 – Design Support Services

A majority of the work under this Task will be performed by CHA. Jacobs will attend meetings, as needed. The services provided by CHA under this Task for ecological investigation services and land surveying services (if required) are identified in Attachment B. These services will be performed concurrently with Task 3.0 – 30% Design. Work or portions of work for land surveying services will be provided based on approval by the City.

Task 2 Deliverables as provided by CHA

- Memorandum of ecological findings – Electronic copy (PDF).
- Memorandum of river grass survey findings – Electronic copy (PDF).
- Final land and creek topographic survey drawings signed and sealed by a registered land surveyor – CAD files; PDF electronically signed and sealed (If Required).

Task 3-Design Services

A majority of the work under this Task will be performed by CHA. The services provided by CHA under this Task are identified in Attachment B. Jacobs will attend meetings, as needed.

Task 3 Deliverables as provided by CHA

- 30% design phase drawings. Electronic file (PDF)
- 60% design phase drawings and technical specifications – Electronic files (PDFs).
- 90% design phase drawings and technical specifications – Electronic files (PDF).
- 100% construction phase drawings and technical specifications – Electronic file (PDF).
- Opinion of Probable Construction Cost at 30%, 60%, 90% and 100% design – Electronic File (PDF).

Attendance at review meetings (60% design, 90% design) and meeting summaries for the review meetings. All Task 3 deliverables will be submitted by CHA to City of Cocoa for review and comment.

Task 4 – Permitting Services

A majority of the work under this Task will be performed by CHA. The services provided by CHA under this Task are identified in Attachment B. Jacobs will attend meetings, as needed. A permitting fees allowance is included in Task 5. The anticipated permit fee will be presented to the City for preparation of the payment.

Task 4 Deliverables as provided by CHA

- Pre-Application Meeting with FDEP including meeting summary – Electronic file (PDF).
- Pre-Application meeting with USACE including meeting summary (Electronic file (PDF).
- Pre-Application meeting with FDOT including meeting summary – Electronic file (PDF).
- Pre-Application meeting with Brevard County including meeting summary – Electronic file (PDF).

TASK 5 – Permitting Fee Allowance

There are no services provided by JACOBS under this Task. CHA has included a permitting fee allowance of \$15,000 under their services provided and identified in Attachment B. The anticipated permit fee will be presented to the City for preparation of payment.

Additional Services

The following additional services may be provided by JACOBS upon authorization through an amendment to this Task Order by the City and agreement on compensation to JACOBS.

- Wetland, listed species or river seagrass mitigation plans.
- Title searches relating to property ownership and/or easements.
- Bidding services including contractor pre-qualification.
- Construction administration or management services.
- Services not specifically included in the above scope of services.

City Responsibilities

The City will be responsible for the following:

1. Providing requested data including record or as-built drawings, specifications, equipment preferences, operating data and other requests identified during the project delivery.
2. Historical Survey in CAD format and geotechnical information.
3. Technical reviews, meetings, workshops, and policy decisions as required.

Safety

JACOBS will manage the health, safety and environmental activities of its staff and the staff of its subcontractors to achieve compliance with applicable health and safety laws and regulations.

JACOBS will notify affected personnel of any site conditions posing an imminent danger to them which JACOBS observes.

Task Order Assumptions:

Assumption - Jacobs will reasonably rely upon the accuracy, and completeness of the information/ data provided by the Client or other third parties.

Any review by JACOBS of design prepared by a third- party shall be for general conformance with the design intent, drawings and specifications but not a complete review of all design details and calculations. The Designer and their design professionals shall remain responsible for the accuracy and completeness of their design and construction documents. JACOBS does not assume any liability for work product(s) prepared by third parties, including but not limited to design and related work and makes no representation or warranty regarding same.

Schedule

The schedule for this project is assumed to be 10 months following the Notice to Proceed (excluding land survey services- additional time may be required is survey services is required).

Compensation

Compensation for the services authorized under this task order will be provided using the time and materials basis method with budgets between the tasks and expenses being interchangeable as needed. Costs are summarized below by task.

