

CONTRACT NO. 038340TC
WORK ASSIGNMENT NO. 37

Pursuant to Manatee County, Florida, Agreement for Engineering Consulting Services for Beach Nourishment, Artificial Reef Construction, and Geotextile Tube construction entered into by and between the **COUNTY OF MANATEE**, hereinafter referred to as the "County" and **COASTAL PLANNING & ENGINEERING, INC.**, hereinafter referred to as the "Consultant," a determination has been made by the County that there is a need for the services by the Consultant of a certain "Change Order" under the purview of said Contract, and the Consultant is hereby authorized to perform or render the particular services of work described as follows:

**TITLE OF THE PROJECT: ANNA MARIA ISLAND, CONSTRUCTION PHASE SERVICES FOR THE COQUINA BEACH, BEACH NOURISHMENT PROJECT;
COQUINA BEACH MITIGATIVE ARTIFICIAL REEF;
LONGBOAT PASS NORTH JETTY GEOTEXTILE TUBE**

PHASES AND/OR TASKS OF PROFESSIONAL SERVICES AUTHORIZED:

Consultant shall perform tasks as more specifically detailed in Attachments A and B as follows:

1. Basic Services: Provide construction phase services in support of beach nourishment, artificial reef construction, and geotextile tube construction.

Compensation to the Consultant for rendering all of the above identified services and products shall not exceed \$451,784.

Compensation for task numbers 1 through 8 shall not exceed the amounts set forth. County may authorize, in writing, in advance, adjustments in the compensation for particular tasks established above, provided such adjustments do not exceed the maximum compensation authorized for this Change Order.

Partial compensation may be requested on a monthly basis for unit prices and actual hours incurred but not to exceed the percentage of the task completed.

ACCEPTED IN OPEN SESSION

MAR 15 2011

**BOARD OF COUNTY COMMISSIONERS
MANATEE COUNTY, FLORIDA**

SIGNATURE PAGE FOR WORK ASSIGNMENT NO. 37

Consultant shall render services and deliver the product, according to Tasks 1 through 8, attached hereto:

Partial compensation may be requested on a monthly basis for unit prices and actual hours incurred but not to exceed the percentage of the tasks completed.

WITNESSES:

Theresa M. Bay
SMR

COASTAL PLANNING & ENGINEERING, INC.

By:

Richard H. Spadoni
Richard H. Spadoni, Senior Vice President

Date:

3/2/11

RECOMMENDED BY MANATEE COUNTY DEPARTMENT:

Natural Resources Department

By:

Charlie Hunsicker
Charlie Hunsicker, Director

COUNTY OF MANATEE, FLORIDA

Authority to execute this contract per Manatee County Code, Chapter 2-26, and per the delegation by the County Administrator effective 1/26/2009.

By:

R.C. Cuthbert
R.C. "Rob" Cuthbert, C.P.M., CPPO
Purchasing Manager

ATTACHMENT A

**ANNA MARIA ISLAND
COQUINA BEACH, BEACH NOURISHMENT PROJECT
COQUINA BEACH ARTIFICIAL REEF
LONGBOAT PASS NORTH JETTY GEOTEXTILE TUBE
CONSTRUCTION PHASE SERVICES
SCOPE OF SERVICES AND FEE PROPOSAL**

WORK ASSIGNMENT NO. 37

ATTACHMENT A
ANNA MARIA ISLAND
COQUINA BEACH, BEACH NOURISHMENT PROJECT
COQUINA BEACH ARTIFICIAL REEF
LONGBOAT PASS NORTH JETTY GEOTEXTILE TUBE
CONSTRUCTION PHASE SERVICES

WORK ASSIGNMENT NO. 37

INTRODUCTION

Three projects along the Anna Maria Island shoreline have received State and Federal permits and will be constructed in 2011. These projects include the Coquina Beach, Beach Nourishment Project, artificial reef construction associated with the Coquina Beach, beach nourishment project and the placement of a geotextile tube along the southernmost terminus of Anna Maria Island adjacent to the northern Longboat Pass jetty. A brief summary of each of these projects follows:

Coquina Beach, Beach Nourishment Project

The Coquina Beach segment includes the placement of approximately 206,000 cubic yards of beach compatible material along 7,170 feet of shoreline between R-34-300 feet and R-41+325 feet. The Coquina Beach segment will be constructed in conjunction with the City of Anna Maria segment.

The project limits for the City of Anna Maria segment extend from Florida Department of Environmental Protection (FDEP) beach monument R-7 to R-10. The project involves the nourishment of the 3,000 foot long project area using an estimated 25,000 cubic yards of material. Construction phase services for the City of Anna Maria segment are already provided in Work Assignment No. 12. Sediment will be obtained from a borrow area located offshore of the north end of Anna Maria Island.

Artificial Reef Construction

Construction of an artificial reef is required to mitigate for nearshore rock buried resulting from the construction of the Coquina Beach, beach nourishment project. A maximum total of approximately 8 acres of artificial reef built of limestone boulders will be placed approximately 1,000 feet offshore of the southern end of Anna Maria Island between FDEP beach survey monuments R-36 to R-39.

Longboat Pass Geotextile Tube

The north jetty at Longboat Pass is not presently sand tight and allows littorally transported sediment to migrate into Longboat Pass. The jetty consists of a deteriorated timber beam crib filled with large boulders. Over time the boulders have settled and, as a result, the jetty allows sediment transport to occur through and over the top of the boulders and into Longboat Pass. The north jetty will be sand-tightened by establishing a geotextile tube structure immediately north of the jetty which will serve to prevent sand bypassing through the present jetty.

This scope of services includes all anticipated engineering services for construction phase services to take the projects to completion of the beach nourishment fill placement, the geotextile tube construction at Longboat Pass and the construction of the mitigative artificial reef.

The scope of services includes the following services:

TASK 1: ADMINISTRATION OF THREE PROJECTS

The project manager will be responsible for project administration of all three projects with assistance from other Coastal Planning & Engineering, Inc., (CPE) staff as appropriate. Administration for each project will include coordination between the County, contractor and agencies, agency contact, contractor contact, progress and status updates, budget monitoring, scheduling, planning, internal meetings, and other associated management tasks required to complete the each project according to the contract documents for each project.

