

CITY OF DELRAY BEACH
CONSULTING SERVICE AUTHORIZATION

DATE: _____

SERVICE AUTHORIZATION NO. _____ FOR CONSULTING SERVICES

CITY P.O. NO. _____ CITY EXPENSE CODE: _____

CITY PROJECT NO. _____ CONSULTANTS PROJECT NO. _____

TITLE: 2024 Coastal Engineering Services

This Service Authorization, when executed, shall be incorporated in and shall become an integral part of the Contract.

TITLE: Coastal Engineering Consulting Services Contract 12-070 (dated August 26, 2015, and as Amended)

I. PROJECT DESCRIPTION

The City of Delray Beach (City) has one of the most successful beach maintenance and preservation programs in the United States. Prior to 1973, beach erosion was so severe that portions of State Road A1A had collapsed into the Atlantic Ocean. In 1973, the City embarked on a program, supplemented by Federal, State and County funding, to nourish and maintain the eroded beach. Since 1973, the beach has been successfully maintained by the City. Currently, the City is continuing post-construction monitoring of the 2020 Shore Protection Project, evaluating the project performance to estimate the timeline of the future Renourishment event.

II. SCOPE OF SERVICES

Task 1 – 2024 Physical Monitoring

The 2024 physical monitoring surveys will be collected throughout the City’s monitoring area to satisfy post-construction monitoring of the 2020 Shore Protection Project. This survey will also be utilized to continue to assess the beach project performance.

1A. Beach Nourishment Program Support

Project administration includes assistance with State and Federal permitting agency coordination, quarterly reporting, and the annual Local Government Funding Request. Aptim Environmental & Infrastructure, LLC and its subconsultant, Coastal Protection Engineering (the APTIM Team), will assist the City in the development of grant invoices, tracking and submitting Florida Department of Environmental Protection (FDEP) funding reimbursement requests. The APTIM team will also attend City meetings as required, and other associated assistance specific to the renourishment program through March 2025.

1B. Beach Profile Surveys (R-171 to R-192)

In accordance with the Bureau of Beaches and Coastal Systems (BBCS) Monitoring Standards for Beach Erosion Control Projects, topographic (onshore) and bathymetric (offshore) surveys of the beach and offshore in Delray Beach will be conducted during the summer of 2024. The monitoring data will be used to assess, with quantitative measurements, the performance of the beach renourishment projects. The monitoring data will provide the City, the FDEP, and the United States Army Corps of Engineers (USACE) information

necessary to continue planning for the next renourishment project and evaluate beach performance.

The 2024 monitoring event will consist of topographic and bathymetric surveys of the beach to include both full permitted beach renourishment areas, including approximately one mile north and south of the combined project limits as required by the physical monitoring plan. The monitoring surveys will include twenty-two (22) FDEP profile lines from R-171 to R-192. All profile surveys will extend offshore a minimum of 3,000 ft. or to the -30 ft. (NAVD) contour. All work activities and deliverables shall be conducted in accordance with the March 2014 BBCS Monitoring Standards for Beach Erosion Control Projects, Sections 01000 and 01100. A survey report with signed and sealed survey drawings will be provided as deliverable for this task.

1C. Engineering Evaluation & Monitoring Report

The APTIM Team will develop and submit the 2024 physical monitoring engineering report to the FDEP within ninety (90) days following completion of the survey. The engineering report will address the 2024 physical monitoring results, will summarize and discuss the project performance since completion of the beach renourishment projects and will be a useful tool for planning for the 6th Periodic Renourishment.

Task 2 – Blue Flag Award Program Support

The Blue Flag Award Program is an internationally recognized program that accredits beaches, marinas, and boats who meet and maintain a series of stringent environmental, educational, safety-related and access related criteria. More specifically, beaches must meet the program's high standards in the four categories of water quality, environmental management, environmental education, and safety. The US Blue Flag Program is administered by the American Shore and Beach Preservation Association (ASBPA) and in February 2022, ASBPA announced that the City of Delray Beach has met the initial requirements to be a Blue Flag beach candidate. One component of the requirements for Blue Flag Award is to collect monthly beach water samples of e. Coli to test the bathing water quality. APTIM will continue to assist the City collecting one e. coli beach water samples per month through April 2025 and re-sampling (as required) in the event a sample fails.

Task 3 – Pre-Bidding Support

APTIM will assist the City with their ongoing coordination with USACE for the upcoming storm repair project, currently anticipated for construction in Winter 2025/26. APTIM will assist with the review of bid documents including technical specifications and construction drawings. It is acknowledged that the USACE will provide construction administration and, in that capacity, will provide specific direction to the Contractor. We will be available to the project team for support on the City's behalf and support with general project knowledge/experience, permit compliance, and technical expertise. We will coordinate with the USACE project team and/or contractor as necessary and keep the City informed of schedules, meetings, permit compliance and any other pertinent project information. APTIM will support the City the coordination of additional works in the project such as placement of additional advanced nourishment sand or construction material volume above those planned by the USACE. No permit modifications are anticipated as part of this scope.

