

EXECUTIVE SUMMARY

Recommend approval of Work Orders CPE-FT-3902-08-08 (\$98,589); CPE-FT-3902-08-09 (\$36,321) and CPE-FT-3902-08-10 (\$23,522.50) under Contract 06-3902 with Coastal Planning and Engineering for time and material not to exceed value of \$158,432.50 (Project 195-905363).

OBJECTIVE: To provide:

1. Field data analysis and report preparation of the biological monitoring of the nearshore hardbottom, artificial reef, and side scan sonar results required by the state permit (FDEP Permit No. 0222355-001-JC).
2. Ground truthing of side-scan survey and engineering physical beach monitoring report required by the state permit (FDEP Permit No. 0222355-001-JC).
3. A baseline environmental assessment is required at Wiggins Pass to evaluate modeling options.

CONSIDERATIONS: FDEP permit requires the physical and biological monitoring of the beaches on a yearly basis. This scope of work and fee proposal is in response to the County's environmental reporting requirements issued through the Florida Department of Environmental Protection's Permit No. 0222355-001-JC, issued for construction of the Collier County Beach Renourishment Project, and FDEP Permit No. 0235740-001-JC for the Doctors Pass Inlet Maintenance Dredging Project.

Pursuant to Specific Condition No. 10 contained within FDEP Permit No. 0222355-001-JC, dated January 12, 2005, an environmental data analysis and product development is required by Collier County. CPE will supply Collier County field data analysis and report preparation of the biological monitoring of the nearshore hardbottom, artificial reef, side scan sonar results, engineering monitoring report, ground truthing of side-scan survey with a comprehensive environmental monitoring report.

A baseline environmental assessment is required at Wiggins Pass to evaluate modeling options. Modeling activities for this work is being performed by Coastal Planning and Engineering.

ADVISORY COMMITTEE RECOMMENDATIONS: At the September 11, 2008 CAC meeting a quorum was not present preventing action on this item. This item is time sensitive and being presented to the TDC for approval. This item will be presented at the October 9, 2008 CAC meeting for information purposes and post approval.

COUNTY ATTORNEY FINDING: A finding by the County Attorney is not required for this item.

FISCAL IMPACT: The Source of funds is from Category "A" Tourist Development Tax.

GROWTH MANAGEMENT IMPACT: There is no impact to the Growth Management Plan related to this action.

RECOMMENDATION: To approve Work Orders CPE-FT-3902-08-08 (\$98,589); CPE-FT-3902-08-09 (\$36,321) and CPE-FT-3902-08-10 (\$23,522.50) under Contract 06-3902 with Coastal Planning and Engineering in the amount of \$158,432.50.

PREPARED BY: Gail Hambright, Coastal Zone Management



COASTAL PLANNING & ENGINEERING, INC.

2481 NW BOCA RATON BOULEVARD, BOCA RATON, FL 33431

561-391-8102 PHONE 561-391-9116 FAX
INTERNET: <http://www.coastalplanning.net>
e-mail: mail@coastalplanning.net.

September 3, 2008

Linda Jackson Best
Collier County Purchasing Department
3301 East Tamiami Trail
Naples, FL 34112

Re: Response to Request for Proposal for Environmental Product Development Services under Contract 06-3902 "Fixed Term Professional Engineering Services for Coastal Zone Management" Dated July 3, 2008

Dear Linda:

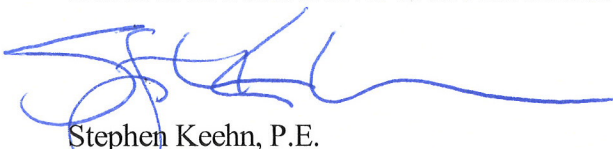
The scope of work and fee proposal in response to the County's RFP dated July 3, 2008 for field data analysis and product development is attached. The work described below has a time and material cost of \$98,589.00. The following are the tasks to be provided in this scope of services for completing the annual permit monitoring required by the state permit (FDEP Permit No. 0222355-001-JC):

TASK I. Field data analysis and report preparation of the biological monitoring of the nearshore hardbottom, artificial reef, and side scan sonar results.

A scope of work and County rate sheet was provided with the July 3, 2008 RFP, and is the basis for the enclosed proposals. If you have any questions, please feel free to contact Chris Makowski or me at your earliest opportunity.

Sincerely,

COASTAL PLANNING & ENGINEERING, INC.



Stephen Keehn, P.E.
Senior Coastal Engineer

cc: Gary McAlpin, Director Coastal Zone Management Collier County

Gail Hambright, Coastal Zone Management Collier County

F:\Marketing\Proposals\Collier\2008\CC Analysis & Report Proposal Cover Letter_Linda Jackson Best.doc

SCOPE OF SERVICES COLLIER COUNTY BEACH RENOURISHMENT PROJECT ANALYSIS AND REPORT OF BIOLOGICAL MONITORING SEPTEMBER 3, 2008

This Scope of Work (SOW) and fee proposal has been prepared by Coastal Planning & Engineering, Inc. (CPE) in response to Collier County's environmental reporting requirements issued through the Florida Department of Environmental Protection's (FDEP) Permit No. 0222355-001-JC, issued for construction of the Collier County Beach Renourishment Project, and FDEP Permit No. 0235740-001-JC for the Doctors Pass Inlet Maintenance Dredging Project. All fees here within this SOW reflect Collier County's 'Fixed Term Professional Engineering Services for Coastal Zone Management Projects' rates under Contract No. 06-3902, effective May 9, 2008, per Amendment #1.