TASK 2: PROJECT BIDDING AND CONTRACTOR SELECTION ASSISTANCE

CPE will provide bidding and Contractor selection assistance to Manatee County. CPE will coordinate, prepare for, and attend one pre-bid conference for each project (beach nourishment, geotextile tube and artificial reef). At each of these conferences, a CPE representative will present an overview of the project, describe technical specifications, review the project schedule with the contractor, address construction access, staging areas and work areas and the specific conditions and monitoring requirements of the permit with the potential bidders. CPE will provide assistance to the County as required throughout the bidding and selection process, and provide a recommendation concerning contractor selection. This task also anticipates that one addendum to the construction plans and specifications for each project will be required, based on pre-bid conference input from the potential bidders.

TASK 3: PRE-CONSTRUCTION CONFERENCES

There will be one pre-construction conference for each project (Coquina Beach, Beach Nourishment, geotextile tube and artificial reef). Pre-construction conferences will be conducted separately for each construction project. CPE will coordinate, administer, prepare for, and attend the pre-construction conferences. During the pre-construction meeting, we will review the permit with the contractor prior to commencement of the activity authorized by this permit. The engineer will present an overview of the project and scope of work, review the proposed construction methodology with the contractor, review technical specifications and schedule, address construction access and work areas, and the specific conditions and monitoring requirements of the permit with the contractor. Attendees to be invited include the contractor's associated sub-contractors, FDEP and FWC staff, the marine turtle permit holder, and other involved parties. We will conduct a brief overview of the project to reiterate communication and reporting protocols for the duration of contractor mobilization, construction and demobilization activities.

TASK 4: PRE-CONSTRUCTION PHYSICAL MONITORING SURVEYS

In accordance the Physical Monitoring Plan in the FDEP permit for the Coquina Beach, Beach Nourishment Project, topographic and bathymetric surveys of the beach, offshore, and borrow site areas must be conducted. The monitoring data is necessary in order for both Manatee County and the FDEP to evaluate; with quantitative measurements, the performance of the project. This information will provide the County and the FDEP information necessary to plan, design, and optimize subsequent projects. Post-monitoring construction will also be conducted, as required by project permits and will be compared to the pre-construction survey information.

The pre-construction monitoring event consists of a topographic and bathymetric survey of the beach, borrow area survey shoal surveys and geotextile tube profile line survey. All work activities and deliverables shall be conducted in accordance with the *March 2004 BBCS Monitoring Standards for Beach Erosion Control Projects, Section 01200*.

A. Topographic & Bathymetric Surveys (Beach Profile Surveys)

Pre-construction topographic and bathymetric profile surveys of the beach and offshore will be conducted prior to the commencement of construction. The pre-construction monitoring surveys will include profiling of published FDEP reference monuments within the Coquina Beach fill area as well as monuments up to 5000 feet (laterally) outside each area. Surveys will include eleven (11) profile lines from R-31 to R-41. All profile surveys will extend a minimum of 3000 feet offshore of the FDEP monument or the -20 ft (NAVD) contour, whichever is closer to shore. The survey will comply with FDEP permit regulations.

B. Borrow Area Survey

A pre-construction bathymetric survey of the borrow area will be conducted prior to commencement of construction. Survey grid lines across the borrow area and navigation channel shall be spaced to provide sufficient detail for volumetric calculations but not more than a maximum of 500 feet apart, and shall extend a minimum of 500 feet outside the boundaries of the borrow site. The borrow area bathymetry will comply with FDEP permit requirements.

C. Geotextile Tube Survey Lines

Prior to the installation of the geotextile tube, intermediate profiles shall be surveyed in conjunction with the FDEP profile lines to monitor sediment movement in relation to the placement of a geotube on north side of the terminal jetty at Longboat Pass, in compliance with the FDEP permit for the project. Six intermediate profiles will be surveyed in the Coquina Beach Fill area at stations R-36.5, R-37.5, R-38.5, R-39.5, R-40.5 and R-41.5 (R-41.5 is located immediately north of the placed geotextile tube). Intermediate lines will extend a minimum of 3,000 feet offshore of the FDEP monument or the -20 ft (NAVD) contour, whichever is closer to shore.

D. Longboat Pass Shoal Survey

Prior to the installation of the geotextile tube, seven cross-sections will be collected across Longboat Pass at 200 foot line spacing. Cross-sections will be collected starting immediately east (landward) of the Gulf of Mexico Drive Bridge to the seaward mouth of the inlet. In addition, bathymetric surveys of the ebb and flood shoal complex will be collected to analyze the

effects of the fill and structure on the adjacent shorelines. Bathymetric survey lines will be collected at sufficient density and expanse to accurately document conditions on the shoal complex and will be spaced at 500 feet apart.

TASK 5: ENGINEERING CONSTRUCTION OBSERVATION

This Task includes construction observation for the beach construction, artificial reef construction and geotube construction.

A. Coquina Beach, Beach Nourishment Project, Construction Observation

During beach construction, we will observe the project on a daily basis for a maximum of 40 days. A CPE engineering representative familiar with beach nourishment construction observation and administration will observe construction daily and be available on an "as needed" basis throughout project construction. Additionally, the CPE project manager will periodically observe the beach nourishment construction. Sand quality as placed on the beach will be assessed daily as required by the FDEP permit QA/QC Sediment Plan. CPE personnel will provide daily office engineering support.

Construction observations will be conducted to determine if construction is substantially in compliance with the plans and specifications, and in compliance with permitting and approval restrictions and permit authorizations granted for the work. We will coordinate with the County, State and Federal agencies and will be available to address questions concerning the plans and specifications, address any minor deviations from the project plans and other issues of coordination for the construction of the beach nourishment project. We will also accept and review contractor quality control reports (daily reports) and provide daily communication and coordination with the dredge contractor through the duration of the project from mobilization through demobilization from the project site. We will provide confirmation of the computation of fill placement volumes, and evaluation and recommendation to the County concerning the contractor's requests for payment.