APTIM will attend conference calls and virtual meetings for the USACE storm repair project. The pre-construction conference is required as a permit condition. Participants will include the City, the Contractor, the FDEP, the USACE, other environmental agencies and the marine turtle permit holder as well as our personnel. The permits will be reviewed and discussed as required by the permit. We will participate in the meeting and provide input as related to the project and scope of work, the construction methodology, technical specifications and schedule, construction access and work areas, and the specific conditions of the permits and approvals for the project.

III. COMPENSATION

APTIM proposes to provide the outlined services herein on a Lump Sum basis as detailed below. The total proposed cost is \$102,489.50 as summarized in Table 1 below and detailed in Attachment 1. Should the project require additional services not represented in this proposal, APTIM will request a mutually agreeable service authorization from the City of Delray Beach.

Table 1. Breakdown of costs associated for each task.

TASK	DESCRIPTION	LABOR COSTS	EQUIPMENT COSTS	TASK COST
1	2024 Physical Monitoring	\$64,610.00	\$4,219.90	\$68,829.90
2	Blue Flag Award Program Support	\$5,250.00		\$5,250.00
3	Pre-Construction Services	\$28,409.60		\$28,409.60
	SUBTOTALS	\$98,269.60	\$4,219.90	\$102,489.50
TOTAL =				\$102,489.50

This Service Authorization is approved contingent upon the City's acceptance of and satisfaction of the completion of the services rendered in the previous phase whereas encompassed by the previous Service Authorization. If the City in its sole discretion is unsatisfied with the services provided in the previous phase or Service Authorization, the City may terminate the contract without incurring any further liability. The Consultant shall commence work upon City Commission approval and this Service Authorization to be included as part of the contract without any further notice to proceed.

IN WITNESS WHEREOF, the City and the Consultant executed this Agreement as of the day and year first above written.

CITY OF DELRAY BEACH

ATTEST:

Katerri Johnson, City Clerk

By: _____
Thomas F. Carney, Jr., Mayor

Approved as to form and legal sufficiency:

Lynn Gelin, City Attorney

CONSULTANT

By: _____
Print Name: Nicole Sharp
Title: Director, Coastal Engineering

(SEAL)

STATE OF Florida
COUNTY OF Palm Beach

The foregoing instrument was acknowledged before me by means of physical presence or online notarization, this 2 day of May, 2024, by Nicole Sharp (name of person), as Director (type of authority) for APTIM (name of party on behalf of whom instrument was executed).

Personally known X OR Produced Identification _____
Type of Identification Produced _____



Notary Public -- State of Florida

CITY OF DELRAY BEACH, FL
FEE PROPOSAL FOR
2024 COASTAL SERVICES
BEACH NOURISHMENT PROGRAM

April 22, 2024

PREPARED BY:
APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC

**CITY OF DELRAY BEACH, FL
FEE PROPOSAL FOR
2024 COASTAL SERVICES**

BEACH NOURISHMENT PROGRAM

PROJECT PROPOSAL SUMMARY

PREPARED BY: APTIM ENVIRONMENTAL & INFRASTRUCTURE, INC.

TASK	DESCRIPTION	LABOR COSTS	EQUIPMENT COSTS	TASK COST
1	2024 Physical Monitoring	\$64,610.00	\$4,219.90	\$68,829.90
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	SUBTOTALS	\$98,269.60	\$4,219.90	\$102,489.50
				TOTAL = \$102,489.50

**CITY OF DELRAY BEACH
2024 COASTAL SERVICES
FEE PROPOSAL FOR**

BEACH NOURISHMENT PROGRAM

LABOR, EQUIPMENT & DIRECT COST RATES

PREPARED BY: APTIM ENVIRONMENTAL & INFRASTRUCTURE, INC.

