

EXECUTIVE SUMMARY

Recommendation to approval Work Order under Contract 09-5262 with Coastal Planning & Engineering for North County Passes Survey and Engineering Report for time and material not to exceed \$79,935. This is the unfinished work under the BVO contract for Physical Monitoring and a contracting method change in an attempt to satisfy the Clerk's concerns for the County's contracting method.

OBJECTIVE: In an attempt to satisfy the Clerk's concerns about the legality of the contracting method for the balance of the work for Physical Monitoring by canceling the incompleted BVO contract amount and re-contracting based on the previous staff award process.

CONSIDERATIONS: Scope of unfinished work to include the following: The surveys of Clam Pass, Wiggins Pass, and Doctor's Pass are designed to satisfy the physical monitoring requirements for the JCP permit of each respectively, in conjunction with other surveys. All surveys will be done under the direct supervision of a Florida Registered Professional Surveyor and Mapper. All work will be conducted following standard topographic and hydrographic survey methods. A combined engineering monitoring report will be prepared for all three inlets.

ADVISORY COMMITTEE RECOMMENDATIONS: At the CAC April 8, 2010 meeting this item was recommended for approval 6-1.

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.

LEGAL CONSIDERATIONS: This item has been reviewed and approved by the County Attorney's Office and is legally sufficient for Board action. - CMG

RECOMMENDATION: That the TDC recommend to approve Work Order under Contract 09-5262 with Coastal Planning & Engineering for North County Passes Survey and Engineering Report for time and material not to exceed \$79,935.

PREPARED BY: Gail Hambright, CZM



COASTAL PLANNING & ENGINEERING, INC.

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March 31, 2010

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

Re: North County Passes Survey and Engineering Report; Contract Number 09-5262
FDEP Permit No. 142538006 Wiggins Pass
FDEP Permit No. 235710-001 JC Doctors Pass
FDEP Permit No. 1284163-001-JC Clam Pass

Dear Gary:

This letter is in response to your request for a proposal for Surveying and Coastal Engineering Services for the North County Passes: Wiggins Pass, Clam Pass and Doctors Pass. The survey will be used to meet annual monitoring requirements and may be used to design the next maintenance dredging for one or more of the passes. The following services are proposed in accordance with the project permit and recent dredging activity:

The surveys of Clam Pass, Wiggins Pass, and Doctor's Pass are designed to satisfy the physical monitoring requirements for the JCP Permit of each respectively, in conjunction with other surveys. All surveys will be done under the direct supervision of a Florida Registered Professional Surveyor and Mapper. All work will be conducted following standard topographic and hydrographic survey methods as describe below in the section label "General Survey Methods". A combined engineering monitoring report will be prepared for all three inlets. The not to excess time & material price for the work is \$79,935.

The following scope of work is proposed:

1. Doctors Pass Surveys: 76 Cross Sections
2. Doctors Pass Survey Report
3. Clam Pass Surveys: Up to 49 Cross Sections
4. Clam Pass Survey Report
5. Wiggins Pass: 18 Cross Sections and 10 Profile Lines
6. Wiggins Pass Survey Report
7. Combined Engineering Report
8. Completion of Marco Island Survey and Report

General Survey Methods:

Prior to the start of the survey, a reconnaissance of the monuments will be conducted to confirm that the survey control is in place and undisturbed. Real Time Kinematics (RTK) Global Positioning System (GPS) will be used to locate and confirm the survey control for this project. If necessary, GPS static methods will be used to establish high order control if none is locally available. All data will be collected relative to the North American Datum on 1983 (NAD 83) and the North American Vertical Datum of 1988 (NAVD 88). All coordinates will be referenced to the Florida State Plane System.

Typical cross-sections in the project areas will be surveyed using extended rod RTK GPS rovers, or vessel based sounders. The extended rod RTK GPS rovers allow surveyors from CPE to expand the extent of RTK GPS survey capability into the near shore. The current system allows surveyors to collect the entire beach profile with RTK GPS technology. The nearshore survey will be conducted using an Odom Hydrotrac sounder with digitizer fathometer on CPE's 24-foot Privateer survey vessel with a centrally located hull-mounted transducer. A Trimble RTK GPS and a TSS Motion Compensator are used onboard the survey vessel to provide instantaneous tide corrections as well as heave, pitch, and roll corrections. All areas inaccessible to the survey vessel will be surveyed with RTK rovers and swimmers.

