AMENDMENT NO. 4 TO CONTRACT NO. 2012000050 AGREEMENT BETWEEN CHARLOTTE COUNTY and COASTAL ENGINEERING CONSULTANTS, INC. for STUMP PASS TEN-YEAR MANAGEMENT PLAN

WITNESSETH

WHEREAS, the County issued Request for Proposal ("RFP") No. 2012000050 to retain a Consultant to provide a ten year beach and inlet management plan for Stump Pass to include, but not be limited to, an alternative analysis, design, permitting, construction support, and monitoring (the "Project"); and

WHEREAS, through a selection and negotiation process conducted in accordance with the requirements of law and County policy, the County determined that it would be in the best interest of the County to award a contract to Consultant for the rendering of professional services associated with the Stump Pass 10-Year Management Plan Project; and

WHEREAS, the parties entered into Contract No. 2012000050 (the "Contract") on or about April 16, 2012, for Consultant to provide consulting services for the Project; and

WHEREAS, the parties entered into Amendment No.1 to the Contract on or about October 18, 2012, to acquire additional consulting services as a result of the impact of Tropical Storm Debby in June of 2012 which impacted the coastline resulting in beach erosion, channel shoaling, and the loss of natural resources and habitats; and

WHEREAS, the parties entered into Amendment No. 2 to the Contract on or about February 13, 2014, to acquire additional services relating to the 2014 Annual Monitoring, including Physical and Biological Monitoring; and

WHEREAS, the parties entered into Amendment No. 3 to the Contract on March 10, 2015, to acquire additional surveying and consulting services, to perform the 2015 Annual Monitoring and for other services; and

WHEREAS, the County now desires to acquire additional Project services from Consultant, to include assisting the County in administering construction of the Erosion Control Project ("Construction Project") from award of bid through the final acceptance of the Construction Project by the County, during which the Engineer shall act as the

County's representative ("Owner's Representative") throughout the Construction Project and as Engineer of Record for the Construction Project, as described in the attached Exhibit A - "Charlotte County 10-Year Beach and Inlet Management Plan, 2016-2017 Construction Services Scope" and for the compensation provided in Exhibit B – "Fee Schedule 2016 Construction Services"; and

WHEREAS, Consultant desires to provide said services in accordance with the Contract and subsequent Amendments.

NOW, THEREFORE, the County and the Consultant, in consideration of the mutual covenants contained herein, do agree as follows:

ARTICLE I INCORPORATION / COMPENSATION / SERVICES

- 1.1 The above Recitals are hereby incorporated herein and made a part of this Amendment.
- 1.2. The provisions of Exhibit A, "Charlotte County 10-Year Beach and Inlet Management Plan, 2016-2017 Construction Services Scope" and Exhibit B "Fee Schedule 2016 Construction Services", are attached hereto and incorporated into and made a part of this Amendment.
 - 1.3. Consultant shall provide the services in this Amendment and Exhibit A.
- 1.4. The County shall pay Consultant an amount not to exceed Six Hundred Fifty-Eight Thousand Three Hundred Thirty-Seven Dollars (\$658,337.00) to perform these services in accordance with the terms of this Amendment and Exhibit B.

ARTICLE II MISCELLANEOUS

- 2.1 Any terms used in this Amendment shall have the same meanings and definitions as they have in the Contract.
- 2.2 All other provisions of the Contact and prior Amendments not in conflict with this Amendment shall remain in full force and effect.

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IN WITNESS WHEREOF, the parties hereto have caused the execution of these premises as of the date and year written below.