Task	Hours	Fee
TASK 1 Program Management	36	\$6,324
TASK 2 Design Support Services	4	\$796
TASK 3 Design Services	32	\$6,056
TASK 4 Permitting Services	8	\$1,436
TASK 5 Permitting Allowance	N/A	\$0
Expenses	N/A	\$0
SUBCONSULTANT (CHA Consulting, Inc.)	N/A	\$291,255
Grand Total	80	\$305,867

Levels of effort for tasks are estimates based on the best information available at the time of task order development. As projects scopes are better defined, actual levels of effort required and associated fees might differ and require coordination between the PMT and the City.

Acceptance

This Task Order shall become part of the Agreement upon execution by both parties.

Approved for City of Cocoa

Accepted for JACOBS Engineering Group

By _____

By  _____
Francois Didier Menard

Title _____

Title Vice President

Date _____

Date September 07, 2021

ATTACHMENT A

**City of Cocoa FY2022 Engineering Services for the Water System-Sea Ray Drive - 36-inch Water Main Sykes Creek Crossing
Task Order 2022-22 Labor Hour Breakdown - 09/01/2021**

		Per Diem Schedule Description									
TASK #	TASK NAME	Principal/Senior Reviewer/Consultant/Senior Project Manager	Senior Professional Engineer/Scientist/Consultant	Mid-Level Professional Engineer/Scientist/Consultant/Project Manager	Professional Engineer/Scientist/Consultant/Project Manager	Junior Professional Engineer/Scientist/Consultant	Project Engineer/Scientist/Consultant	Office/Project Administration	Labor Hours	Labor Fee	
		\$235.00	\$218.00	\$199.00	\$169.00	\$142.00	\$120.00	\$85.00			
1	Project Management										
1.1	Program Management and Administration			8					8	\$1,592	
1.2	Kickoff Meeting			2					2	\$398	
1.3	Project Meetings and Progress Updates	2		16				8	26	\$4,334	
								Task Subtotals	36	\$6,324	
2	Design Support Services										
				4					4	\$796	
								Task Subtotals	4	\$796	
3	Design Services										
		4		24				4	32	\$6,056	
								Task Subtotals	32	\$6,056	
4	Permitting Services										
		2		4				2	8	\$1,436	
								Task Subtotals	8	\$1,436	
5	Permitting Fee Allowance - NA										
									0	\$0	
								Task Subtotals	0	\$0	
									Labor Total	80	\$14,612
									Expenses		\$0
									Subcontracts (CHA Consulting, Inc)		\$291,255
									Task Order Total		\$305,867

ATTACHMENT B

SCOPE OF SERVICES & FEE

Sea Ray Drive – 36” Water Main Sykes Creek Crossing August 31, 2021

Owner: City of Cocoa
Consultant: Jacobs Engineering, Inc.
Sub-Consultant: CHA

I. INTRODUCTION

The City of Cocoa’s (City) water distribution system includes a water main crossing across Sykes Creek on Sea Ray Drive in Merritt Island. This crossing provides potable water service to east Merritt Island and beach side customers. The beach side area of the City’s water distribution system serves several municipalities including the cities of Cape Canaveral and Cocoa Beach, Patrick Air Force Base, and various unincorporated areas of Brevard County.

The existing water main crossing Sykes Creek is attached to the south side of the Sea Ray Drive bridge. Due to planned bridge repairs, the water main must be relocated. The City has requested Jacobs to perform engineering and permitting services for this project.

CHA has prepared this scope of services to support Jacobs with engineering and permitting services in completing the Sea Ray Drive – 36” Water Main Sykes Creek Crossing Project (Project) which is approximately 1,400 linear feet of 36” pipeline.

II. SCOPE OF SERVICES

TASK 1.0 – PROJECT MANAGEMENT

1.1 General Project Administration - CHA will perform general project coordination and management activities, as well as administrative activities and coordination with Jacobs, subconsultants, and City staff for this authorization. Additionally, CHA will prepare invoices and submit progress reports on a monthly basis to advise and highlight the overall progress of the design and permitting tasks, as well as identify completed, on-going, or pending project activities.

1.2 Kick-Off Meeting - CHA will prepare an agenda and attend a project kickoff meeting with Jacobs and City staff to discuss the intentions, goals and expectations for this project. The kickoff meeting will also include discussion of the project schedule, deliverables and major

milestones review meeting frequency. CHA will prepare a meeting summary for distribution to attendees following the meeting.