As a quality control measure, manual tide readings are also taken while conducting the profile surveys. In order to maintain the vessel navigation along the profile lines, the HYPACK navigation software will be used. This software provides horizontal position to the sounding data allowing real-time review of the profile data in plan view or cross section format. HYPACK also provides navigation to the helm to control the deviation from the online azimuth. Horizontal and vertical positioning checks are conducted at the beginning and end of each day using 2nd order monuments located in the project area. The sounder will be calibrated via bar-checks and a sound velocity probe at the beginning and end of the day. The DIGIBAR PRO sound velocity meter offers a fast additional calibration for sound velocity as compared to the traditional bar-check. Bar checks were performed from a depth of five feet to a minimum depth of twenty-five feet. Analog data showing the results of the bar check calibration will be displayed on the sounder charts at five foot increments during descent and ascent of the bar.

While offshore, 10 surface grab sand samples will be collected in the Wiggins Pass inlet shoals and beaches using a standard Ponar Grab Sampler. The sand samples will be sieved according to FDEP BBCS standards. In addition, 10 beach profile lines will be surveyed at Wiggins Pass to support future design and permitting of the next maintenance dredging project.

All survey methods and deliverables will adhere to accuracy guidelines and requirements set forth in Chapter 61G17-6, Florida Administrative Code (F.A.C.) Minimum Technical Standards established by the Florida Board of Professional Surveyors and Mappers pursuant to Chapter 472 of the Florida Statutes. Deliverables will include a signed and sealed survey report that fulfills requirements of the FDEP Monitoring Standards for Beach Erosion Control Projects, March 2004. The report will include surveyed cross sections compared to the latest pre- and post-construction surveys and the permitted template.

Coastal Engineering Monitoring Report: CPE will prepare an engineering report to summarize and discuss the survey data. The report will identify scour and deposition patterns within the Passes, and the amount of sand within the dredge template. In addition, the report shall identify any impacts attributable to the project. The monitoring report will incorporate the survey report as exhibits. Appendices will include plots of survey profiles and graphical representations of the scour and deposition patterns within the passes, and will be based on those prepared for the survey report. The engineering report and the survey data shall be submitted to FDEP within 90 days following the completion of the monitoring survey.

Marco Island Beaches Survey and Report Completion: The Marco and Hideaway Beaches survey and report tasks were started under a BVO contract, but will be completed under this contract. The field survey and report is completed, and will be reviewed and disturbed under this task. The engineering report was started, and will be completed with figures and exhibits drawn from the survey report.

If you have any questions regarding this scope of work, please call me.

Sincerely,

COASTAL PLANNING & ENGINEERING, INC.

A handwritten signature in black ink, appearing to read 'S. Keehn', written over a horizontal line.