WITNESSES:	COASTAL ENGINEERING CONSULTANTS, INC.
Signed By: Print Name: Michael Stephen Date: 6/24/16	Signed by: Print Name:
Signed Jacob Burn By: Jacob Burn	Title:
Print Name: <u>Sarah E. Bunn</u>	
Date: 6/24/2016	e
ATTEST: Barbara T. Scott, Clerk of Circuit Court and Ex-officio Clerk to the Board of County Commissioners	BOARD OF COUNTY COMMISSIONERS OF CHARLOTTE COUNTY, FLORIDA
By:Michalle DiBerardino Deputy Clerk	By: Christopher & Constance, Vice Chair
	Date: June (4/02016)
	APPROVED AS TO FORM AND LEGAL SUFFICIENCY
	By: Janette S. Knowlton, County Attorney LR 16-0369 (FW)

Exhibit List:

Exhibit A – Charlotte County 10-Year Beach and Inlet Management Plan, 2016-2017 Construction Services Scope Exhibit B – Fee Schedule 2016 Construction Services

EXHIBIT "A"

Charlotte County 10-Year Beach and Inlet Management Plan 2016-2017 Construction Services Scope

CEC File No. 16.001 April 7, 2016

The scope of services presented herein is designed for Coastal Engineering Consultants, Inc. (Engineer) to assist Charlotte County (County) administer the construction of the Erosion Control Project from award of bid through the final acceptance of the Project by the County and permit agencies. The Engineer shall act as the County's representative (Owner's Representative) throughout the construction of the Project and Engineer of Record for the project. The Engineer shall assign an experienced and qualified project engineer to provide administrative oversight for the Project.

TASK 1 PHYSICAL MONITORING AND CONSTRUCTION PAY SURVEYS

All survey and monitoring activities as described herein shall be conducted and provided in accordance with the approved Physical Monitoring Plan (PMP) (September 2014) and latest update of the Florida Department of Environmental Protection (FDEP) Monitoring Standards for Beach Erosion Control Projects.

- **A.** Survey Control: Establish horizontal and vertical control, one-time, on the uplands within each beach fill area to be used by the Engineer for survey control and by the Contractor for survey control and construction stake-out of the work limits.
- **B.** Beach Profile Physical Monitoring Survey: Conduct pre- and post-construction surveys of the FDEP reference monuments R-8 through R-47, twelve (12) additional lines near Stump Pass, and Mean High Water (MHW) surveys from R-18 through R-28 (inlet shorelines). The profile alignments shall be identical to the azimuths previously established for each monument. All R-monument beach profiles shall extend seaward 3,000 feet from the Mean High Water (MHW) or to a depth of -30 feet NAVD88, whichever is less, with the exception of R-22 to R-28 which shall be 5,000 feet from MHW to cover the shoal.
- C. Offshore Borrow Area Surveys: Conduct pre- and post-construction surveys of the Offshore Borrow Area. Conduct two progress surveys of the Offshore Borrow Area to confirm the Contractor is excavating the borrow area in accordance with the Permits and Technical Specifications. The survey will extend a minimum of 300 feet beyond the dredge limits. The survey lines will be spaced at 200 foot intervals.
- **D.** Navigation Channel Surveys: Conduct pre- and post-construction surveys of Stump Pass and MWH adjacent to the inlet. Bathymetric surveys shall be conducted along each cross-section at 100 foot intervals and three longitudinal profiles, along the centerline and at 150 foot offsets to either side. The northern and southern limits of the survey shall extend approximately 600 feet beyond the permitted template, or to the limits of the ebb/flood shoals, whichever is greater.
- E. Aerial Photography: Take aerial photography of the beach concurrently with the post-construction survey, as close to the date of the beach profile surveys as possible, and during approximate low water tide on that date. The limits of the photography shall include the surveyed monitoring area from the FDEP reference monuments R-8 through R-47. The photography shall be color vertical photos with a 30% forward overlap, taken from an elevation of 3,000 feet (1:6,000 negative scale) and centered on the local shoreline. A digital scan of the color photos at a rate of 21 microns with a pixel size of 0.4 feet shall be made and submitted in TIF format (uncompressed) on CD or DVD.
- **F. Hydraulic Monitoring:** Conduct hydraulic monitoring concurrently with the post-construction survey. The monitoring shall include measuring the tidal amplitudes on Lemon Bay and the Gulf of

Mexico and measuring the current velocities in the channel throat for a full spring tidal cycle. The channel throat cross-section, depth and length shall be measured in the field as part of the monitoring. Three (3) channel sections shall be monitored to help bracket the throat recognizing it may not be obvious where the critical section is located.