We will also review on a daily basis the water quality monitoring reports to be provided by the dredge contractor. These reports will be compiled in the appropriate format and forwarded to the FDEP on a weekly basis in compliance with Section 403 and permit requirements. A post-construction report and certification required by State and Federal agencies will be prepared and submitted to the appropriate agencies.

B. Artificial Reef Construction Observation

Periodic artificial reef construction observation will be conducted by CPE to assess if construction is substantially in compliance with the plans and specifications, permitting and approval restrictions and permit authorizations granted for the artificial reef construction. CPE will coordinate with the County, State and Federal agencies and will be available to address questions concerning the plans and specifications, address any minor deviations from the project plans, and other issues of coordination for the mitigative reef construction. We will also accept and review contractor quality control reports (daily reports) and provide communication and coordination with the contractor through the duration of the project from mobilization through demobilization from the project site. CPE will provide evaluations and recommendations of the

contractor's requests for payment. We will prepare post-construction letter reports and certifications required by State and Federal agencies.

CPE will provide periodic construction observation throughout the duration of the artificial reef construction. Site visits may involve underwater (diver) observation of the constructed reef conducted by two CPE divers. In addition to the pre-bid and pre-construction visits, construction observation of the mitigative reef will include:

- A site visit during the drop-test
- A site visit at the start of construction
- An initial site visit to evaluate the first ½ acre test section
- A site visit for every two acres of reef placed for a total of 4 site visits
- A substantial completion site visit
- A final certification site visit

C. Geotextile Tube Construction Observation

Periodic construction observations will be conducted by CPE personnel to determine if construction is substantially in compliance with plans and specifications, with permitting and approval restrictions and permit authorizations granted for the geotextile tube construction. We will coordinate with the County, State and Federal agencies and will be available to address questions concerning the plans and specifications, address any minor deviations from the project plans, and other issues of coordination for the geotube construction. We will also accept and review contractor quality control reports (daily reports) and provide communication and coordination with the contractor through the duration of the project from mobilization through demobilization from the project site. We will provide evaluations and recommendations of the contractor's requests for payment.

In addition to the pre-bid and pre-construction visits, CPE will perform site visits throughout construction at the following intervals:

- A site visit at the start of construction
- A progress site visit during mid-construction
- A substantial completion site visit
- A final certification site visit

We will prepare a post-construction letter report and certifications as required by State and Federal agencies.

TASK 6: PROJECT CLOSEOUT AND FINAL CERTIFICATION

Project closeout and final certification will be completed separately for each project (beach nourishment construction, geotextile tube construction and artificial reef construction). Following notification by the contractor that construction activities are deemed to be complete and all payment sections have been approved, we will observe the construction and staging areas. If applicable, a punch list of remaining items to be accomplished by the contractor and the restoration of access and staging areas will be prepared. This list will be provided to the County.

and contractor to ensure control of final clean up. We will conduct a final observation of the construction and staging areas following final clean up and, if appropriate, will forward a recommendation to the County that final payment be made.

A separate final certification will be provided for each project. After construction is complete and the contractor has demobilized from the site, CPE will provide a written statement of completion and certification as mandated by the project permits. This certification will state whether the project was constructed in substantial compliance and conditions specified by the permit have been achieved; the activities authorized by the permit have been performed in substantial compliance with the plans and specifications approved as part of the permit, and conditions of the permit, any known substantial deviations will also be noted on as-built drawings and reporting submitted to the FDEP. Our certification will be qualified and based on the extent of CPE's involvement in construction observation.

TASK 7: IMMEDIATE POST-CONSTRUCTION PHYSICAL MONITORING SURVEYS

In accordance with the permits for the Coquina Beach, Beach Nourishment Project, post-construction topographic and bathymetric surveys of the beach, offshore, borrow site areas and profiles in vicinity of the newly established geotextile tube must be conducted. The monitoring data is necessary in order for both Manatee County and the Florida Department of Environmental Protection (FDEP) to evaluate with quantitative measurements, the performance of the project. The scientific monitoring process provides the County and the FDEP information necessary to plan, design, and optimize subsequent projects.

The post-construction monitoring event consists of topographic and bathymetric surveys, borrow area surveys, geotextile tube and Longboat Pass surveys and aerial photography. All work activities and deliverables shall be conducted in accordance with the *March 2004 BBCS Monitoring Standards for Beach Erosion Control Projects, Section 01200*.

A. Topographic & Bathymetric Surveys (Beach Profile Surveys)

Post-construction topographic and bathymetric profile surveys of the beach and offshore will be conducted within 60 days following the completion of the project. The post-construction monitoring surveys will include published FDEP reference monuments within the Coquina Beach fill area as well as monuments up to 5000 feet (laterally) outside each area. Similar to the pre-construction surveys, eleven (11) post-construction beach profile lines will be surveyed including R-31 to R-41. All profile surveys will extend a minimum of 3000 feet offshore of the FDEP monument or the -20 ft (NAVD) contour, whichever is closer to shore. The survey and subsequent evaluation will comply with FDEP permit requirements.

B. Borrow Area Survey

A post-construction bathymetric survey of the borrow area will be conducted within 60 days following completion of the construction project concurrently with the beach profile surveys. Survey grid lines across the borrow area and navigation channel shall be spaced to provide sufficient detail for accurate volumetric calculations but not more than a maximum of 500 feet apart, and shall extend a minimum of 500 feet outside the boundaries of the borrow site. The post-construction bathymetric survey of the borrow area will comply with FDEP permit requirements.

C. Geotextile Tube Survey Lines

Following the installation of the geotextile tube, intermediate profiles shall be surveyed to monitor sediment movement in relation to the placement of a geotextile tube on north side of the terminal jetty at Longboat Pass. Six intermediate profiles will be surveyed in the Coquina Beach Fill area at stations R-36.5, R-37.5, R-38.5, R-39.5, R-40.5 and R-41.5 (R-41.5 is located immediately north of the placed geotextile tube). Intermediate lines will extend a minimum of 3000 feet offshore of the FDEP monument or the -20 ft (NAVD) contour, whichever is closer to shore.

