



**HUMISTON
& MOORE
ENGINEERS**

COASTAL
ENGINEERING DESIGN
AND PERMITTING

5679 STRAND COURT
NAPLES, FLORIDA 34110
FAX: 239 594 2025
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November 12, 2024
(Proposal valid for 120 days.)

Andrew Miller, Principal Project Manager
Coastal Zone Management (CZM)
Collier County Government
2685 South Horseshoe Drive Unit 103
Naples, FL 34104

**Re: Proposal for Post Hurricane Milton Surveys and FEMA Assessments for County Beaches
and Inlets Annual Monitoring for 2025
Collier County Contract 18-7432-CZ; HM File No 29-018.2025 Post Milton**

Dear Andy:

Enclosed is a proposal for

- A) Post Hurricane Milton surveys of all County beaches from R-1 to R-89 and R-58A, Central Marco from R-136 to R-138, and South Marco Island from R-139 to R-148, G-1 through G-5, and K-1 and K2.
- B) Inlet surveys for Wiggins Pass and Doctors Pass.
- C) Post storm impacts analysis and reports for FEMA eligibility for Cat B and G work, as well as sand loss eligibility described in FDEP’s email of 10/21/24.
- D) Wiggins Pass dredge permitting and agency coordination, plans and specs, bid package and bid assistance, post design services and closeout.

The completion date for all work is estimated to be 270 days from the date of the Notice to Proceed.

Task A Collier Beaches and Marco Island Beaches

Conduct the post storm survey for Collier County Beaches and Marco Island beaches by the DEP azimuths and related project monitoring control when within previously monitored reaches. This scope of work consists of DEP monuments R-1 through R-9, R-23 to R-89 and R-58A. (Note: R-10 to R-22 will be surveyed as part of Task B.) Marco surveys to extend from R-136 to R-138 for Central Marco, and R-139 to R-148 for South Marco including G-1 through G-5 and K-1 and K-2.

Task A.1 Subtotal Data Collection Budget Collier County Beaches (SDI)..... \$46,395 LS

Task A.2 Subtotal Data Collection Budget Central Marco Beaches (SDI)	\$2,750 LS
Task A.3 Subtotal Data Collection Budget South Marco Beaches (SDI)	\$12,080 LS
Task A Total (SDI)	\$61,225 LS

Deliverable: An electronic copy of the Beach Profile data and Surveyor’s Certificate.

Task B.1 Wiggins Pass Survey

Conduct the post-storm survey of Wiggins Pass consistent with monitoring scope of the annual monitoring survey for the Wiggins Pass Navigation Channel Expansion and Maintenance Dredging Project approved by DEP. This scope of work consists of FDEP monuments R-10 to R-22 including half monuments, the MHWL from R-17 NE for a minimum of 1500 feet. Stations -2+00 to 15+00 (from R-15 to R-18.5) and the navigation channel with grid lines 100 feet apart (C-3 thru C-34, CN-35 thru CN37).

Task B.1. Subtotal Data Collection Budget (SDI)	\$ 32,515 LS
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Deliverable: An electronic copy of the survey data and surveyor’s certificate.

Task B.2 Doctors Pass Survey

Conduct the post-storm survey of Doctors Pass consistent with the monitoring scope of the annual monitoring survey for Doctors Pass Maintenance Dredging Project approved by the DEP. This scope of work consists of 77 Dredge Template Profiles.

Task B.2 Subtotal Data Collection Budget (SDI)	\$ 12,850 LS
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Deliverable: An electronic copy of the survey data and surveyor’s certificate.

Task C Post storm impacts analysis and reports for FEMA eligibility for Cat B and G work, as well as sand loss eligibility described in FDEP’s email of 10/21/24.