- **G.** Sediment Analyses: Conduct sediment sampling and analyses during construction and after construction, and conduct laboratory testing of post-construction samples, in accordance with the approved Sediment Quality Assurance / Quality Control Plan (December 2014). This scope and budget do not include additional monitoring or remedial efforts described in the Permits and Sediment Quality Assurance / Quality Control Plan. If required, services to assist the County implement such a plan can be provided as additional services.
- H. Beach Fill Pay Surveys: Conduct pre- and post-construction "pay" surveys of the acceptance sections having a minimum length of 1,000 feet. Pay surveys of the active beach zone will be collected at intervals of 100 feet along the shoreline. The budget includes four (4), two (2), and eight (8) acceptance sections for the Updrift Beach Fill (UBF), North Beach Fill (NBF), and South Beach Fill (SBF), respectively. Surveys will be used to verify and review the Contractor's requests for payment and make recommendations to the County regarding the accuracy of the payment request amounts.
- I. Terminal Groin Pay Surveys: Conduct eight (8) pay surveys of the Terminal Groin. Surveys shall be taken at 50-foot intervals plus crest lines of the Terminal Groin. Upon installation of the geotextile and bedding stone foundation materials for each acceptance section, conduct a Foundation Survey to survey the limits of the installed materials to document configuration of the foundation materials in-place. For each acceptance section, a sufficient number of points shall be taken along each profile to accurately represent the general shape and average trend of the constructed lines and grades. Elevations of any stone shall be measured by selecting a point on the stone that represents the average elevation of the top of the stone (determined visually). The toe of the structure shall be surveyed by placing the survey rod immediately adjacent to the most waterward stone. Surveys will be used to verify and review the Contractor's requests for payment and make recommendations to the County regarding the accuracy of the payment request amounts.
- J. Resweep Pay Surveys: Conduct pre- and post-resweep surveys of the Stump Pass Navigation Channel. Bathymetric surveys shall be conducted along each cross-section at 100 foot intervals and three longitudinal profiles, along the centerline and at 150 foot offsets to either side, within the limits of the resweep. Surveys will be used to verify and review the Contractor's requests for payment and make recommendations to the County regarding the accuracy of the payment request amounts.

TASK 2 BIOLOGICAL MONITORING

- **A. Seagrass Survey:** Conduct the Summer 2016 seagrass survey and prepare and submit the monitoring report in accordance with the approved Seagrass Monitoring Plan described in Joint Coastal Permit 0194790-017-JC, Condition 26.
- B. Sea Turtle Monitoring: The County will retain the local marine turtle permit holders (Turtle Consultant) to conduct the Permit required sea turtle monitoring and reporting as well as nest relocations. Assist the County prepare and submit to FDEP and FWC the Permit required Environmental Protection Plan (EPP) that shall include details of monitoring for nesting marine turtles and nesting seabirds and shorebirds onsite during construction specific to the beach fill and terminal groin construction activities as well as terminal groin future maintenance. Assist the County prepare and submit one response to the agencies' request for additional information on the EPP. The County will conduct the Permit required monthly artificial lighting surveys. Using the GPS coordinates of sea turtle nests from R1 to R57,

provided by the County, prepare maps illustrating the location of the nests overlaid on aerial photographs to be submitted to the agencies with the Turtle Consultant's final summary report for the 2016 monitoring season.