LABOR RATES (HOURLY)	
Principal Engineer	\$230
Expert Witness (Testimony)	\$230
Senior Project Manager	\$215
Senior Coastal Engineer	\$185
Program Manager	\$165
Coastal Engineer III	\$150
Coastal Engineer II	\$125
Coastal Engineer I	\$105
Coastal Modeler II	\$130
Coastal Modeler I	\$110
Professional Surveyor & Mapper	\$130
Hydrographer	\$125
Surveyor	\$95
Survey Technician	\$80
Senior Marine Biologist	\$140
Marine Biologist II	\$95
Marine Biologist I	\$72
Professional Geologist	\$130
Geologist III	\$130
Geologist II	\$95
Geologist I	\$80
Senior CAD Operator	\$150
CAD Operator	\$110
GIS Operator	\$110
Boat Captain	\$80
Bookkeeper	\$80
Clerical	\$72
Technician	\$57
EQUIPMENT RATES (DAILY)	
Survey Boat 24'	\$790
Truck (Road Use per mile)	\$0.565
Trimble RTK GPS	\$495
GPS Integrated Underwater Video Camera	\$435
SCUBA Tanks (Nitrox)	\$19
Dive Equipment and Insurance per diver per day in addition to normal hourly rates for personnel	\$75
Heave, Pitch & Roll Compensator	\$215
Speed of Sound Velocity Meter	\$63
Hypack/DredgePack Navigation System	\$260
Odom Hydrotrack Sounder	\$165
X-Star Chirp 512i Seismic Profiling System	\$1,150
Seismic Profiler Thermal Printer	\$130
Edgetech 4200 FS Sidescan Sonar System	\$695
Geometric G-881 Magnetometer	\$215
Enclosed 18' Trailer	\$78
Nikon Level/Tripod/Rod	\$65
Digital Camera	\$10
All Terrain Vehicle	\$105
Sonar Wizard Map Seismic Data Processing Package	\$155
Sieve Analysis	\$70
Carbonate Analysis	\$60
SEAS V700 Vibracore System	\$3,750
Jet Probe with Pump	\$35
Generator	\$45
Ponar Grab Sampler	\$25
DIRECT COSTS - Actual Cost plus 10%	
Actual Cost plus 10%	1.10

CITY OF DELRAY BEACH, FL
FEE PROPOSAL FOR
2024 COASTAL SERVICES
BEACH NOURISHMENT PROGRAM

PREPARED BY: APTIM ENVIRONMENTAL & INFRASTRUCTURE, INC.

	Total Labor & Sub Cost Per Sub Task	Sub-Consultant	Senior Coastal Engineer	Coastal Engineer II	Coastal Engineer I	Professional Surveyor and Mapper	Marine Biologist II	Survey Technician	Senior CAD Operator	CAD Operator	GIS Operator	Boat Captain	Clerical
			(Hours)	(Hours)	(Hours)	(Hours)	(Hours)	(Hours)	(Hours)	(Hours)	(Hours)	(Hours)	(Hours)
1. 2024 Physical Monitoring													
1a. Beach Nourishment Program Support	\$21,929.20	\$9,552.00	1	45	20					16	12		6
1b. Beach Profile Surveys R-171 to R-192	\$15,115.00			1		12		120	1		16	24	
1c. Engineering Evaluation & Monitoring Report	\$27,565.80	\$9,728.00	1	120						12			5
2. Blue Flag Award Program Support													
2a. E. Coli sample collection	\$5,250.00			10				50					
3. Pre-Bidding Support													
3a. Pre-Bidding Services	\$28,409.60	\$10,936.00	8	50	30		10		1	40			
Total Hours =			10.00	226	50	12	10	170	2	68	28	24	11
Rate =			\$185.00	\$125	\$105	\$130	\$95	\$80	\$150	\$110	\$110	\$80	\$72
Cost =			\$1,850	\$28,250	\$5,250	\$1,560	\$950	\$13,600	\$300	\$7,480	\$3,080	\$1,920	\$792
TOTAL LABOR COSTS = \$65,032.00 TOTAL EQUIPMENT COSTS = \$4,219.90 TOTAL SUB COSTS = \$33,237.60 TOTAL COSTS = \$102,489.50													

**CITY OF DELRAY BEACH, FL
FEE PROPOSAL FOR
2024 COASTAL SERVICES
BEACH NOURISHMENT PROGRAM**

PREPARED BY: APTIM ENVIRONMENTAL & INFRASTRUCTURE, INC.

	Task Equipment Cost	EQUIPMENT COSTS							
		Survey Boat 24' (Days)	Truck (Road Use per mile) (Miles)	Trimble RTK GPS (Days)	Odom Hydrotrack Sounder (Days)	Heave, Pitch & Roll Compensator (Days)	All Terrain Vehicle (Days)	Speed of Sound Velocity Meter (Days)	Hypack/DredgePack Navigation System (Days)
1. 2024 Physical Monitoring									
1a. Beach Nourishment Program Support									
1b. Beach Profile Surveys R-171 to R-192	\$4,219.90	2	60	2	2	2	2	2	2
1c. Engineering Evaluation & Monitoring Report									
2. Blue Flag Award Program Support									
2a. E. Coli sample collection									
3. Pre-Bidding Support									
3a. Pre-Bidding Services									
		Total Hours =	2	60	2	2	2	2	2
		Rate =	\$790	\$0.565	\$495	\$165	\$215	\$105	\$63
		Cost =	\$1,580	\$33.90	\$990	\$330	\$430	\$210	\$126
TOTAL EQUIPMENT COSTS =	\$4,219.90								