1.3 Project Meetings and Progress Updates - CHA will prepare and attend up to five (5) project meetings and five (5) periodic calls with Jacobs and the City to discuss project's progress and the critical items required to maintain the schedule.

Task 1.0 Deliverables

- Kick-off Meeting Agenda – electronic draft copy (MS Word) for editing; 10 hard copies at meeting.
- Kick-off Meeting Summary – electronic draft copy (MS Word); electronic final copy (PDF).
- Monthly Project Progress Meeting Agenda – electronic draft copy (MS Word) for editing; 10 hard copies at meeting.
- Monthly Project Progress Meeting Summaries – electronic draft copy (MS Word); electronic final copy (PDF).
- Monthly Progress Report – one (1) electronic copy (PDF).

TASK 2.0 – DESIGN SUPPORT SERVICES

The CHA team will provide ecological investigation services for the Project as outlined below. The CHA team will also perform land creek surveying/SUE (if required) for this project as outlined below. It is anticipated that the existing geotechnical investigation information is sufficient. These services will be performed concurrently with **Task 3.0 – 30% Design**.

2.1 Ecological Services - The CHA team will provide ecological investigations along the proposed construction corridor. The services include the following:

- i. Perform an ecological investigation to identify existing wetlands and any threatened or endangered species within the project corridor. The investigation limits include approximately 800 feet west of Sykes Creek to approximately 1000 feet east of Sykes Creek and will extend from the north edge of SR 528 westbound lane pavement to approximately 250 feet north of Sea Ray Drive edge of pavement.
- ii. Perform a submerged aquatic resource survey extending from the north edge of SR 528 westbound lane pavement to approximately 250 feet north of Sea Ray Drive edge of pavement.
- iii. Develop a report documenting the ecological conditions present within the proposed construction corridor including recommendations for mitigation measures if necessary. If mitigation measures are required for permitting, a scope amendment for developing mitigation plans will be submitted for approval.

2.2 Land Surveying Services (As Needed) – It is assumed that the City will provide appropriate survey. If based on CHA's review of survey information conducted as a part of task 3.1 finds survey information is incomplete, then CHA will request for approval of land surveying services. If needed, the CHA team will provide services to complete land surveying requirements for the project. The services generally include the following:

- i. Perform a topographic survey of the proposed construction corridor and existing utility tie-in locations for preparation of the construction drawings. The topographic survey will include vertically and horizontally locating above ground improvements and features that are visible and readily identifiable. The limits of the survey are the same as for Task 2.1 above and include the creek.
- ii. Determine right-of-ways and property boundaries through the proposed construction corridor utilizing FDOT right-of-way maps.
- iii. Horizontally and vertically locate existing utilities at the water main tie-in points and anticipate conflicts using subsurface utility excavation (SUE) and add the information to the Surveyor's Report. A total of six (6) excavations are included. If additional SUEs are required, a scope amendment will be submitted for approval.
- iv. Provide an electronic copy of the Surveyor's Report and survey in compliance with the current Standards of Practice for Surveying and Mapping.
- v. Provide a sketch of description including a meter and bounds lease area description that complies with FDEP requirements for leases and private easements. (For FDEP Sovereign Submerged Lands Public Easement).

This work or portions of this work will only be provided based on approval from Jacobs/City.

Task 2.0 Deliverables

- Memorandum of ecological findings – Electronic copy (PDF).
- Memorandum of river grass survey findings – Electronic copy (PDF).
- Final land and creek topographic survey drawings signed and sealed by a registered land surveyor – CAD files, PDF electronically signed and sealed. (If Required).

TASK 3.0 –DESIGN SERVICES

The CHA team will provide final design services for this project as outlined below.

3.1 Data Collection, Review and Site Visits - CHA will collect and review available information relating to the project. Information may include (but may not be limited to) records, maps, aerial photographs, survey and easements, Right-of-Way (ROW) records, plans, record drawings, soil investigation reports, zoning classifications, 100 year flood plain maps, and elevation data. In the event the City provided survey information is incomplete, approval to conduct task 2.2 will be requested from the City and Jacobs. CHA will coordinate and conduct up to two (2) site visits prior to and during the preparation of contract documents.