Pursuant to Specific Condition No. 10 contained within FDEP Permit No. 0222355-001-JC, dated January 12, 2005, an environmental data analysis and product development is required by Collier County. CPE will supply Collier County with a comprehensive environmental monitoring report, which includes the biological monitoring data from the natural reef, a complete data analysis, and professional interpretation of the results. In addition, a nearshore artificial reef monitoring report will be delivered to Collier County, which will document the performance of benthic species upon the newly constructed substrate. And finally, an updated Collier County Environmental Geographic Information System (GIS) database detailing the findings of each sampling event, along with video surveys recording the condition of organisms, will be submitted to Collier County no later than November 15th of 2008. This date will be subject to change if adverse weather extends the field investigation beyond the anticipated number of days.

These environmental reports will provide comprehensive data sets with analytical and comparative techniques used, and will compare the current conditions to:

1. The 2003 Marine Resource Investigation Report,
2. The 2005 Pre-Construction Environmental Monitoring Report,
3. The 2006 Immediate Post-Construction Environmental Monitoring Report, and
4. The 2007 Year One Post-Construction Environmental Monitoring Report.

A complete analysis and discussion on observed burial, sedimentation, and/or trauma affecting the marine algae, coral, sponges, and/or other related biological communities will be based on the fixed BEAMR station monitoring and transect line video documentation.

The reports will also include the following:

- Comparative analysis of hardbottom exposure within the study area including data (tabulated and graphical) and analysis of sediment thickness over each of the transects and permanent photo-station quadrats;
- A map of the monitoring area and adjacent hardbottom showing the location of fixed transects and quadrats with DGPS coordinates for the location of all major features;
- Quantitative data on major benthic biological components, e.g., percent cover by corals, octocorals, sponges, and algae;

- Statistical evaluation and comparison (paired or multiple) of the data collected along the permanent transects and monitoring stations to ascertain changes in community composition/abundance during the study period. If requested by the FDEP, parametric and non-parametric (ANOVA and Primer v.6) techniques may be used as appropriate to detect change in community composition/abundance.
- Copies of representative photographs and videos will be submitted in an appropriate electronic/(CD, DVD) format;
- Copies of all field book notes; and
- Using ArcView 9.2, the Collier County Environmental GIS database is to be updated and submitted after each monitoring event.

A senior staff member independent of the project will serve as the QA/QC Technical Reviewer to approve all pertinent deliverables before submission to the client and FDEP.

The following summary of costs is provided for ease of review. Detailed cost estimate spreadsheets have been included with this Scope of Work.

<u>Description</u>	<u>Cost</u>
Environmental Product Development	\$ 98,589.00

COLLIER COUNTY, FLORIDA

**ANALYSIS AND REPORT OF BIOLOGICAL MONITORING; FEE
PROPOSAL**

September 3, 2008

PREPARED BY:



**COLLIER COUNTY, FLORIDA
 ANALYSIS AND REPORT OF BIOLOGICAL MONITORING; FEE PROPOSAL**

PROJECT DESCRIPTION	PAGE	LABOR COSTS	EQUIPMENT COSTS	DIRECT COSTS	PROJECT COST
BIOLOGICAL DATA ANALYSIS AND REPORT PREPARATION	6	\$97,350.00			\$97,350.00
	7		\$0.00	\$1,239.00	\$1,239.00
TOTAL PROJECT COST =					\$98,589.00

Exhibit 1-A

Revised Schedule B – Effective May 9, 2008

Collier County Fee Schedule

Contract No. 06-3902

“Fixed Term Professional Engineering Services for Coastal Zone Management Projects”

Professional Position	Hourly Rate
Principal/President	\$185.00/hr
Principal/VP Engineering/Senior Project Manager	\$170.00/hr
Project Manager/Senior Engineer/Senior Consultant	\$150.00/hr
Project Director	\$145.00/hr
Project Engineer/architect	\$140.00/hr
Project Construction Manager	\$130.00/hr
Senior Designer	\$120.00/hr
Senior Hydrogeologist	\$127.00/hr
Junior Hydrogeologist	\$ 90.00/hr
Coastal Modeler	\$110.00/hr
Principle Ecologist	\$160.00/hr
Senior Ecologist	\$120.00/hr
Ecologist	\$100.00/hr
Field Ecologist	\$ 95.00/hr
Engineer III	\$115.00/hr
Engineer II/Field Representative /Sr. Landscape Architect/Sr. Scientist	\$125.00/hr
Senior Technician	\$ 85.00/hr
Junior Technician	\$ 65.00/hr
Expert Witness	\$250.00/hr

Survey & Mapping

Surveyor and Mapper Senior	\$145.00/hr.
Surveyor and Mapper Junior	\$110.00/hr
Two Man Field Party	\$125.00/hr
Three Man Field Party	\$150.00/hr
Four Man Field Party	\$170.00/hr
GPS Mapping Grade: One Man Party	\$ 95.00/hr
GPS Mapping Grade: Two Man Party	\$125.00/hr
GPS Mapping Grade: Three Man Party	\$165.00/hr
GPS Survey Grade: One or Two Man Party	\$160.00/hr
GPS Survey Grade: Three Man Party	\$165.00/hr

GIS

Principle GIS Consultant	\$170.00/hr
Senior GIS Consultant/Analyst	\$160.00/hr
GIS Technician	\$ 65.00/hr.