COASTAL PROTECTION ENGINEERING

5301 N. FEDERAL HWY, SUITE 335

BOCA RATON, FL 33487

561-565-5100

January 19, 2024

Revised April 5, 2024

Doris Otero

Project Manager

Aptim Environmental & Infrastructure, LLC

Submitted via email to Doris.Otero@aptim.com

Re: Proposal to Assist with Delray Beach 2024 Coastal Services

Dear Doris,

This proposal is in response to Aptim Environmental & Infrastructure's (APTIM) request for Coastal Protection Engineering (CPE) to assist APTIM with Delray Beach 2024 Coastal Services work. We propose to provide professional services as listed below by Task.

Task 1: CPE will assist APTIM staff in preparing the annual Local Government Funding Request by providing input on project timing, funding request needs, or coordination with project partners and will assist in reviewing FDEP quarterly reports. CPE's Program Manager will be available to assist the City in tracking and submitting State funding reimbursement requests, if needed. CPE's staff including Program Manager and Senior Marine Biologist will assist in replying to miscellaneous client requests for program assistance specific to the renourishment program through April 2025.

Task 2: A CPE Professional Engineer will provide guidance for monitoring analyses, graphic development, and report writing conducted by APTIM coastal engineers and GIS/CAD operators. Once drafted, CPE will review the monitoring report and calculations. CPE will provide input on evaluation of project performance for continued project planning and coordination with project partners.

Task 3: CPE will Support the City in their ongoing coordination with USACE for the upcoming storm repair project, currently anticipated for construction in Winter 2025/26. Pre-bidding coordination services are expected to include:

- Participation in conference calls and virtual meetings
- Assistance with answering requests for information from USACE
- Engineering analyses, review and input on project design
- Technical review of bid documents prepared by USACE including technical specifications and construction drawings
- CPE will support the City in their coordination for inclusion of additional works in the storm repair project such as placement of additional advanced nourishment sand or construction of the southern taper extension that may be beyond the volumes planned for placement by USACE. CPE staff will be available to support design calculations, borrow area suitability and planning, coordination of these additions into the federal bid package, and can serve as the signing professional engineer (PE) if additional construction drawing sheets are required to illustrate the work. These activities would be conducted under existing permits; no permit modifications are proposed in this task.



Bidding support, pre-, during- and post-construction services may be provided under a separate service authorization.

CPE proposes to provide these services for an amount of \$30,216.00 billed on a lump sum basis. A fee proposal including estimated hours to provide these services is attached. All work will be performed in accordance with the existing Master Service Agreement between APTIM and CPE executed July 24, 2019. This cost is limited to a projection of hours and estimate of effort based on information known at this time. Should the project or client require additional services beyond these estimated hours, CPE and APTIM will discuss adjustments as deemed appropriate.

If you have any questions, please feel free to contact me directly at 631-896-9137.

Sincerely,

A handwritten signature in blue ink, appearing to read "Tara Brenner".

Tara Brenner, PG, PE

Senior Coastal Engineer

Coastal Protection Engineering LLC

Mobile: 631-896-9137

tbrenner@coastalprotectioneng.com

Quote No. 2023251



Submitted to:
Doris Otero

Client Contact:

Project Name:

Provided by:
Coastal Protection Engineering LLC
5301 N. Federal Hwy, Suite #335
Boca Raton, FL, 33487

Project manager:
Tara Brenner
Phone: +16318969137
E-mail: tbrenner@coastalprotectioneng.com

Date: 04/05/2024

Product name and additional info	Quantity	Price	Sum
Task 1 Renourishment Program Support			9,552.00
Delray - Program Manager (TB)	56	152.00	8,512.00
Delray - Senior Marine Biologist (SB)	8	130.00	1,040.00
		Subheading subtotal:	9,552.00
Task 2 2024 Physical Monitoring			9,728.00
Delray - Program Manager (TB)	64	152.00	9,728.00
		Subheading subtotal:	9,728.00
Task 3 Pre-Bidding Support			10,936.00
Delray - Program Manager (TB)	48	152.00	7,296.00
Delray - Senior Marine Biologist (SB)	28	130.00	3,640.00
		Subheading subtotal:	10,936.00
		Subtotal:	30,216.00
		Tax:	0.00
		Total (USD):	30,216.00