3.2 30% Design

- i. The CHA team will acquire and review local geology information and review existing FDOT soil boring data to establish a risk matrix for HDD construction under the creek.
- ii. Conduct an HDD alignment study. The CHA Team will review the following information:

- Space requirements for entry and exit of HDD.
- FDOT basic criteria for protection of bridge structure foundations.

The CHA team will then establish a proposed alignment for the HDD construction and coordinate any final requirements for design support services.

- iii. Prepare 30% design documents based on the results of the above subtask items. The CHA team will prepare base sheet layouts including plan and profiles of the proposed water main.
- iv. Conduct 30% design document reviews with Jacobs and the City. The CHA team will present the 30% documents at a meeting with Jacobs and the City. After a 21-day Jacobs/City review period, the CHA team will have a follow-up meeting with Jacobs and the City to review Jacobs/City comments.

3.3 Preparation of 60 % Design Phase Documents – Once Jacobs and the City have approved the 30% design documents, the CHA team will prepare 60% Design Phase documents for the water main as indicated below.

- i. Prepare general drawings (cover, general notes and standard details) to a 60% completion level.
- ii. Prepare civil drawings for the water main, which will include plan and profile views, to a 60% completion level.
- iii. Prepare Technical Specifications to a 60% completion level. Specifications will include a sequence of construction to maintain operation of the existing facilities during testing and disinfection activities.
- iv. Prepare an Opinion of Probable Construction Cost (OPCC).
- v. Attend a 60 % design phase document review meeting with Jacobs and the City. CHA will provide the meeting agenda and a summary with action items resulting from the meeting.
- vi. Respond to Jacobs/City comments and outline revisions to be made to the documents.

3.4 Preparation of 90% Design Phase documents and 100% Construction Phase documents (For Bid) – The CHA team will prepare 90% Design Phase documents and 100% Construction Phase documents for bid (including the construction drawings, the technical specifications, and a bid form) for the water main as indicated below.

- i. Prepare general drawings to a 90% completion level.
- ii. Prepare civil drawings for the water main to a 90% completion level.
- iii. Prepare a complete draft 90% set of Technical Specifications (Project Manual).
- iv. CHA will prepare a draft bid form for preparation of the final Bid Form by Jacobs/City.
- v. At the end of the 90% design completion level assemble and submit contract documents to Jacobs and the City for review and comments.

- vi. Prepare an updated OPCC.
- vii. Attend a 90% Design Phase review meeting with Jacobs and the City. CHA will provide the meeting agenda and a summary with action items resulting from the meeting.
- viii. Respond to Jacobs/City comments and outline revisions to be made to the documents.
- ix. Prepare 100% Construction Phase documents (For Bid) and deliver to Jacobs and the City including a final OPCC.

Task 3.0 Deliverables

- 30% design phase drawings. Electronic file (PDF)
- 60% design phase drawings and technical specifications – Electronic files (PDFs).
- 90% design phase drawings and technical specifications – Electronic files (PDF).
- 100% construction phase drawings and technical specifications – Electronic file (PDF).
- Opinion of Probable Construction Cost at 30%, 60%, 90% and 100% design – Electronic File (PDF).
- Attendance at review meetings (60% design, 90% design) and meeting summaries for the review meetings.

TASK 4.0 – PERMITTING SERVICES

Permitting services will be provided exclusive of the payment of permit fees which will be paid by the City using Task 5 – Permitting Fees Allowance. The anticipated permit fee will be presented to Jacobs/the City for preparation of the payment. Based on the preliminary evaluation, the following services are anticipated:

4.1 Pre-Application Meetings: Conduct 30% design document reviews with FDEP, USACE, FDOT, and Brevard County. The CHA team will meet with the agencies to review the 30% design drawings, obtain any initial regulatory agency comments on the 30% design, and confirm permit requirements and fees.