Administrative

Administrative Assistant/Secretary	\$ 55.00/hr.
Clerical, other support	\$ 40.00/hr.

This list is not intended to be all-inclusive. Hourly rate fees for other categories of professional, support and other services shall be mutually negotiated by the County and firm on a project by project basis as needed.

COLLIER COUNTY, FLORIDA

ANALYSIS AND REPORT OF BIOLOGICAL MONITORING; FEE PROPOSAL

LABOR, EQUIPMENT & DIRECT COST RATES

COASTAL PLANNING & ENGINEERING, INC.

	2008
LABOR RATES (HOURLY)	
Principal / President	\$185.00
Principal Ecologist	\$160.00
Senior GIS Consultant	\$160.00
Project Manager / Senior Engineer	\$150.00
Surveyor & Mapper Senior	\$145.00
Senior Hydrogeologist	\$127.00
Senior Ecologist	\$120.00
Engineer III	\$115.00
Surveyor & Mapper Junior	\$110.00
Ecologist	\$100.00
Senior Technician	\$85.00
GIS Technician	\$65.00
Administrative Assistant / Secretary	\$55.00
Clerical, other support	\$40.00
EQUIPMENT RATES (DAILY)	
Survey Boat (24 ft. Privateer)	\$790.00
Survey Boat (28 ft. Parker)	\$1,050.00
Truck (2WD road use)	\$0.445
Trimble Differential GPS	\$415.00
Hypack Navigation System	\$260.00
Scuba Tanks	\$10.00
Underwater Video Camera	\$115.00
Underwater Video Camera with Strobes	\$75.00
Underwater Scooter	\$50.00
Fathometer / Odom Hydrotrack Sounder	\$165.00
Heave, Pitch, Roll Compensator	\$215.00
Underwater Camera with Strobes	\$75.00
Mobile Phone	\$10.00
DIRECT COSTS	
Copies	\$1.00
Meals	\$36.00
Lodging	\$125.00
Scuba Diving Equipment & Insurance	\$75.00
Misc. Expenses	\$1.00

COLLIER COUNTY, FLORIDA
ANALYSIS AND REPORT OF BIOLOGICAL MONITORING; FEE PROPOSAL

TASK DESCRIPTION	EQUIPMENT COSTS							DIRECT COSTS			
	Trimble Differential GPS	Survey Boat (28 ft. Parker)	Hypack Navigation System	Underwater Video Camera	Scuba Tanks	Mobile Phone	Scuba Diving Equipment & Insurance	Truck (2WD road use)	Meals	Lodging	Misc. Expenses
	(Days)	(Days)	(Days)	(Days)	(No.)	(Days)	(Days)	(Miles)	(Days*Crew)	(Days*Crew)	(\$)
I. BIOLOGICAL DATA ANALYSIS & REPORT PREPARATION											
a. DATA REDUCTION & EVALUATION											
b. CHARTING / MAPPING											\$150.00
c. PRODUCT QC / QA TECHNICAL REVIEW											
d. INVESTIGATION REPORT DEVELOPMENT & SUBMITTAL											\$500.00
e. CADD / GIS PRODUCT DEVELOPMENT											\$250.00
f. PRESENTATION OF FIELD INVESTIGATION RESULTS								200			\$250.00
Total =	0	0	0	0	0	0	0	200	0	0	\$1,150.00
Rate / Day =	\$415.00	\$1,050.00	\$260.00	\$115.00	\$10.00	\$10.00	\$75.00	\$0.45	\$36.00	\$125.00	\$1.00
Labor Cost =	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$89.00	\$0.00	\$0.00	\$1,150.00
TOTAL EQUIPMENT COST =	\$0.00										
TOTAL DIRECT COST =	\$1,239.00										
TOTAL COST =	\$1,239.00										



COASTAL PLANNING & ENGINEERING, INC.

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e-mail: mail@coastalplanning.net.

September 3, 2008

Gary McAlpin, Director
Collier County Government
Coastal Zone Management
3300 Santa Barbara Blvd.
Naples, Florida 34116

**Re: Response to Request for Coastal Engineering Services under Contract 06-3902 "Fixed Term Professional Engineering Services for Coastal Zone Management"
Dated July 3, 2008**

Dear Gary:

The scope of work and fee proposal in response to the County's RFP dated July 3, 2008 for coastal engineering services is attached. The work described has a time and material cost of \$36,231. This scope of services will provide the engineering, and survey services needed for completing the annual permit monitoring required by the state permit (FDEP Permit No. 0222355-001-JC) as listed below.

- | | |
|--|----------|
| I. Engineering Monitoring Report. | \$17,965 |
| II. Ground Truthing of Side-Scan Survey. | \$18,266 |

A scope of work and fee proposal for each task is provided along with the County rate sheet and an equipment rate sheet. This scope of work complements previous approved task. If you have any questions, please feel free to contact me.