Plot post storm surveys and evaluate volumetric changes to determine storm losses and vulnerability comparing latest pre-storm survey, data analysis, and coordination with FEMA on Emergency Berm (Category B) and engineered project losses for engineered beach limits (Category G). Provide related technical support and exhibits and provide professional services on an *as-needed* basis to assist the County in responding to the impacts of Hurricane Milton and previous storms of 2024. This includes but is not limited to:

Task C.1 Subtotal Data analysis to quantify sand losses and vulnerability to support eligibility for funding requests to FEMA.	\$28,432 LS
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Task C.2 (Optional) Subtotal Report to FEMA for Category B Funding.	\$5,418 LS
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Task C.3 (Optional) Subtotal Report to FEMA for Category G Funding.....	\$5,418 LS
Task C.4 Subtotal Quantity sand losses for support to DEP for determination of post storm beach and dune recovery plan	\$5,074 LS
Total Task C (H&M)	\$44,342 LS

Deliverable: An electronic copy of the FEMA and State Reports.

Task D Wiggins Pass Maintenance Dredging

Task D.1: Plans, Regulatory Coordination and Preparation of Technical Specifications, Bid Schedule and Opinion of Probable Costs

Construction Plans and Agency Coordination: Engineer shall prepare updated construction plans and specifications for the maintenance dredging at Wiggins Pass based on available and any updated bathymetric and topographic data from the County. Pre and post construction surveys will be required by the Contractor prior to construction. Plans will be reviewed with county and Park staff at Delnor Wiggins State park for acceptance.

Technical Specifications, Bid Schedule: Engineer will prepare Technical Specifications and a bid schedule to be included with the county contract documents for bidding. It is expected that dredging within the navigation channel is to be done with a hydraulic dredge while redistribution of sand on the south shoreline at the Park may be conducted mechanically. Technical specifications will require the selected Contractor to complete pre and post dredging and beach construction surveys.

Opinion of Probable Costs (OPC): Prepare a final opinion of probable construction costs based on the final design. This will include potential cost savings from combining this project with the Water Turkey Bay project. Development of opinion of probable construction costs will include review of county records for dredging at Wiggins Pass and recent costs for similar construction. Engineer will forward the final Opinion of Probable Costs with final construction plans and technical specifications to county for bid purposes.

Deliverable: Plans, Technical Specifications, and OPC. Task D.1 (TM) \$22,544

Task D.2 Bid Phase Services

Pre-Bid Conference, Technical Support and Addenda to Bid Package: Engineer will coordinate with County staff in preparation of responses to inquiries from potential bidders and attend a pre-bid conference with representatives of county and prospective bidders and suppliers for this project. Engineer will prepare addenda to bid documents and responses to requests for information from prospective Bidders at the request of the County on an as needed basis.

Engineer will provide updated plans and technical specifications as needed during this process to support the Bid Phase for this project.

Bid Qualification: Evaluate bidders' qualifications, contact references, and prepare a formal recommendation to County regarding awarding of the construction contract.

Deliverable: Bid recommendation.

Task D.2 (TM) \$3,545

Task D.3 Pre-Construction Services

Pre-Construction Regulatory Requirements and Agency Meeting: Engineer will coordinate with Contractor and County staff in ensuring sufficiency of required items in Technical Specifications for fulfillment of pre-construction state and federal regulatory requirements for issuance of a Notice to Proceed. Engineer and County staff will conduct a pre-construction meeting with the state and federal agencies and their respective resource agencies to present the project, intended performance, understanding of permit requirements, and schedule. The selected contractor will be present for this meeting. Engineer will provide required notices of commencement to respective state and federal agencies.

Deliverable: Summaries of Meetings (state and federal)

Task D.3(TM) \$4,697

Task D.4 Construction Observation Support

Construction Observation Support: Engineer will provide updated plans utilizing pre-dredge, pre-disposal, and Park beach survey data to be collected by the Contractor. Engineer shall support the County with supplemental coordination and periodic site reviews with the Contractor throughout construction. County staff will be on-site daily, and Engineer shall support County staff on as-needed basis during construction and coordinate meetings with Contractor, County staff, and Park staff, as necessary, weekly throughout the construction project. Engineer shall review daily reports from Contractor and conduct construction observation services as necessary to assess construction performance in reference to technical specifications and regulatory compliance and provide reviews of contractor pay requests for the County. This will include:

- Review of daily dredged tracking records and beach disposal.
- Review progress surveys from Contractor, monitor production rates and review Contractor Pay Requests with County.
- Periodic photos to document progress and daily coordination with County staff.
- Prepare as-built drawings based on progress surveys from Contractor.