4.2 Application Preparation and Submission: Prepare and submit required project related permit applications and supporting documentation necessary to obtain the required permits for construction and operation of the project. The following permits are anticipated for this project:

- i. Florida Department of Environmental Protection (FDEP) “Application for a Specific Permit to Construct PWS Components”
- ii. FDEP “Individual Statewide Environmental Resource Permit”
- iii. FDEP “Sovereign Submerged Lands Public Easement”
- iv. US Army Corps of Engineers “Regional General Permit SAJ-14, Subaqueous Utility And Transmission Lines In Florida”

- v. Florida Department of Transportation (FDOT) right-of-way permit “FDOT Utility Permit Form”
- vi. Brevard County Public Works Department right-of-way permit application “Brevard County Right-of-Way/Easement Permit Application”

The scope includes permitting the project through a single permit submittal and two (2) requests for additional information for each permit application. All other permits or additional permit fees are deemed as additional services.

Task 4.0 Deliverables

- Pre-Application Meeting with FDEP including meeting summary – Electronic file (PDF).
- Pre-Application meeting with USACE including meeting summary (Electronic file (PDF).
- Pre-Application meeting with FDOT including meeting summary – Electronic file (PDF).
- Pre-Application meeting with Brevard County including meeting summary – Electronic file (PDF).

TASK 5.0 – PERMITTING FEE ALLOWANCE

5.1 Permit Fee Allowance – An allowance of \$15,000 is included for permitting fees.

III. COMPENSATION

For the professional services set forth in this Scope document, Jacobs shall compensate CHA for Tasks 1, 2, 3, 4, and 5 on a Time and Material not-to-exceed fee basis as shown below.

Task	Budgeted Cost
1 – PROJECT ADMINISTRATION	\$ 22,118
2 – DESIGN SUPPORT SERVICES	\$ 9,192
3 – DESIGN SERVICES	\$ 127,469
4 – PERMITTING SERVICES	\$ 41,664
5 – PERMITTING ALLOWANCE	\$ 15,000
Total Budgeted Cost	\$ 215,443

For the professional services set forth in this Scope of Service, Jacobs shall compensate CHA for expenses on a Time and Material not-to-exceed fee basis for the following budgeted expenses as shown below.

Sub-Consultant	Budgeted Cost
Atlantic Environmental Solutions Environmental Surveying Permitting Assistance	\$ 24,800
Land and Creek Surveying; Subsurface Utility Investigations (Allowance)	\$ 50,000
Other Expenses	\$ 1,012
Total Budgeted Expense Cost	\$ 75,812

The total estimated fee for completion of this scope is **\$291,255.**

IV. SCHEDULE

The actual completion dates of the project shall be dependent on the date the Work Order notice-to-proceed (NTP) is issued as defined as follows:

Task	Duration (Calendar Weeks)
Task 1: Project Administration	On-going
Task 2: Design Support Services	8 weeks From NTP
Task 3: Preparation of Construction Documents	30% Design Documents 4 weeks from NTP 60% Design Documents 7 weeks after review meeting 90% Design Documents 4 weeks after review meeting 100% Design Documents 4 weeks after review meeting and permits in hand.
Task 4: Permitting Services	24 weeks after 60% Design Documents Submitted Anticipated

Note: Additional time will be needed for Task 2 and 3 if survey services are required.

V. CONSULTANT/CITY RESPONSIBILITIES

Jacobs/the City will be responsible for the following:

1. Providing requested data including record or as-built drawings, specifications, equipment preferences, operating data and other requests identified during the project delivery.
2. Historical Survey in CAD format and geotechnical information.
3. Participating in technical reviews, meetings, workshops, and policy decisions as required.

VI. ADDITIONAL SERVICES

The following services are currently not included within this scope of services and can be provided with an amendment to this scope of work if necessary.

1. Wetland, listed species or river seagrass mitigation plans.
2. Title searches relating to property ownership and/or easements.
3. Bidding services including contractor pre-qualification.
4. Construction administration or management services.
5. Services not specifically included in the above scope of services.