D. Longboat Pass Shoal Survey

After the installation of the geotextile tube, seven cross-sections will be collected through Longboat Pass at 200' line spacing. Cross-sections will be collected starting immediately east (landward) of the Gulf of Mexico Drive Bridge to the seaward mouth of the inlet. In addition, bathymetric surveys of the ebb and flood shoal complex will be collected to analyze the effects of the fill and structure on the adjacent shorelines. Bathymetric survey lines will be collected at sufficient density and expanse to accurately document conditions on the shoal complex and will not be spaced more than a maximum of 500 feet apart.

Aerial Photography

Aerial photography of the beach will be taken concurrently with the post-construction survey. The aerial photography will include the entire gulf shoreline of Anna Maria Island.

TASK 8: POST-CONSTRUCTION ENGINEERING REPORT

A. Coquina Beach, Beach Nourishment Project

CPE will develop and submit the post-construction engineering report and monitoring data to the County and the FDEP within 90 days following completion of the post-construction survey as required by the permit. The engineering monitoring report will summarize and discuss the pre- and post-construction survey data, and determine the volume placed within the construction templates. The report will document the beach nourishment construction effort. Appendices will include plots of the survey profiles and the report will include graphical representations of pre-construction and post-construction volumetric and shoreline position changes for the monitoring area. Results will be analyzed for patterns, trends, and changes between annual surveys and cumulatively since project construction.

B. Geotextile Tube Construction

Post-construction engineering evaluations of the geotextile tube construction will be included within the beach nourishment engineering monitoring report (described above). Surveys in the vicinity of the geotextile tube and the ebb shoal that are conducted as part of the beach nourishment monitoring will be utilized to determine the future effectiveness of the geotextile tube in reducing sediment loss into Longboat Pass.

SCHEDULE

The construction of the Coquina Beach, beach nourishment project will occur in March and April 2011. It is anticipated that the beach nourishment project will be completed within 40 days of commencement. The geotextile tube construction will occur after the construction of the beach project and will commence in the summer of 2011. Completion of the geotextile tube is expected to take 30 days following project commencement. It is anticipated that construction of the mitigative artificial reef will commence in April 2011. It is anticipated that construction of the eight (8) acre mitigative reef will take at least four (4) months to complete and is scheduled for completion in August 2011.

ASSUMPTIONS AND SUMMARY

Other than physical surveys, no field activities or coastal modeling services are assumed to be required, and are not included in this scope of services. The cost to provide the described services is \$451,784. A detailed cost estimate spreadsheet for the services proposed is included with this proposal.

f:\marketing\proposals\manatee\2010 proposals\geotube, coquina, and reef.../revised/WA #37 – Scope of Services – Attachment A

MANATEE COUNTY, FLORIDA
FEE PROPOSAL FOR
ANNA MARIA ISLAND
COQUINA BEACH, BEACH NOURISHMENT PROJECT; COQUINA BEACH MITIGATIVE
ARTIFICIAL REEF
LONGBOAT PASS NORTH JETTY GEOTEXTILE TUBE
CONSTRUCTION PHASE SERVICES

WORK ASSIGNMENT NO. 37
REVISED

ATTACHMENT B

March 2, 2011

PREPARED BY:



COASTAL PLANNING & ENGINEERING, INC.

MANATEE COUNTY, FLORIDA

FEE PROPOSAL FOR

ANNA MARIA ISLAND

**COQUINA BEACH, BEACH NOURISHMENT PROJECT; COQUINA BEACH MITIGATIVE ARTIFICIAL REEF
LONGBOAT PASS NORTH JETTY GEOTEXTILE TUBE
CONSTRUCTION PHASE SERVICES**

WORK ASSIGNMENT NO. 37

PROJECT PROPOSAL SUMMARY

PREPARED BY: COASTAL PLANNING & ENGINEERING, INC.

TASK	DESCRIPTION	LABOR COSTS	EQUIPMENT COSTS	DIRECT COSTS	TASK COST
1	ADMINISTRATION	\$30,908	\$0	\$1,652	\$32,560
2	BIDDING ASSISTANCE	\$26,236	\$668	\$1,657	\$28,561
3	PRE-CONSTRUCTION CONFERENCES	\$14,056	\$668	\$1,938	\$16,662
4	PRE-CONSTRUCTION SURVEYS	\$29,978	\$10,065	\$3,080	\$43,123
5	ENGINEERING CONSTRUCTION OBSERVATION	\$164,417	\$4,873	\$16,054	\$185,343
6	PROJECT CLOSEOUT AND FINAL CERTIFICATION	\$21,144	\$0	\$13	\$21,157
7	POST-CONSTRUCTION MONITORING SURVEY	\$42,216	\$11,025	\$15,099	\$68,340
8	POST-CONSTRUCTION ENGINEERING REPORTS	\$55,259	\$0	\$780	\$56,039
	TOTAL COST	\$384,214	\$27,298	\$40,273	\$451,784



TOTAL PROJECT COST = \$451,784

MANATEE COUNTY, FLORIDA
FEE PROPOSAL FOR
ANNA MARIA ISLAND
COQUINA BEACH, BEACH NOURISHMENT PROJECT; COQUINA BEACH MITIGATIVE ARTIFICIAL
REEF
LONGBOAT PASS NORTH JETTY GEOTEXTILE TUBE
CONSTRUCTION PHASE SERVICES
WORK ASSIGNMENT NO. 37

LABOR, EQUIPMENT & DIRECT COST RATES
PREPARED BY: COASTAL PLANNING & ENGINEERING, INC.