- C. Shorebird Monitoring: Retain Shorebird Consultants to conduct the Permit required monitoring and reporting during construction. Daily monitoring for nesting shorebirds shall begin 10 days prior to construction. Data entry shall be completed weekly. Daily monitoring shall continue through construction or end of breeding; then continue weekly until August 31 which is considered the end of the nesting season. Assist with establishing Permit required buffers and travel corridors. Provide technical support services for the County by reviewing and commenting on the Shorebird Consultants' implementation of the monitoring and reporting. Arrange and attend one (1) meeting with the County and Shorebird Consultants. Prepare graphics showing nesting locations and similar information derived from Shorebird Consultants reports. The budget is based on beach fill activities beginning August 15, 2016.
- D. Hardbottom Monitoring: Conduct pre- and post-construction diver surveys of the hardbottom in the alternate pipeline corridor. The diver shall provide a descriptive characterization (qualitative assessment) of the hardbottom. The diver shall conduct a video survey with a camera that is free from distortion (not a GoPro) and at a speed that will allow quantitative analysis to be done. This information will allow the community structure to be evaluated using the Unified Mitigation Assessment Method if impacts occurred during construction. No analysis of the video will be required unless there are impacts (e.g., rupture).
- **E.** Compaction Monitoring: Conduct cone penetrometer testing of each beach fill after the Contractor has tilled the beach to confirm the beach tilling was completed in accordance with the Permit requirements.
- **F. Wintering Bird Monitoring:** Retain Shorebird Consultants to conduct the Permit required monitoring and reporting in accordance with the USFWS Biological Opinions. Monitoring shall be conducted through May 15, 2016; and between July 15, 2016 and May 15, 2017. Surveys shall be conducted twice per month. Reports shall be provided monthly.

TASK 3 CONSTRUCTION ADMINISTRATION

The Construction Administration budget is based on a 210 day construction window for Substantial Completion.

- **A.** Contractor Pre-Construction Conference: Prepare for, attend and represent the County at one pre-construction conference with the County, and Contractor covering contract obligations, construction plans, general and special conditions, and technical specifications. Record and distribute the minutes of the meeting.
- B. Agency Pre-Construction Meeting: prepare for, attend and represent the County at one agency required pre-construction meeting at least 7 days prior to construction with the County, Contractor, FDEP, FWC, USACE, FWS, DRP, approved shorebird monitors, and permitted sea turtle monitors to review construction schedule and methods and explain or clarify the sea turtle protection measures.
- C. Work Plan, Shop Drawings and Submittals: Review the Contractor's work plan, shop drawings and submittals to determine compliance with the plans and specifications. Upon completion of the review, submit to the County in writing recommended changes or a written approval of the Contractor's work plan, shop drawings and submittals. Review one round of work plan revisions from the Contractor.

- **D.** Construction Progress Meetings and Reporting: Attend construction progress meetings with the County and Contractor as requested by the County covering work progress and schedule, conformance to plans and specifications, and other relevant issues that need to be addressed. Record and distribute the minutes of each meeting. The budget includes representation at seven (7) construction progress meetings. Assist the County and Contractor perform the routine reporting to FDEP in accordance with the Permits.
- **E.** Pay Applications: Review invoices for payment submitted by the Contractor along with daily records of the County, Contractor and Engineer and surveys provided by the Contractor and completed by the Engineer, and determine the amounts of progress payments due based on completion of work. Upon completion of review, submit recommendations to County for payment of invoices to the Contractor. The budget includes up to seven (7) reviews.
- F. Change Orders and Contract Modifications: Assist County in preparing and evaluating required field changes, change orders, or contract modifications requested by the Contractor and submit to County for approval.
- G. Interpretation of Contract Documents: Provide to the Contractor instructions issued by County in addition to providing any necessary interpretations or clarifications of the contract documents requested by the Contractor. Make determinations on non-conforming and unauthorized work as authorized in the contract documents.