**ATTACHMENT A
CHA**

**CITY OF COCOA
Sea Ray Drive – 36” Water Main Sykes Creek Crossing**

Task	Principal/ Officer	Quality Control Lead	Sr. Project Manager	Senior Engineer II	Project Engineer II	Sr. CADD Designer	Technician	Admin	Total Hours	Total @ Billing Rate	Brierly	Allowance	Task Total
	\$ 276.00	\$ 265.00	\$ 254.00	\$ 222.00	\$ 146.00	\$ 140.00	\$ 98.00	\$ 98.00					
	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours					
1 Project Administration	0	0	77	8	0	0	8	0	93	\$ 22,118.00	\$0.00	\$0.00	\$22,118.00
General Project Administration	0		18	0	0		8	0					
Project Kick-Off Meeting	0		5	0									
Monthly Project Meetings (9)	0		54	8	0		0						
2 Design Support Services	0	0	20	16	0	4	0	0	40	\$ 9,192.00	\$0.00	\$0.00	\$9,192.00
Environmental Surveying Coordination		0	8	8	0	2	0	0					
Land Survey Coordination (If Needed)		0	12	8	0	2	0	0					
3 Design Services	0	31	86	114	162	104	0	30	527	\$ 96,519.00	\$30,950.00	\$0.00	\$127,469.00
Data Collection and Site Visits			6	2	2								
Preliminary Design Phase (30%) and Review Mtg		6	16	24	24	24	0	8					
Design Documents Phase (60%) and Review Mtg		12	24	48	60	40	0	8					
Design Development/Construction Documents Phases (90% and 100%) and Review Mtg		8	8	24	36	40	0	8					
OPCCs		4	16	16	40	0	0	4					
Bid Documents Review /Bid Form		1	16	0	0	0	0	2					
4 Permitting Services	0	0	28	96	60	32	0	0	216	\$ 41,664.00	\$0.00	\$0.00	\$41,664.00
FDEP Construction Permit Pre-App, Submittal, and RAI	0	0	8	2	2	0	0	0					
FDEP ERP Pre-App, Submittal, and RAI	0	0	8	24	16	8	0	0					
ACOE Permit Pre-App, Submittal, and RAI	0	0	8	24	16	8	0	0					
FDOT Permit Pre-App, Submittal, and RAI	0	0	8	40	24	8	0	0					
Brevard County Public Works Permit Pre-App, Submittal, and RAI	0	0	4	8	4	8	0	0					
5 Allowance	0	0	0	0	0	0	0	0	0	\$ -	\$0.00	\$15,000.00	\$15,000.00
Total Hours	0	31	211	234	222	140	8	30	876				
Total Labor Amount										\$ 169,493.00	\$30,950.00	\$15,000.00	\$215,443.00
Total Expenses										\$ 75,812.00			\$75,812.00
Total Estimated Fee										\$ 245,305.00			\$291,255.00

**ATTACHMENT A
CHA**

**CITY OF COCOA
Sea Ray Drive - Sykes Creek Water Main Crossing**

Estimated Expenses				
Reproduction	Task	Quantity	Rate	Total
Aerial Photography			\$ -	\$ -
(8.5 x 11)		0	\$ 0.08	\$ -
(11 x 17)		500	\$ 0.16	\$ 80.00
(24 x 36)		100	\$ 0.32	\$ 32.00
Travel			0	\$ 300.00
Ownership Search (per parcel)			0	\$ -
Shipping (per pkg)			0	\$ 600.00
Surveying (Allowance)				\$ 50,000.00
Atlantic Environmental				\$ 24,800.00
Total Expenses for Fixed Fee Tasks				\$ 75,812.00

August 20, 2021

Mr. Mark Worsham, PE
CHA Consulting, Inc.
1016 Spring Villas Pt, Suite 2000
Winter Springs, FL 32708

Re: Proposal for Environmental Consulting on the Cocoa Sykes Creek Crossing Project Site

Dear Mr. Worsham:

Atlantic Environmental of Florida, LLC (Atlantic Environmental) is pleased to provide the following Time and Materials proposal for requested services on the above-referenced project site. Our hourly rates are attached, and our estimated fees are listed below each specific task. It is our understanding that the project area will cover the location previously presented to Atlantic Environmental by Reiss Engineering via email on April 6, 2020. Following is our proposed scope of services. Unsigned, the terms of this proposal are valid until September 30, 2021.