	March 16, 2010 to March 15, 2011
LABOR RATES (HOURLY)	
1 Principal Engineer	\$192.00
2 Project Manager	\$169.00
3 Senior Marine Biologist	\$130.00
4 Senior Geologist	\$120.00
5 Professional Geologist	\$120.00
6 Project Geologist Scientist	\$115.00
7 Senior Coastal Engineer	\$113.00
8 Coastal Engineer	\$113.00
9 Junior Coastal Engineer	\$98.00
10 Certified Inshore Hydrographer	\$113.00
11 Professional Surveyor & Mapper	\$113.00
12 Marine Biologist	\$113.00
13 Project Biologist	\$110.00
14 Geologist	\$107.00
15 Marine Archaeologist	\$104.00
16 Hydrographer	\$100.00
17 Sr CAD Operator	\$93.00
18 Project Surveyor	\$90.00
19 Surveyor	\$90.00
20 Junior Geologist	\$81.00
21 CADD Operator	\$81.00
22 GIS Operator	\$81.00
23 Survey Technician	\$81.00
24 Boat Captain	\$80.00
25 Bookkeeper	\$61.00
26 Clerical	\$54.00
EQUIPMENT RATES (DAILY)	
27 Survey Boat (13 ft.)	\$756.00
28 Survey Boat (24 ft.)	\$960.00
29 Survey Boat (28 ft.) 2820 XLD Parker W/Twin 250 HP O/B Engines	\$1,040.00
30 Differential GPS	\$411.00
31 Digital Camera	\$10.00
32 Land Camera	\$10.00
33 Chirp X-Star Seismic System	\$1,040.00
34 4200 FS Side Scan Sonar	\$802.00
35 Magnetometer	\$283.00
36 Heave Compensator	\$206.00
37 Sieve Analysis (per sample)	\$72.00
38 Tidal Gauge	\$103.00
39 RTK GPS	\$488.00
40 Fathometer	\$154.00
41 Total Station	\$129.00
42 Navigation System	\$257.00
43 Level	\$57.00
44 Diver Vibracore- 6 foot	\$1,000.00
45 Nortek AWAC ADCP high frequency deepwater wave height, direction and current profiler	\$5,000/month *
46 Nortek Aquadopp ADCP low frequency shallow water wave height, direction and current profiler	\$2,900.00/month *
47 Nortek Storm Software for wave and current data processing	\$50.00/day
48 Primer v6 statistical package	\$200/project
49 Seismic Profiler Thermal Printer	\$130.00
50 Sonar Wizard Map Seismic Data Processing Package	\$155.00
51 Edgetech 4200 FS Sidescan Sonar System	\$695.00
52 Sonar Wizard Map Sidescan Data Processing Package	\$155.00
53 Geometric G-881 Magnetometer	\$215.00
54 Schonstedt GA-52B Magnetic Locator	\$30.00
55 Jet Probe with Pump	\$55.00
56 TDR-3A Underwater Tide Gauge	\$175.00
57 Nikon Level/Tripod/Rod/Tide Stilling Well	\$65.00
58 PC PowerPoint Projector	\$25.00
59 Lietz Handheld Level	\$10.00
60 Optical Reading Compass	\$10.00
61 Portable AC Generator	\$60.00
62 Garmin Handheld GPS	\$10.00
63 Scuba Tanks	\$5.00
64 Underwater Camera	\$32.00
65 Film (35mm)	\$6.25/roll
66 Underwater Video Camera	\$115.00
67 GPS Integrated Underwater Video Camera	\$435.00
68 Liftbag and Hoist	\$25.00
69 Underwater Scooter	\$50.00
70 HACH 16800 Turbidimeter	\$38.00
71 HACH 2100A Turbidimeter	\$38.00
72 Sieve Analysis	\$75.00/sample
73 Carbonate Analysis	\$65.00/sample
74 Aquadopp	\$3,554/month
75 AWAC	\$5,000/month
76 Monuments	\$28.00/each
77 Survey Disk	\$15.00/each
78 Dry Suit	\$15.00
79 Ponar Sampler	\$30.00
80 Microscopes	\$20.00
81 Penetrometer	\$55.00
82 Carsonite Post	\$15.00
83 Aerial Targets	\$5.50/each
84 Mileage	\$0.45
* ADCP monthly cost may be pre-rated for shorter periods of use	
SCUBA DIVING SERVICES	
85 Equipment & Insurance	\$75/diver/day **
** Charge in addition to normal hourly rates for personnel listed on Page 1.	
NUMERICAL MODELS	
86 ADCIRC Tidal Circulation Model	\$1,000/project
87 GENESIS Shoreline Change Simulation Model	\$1,000/project
88 STWAVE Wave Refraction Model	\$1,000/project
89 MIKE21- NSW Spectral Wave Transformation Model	\$2,000/project
90 MIKE21- HD 2D Current Simulation Model	\$2,000/project
91 MIKE21- ST 2D Sediment Transport Model	\$2,000/project
92 DELFT- SWAN Wave Refraction/Diffraction Model	\$2,000/project
93 DELFT- FLOW 2D Hydrodynamic Model	\$2,000/project
94 DELFT- FLOW 3D Hydrodynamic Model	\$2,000/project
95 DELFT- 3D Morphodynamic Model	\$3,000/project
REPRODUCTIONS	
Photocopies - Black & White	
96 8 1/2" x 11" and 8 1/2" x 14"	\$0.10/page
97 11" x 17"	\$0.15/page
98 Heavy Bond	\$0.30/page
99 Cover Stock	\$0.50/page
Photocopies - Color	
100 8 1/2" x 11" and 8 1/2" x 14"	\$0.50/page
101 11" x 17"	\$0.75/page
102 Heavy Bond	\$1.00/page
103 Cover Stock	\$1.00/page
CAD Plotter Copies	
104 8 1/2" x 11" and 8 1/2" x 14"	\$1.00/each
105 11" x 17"	\$2.00/each
106 24"x36"	\$3.00/each
DIRECT COSTS	
107 Meals	\$36.00
108 Lodging*	\$100.00
109 Misc. Expenses/Expendables*	\$1.00

* - Miscellaneous expenses and lodging will be billed at cost. Miscellaneous expenses / expendables include priority shipping expenses, field equipment utilized exclusively for the services performed for Manatee County under this Work Assignment.