TASK 4 CERTIFICATIONS AND POST-CONSTRUCTION REPORT

- **A.** Substantial Completion: Upon receiving written notice from the County that the Project is substantially complete, conduct a one-time comprehensive review of the Project, prepare a punch list of items needing completion or correction, forward said list to the County and Contractor, and provide written recommendations to the County concerning the acceptability of work done and the use of the Project.
- **B.** Final Inspection: Upon receiving written notice from the County that the Project is finally complete, perform final site observations in conjunction with the County to verify the punch list has been completed and the Project is ready for its intended use, and assist the County in closing out the construction contract.
- C. Final Certification: Prepare and submit the Project Final Certification which shall include a summary Project personnel, final as-built Project features, construction activities, change orders, and other significant milestone dates and comments. Prepare and submit the FDEP and USACE Agency Final Certifications.
- **D.** Post-Construction Report: Prepare and submit to the agencies the Post-Construction Report. The Report shall include a summary of the work completed; beach profile, borrow area, and channel surveys; shoreline and volume calculations to define the volumes excavated and placed; aerial photography; hydraulic parameters and comparison to historical data; sediment analyses; survey data and deliverables; and identification of adverse impacts attributable to the Project. The Report shall serve as the baseline for future monitoring surveys and comparative reviews of Project performance to performance expectations.

TASK 5 CONSTRUCTION OBSERVATIONS

The Construction Observation budget is based on a 210 day construction window for Substantial Completion. Provide on-site inspection by a competent and qualified technical representative hereafter referred to as the Owner's Representative. The Owner's Representative will provide on-site determinations of compliance with the Permits, Construction Plans and Technical Specifications, determination of work completed, keeping detailed records of quantities of materials, maintaining weather and working day reports, listing equipment on site, and reporting Contractor's performance and daily activities. The Owner's Representative shall communicate with the County and Contractor and make deliberate efforts to provide inspection services only when the Contractor, their surveyors, or subcontractors are working.

The Owner's Representative shall perform some or all of the following specific activities during their observation period:

- Project Layout: Monitor the Contractor's layout of the Project to assure its compliance with the Construction Plans and Technical Specifications.
- Site Access and Environmental Impacts: Monitor that the Contractor accesses the site through approved routes and conducts their work in accordance with the environmental protection measures as defined in the Permits, Construction Plans, and Technical Specifications. Document and report to the County any non-compliance with these measures as soon as practicable after observing same.
- Construction Progress: Monitor the progress of construction performed by the Contractor and any sub-contractors for conformance to the Construction Plans and Technical Specifications and any field or change orders issued by the County. Complete and submit daily inspection reports to the County for review including the Contractor's daily activity, significant events, amount of work performed including quantities of material placed, equipment on site, weather conditions, and any other pertinent information.
- Observation of Surveys: Observe the surveys conducted by the Contractor's surveyor to verify that methods, instrumentation, benchmarks, and records are done in accordance with the Technical Specifications.
- Beach Fill Placement: Monitor the outfall of the hydraulic dredging activities and fill placement on the schedule and method defined in the Permits and Sediment Quality Assurance / Quality Control Plan to verify that the fill material is excavated and placed in accordance with the Permits and Sediment Quality Assurance / Quality Control Plan.
- Terminal Groin: Monitor the placement of geotextile materials, bedding stone, core stone, and armor stone. Conduct site visits to the rock quarry / testing facility to witness the density and drop tests to verify compliance with the Technical Specifications.

TASK 6 PROJECT ADMINISTRATION

Attend and serve as the County's representative for up to ten (10) stakeholder meetings including but not limited to the Beaches and Shores Committee, Board of County Commissioners, Marine Advisory Committee, and Parks and Recreation Committee. Provide technical support services for the County specific to stakeholder coordination. Manage and coordinate the team's internal efforts. Maintain informal contact with the County and FDEP via email and phone calls.