SCOPE OF SERVICE

I. WETLAND DELINEATION AND WILDLIFE ASSESSMENT

- A. Preparatory Research: Prior to conducting the site visit, preliminary site information will be obtained from any or all of the following resources: aerial site photographs, regional soils maps, wetlands inventory maps, and habitat/land use maps.
- B. Site Assessment: The site will be traversed on foot, and all constituent habitat types, vegetation, vegetative structure, soil conditions, hydrologic indicators, and signs of listed species occupation will be noted.
- C. Wetland Delineation: Using the wetland delineation methodologies of the Florida Department of Environmental Protection (FDEP) and the U.S. Army Corps of Engineers (USACE), Atlantic Environmental will mark the limits of jurisdictional wetlands on the subject site. The limits will be marked using pink surveyor's flagging tape and the lines will be provided to the client and project surveyor in a brief report. Every reasonable attempt will be made to maximize the areas of available uplands while still maintaining our ability to defend the flagged wetland limits against the delineation protocols of FDEP and USACE.

- D. Agency Approval: Atlantic Environmental will set up and attend a site meeting with FDEP (and USACE if willing) to gain this agency's approval of our delineated wetland lines on the site.
- E. Written Report: Using the data obtained from the preparatory research and site assessment, a written report will be generated identifying and mapping constituent habitat types (i.e. FLUCFCS Categories), uplands, wetlands, surface waters, and, if applicable, identified listed species. All potential environmental permitting and mitigation issues will be discussed in this written report.

ESTIMATED FEE: \$7,600.00

II. SUBMERGED AQUATIC RESOURCE SURVEY

- A. SAV Survey: Atlantic Environmental will complete a submerged aquatic resource survey within the project area along Sykes Creek, near the proposed water main installation area. The submerged aquatic resource survey will follow established scientific protocols and will be conducted using protocols found in the Brevard County Comprehensive Plan and Brevard County Manatee Protection Plan.
- B. Written Report and Mapping: Atlantic Environmental will provide a detailed description and map of the submerged land resource characteristics within the proposed project area. If the area contains submerged or emergent vegetation, oyster beds, hard or soft corals, sponges, or other valuable resources, Atlantic Environmental will create a map that indicates the location of the resources.

ESTIMATED FEE: \$5,100.00

III. FDEP ENVIRONMENTAL RESOURCE PERMIT PERMITTING

- A. UMAM Analysis: Based on the site inspections and coordination with the FDEP, Atlantic Environmental will develop a Unified Mitigation Assessment Methodology (UMAM) analysis for any wetland or submerged aquatic resource impact site allowing the Functional Loss that will occur to the wetlands/SAV as a result of the project. In addition, Atlantic Environmental will develop a wetland mitigation strategy that will provide sufficient Relative Functional Gain to offset the calculated Functional Loss. The UMAM analysis will be generated for a mitigation alternative that most successfully balances cost effectiveness, viability, and permissibility.
- B. Development of Mitigation Plan: Atlantic Environmental will coordinate with City Staff, project engineer, and FDEP to develop a mitigation plan to compensate for proposed wetland/SAV impacts, conduct meetings with these agencies and the City/engineer, and establish the proposed mitigation plan.
- C. Mitigation Site Meeting: Atlantic Environmental will conduct an on-site meeting at the mitigation site with FDEP to allow their assessment of the mitigation project and completion of the UMAM Analysis.

- D. ERP Application: Based on information obtained from the regulatory agencies and the client, Atlantic Environmental will develop the environmental portion of the Environmental Resource Permit (ERP) Application, including all necessary forms, narratives, mitigation plan, maps, tables, and UMAM data sheets.
- E. Submittal of RAI Responses: Atlantic Environmental will prepare the environmental responses to 2 FDEP RAIs, including, but not limited to, narrative descriptions of impacts and proposed mitigation, site plan, associated environmental maps and figures, and, monitoring plan and schedule. Atlantic Environmental will coordinate with City Staff, the project engineer, and FDEP to obtain all information necessary for the completion of the responses.
- F. Coordination: Complete necessary coordination between City Staff, the project engineer, and remaining project team in order to speed permitting process and avoid costly time delays.