NOTE: Above rates are subject to an annual Cost of Living increase.



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COQUINA BEACH, BEACH NOURISHMENT PROJECT; COQUINA BEACH MITIGATIVE ARTIFICIAL REEF LONGBOAT PASS NORTH JETTY GEOTEXTILE TUBE CONSTRUCTION PHASE SERVICES		LABOR COSTS														
		Labor Cost Per Task	Principal Engineer (Hours)	Project Manager (Hours)	Senior Coastal Engineer (Hours)	Coastal Engineer (Hours)	Professional Surveyor & Mapper (Hours)	Sr CAD Operator (Hours)	Project Surveyor (Hours)	Surveyor (Hours)	CADD Operator (Hours)	Survey Technician (Hours)	Survey Technician (Hours)	Survey Technician (Hours)	Bookkeeper (Hours)	Clerical (Hours)
1. ADMINISTRATION		\$30,908														
a. Project Administration			4	80	80	40								36	16	
2. BIDDING ASSISTANCE		\$26,236														
a. Coquina Beach Nourishment																
• Coordinate, prepare for and attend one pre-bid conference				16	16	8										
• Prepare and distribute one bid addendum				8	4	8									4	
• Review bids and provide recommendation			1	4	2	4										
b. Artificial Mitigative Reef Construction																
• Coordinate, prepare for and attend one pre-bid conference				16	16	8										
• Prepare and distribute one bid addendum				4	8	8									4	
• Review bids and provide recommendation				2	4	4										
c. Longboat Pass Geotube Construction																
• Coordinate, prepare for and attend one pre-bid conference				4	16	8										
• Prepare and distribute one bid addendum				2	8	8									4	
• Review bids and provide recommendation				2	4	4										
3. PRE-CONSTRUCTION CONFERENCES		\$14,056														
a. Coquina Beach Nourishment			1	16	16	4									2	
b. Artificial Mitigative Reef Construction				16	16	4									2	
c. Longboat Pass Geotube Construction				8	16	4									2	
4. PRE-CONSTRUCTION MONITORING SURVEY		\$29,978														
a. Administration				2			2		4						1	
b. Mobilization and Travel											6	6	6			
c. Beach Profiles									8	12		12	8	8		
d. Geotube Monitoring									8	12		12	12			
e. Borrow Areas and Shoal									12	24		24	12			
f. Reduction and Reporting				2	4	4	16	16	40	28	28				2	
5. ENGINEERING CONSTRUCTION OBSERVATION		\$164,417														
a. Coquina Beach Nourishment			4	125	170	400										
b. Artificial Mitigative Reef Construction			1	16	120	80										
• One (1) site visit (Drop Test)				2	8	16										
• One (1) site visit at start of construction				2	16	16										
• Four (4) site visits during construction				32	64	48										
• One (1) site visit substantial completion				2	16	16										
• One (1) Final certification site visit				2	16	16										
c. Longboat Pass Geotube Construction			1	8	32	16										
• One (1) site visit at start of construction				2	16	4										
• One (1) site visit mid-construction				2	4	16										
• One (1) site visit substantial completion				16	16	4										
• One (1) Final certification site visit				2	16	4										
6. PROJECT CLOSEOUT AND FINAL CERTIFICATION		\$21,144														
a. Coquina Beach Nourishment				8	12	16	4	12		6	6				2	
b. Artificial Mitigative Reef Construction				8	12	16	4	12		6	6				2	
c. Longboat Pass Geotube Construction				8	12	16	4	12		6	6				2	
7. POST-CONSTRUCTION MONITORING SURVEY		\$42,216														
a. Administration				2	2		2		8	2		2	2			
b. Mobilization and Travel										12		12	12	12		
c. Beach Profiles									16	24		24	16	16		
d. Geotube Monitoring									8	12		12	12			
e. Borrow Areas and Shoal									12	24		24	12			
f. Reduction and Reporting				8			16	16	48	40	40				2	
g. Post-Construction Aerial Photography				2	4			8	8							
8. POST-CONSTRUCTION ENGINEERING REPORTS		\$55,259														
a. Beach Nourishment				16	64	140	8	16		8	8				8	
b. Artificial Reef				8	30	30	8	8		12	8				4	
c. Geotextile Tube				4	28	28	4	2		8	8				4	
d. Reproduction and Submittal				3	6	12	4				16				6	
Total =			12	460	874	1010	60	78	208	196	114	186	92	42	36	67
Rate =			\$192	\$169	\$113	\$113	\$113	\$93	\$90	\$90	\$81	\$81	\$81	\$81	\$61	\$54
Cost =			\$2,304	\$77,656	\$98,762	\$114,130	\$6,780	\$7,254	\$18,720	\$17,640	\$9,234	\$15,066	\$7,452	\$3,402	\$2,196	\$3,618
TOTAL LABOR COST =		\$384,214														



TOTAL LABOR COST = \$384,214

PREPARED BY: COASTAL PLANNING & ENGINEERING, INC.