TASK 7 ANNUAL FUNDING REQUEST

Assist the County prepare and submit the 2017-2018 annual funding request to the State of Florida for inclusion in the Beach Management Funding Assistance Program. Assist the County respond to the FDEP request for additional information and critique of the funding application. CEC shall assist the County prepare and submit the quarterly monitoring reports for FY 2016-17.

TASK 8 2016 CONSTRUCTION DOCUMENTS

Revise and update the 2016 Bid Documents to reflect the new construction window from August 2016 through February 2017. Revise and update the 2016 Notice to Proceed Documents to reflect the new construction window. Assist the County complete the State and Federal regulatory processes. Provide technical support services to the County until commencement of construction.

TASK 9 CONTINGENCIES

Due to the complex nature of the work involving marine environments, it is anticipated that additional work may be necessary such as data collection, permitting, stakeholders meetings, or agency coordination. A contingency budget is recommended for these circumstances. All scopes of work under this task must be reviewed and approved by the County Project Manager prior to conducting the additional work.

COUNTY RESPONSIBILITIES

The scope of services and budget are based on the County providing the following:

- Sea Turtle Monitoring and Reporting
- Shorebird Signage, Posting, and Roping materials
- Shorebird Education Materials.

DELIVERABLES

For all specified deliverables, CEC shall prepare and submit to the County a draft deliverable in electronic format (e.g., pdf file). CEC shall review the draft deliverable with the County, make one-round of revisions as may be identified by the County, and submit one (1) hard copy and one (1) digital copy in the appropriate formats (e.g. Word, Excel, PowerPoint, AutoCAD, shape file, etc.) of all deliverables to the County. The following is a list of deliverables to be provided.

Task 1A

Survey Control Data Sheets (UBF, NBF, and SBF)

Task 1B

- Beach Profile Survey Field Notes (Pre- and Post-Construction)
- Beach Profile Survey Plots (Pre- and Post-Construction)
- Beach Profile Data Files (Pre- and Post-Construction)

Task 1C

- Offshore Borrow Area Survey Field Notes (Pre-, Progress and Post-Construction)
- Offshore Borrow Area Cross Section Plots (Pre-, Progress and Post-Construction)
- Offshore Borrow Area Survey Data Files (Pre-, Progress and Post-Construction)

Task 1D

- Navigation Channel Survey Field Notes (Pre- and Post-Construction)
- Navigation Channel Cross Section Plots (Pre- and Post-Construction)
- Navigation Channel Survey Data Files (Pre- and Post-Construction)

Task 1E

Aerial Photographs and Survey Report

Task 1F

- Inlet Hydraulic Survey Field Notes
- Inlet Hydraulic Parameters and Plots

Task 1G

- Sediment Sampling Field Notes
- Laboratory Test Results

Task 1H

- Pay Survey Field Notes (Pre- and Post-Construction)
- Pay Survey Profiles Plots and Pay Quantity Calculations (Pre- and Post-Construction)
- Pay Survey Data Files (Pre- and Post-Construction)

Task 1I

- Terminal Groin Survey Field Notes (Pay)
- Terminal Groin Cross Section Plots and Pay Quantity Calculations (Pay)

Task 1J

- Resweep Survey Field Notes (Pre- and Post-Construction)
- Resweep Cross Section Plots and Pay Quantity Calculations (Pre- and Post-Construction)
- Resweep Survey Data Files (Pre- and Post-Construction)

Task 2A

- Seagrass Monitoring Survey Field Notes
- Seagrass Monitoring Survey Report

Task 2B

- Environmental Protection Plan (Draft and Final)
- Environmental Protection Plan RAI Response No. 1
- Sea Turtle Monitoring Nest Location Aerial Exhibits

Task 2C

- 2016 Shorebird Daily Monitoring Reporting
- Meeting Agenda and Minutes

Task 2D

- Hardbottom Diver Survey Field Notes (Pre- and Post-Construction)
- Hardbottom Diver Survey Report & Video (Pre- and Post-Construction)