Sincerely,

COASTAL PLANNING & ENGINEERING, INC.

Stephen Koehn, P.E.
Senior Coastal Engineer

F:\Marketing\Proposals\Collier\2008\CC Annual Permit Monitoring Task

cc: Gail Hambright, Coastal Zone Management Collier County

**SCOPE OF SERVICES
COLLIER COUNTY BEACH RENOURISHMENT PROJECT
ENGINEERING MONITORING REPORT, AND
GROUND TRUTHING SIDE SCAN SONAR
September 3, 2008**

Introduction:

This scope of services will complete the engineering, environmental and survey services for the annual monitoring surveys and reports required by the state permit (FDEP Permit No. 0222355-001-JC), Physical Monitoring Plan and Nearshore Hardbottom Monitoring Plan for the 2006 renourishment project and the County RFP dated July 3, 2008.

The following are the services to be provided in this scope of services:

**TASK I
Coastal Engineering Monitoring Report Preparation**

An engineering monitoring report will be prepared containing survey monitoring results compared to the pre- and post-construction conditions. The changes in shoreline width, beach sand volume placed and remaining; and other pertinent beach characteristics will be described and illustrated in tables and figures. The report will summarize and discuss the data, the performance of the beach fill project, and identify erosion and accretion patterns within the monitored area. In addition, the report will include a comparative review of project performance to expectations and identification of impacts attributable to the project and recent storms. Appendices will include plots of survey profiles and graphical representations of volumetric and shoreline position changes for the monitoring area. Results will be analyzed for patterns, trends, or changes between annual surveys and cumulatively since project construction. The ENGINEER will attend a CAC or other meeting, if requested, to present the results from the annual monitoring report. Two copies of the report along with a CD version will be provided to both the County and FDEP.

Survey data collected with this contract and the 2008 Wiggins Pass survey that are outside the project limits (R-1 to R-16 and R-85 to R-89) will be compared to historic surveys of the same region. Long term shoreline and volumetric changes will be calculated and displayed.

Four (4) copies of the reports with the accompanying data will be provided to the County and FDEP along with a CD with the electronic data.

<u>Description</u>	<u>Cost</u>
Coastal Engineering Monitoring Report (T&M)	\$17,965.00

Task II

Ground Truthing Side Scan Sonar

The side-scan data shall be ground truthed by divers to observe features mapped by the Side Scan Sonar investigation. These dives shall take place after the initial data reduction of the side scan result, and before the biological monitoring is completed, but will mobilize with either this operation or the hydrographic survey. The side scan data reduction shall be finalized based on this field investigation. These dives will facilitate the reduction of the Side Scan Sonar data. Dives will also serve as a precursor to the environmental dives investigation

The nearshore hardbottom edge locations as documented in the 2003 Marine Resource Investigation Report, the pre-construction (Summer 2005), immediate post-construction (Summer 2006) and the 1-Year post-construction will be compared the results of these surveys. A comparative analysis shall be conducted to determine if project equilibration has resulted in a change in the hardbottom edge location. Remote sensing techniques shall include beach profiles and aerial photography in addition to scan sonar imagery, and will be utilized by geologist and surveyor to map the edge of hardbottom within the potential impact zone. After the remote sensing data are analyzed, diver groundtruthing shall be conducted at select sites where comparative analysis indicates significant change in the location of the hardbottom edge has occurred or there is uncertainty in the results. The groundtruthing team shall consist of a coastal geologist, marine biologist and hydrographic surveyor.

A Florida Professional Geologist (PG) shall signed and seal the results of the side scan sonar interpretation and a Professional Surveyor and Mapper (PSM) shall signed and sealed the mapping of the hardbottom edge determined from this investigation. The results will be prepared and included with the survey report described above. The results will be incorporate into a monitoring report.

<u>Description</u>	<u>Cost</u>
Ground Truthing Side Scan Sonar (T&M)	18,266.00

COLLIER COUNTY, FLORIDA
FEE PROPOSAL FOR COASTAL ENGINEERING SERVICES
COLLIER COUNTY BEACH RESTORATION PROJECT
ENGINEERING MONITORING REPORT AND GROUND TRUTHING SIDE SCAN
SONAR RESULTS

September 3, 2008

PREPARED BY:



**COST SUMMARY
 COLLIER COUNTY BEACH RESTORATION PROJECT
 ENGINEERING MONITORING REPORT AND GROUND TRUTHING SIDE SCAN SONAR RESULTS**

PREPARED BY: COASTAL PLANNING & ENGINEERING, INC.

TASK	DESCRIPTION	LABOR COSTS	EQUIPMENT COSTS	DIRECT COSTS	TASK COST
I	ENGINEERING MONITORING REPORT T&M	\$17,965	\$0	\$0	\$17,965
II	GROUNDTRUTHING SIDESCAN SONAR DIVES T&M	\$12,500	\$3,850	\$1,916	\$18,266
TOTAL PROJECT COST =					\$36,231
All Cost are Time and Materials.					