				EQUIPMENT COSTS									
COQUINA BEACH, BEACH NOURISHMENT PROJECT; COQUINA BEACH MITIGATIVE ARTIFICIAL REEF LONGBOAT PASS NORTH JETTY GEOTEXTILE TUBE CONSTRUCTION PHASE SERVICES				Equipment Cost Per Task	Survey Boat (24 ft.) (Days)	RTK GPS (Days)	Fathometer (Days)	Heave Compensator (Days)	Navigation System (Days)	Digital Camera (Days)	Nikon Level/Tripod/ Rod/Tide Stilling Well (Days)	Garmin Handheld GPS (Days)	Mileage
1. ADMINISTRATION				\$0									
a. Project Administration													
2. BIDDING ASSISTANCE				\$668									
a. Coquina Beach Nourishment													
• Coordinate, prepare for and attend one pre-bid conference													500
• Prepare and distribute one bid addendum													
• Review bids and provide recommendation													
b. Artificial Mitigative Reef Construction													
• Coordinate, prepare for and attend one pre-bid conference													500
• Prepare and distribute one bid addendum													
• Review bids and provide recommendation													
c. Longboat Pass Geotube Construction													
• Coordinate, prepare for and attend one pre-bid conference													500
• Prepare and distribute one bid addendum													
• Review bids and provide recommendation													
3. PRE-CONSTRUCTION CONFERENCE				\$668									
a. Coquina Beach Nourishment													500
b. Artificial Mitigative Reef Construction													500
c. Longboat Pass Geotube Construction													500
4 PRE-CONSTRUCTION SURVEYS				\$10,065									
a. Administration													
b. Mobilization and Travel													1000
c. Beach Profiles					1	2	2	2	2	2	2	2	
d. Geotube Monitoring					1	1	1	1	1	1	1	1	
e. Borrow Areas and Shoal					2	2	2	2	2				
f. Reduction and Reporting													
5. ENGINEERING CONSTRUCTION OBSERVATION				\$4,873									
a. Coquina Beach Nourishment													4950
b. Artificial Mitigative Reef Construction													
• One (1) site visit (Drop Test)													500
• One (1) site visit at start of construction													500
• Four (4) site visits during construction													2000
• One (1) site visit substantial completion													500
• One (1) Final certification site visit													500
c. Longboat Pass Geotube Construction													
• One (1) site visit at start of construction													500
• One (1) site visit mid-construction													500
• One (1) site visit substantial completion													500
• One (1) Final certification site visit													500
6. PROJECT CLOSEOUT AND FINAL CERTIFICATION				\$0									
a. Coquina Beach Nourishment													
b. Artificial Mitigative Reef Construction													
c. Longboat Pass Geotube Construction													
7. POST-CONSTRUCTION MONITORING SURVEY				\$11,025									
a. Administration													
b. Mobilization and Travel													1000
c. Beach Profiles					2	2	2	2	2	2	2	2	
d. Geotube Monitoring					1	1	1	1	1	1	1	1	
e. Borrow Areas and Shoal					2	2	2	2	2				
f. Reduction and Reporting													
g. Post-Construction Aerial Photography													
8. POST-CONSTRUCTION ENGINEERING REPORTS				\$0									
Total =				9	10	10	10	10	6	6	6	15950	
Rate =				\$960	\$488	\$154	\$206	\$257	\$10	\$65	\$10	\$0.45	
Cost =				\$8,640	\$4,880	\$1,540	\$2,060	\$2,570	\$60	\$390	\$60	\$7,098	
TOTAL EQUIPMENT COST =				\$27,298									



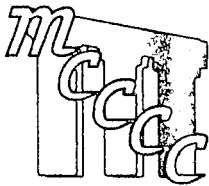
MANATEE COUNTY, FLORIDA
FEE PROPOSAL FOR
ANNA MARIA ISLAND
COQUINA BEACH, BEACH NOURISHMENT PROJECT; COQUINA BEACH MITIGATIVE ARTIFICIAL REEF
LONGBOAT PASS NORTH JETTY GEOTEXTILE TUBE
CONSTRUCTION PHASE SERVICES

WORK ASSIGNMENT NO. 37

PREPARED BY: COASTAL PLANNING & ENGINEERING, INC.

COQUINA BEACH, BEACH NOURISHMENT PROJECT; COQUINA BEACH MITIGATIVE ARTIFICIAL REEF LONGBOAT PASS NORTH JETTY GEOTEXTILE TUBE CONSTRUCTION PHASE SERVICES		DIRECT COSTS					
		Black & White 8 1/2" x 11" and 8 1/2" x 14" (Number)	Airline Tickets	Rental Car	Meals	Lodging*	Misc. Expenses/Expe ndables*
1. ADMINISTRATION	\$1,652						
a. Project Administration			4	4	3		40
2. BIDDING ASSISTANCE	\$1,657						
a. Coquina Beach Nourishment			1	1	1		10
• Coordinate, prepare for and attend one pre-bid conference	50						
• Prepare and distribute one bid addendum	200						
• Review bids and provide recommendation							
b. Artificial Mitigative Reef Construction							10
• Coordinate, prepare for and attend one pre-bid conference	50		2	1	2		
• Prepare and distribute one bid addendum	100						
• Review bids and provide recommendation							
c. Longboat Pass Geotube Construction							
• Coordinate, prepare for and attend one pre-bid conference	50		1	1	1		10
• Prepare and distribute one bid addendum	100						
• Review bids and provide recommendation							
3. PRE-CONSTRUCTION CONFERENCE	\$1,938						
a. Coquina Beach Nourishment			2	1	2		10
b. Artificial Mitigative Reef Construction			2	1	2		10
c. Longboat Pass Geotube Construction			1	1	1		10
4 PRE-CONSTRUCTION SURVEYS	\$3,080						
a. Administration							
b. Mobilization and Travel							
c. Beach Profiles					12	6	
d. Geotube Monitoring					6	4	
e. Borrow Areas and Shoal					12	6	
f. Reduction and Reporting							
5. ENGINEERING CONSTRUCTION OBSERVATION	\$16,054						
a. Coquina Beach Nourishment		100	10	7	60	50	70
b. Artificial Mitigative Reef Construction		50					
• One (1) site visit (Drop Test)			1	1	1		10
• One (1) site visit at start of construction			2	1	2		10
• Four (4) site visits during construction					8		
• One (1) site visit substantial completion					2		
• One (1) Final certification site visit			1	1	2		10
c. Longboat Pass Geotube Construction		50					
• One (1) site visit at start of construction			1	1	1		10
• One (1) site visit mid-construction			2	1	2		10
• One (1) site visit substantial completion			1	1	1		10
• One (1) Final certification site visit			1	1	1		10
6. PROJECT CLOSEOUT AND FINAL CERTIFICATION	\$13						
a. Coquina Beach Nourishment		50					
b. Artificial Mitigative Reef Construction		40					
c. Longboat Pass Geotube Construction		40					
7. POST-CONSTRUCTION MONITORING SURVEY	\$15,099						
a. Administration							
b. Mobilization and Travel							
c. Beach Profiles					12	6	
d. Geotube Monitoring					6	4	
e. Borrow Areas and Shoal					12	6	
f. Reduction and Reporting							
g. Post-Construction Aerial Photography							\$ 10,926.16
8. POST-CONSTRUCTION ENGINEERING REPORTS	\$780	\$300	2	2			
Total =		1,180	34	26	152	82	11,166
Rate =		\$0.10	\$300	\$75	\$36	\$125	1.10
Cost =		\$118	\$10,200	\$1,950	\$5,472	\$10,250	\$12,283
TOTAL DIRECT COST =		\$40,273					