Task 2E

Compaction Test Results

Task 2F

2016-17 Wintering Bird Monitoring Reporting (Monthly)

Task 3A

Meeting Minutes

Task 3B

Meeting Minutes

Task 3C

Technical Review Memo of Work Plan, Shop Drawings, and Submittals

Task 3D

- Construction Progress Meeting Minutes
- Construction Progress Reports (Monthly)

Task 3E

Pay Request Reviews and Recommendations (Monthly)

Task 3F

Field Orders, Changes Orders, and Contract Modifications (Monthly)

Task 3G

Contract Document Interpretation (Monthly)

Task 4A

Certificate of Substantial Completion and Punch List

Task 4B

Certificate of Final Completion

Task 4C

Agency As-Built Certifications (FDEP and USACE)

Task 4D

Post-Construction Report (Draft and Final)

Task 5

Construction Observation Reports (Monthly)

Task 6

Stakeholder Meeting Minutes, Stakeholder Coordination Memos, & Schedule Updates (Monthly)

Task 7

- Annual Funding Request Application
- Technical Support Documents
- Funding Application RAI Response No. 1
- FDEP Funding Assessment Critique No. 1

Task 8

2016 Construction Document Updates

EXHIBIT "B"

Charlotte County 10-Year Beach and Inlet Management 2016 Construction Services CEC File No. 16.001 May 17, 2016

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3B Agency Pre-Construction Meeting	٥	80	0	0	2		0					2	°	╁	-	S		29.788
3C Work Plan, Shop Drawings, and Submittals	0	2	0	4	0	a	4	0	4	٥		2	٥		H	95		22.718
3D Construction Progress Meetings and Reporting	•	42	0	48	9	g	0	9	69	0		16 0	٥	H	H	98		\$25,884
3E Pay Applications	٥	4	0	17	0	٥	17	0	0	a	a	0	٥	H	-	23		\$8,952
3F Change Orders and Contract Modifications	2	4		-	٥	a	4	0	8	a	0	2 0	٥	H	_	os os		24,178
3G Interpretation of Contract Documents	2	7			0	0	4	0		Q	0	2 0	0	84,178		20		\$4,178
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4C Final Certification	7	2	2	4	0	0	9	0	0	2		0 4	٥	H	H	20		\$3,126
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Charlotte County 10-Year Beach and Inlet Management 2016 Construction Services CEC File No. 16.001
May 17, 2016

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TASK 1 - PHYSICAL MONITORING & CONSTRUCTION SURVEYS	2	q	23	
1A Survey Control	0	a	0	
18 Beach Profile Physical Monitoring Survey	0	0	0	
10 Offshore Borrow Area Surveys	٥	٥	0	
1D Navigation Channel Surveys	0	0	٥	
1E Aerial Photography	a	D	0	
1F Hydraulic Monitoring	2	0	7	
1G Sediment Analyses	o	0	Q	
1H Beach FIII Pay Surveys	0	a		
11 Terminal Groin Pay Surveys	٥	٥	0	
1J Renweep Pay Surveys	0	٥	Q	
TASK 2 - BIOLOGICAL MONITORING	٥	r		
2A Scagnass Survey	0	٥	0	
28 Sea Turtle Monitoring	٥	٥	0	
2C Shorebird Monitoring	0	a	0	
2D Hardbottom Monitoring	0	٥	0	
2E Compaction Monitoring	0	n	0	
2F 2015-17 Wintering Bird Monitoring & Reporting	0	Q	0	
TASK 3 - CONSTRUCTION ADMINISTRATION		0	0	
3A Contractor Pre-Construction Conference	0	G	0	
38 Agency Pre-Construction Meeting	a	0	0	
30 Work Plan, Shop Drawings, and Submittals	0	0	0	
3D Construction Progress Meetings and Reporting	0	0	0	
3E Pay Applications	0	0	0	
3F Change Orders and Contract Modifications	0	0	0	
3G Interpretation of Contract Documents	0	0	0	
TASK 4 - CERTIFICATIONS AND POST-CONSTRUCTION REPORT	0	a	0	
4A Substantial Completion	٥	0	0	
48 Final Inspection	٥	a	0	
4C Final Certification	0	a	0	
4D Post-Construction Report	0	Q	0	
TASK 5 - CONSTRUCTION OBSERVATIONS	٥	۵	0	
TASK 6 - PROJECT ADMINISTRATION	О	٥	0	
TASK 7 - ANNUAL FUNDING REQUEST	٥	0	0	
TASK 8 - 2016 CONSTRUCTION DOCUMENTS	O	Q	0	
TASK 9 - CONTINGENCIES	0	c	0	
TOTALS	\$200	\$375	\$200	8