Exhibit 1-A

Revised Schedule B – Effective May 9, 2008

Collier County Fee Schedule

Contract No. 06-3902

“Fixed Term Professional Engineering Services for Coastal Zone Management Projects”

Professional Position	Hourly Rate
Principal/President	\$185.00/hr
Principal/VP Engineering/Senior Project Manager	\$170.00/hr
Project Manager/Senior Engineer/Senior Consultant	\$150.00/hr
Project Director	\$145.00/hr
Project Engineer/architect	\$140.00/hr
Project Construction Manager	\$130.00/hr
Senior Designer	\$120.00/hr
Senior Hydrogeologist	\$127.00/hr
Junior Hydrogeologist	\$90.00/hr
Coastal Modeler	\$110.00/hr
Principle Ecologist	\$160.00/hr
Senior Ecologist	\$120.00/hr
Ecologist	\$100.00/hr
Field Ecologist	\$95.00/hr
Engineer III	\$115.00/hr
Engineer II/Field Representative/	\$125.00/hr
Sr. Landscape Architect/Sr. Scientist	
Senior Technician	\$85.00/hr
Junior Technician	\$65.00/hr
Expert Witness	\$250.00/hr

Survey & Mapping

Surveyor and Mapper Senior	\$145.00/hr.
Surveyor and Mapper Junior	\$110.00/hr
Two Man Field Party	\$125.00/hr
Three Man Field Party	\$150.00/hr
Four Man Field Party	\$170.00/hr
GPS Mapping Grade: One Man Party	\$95.00/hr
GPS Mapping Grade: Two Man Party	\$125.00/hr
GPS Mapping Grade: Three Man Party	\$165.00/hr
GPS Survey Grade: One or Two Man Party	\$160.00/hr
GPS Survey Grade: Three Man Party	\$165.00/hr

GIS

Principle GIS Consultant	\$170.00/hr
Senior GIS Consultant/Analyst	\$160.00/hr
GIS Technician	\$65.00/hr.

Administrative

Administrative Assistant/Secretary	\$55.00/hr.
Clerical, other support	\$40.00/hr.

This list is not intended to be all-inclusive. Hourly rate fees for other categories of professional, support and other services shall be mutually negotiated by the County and firm on a project by project basis as needed.

COLLIER COUNTY, FLORIDA

**COLLIER COUNTY BEACH RESTORATION PROJECT
 ENGINEERING MONITORING REPORT AND GROUND TRUTHING SIDE
 SCAN SONAR RESULTS**

LABOR, EQUIPMENT & DIRECT COST RATES

COASTAL PLANNING & ENGINEERING, INC.

EQUIPMENT RATES (DAILY)

Truck (2WD road use)	\$0.445
Survey Boat (24 ft. Privateer)	\$790
Survey Boat (28 ft. Parker)	\$1,050
John DeereGator (ATV)	\$105
Trimble Differential GPS	\$415
Trimble RTK GPS	\$495
Hypack Navigation System	\$260
Fathometer / Odom Hydrotrack Sounder	\$165
Heave, Pitch, Roll Compensator	\$215
Sound Velocity Meter	\$63
Nikon Level / Tripod	\$60
Edgetech 4200 FS Sidescan Sonar System	\$695
Sonar Wizard Map Sidescan Data Processing Package	\$155
Underwater Video Camera	\$115
Scuba Tanks	\$10
Digital Land Camera	\$10
Mobile Phone	\$10
Underwater Camera with Strobes	75

DIRECT COSTS

Meals	\$36
Lodging	\$125
Scuba Diving Equipment & Insurance	\$75
Underwater Dives - Per diver per dive	\$25
Aerial Sub-consultant	\$17,500
Misc. Expense	1.05%



COASTAL PLANNING & ENGINEERING, INC.

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e-mail: mail@coastalplanning.net.

September 5, 2008

Gary McAlpin, Director
Collier County Government
Coastal Zone Management
3300 Santa Barbara Blvd.
Naples, FL 34116

Re: Scope of Services For Baseline Environmental Permitting Investigation at Wiggins Pass

Dear Gary:

The attached scope of work and fee proposal is in response to the County's intent of reconfiguring Wiggins Pass, related to the Florida Department of Environmental Protection Permit No. 0142538-001-JC, dated January 12, 2000. The work described below has a time and material cost of \$23,522.50. Even though the following task within this scope of services has been priced as a stand-alone project, all efforts will be made to accomplish all field investigations in conjunction with the current Biological Monitoring Project:

TASK: Baseline Environmental Permitting Investigation at Wiggins Pass \$23,522.50

A scope of work and fee proposal is provided along with the County rate sheet and an equipment rate sheet. If you have any questions, please feel free to contact Chris Makowski or me at your earliest opportunity.

Sincerely,

COASTAL PLANNING & ENGINEERING, INC.