Manatee County

Clerk of the Circuit Court and Comptroller

R.B. "Chips" Shore

P.O. Box 25400 • Bradenton, Florida 34206 • (941) 749-1800 • FAX (941) 741-4082 • www.manateeclerk.com

March 15, 2011

TO: Mr. Rick Spandoni
Coastal Planning and Engineering
2481 NW Boca Raton Boulevard
Boca Raton, Florida 33431

FROM Clerk of Circuit Court
Board Records Department
Vicki P. Jarratt
P.O. Box 25400
Bradenton, Florida 34206

RE: Anna Maria Island, Construction Phase Services - Coquina Beach, Beach Nourishment Project; Coquina Beach Mitigative Artificial Reef; and Longboat Pass North Jetty Geotextile Tube - Work Assignment with Coastal Planning and Engineering, Inc., \$451,784.

ACCEPTED: In open session by the Manatee County Board of County Commissioners on **March 15, 2011.**

RBS:vpj
Enclosure

cc: Board Records

Copies sent to the following via email:

- Blair Getz, Purchasing
- Jayne Souders, Natural Resources

MEMORANDUM



FINANCIAL MANAGEMENT
DEPARTMENT
Purchasing Division
1112 Manatee Avenue West
Bradenton, FL 34205

MANATEE COUNTY FLORIDA

Phone: 941.749.3074
Fax: 941.749.3034

To: Susan Romine, Supervisor
Board Records
From: Blair C. Getz
Purchasing Office
Date: 3/4/2011

RECEIVED
MAR - 5⁴ 2011

BOARD RECORDS

Subject: RFP#03-8340TC / Work Assignment NO. 37/ Anna Maria Island, Construction Phase services for Coquina Beach, Beach Nourishment Project; Coquina Beach Mitigative Artificial Reef; Longboat Pass North Jetty Geotextile Tube

Please accept the enclosed executed Work Assignments # 37 for the above Subject services in accordance with the provisions of the Master Agreement RFP#03-8340TC. This executed Work Assignment #37 is as authorized by Manatee County Code, Chapter 2-26, and per the delegation by the County Administrator effective 1/26/2009 and revised 8/10/09.

If you require any additional background or information, please call me at 3053.

Please send a confirmation of the acceptance as follows: Original to vendor:

Coastal Planning and Engineering, Inc.
2481 NW Boca Raton Blvd.
Boca Raton, Florida 33431
Attn: Rick Spadoni

Signature Pages to Blair C. Getz /Purchasing and Jayne Souders, Natural Resources Department.

Thank you.

Attachments to Board Records :

ACCEPTED IN OPEN SESSION

1. Two (2) Original Work Assignments #37
2. Department Memo Dated: March 3, 2011

MAR 15 2011

BOARD OF COUNTY COMMISSIONERS
MANATEE COUNTY, FLORIDA

MEMORANDUM



Natural Resources Department
415 10th Street West
Bradenton, FL 34205

MANATEE COUNTY FLORIDA

Phone: 941-745-3723
Fax: 941-741-3227
www.myanatee.org

To: Rob "R.C." Cuthbert, Purchasing Manager
From: Charlie Hunsicker, Director, Natural Resources *MD Max Dersch*
Date: March 3, 2011 *for Charlie Hunsicker*
Subject: REVISED WA# 37 – Anna Maria Island Coquina Beach Nourishment Project; Coquina Beach Mitigative Artificial Reef; Longboat Pass North Jetty Geotextile Tube Construction Phase Services

Rob,

Please find attached **Revised** work assignment #37 from Coastal Planning & Engineering. WA004133/ W1100130 has already been entered into IFAS for the above mentioned work assignment. This work assignment includes engineering for construction phase services in support of construction of the following: (1) the Coquina Beach, Beach Nourishment Project, (2) the Coquina Beach Mitigative Artificial Reef, and (3) the Longboat Pass Geotextile Tube.

It is recommended that Coastal Planning & Engineering perform these services because they are currently under contract with the County to perform other beach nourishment projects. The rates currently under contract with CP&E are the rates being used for work assignment #37. Since the contracted rates are negotiated annually by Purchasing and staff feels that the scope of work is appropriate for this work assignment, staff does not feel the need to negotiate this work assignment.

The total amount for this work assignment is \$451,784. This reflects a decreased amount due to the negotiation session on Wednesday, March 2nd. The funding source is the Beach Erosion Fund.

CH/jls
CC: file

From: Vicki Jarratt

Sent: Tuesday, March 15, 2011 1:29 PM

To: 'blair.getz@mymanatee.org'; 'Jayne.Souders@mymanatee.org'

Subject: Work Assignment 37 with Coastal Planning and Engineering, Inc.

Attachments: BC20110315DOCC18.PDF

Attached is the Work Assignment for the Anna Maria Island, Construction Phase Services – Coquina Beach, Beach Nourishment Project; Coquina Beach Mitigative Artificial Reef; and Longboat Pass North Jetty Geotextile Tube – Work Assignment 37 with Coastal Planning and Engineering, Inc. accepted by the BCC on 3/15/11.

Best regards,

Vicki Jarratt

Board Records

For R.B. "Chips" Shore

Manatee County Clerk of Circuit Court & Comptroller

www.ManateeClerk.com

vicki.jarratt@manateeclerk.com

941-749-1800 Ext. 4181

"Pride in Service with a Vision to the Future"