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Task Description	(Aup)	(Asp)	Equipment (day	(day)	(dp))	(weak)	(wast)	Equipment (day)	Color	24x38	Direct costs	Direct	Fees	Direct
	\$100	\$125	\$100	\$400	\$600	\$400	\$1,200	\$50	\$0,20	\$1,50	\$35	Costs		Costs
ITORING & CONSTRUCTION SURVEYS	2	Ф	2	16	15	1	٠	32	o	120	0	\$19,780	\$17,720	\$37,500
	0	Q	0	0	0	0	٥	en	٥	0	0	\$150		\$150
Vonitoring Survey	0	0	0	s	10	0	0	10	0	٥	٥	\$5,250		\$5,250
urveys	0	0	0	4	4	0	٥		Q	٥	٥	\$4,000		\$4,000
san	0	0	0	2	2	0	0	o	0	0	0	\$2,000		\$2,000
	a	۵	0	0	0	0	a	0	0	120	0	5180	\$14,000	\$14,180
	2	0	2	2	2	-	1	0	0	0	0	\$4,000		\$4,000
	0	0	0	0	0	a	a	0	0	0	0	\$a	\$3,720	\$3,720
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dys.	0	0	0	D	0	0	0	80	0	0	0	\$400		\$400
	0	٥	o	2	2	0	0	0	٥	0	0	\$2,000		\$2,000
ONITORING	0	٥	0	~	a	0	O O	+	0	160	4	\$1,205	\$53,800	\$54,805
	o	0	0	1	0	0	0	-	0	0	0	\$450		\$450
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	o	q	0	0	0	0	0	0	0	0	a	\$0	\$12,500	\$12,500
	0	٥	0	0	a	0	0	0	0	o	a	\$0	\$28,100	\$28,100
	0	r	0	a	٥	0	0	0	a	0	0	\$375		\$375
Monitoring & Reporting	0	Q	0	0	0	0	0	0	0	٥	0	20	\$13,000	\$13,000
NADMINISTRATION	0	0	0	0	0	0	a	0	0	o	0	os		08
tton Conference	0	g	0	0	0	9	0	0	0	0	0	ş		Ş
n Meeting	o .	0	0	0	0	0	a	0	0	0	0	CS		5
igs, and Submittals	0	0	0	٥	0	0	0	0	0	0	0	S		\$
Meetings and Reporting	.0	o	0	O	0	O.	0	o	0	0	0	08		05
	٥	٥	0	0	0	0	0	Ō	0	a	0	\$0		9
tract Modifications	0	0	0	0	0	a	0	0	0	0	ø	850		08
ct Documents	0	0	0	0	0	0	0	0	0	O.	0	\$0		05
IS AND POST-CONSTRUCTION REPORT	0	Q	0	0	0	۵	a	мз	1600	23	2	\$683		\$688
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Ti.	٥	۵	0	0	0	0	0	0	1600	32	2	\$438		\$438
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CTION DOCUMENTS	a	۵	0	0	0	0	0	a	0	0	2	870		670
SE	0	c	0	0	٥	0	0	٥	a	0	0	0\$		25
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