Stephen Keehn, P.E.
Senior Coastal Engineer

cc: Sheri Dindial, CPE

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Activity Type/ Task	Type	Resource Hours/ Units	Billing Rate	Contract
North Collier Passes Contract No. 09-5262		448.00	NTE T&M	79,935
Administration		2.0		451
Labor	Project Manager	2.0	148.00	296.00
Labor	Senior Engineer	1.0	155.00	155.00
Doctor's Pass Survey				
Doctor's Pass Field Work		60.0		14,046
Labor	Two Man Field Party	36.0	130.00	4,680.00
Labor	Project Manager	8.0	148.00	1,184.00
Labor	Designer/GIS Specialist	16.0	100.00	1,600.00
Expense	Survey Boat (24 ft. Privateer)	3.0	790.00	2,370.00
Expense	RTK GPS (REAL TIME)	3.0	495.00	1,485.00
Expense	Fathometer w/Digitizer	3.0	165.00	495.00
Expense	Heave, Pitch, Roll Compensator	3.0	215.00	645.00
Expense	Velocity Meter	3.0	60.00	180.00
Expense	Hypack Navigation System	3.0	260.00	780.00
Expense	Meals	6.0	36.00	216.00
Expense	Lodging	3.0	100.00	300.00
Expense	Mileage	250.0	0.45	111.25
Reduction and Reporting		60.0		5,904
Labor	Project Manager	8.0	148.00	1,184.00
Labor	Designer/GIS Specialist	20.0	100.00	2,000.00
Labor	CADD Operator	32.0	85.00	2,720.00
Clam Pass Survey				
Clam Pass Field Work		96.0		13,703
Labor	Two Man Field Party	36.0	130.00	4,680.00
Labor	Inspector	36.0	65.00	2,340.00
Labor	Project Manager	8.0	148.00	1,184.00
Labor	GIS Operator	16.0	100.00	1,600.00
Expense	GATOR 4 x 4 UTILITY VEHICLE			0.00
Expense	RTK GPS (REAL TIME)	3.0	495.00	1,485.00
Expense	Survey Boat (24 ft. Privateer)	1.0	790.00	790.00
Expense	Fathometer w/Digitizer	1.0	165.00	165.00
Expense	Heave, Pitch, Roll Compensator	1.0	215.00	215.00
Expense	Velocity Meter	1.0	60.00	60.00
Expense	Hypack Navigation System	1.0	260.00	260.00
Expense	Meals	9.0	36.00	324.00
Expense	Lodging	6.0	100.00	600.00
Reduction and Reporting		64.0		5,512
Labor	Project Manager	4.0	148.00	592.00
Labor	GIS Operator	20.0	100.00	2,000.00
Labor	Inspector	24.0	65.00	1,560.00
Labor	CADD Operator	16.0	85.00	1,360.00

Wiggins Pass		6 of 7		
Wiggins Pass Field Work-Shoal Only		60.0		16,807
Labor	Two Man Field Party	58.0	130.00	7,540.00
Labor	Inspector	24.0	65.00	1,560.00
Labor	Project Manager	4.0	148.00	592.00
Labor	Designer/GIS Specialist	13.0	100.00	1,300.00
Expense	RTK GPS (REAL TIME)	3.0	495.00	1,485.00
Expense	Survey Boat (24 ft. Privateer)	2.0	790.00	1,580.00
Expense	Fathometer w/Digitizer	2.0	165.00	330.00
Expense	Heave, Pitch, Roll Compensator	2.0	215.00	430.00
Expense	Velocity Meter	2.0	60.00	120.00
Expense	Hypack Navigation System	2.0	260.00	520.00
Expense	Meals	6.0	36.00	216.00
Expense	Lodging	2.0	100.00	200.00
Expense	Mileage	300.0	0.45	133.50
Expense	Sieve sand Samples	10.0	80.00	800.00
Reduction and Reporting		40.0		4,302
Labor	Project Manager	4.0	148.00	592.00
Labor	Designer/GIS Specialist	14.0	100.00	1,400.00
Labor	CADD Operator	18.0	85.00	1,530.00
Labor	Inspector	12.0	65.00	780.00
Coastal Engineering Report		40.0		16,680
Labor	Senior Engineer	36.0	155.00	5,580.00
Labor	Coastal Engineer Jr.	120.0	80.00	9,600.00
Labor	CADD Tech.	12.0	85.00	1,020.00
Labor	Clerical	8.0	60.00	480.00
Complete Marco Island Beaches Survey and Report		26.0		2,530
Labor	Senior Engineer	6.0	155.00	930.00
Labor	Coastal Engineer Jr.	20.0	80.00	1,600.00

Schedule B

Contract No: 09-5262 "County Wide Engineering Services"

Standard Hourly Rate Schedule for all disciplines

<u>Personnel Category</u>	<u>Standard Hourly Rate</u>
Principal	\$195
Senior Project Manager	\$165
Project Manager	\$148
Senior Engineer	\$155
Engineer	\$119
Senior Inspector	\$85
Inspector	\$65
Senior Planner	\$140
Planner	\$110
Senior Designer	\$115
Designer	\$100
Environmental Specialist	\$115
Senior GIS Specialist	\$145
GIS Specialist	\$100
Clerical	\$60
Surveyor and Mapper	\$130
CADD Technician	\$85
Survey Crew - 2 man	\$130
Survey Crew - 3 man	\$160
Survey Crew - 4 man	\$180

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.