ESTIMATED FEE: \$5,700.00

IV. FDEP SOVEREIGN SUBMERGED LANDS PUBLIC EASEMENT PERMITTING

- A. SSL Public Easement Application: Based on information obtained from the regulatory agencies and the client, Atlantic Environmental will develop the Sovereign Submerged Lands (SSL) Public Easement Application, including all necessary forms, narratives, maps (a professional surveyor will be required to draw a sketch and legal of the easement – this is not included in this proposal), and tables.
- B. Submittal of RAI Responses: Atlantic Environmental will coordinate and prepare the responses to 2 FDEP RAIs, including. Atlantic Environmental will coordinate with City Staff, the project engineer, and FDEP to obtain all information necessary for the completion of the responses.
- C. Coordination: Complete necessary coordination between City Staff, the project engineer, and remaining project team in order to speed permitting process and avoid costly time delays.

ESTIMATED FEE: \$3,300.00

V. USACE ENVIRONMENTAL PERMITTING

- A. UMAM Analysis: Based on the site inspections and coordination with the USACE, Atlantic Environmental will develop a UMAM analysis for any wetland or submerged aquatic resource impact site allowing the Functional Loss that will occur to the wetlands/SAV as a result of the project. In addition, Atlantic Environmental will develop a wetland mitigation strategy that will provide sufficient Relative Functional Gain to offset the calculated Functional Loss. The UMAM analysis will be generated for a mitigation alternative that most successfully balances cost effectiveness, viability, and permissibility.

- B. Development of Mitigation Plan: Atlantic Environmental will coordinate with City Staff, project engineer, and USACE to develop a mitigation plan to compensate for proposed wetland/SAV impacts, conduct meetings with these agencies and the City/engineer, and establish the proposed mitigation plan.
- C. Mitigation Site Meeting: Atlantic Environmental will conduct an on-site meeting at the mitigation site with USACE to allow their assessment of the mitigation project and completion of the UMAM Analysis.
- D. Application: Based on information obtained from the regulatory agencies and the client, Atlantic Environmental will develop the environmental portions of the necessary USACE Permit Application(s), including all necessary forms, narratives, mitigation plans, maps, tables, and UMAM data sheets.
- E. Submittal of RAI Responses: Atlantic Environmental will prepare the environmental responses to 2 USACE RAIs (for all required permits), including, but not limited to, narrative descriptions of impacts and proposed mitigation, site plan, associated environmental maps and figures, and, monitoring plan and schedule. Atlantic Environmental will coordinate with City Staff, the project engineer, and USACE to obtain all information necessary for the completion of the responses.
- F. Coordination: Complete necessary coordination between City Staff, the project engineer, and remaining project team in order to speed permitting process and avoid costly time delays.

ESTIMATED FEE: \$5,700.00

VI. CONFERENCE CALL/MEETING ATTENDANCE

- A. Atlantic Environmental will prepare for and participate in meetings/correspondences with Melbourne, Reiss Engineering, FDEP, USACE, USFWS, FWC, NMFS, and other regulatory agencies.

ESTIMATED FEE: \$2,500.00

DELIVERY

The fieldwork will be initiated within 15 working days of receiving the signed and accepted contract.

TERMS AND CONDITIONS

Please refer to the attached list of Atlantic Environmental's standard hourly rates, as well as our standard terms and conditions.

To verify your agreement with the above scope of services and professional fees, as well as the attached terms and conditions, and to authorize Atlantic Environmental to commence the scope of service, please sign below and return to our office. If you have any questions regarding this proposal, please do not hesitate to contact us. We look forward to working with you!

Sincerely,



Jon H. Shepherd, MS, PWS
President/Ecologist

Client's Name (please print): _____

Client's Signature: _____ Date: _____

**Atlantic Environmental of Florida, LLC
Standard Billing Rates
Effective January 1, 2021**

Personnel Categories

Hourly Billing Rate

Principal Ecologist	\$150.00
Ecologist	\$130.00
GIS Analyst/Operator	\$115.00
Public Hearings (including travel time)	\$175.00
Expert Witness	\$250.00
Project Administrator	\$65.00

Reimbursables

Cost

Automobile Travel	Standard IRS Rate
Photocopies (each)	\$0.15
Color Photocopies (each)	\$0.20
Oversized Color Photocopies (11x17; each)	\$0.30
CD-ROM (each)	\$12.00