Stephen Keehn, P.E.
Senior Coastal Engineer

cc: Gail Hambright, Coastal Zone Management Collier County

BASELINE ENVIRONMENTAL PERMITTING INVESTIGATION WIGGINS PASS, COLLIER COUNTY SCOPE OF PROFESSIONAL SERVICES

BACKGROUND

This proposal has been prepared by Coastal Planning & Engineering, Inc. (CPE) to conduct a baseline investigation of environmental permitting issues related to the dredging of Wiggins Pass in Collier County. This proposal includes reviewing historic data, a field investigation, and mapping the results in order to provide information for deciding on a new configuration for Wiggins Pass. Additionally, this investigation will provide initial environmental information for a Joint Coastal Permit (JCP) application. Wiggins Pass is located along the coast of Collier County, near the northern County line (Figure 1). Barefoot Beach State Preserve lies to north, and Delnor-Wiggins Pass State Recreation Area lies to the south. On January 12, 2000, Collier County received the Florida Department of Environmental Protection (FDEP) permit No. 0142538-001-JC to widen and deepen Wiggins Pass, with subsequent maintenance dredging every two years. Dredging operations were subsequently conducted in September 2000, November 2002, December 2004, and November 2006.

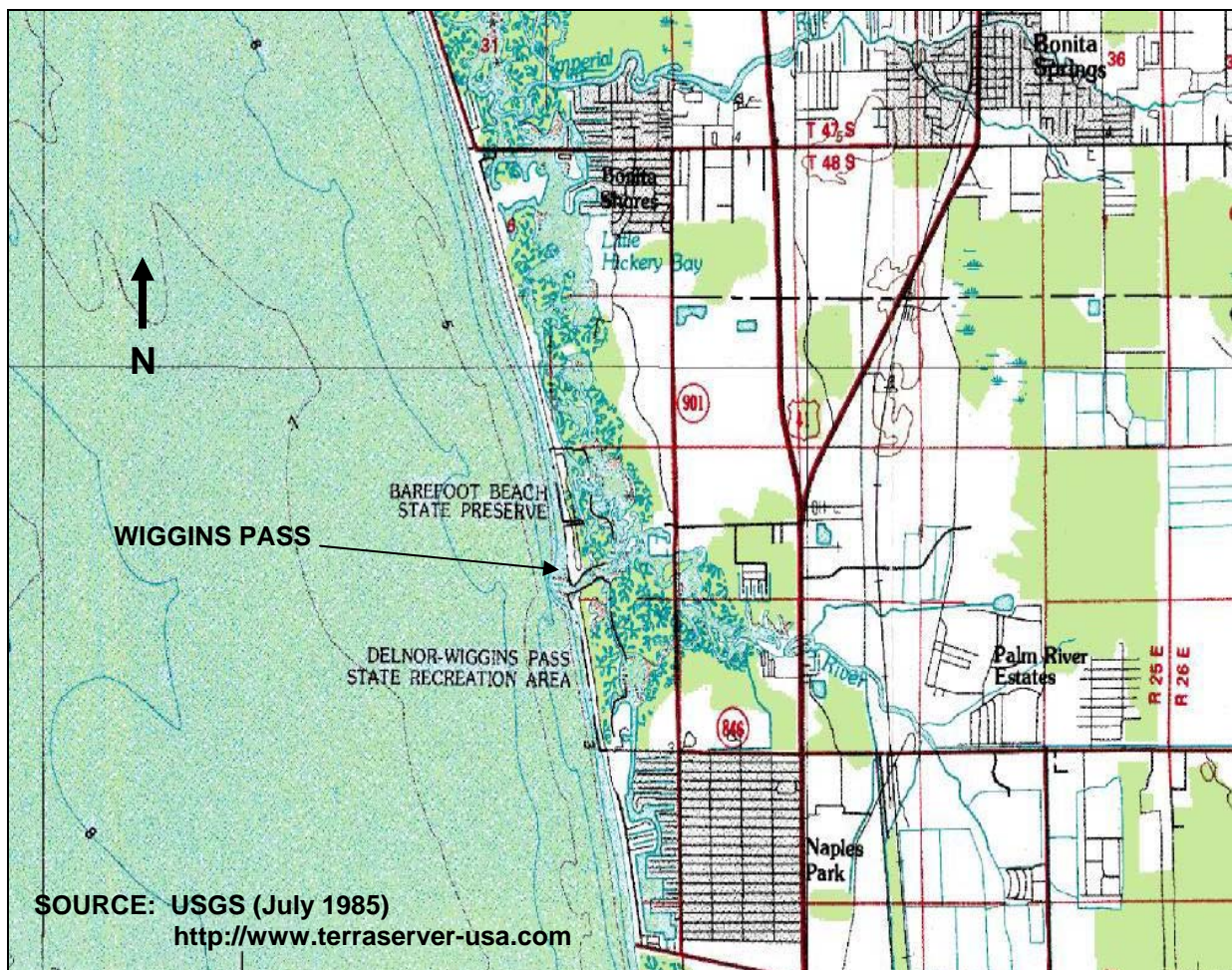


FIGURE 1. Wiggins Pass Location, Collier County, FL.

An initial model study for Wiggins Pass has found that the present channel design requires dredging at intervals less than 2 years (H&M, 2007). This study recommended the reestablishment of the inlet in a more naturally occurring configuration that existed 30 years ago. Recent modeling conducted by CPE found that a straight interior channel would potentially incur less impacts on the adjacent shoreline and improve the existing project performance. Modifications to the flood shoal are required for this alternative. This proposal details work for a baseline environmental investigation to address potential habitat impacts within Wiggins Pass, suitable for use by the Wiggins Pass Modeling Committee and for an initial permit application.