It is estimated that construction of this project will take 60 days, or less to complete dependent upon weathr.

Post Project Certifications: Upon nearing project completion, the Contractor, Engineer and County staff will review the project to determine if the Work is substantially complete and develop a punch list for the Contractor. Once the contractor addresses all of the items on the

punch list and has provided sufficient survey data post dredge, post fill placement, and following sand redistribution at the Park along with related survey certifications, Engineer can recommend to the County that the project construction be deemed substantially complete so the contractor may demobilize, upon acceptance by the County.

Upon completion of the project and review of post construction survey data provided by Contractor, H&M as Engineer of Record, will provide all necessary project certifications including beach profile surveys and post dredge as-built surveys to the County, DEP and USACE for project and permit compliance. Post construction report will include a summary of dredge tracking data and turbidity monitoring, and project certifications will include reference to a set of record as-built construction plans.

Deliverable: As-built drawings and project certifications. Task 4 (TM) \$19,260

Task D Total \$50,040 TM

Total Tasks A thru D (SDI + H&M) \$200,978

Tasks will be billed on a time and materials basis, unless otherwise noted. The budgets for these tasks may therefore be considered as not-to-exceed amounts with the understanding that in the event regulatory requirements or requests from County staff result in Additional Services exceeding the estimated budget amounts, a budget amendment will be requested.

Please call if you have any questions.

Sincerely yours,

HUMISTON & MOORE ENGINEERS



Brett D. Moore, P.E.
President

Collier County Beaches and Inlets Post Storm Milton Assessment
Contract 18-7432-CZ

Estimated Summary

SUMMARY BREAKDOWN BY TASK							
Task A	Collier Beach, Marco					\$61,225.00	
Task B.1	Wiggins Pass					\$32,515.00	
Task B.2	Doctors Pass					\$12,850.00	
Task C	FEMA & DEP					\$44,342.00	
Task D	Wiggins Pass Dredging					\$50,046.00	
						\$200,978.00	
SUMMARY BREAKDOWN BY SUB-TASK							
Task A1	Collier Beach Survey					\$46,395.00	LS
Task A2	Central Marco Survey					\$2,750.00	LS
Task A.3	South Marco Survey					\$12,080.00	LS
							\$61,225
Task B.1	Wiggins Pass Survey					\$32,515.00	LS
Task B.2	Doctors Pass Survey					\$12,850.00	LS
							\$45,365
Task C.1	Data Analysis					\$28,432.00	LS
Task C.2	FEMA Report B					\$5,418.00	LS
Task C.3	FEMA Report G					\$5,418.00	LS
Task C.4	DEP Report					\$5,074.00	LS
							\$44,342
Task D.1	Plans, Specs, OPC					\$22,544.00	TM
Taks D.2	Bid Phase					\$3,545.00	TM
Task D.3	Pre-Con Services					\$4,697.00	TM
Task D.4	Construction Observevation					\$19,260.00	TM
							\$50,046
SUMMARY							\$200,978
	Sea Diversified Survey						106,590.00 (LS)
	Title		Rate	Hours			\$94,388
PRN2	Principle		\$231	90		\$20,790	
SEN	Senior Engineer		\$177	20		\$3,540	
PJTM	Project Manager		\$160	60		\$9,600	
SDS	Engineer		\$130	300		\$39,000	
SIN	Scientist/Geologist		\$115	0		\$0	
SIN	Designer		\$105	8		\$840	
SRT	Senior Technician		\$103	156		\$16,068	
INS	Inspector		\$93	40		\$3,720	
TEC	Technician		\$83	10		\$830	

Humiston & Moore Engineers

\$94,388 (TM)

TOTAL

\$200,978