TASK 1: ADMINISTRATION AND COORDINATION

TASK 2: REVIEW OF AVAILABLE LITERATURE AND DATA

A. Literature Review

A review of existing literature on the study area will be undertaken, with an emphasis on any seagrass and mangrove delineation studies. Attention will be given to previously recorded species lists, including estuarine juvenile fish and fringing vegetation lining the Pass. Specific trees and mangroves growing in brackish waters offer nursery grounds for many developing juveniles, thus making it important that correct species are identified along the Pass. Data developed in previous studies by CEC, H&M, CPE and ECA will be collected and incorporated to the maximum degree possible for mapping existing habitats.

B. Analysis and Incorporation of Existing Aerials

Existing aerials will be obtained and analyzed for a delineation of vegetation which may fall in an area of influence along the Pass. These potential areas of influence will be incorporated and plotted in the interactive Collier County Geographic Information System (GIS) in order to obtain an estimate of vegetation acreage which may sustain effects from the Pass maintenance project.

TASK 3: PRELIMINARY DIVER SITE INVESTIGATION OF WIGGINS PASS

A preliminary diver investigation will occur within Wiggins Pass to document any environmental resources and fish species. This includes a one day field operation to investigate potential habitat resources within the channel. Specifically, concerns have arisen in regard to a potential snook habitat within the interior regions of the Pass. Dives would confirm the presence/absence of snook on the flood shoal or within the interior channels. Also, any presence of seagrass within the interior channel will be verified and mapped. Digital photography of the mangrove habitat and any seagrass beds will be taken to document the type of estuarine nursery which may come under the influence of the dredging project. All findings would be incorporated into the Collier County GIS database.

COLLIER COUNTY, FLORIDA

**BASELINE ENVIRONMENTAL PERMITTING INVESTIGATION AT WIGGINS PASS;
FEE PROPOSAL**

September 4, 2008

PREPARED BY:



COLLIER COUNTY, FLORIDA
BASELINE ENVIRONMENTAL PERMITTING INVESTIGATION AT WIGGINS PASS; FEE PROPOSAL

PREPARED BY: COASTAL PLANNING & ENGINEERING, INC.

PROJECT DESCRIPTION	LABOR COSTS	EQUIPMENT COSTS	DIRECT COSTS	PROJECT COST
BASELINE ENVIRONMENTAL PERMITTING INVESTIGATION AT WIGGINS PASS	\$20,205.00			\$20,205.00
BASELINE ENVIRONMENTAL PERMITTING INVESTIGATION AT WIGGINS PASS		\$2,140.00	\$1,177.50	\$3,317.50
TOTAL PROJECT COST =				\$23,522.50

Exhibit 1-A

Revised Schedule B – Effective May 9, 2008

Collier County Fee Schedule

Contract No. 06-3902

“Fixed Term Professional Engineering Services for Coastal Zone Management Projects”

Professional Position	Hourly Rate
Principal/President	\$185.00/hr
Principal/VP Engineering/Senior Project Manager	\$170.00/hr
Project Manager/Senior Engineer/Senior Consultant	\$150.00/hr
Project Director	\$145.00/hr
Project Engineer/architect	\$140.00/hr
Project Construction Manager	\$130.00/hr
Senior Designer	\$120.00/hr
Senior Hydrogeologist	\$127.00/hr
Junior Hydrogeologist	\$ 90.00/hr
Coastal Modeler	\$110.00/hr
Principle Ecologist	\$160.00/hr
Senior Ecologist	\$120.00/hr
Ecologist	\$100.00/hr
Field Ecologist	\$ 95.00/hr
Engineer III	\$115.00/hr
Engineer II/Field Representative /Sr. Landscape Architect/Sr. Scientist	\$125.00/hr
Senior Technician	\$ 85.00/hr
Junior Technician	\$ 65.00/hr
Expert Witness	\$250.00/hr

Survey & Mapping

Surveyor and Mapper Senior	\$145.00/hr.
Surveyor and Mapper Junior	\$110.00/hr
Two Man Field Party	\$125.00/hr
Three Man Field Party	\$150.00/hr
Four Man Field Party	\$170.00/hr
GPS Mapping Grade: One Man Party	\$ 95.00/hr
GPS Mapping Grade: Two Man Party	\$125.00/hr
GPS Mapping Grade: Three Man Party	\$165.00/hr
GPS Survey Grade: One or Two Man Party	\$160.00/hr
GPS Survey Grade: Three Man Party	\$165.00/hr

GIS

Principle GIS Consultant	\$170.00/hr
Senior GIS Consultant/Analyst	\$160.00/hr
GIS Technician	\$ 65.00/hr.

Administrative

Administrative Assistant/Secretary	\$ 55.00/hr.
Clerical, other support	\$ 40.00/hr.

This list is not intended to be all-inclusive. Hourly rate fees for other categories of professional, support and other services shall be mutually negotiated by the County and firm on a project by project basis as needed.

COLLIER COUNTY, FLORIDA

**BASELINE ENVIRONMENTAL PERMITTING INVESTIGATION AT
 WIGGINS PASS; FEE PROPOSAL**

LABOR, EQUIPMENT & DIRECT COST RATES

COASTAL PLANNING & ENGINEERING, INC.

	2008
LABOR RATES (HOURLY)	
Principal / President	\$185.00
Principal Ecologist	\$160.00
Senior GIS Consultant	\$160.00
Project Manager / Senior Engineer	\$150.00
Surveyor & Mapper Senior	\$145.00
Senior Hydrogeologist	\$127.00
Senior Ecologist	\$120.00
Engineer III	\$115.00
Surveyor & Mapper Junior	\$110.00
Ecologist	\$100.00
Senior Technician	\$85.00
GIS Technician	\$65.00
Administrative Assistant / Secretary	\$55.00
Clerical, other support	\$40.00
EQUIPMENT RATES (DAILY)	
Survey Boat (24 ft. Privateer)	\$790.00
Survey Boat (28 ft. Parker)	\$1,050.00
Truck (2WD road use)	\$0.445
Trimble Differential GPS	\$415.00
Hypack Navigation System	\$260.00
Scuba Tanks	\$18.00
Underwater Video Camera	\$115.00
Underwater Video Camera with Strobes	\$75.00
Underwater Scooter	\$50.00
Fathometer / Odom Hydrotrack Sounder	\$165.00
Heave, Pitch, Roll Compensator	\$215.00
Digital Land Camera	\$10.00
Mobile Phone	\$10.00
DIRECT COSTS	
Copies	\$1.00
Meals	\$36.00
Lodging	\$125.00
Scuba Diving Equipment & Insurance	\$75.00
Misc. Expenses	\$1.00

**COLLIER COUNTY, FLORIDA
 BASELINE ENVIRONMENTAL PERMITTING INVESTIGATION AT WIGGINS PASS; FEE PROPOSAL**

TASK DESCRIPTION	LABOR COSTS										
	Principal / President	Project Manager / Senior Engineer	Project Manager / Senior Engineer	Senior Ecologist	Ecologist	Ecologist	Engineer III	Senior Technician	GIS Technician	Administrative Assistant / Secretary	Clerical, other support
	(Hours)	(Hours)	(Hours)	(Hours)	(Hours)	(Hours)	(Hours)	(Hours)	(Hours)	(Hours)	(Hours)
I. ADMINISTRATION AND COORDINATION	1	4	4	4			2				
II. REVIEW OF AVAILABLE LITERATURE & DATA											
A. LITERATURE REVIEW				8							
B. ANALYSIS & INCORPORATION OF EXISTING AERIALS		2	2	16				4			
III. DIVER SITE INVESTIGATION											
A. MOBILIZE / DEMOBILIZE / TRAVEL				5	5	5		5			
B. FIELD OPERATIONS (1 DAY)				10	10	10		10			
C. DATA ANALYSIS		4	4	32					28	8	8
Total =	1	10	10	75	15	15	2	15	32	8	8
Labor Rate / Hour =	\$185.00	\$150.00	\$150.00	\$120.00	\$110.00	\$110.00	\$115.00	\$110.00	\$65.00	\$55.00	\$40.00
Labor Cost =	\$185.00	\$1,500.00	\$1,500.00	\$9,000.00	\$1,650.00	\$1,650.00	\$230.00	\$1,650.00	\$2,080.00	\$440.00	\$320.00
TOTAL LABOR COST =	\$20,205.00										

**COLLIER COUNTY, FLORIDA
 BASELINE ENVIRONMENTAL PERMITTING INVESTIGATION AT WIGGINS PASS; FEE PROPOSAL**

TASK DESCRIPTION	EQUIPMENT COSTS									DIRECT COSTS			
	Trimble Differential GPS	Survey Boat (28 ft. Parker)	Hypack Navigation System	Underwater Video Camera	Scuba Tanks	Mobile Phone	Underwater Scooter	Underwater Video Camera with Strobes	Scuba Diving Equipment & Insurance	Truck (2WD road use)	Meals	Lodging	Misc. Expenses
	(Days)	(Days)	(Days)	(Days)	(No.)	(Days)	(Days)	(Days)	(Days)	(Miles)	(Days*Crew)	(Days*Crew)	(\$)
I. ADMINISTRATION AND COORDINATION													
II. REVIEW OF AVAILABLE LITERATURE & DATA													
A. LITERATURE REVIEW													\$100.00
B. ANALYSIS & INCORPORATION OF EXISTING AERIALS													\$100.00
III. DIVER SITE INVESTIGATION													
A. MOBILIZE / DEMOBILIZE / TRAVEL													
B. FIELD OPERATIONS (1 DAY)	1	1	1	1	5	1	1	1	1	300	4	4	
C. DATA ANALYSIS													200
Total =	1	1	1	1	5	1	1	1	1	300	4	4	400
Rate / Day =	\$415.00	\$1,050.00	\$260.00	\$115.00	\$18.00	\$10.00	\$50.00	\$75.00	\$75.00	\$0.445	\$36.00	\$125.00	\$1.00
Labor Cost =	\$415.00	\$1,050.00	\$260.00	\$115.00	\$90.00	\$10.00	\$50.00	\$75.00	\$75.00	\$133.50	\$144.00	\$500.00	\$400.00
TOTAL EQUIPMENT COST = \$2,140.00													
TOTAL DIRECT COST = \$1,177.50													
TOTAL COST = \$3,317.50													