

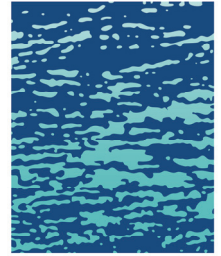
MEMORANDUM

Date: 09 December 2016

To: J. Florensa – Town of Longboat Key, FL

From: Albert E. Browder, Ph.D., P.E. *AEB*
Senior Engineer, Project Manager

Re: Work Assignment 2017-04: Beach Management Planning Study and Proposed Update to the Comprehensive Beach Management Plan
Town of Longboat Key, FL



olsen
associates, inc.
Coastal Engineering

Attached please find our proposal for a beach management planning study to produce a proposed update to the Town's Comprehensive Beach Management Plan (BMP). The Town's BMP was last updated in 2008.

Please do not hesitate to contact us with any questions. Thank you.



**TOWN OF LONGBOAT KEY
WORK ASSIGNMENT**

RFP #11-004 COASTAL ENGINEERING SERVICES

WORK ASSIGNMENT No. 2017-04

Beach Management Planning Study and Proposed Plan Update

WHEREAS, on March 19, 2012 the parties entered into an Agreement whereby Olsen Associates, Inc., (“Consultant”) would perform professional services for the Town of Longboat Key, Florida (“Town”) pursuant to an executed Work Assignment; and

WHEREAS, on March 20, 2016 the parties entered into a renewal of the March 19, 2012 Agreement, as amended March 17, 2015, whereby the Consultant would continue to perform professional services for the Town through March 20, 2017 pursuant to the terms of the March 19, 2012 Agreement between the parties; and

WHEREAS, the Town wishes to authorize the Consultant to perform professional services concerning a beach management planning study and proposed update to the Beach Management Plan of Longboat Key, FL, as more particularly described in the scope of services contained herein; and

WHEREAS, the Consultant wishes to perform such professional services.

NOW THEREFORE, in consideration of the premises and mutual covenants contained in the March 19, 2012 Agreement and in this Work Assignment, the parties agree as follows:

1. **Work Description:** The Consultant shall conduct a beach management planning study and present recommendations to the Town for an update to the Town’s Beach Management Plan (BMP). The work will describe recent beach management and maintenance activities, assess the existing and future beach management objectives of the Town for shore protection and beach program sustainability, inventory known sand sources currently available to the Town and seek to identify potential alternate sources that can be considered for future development, and evaluate feasible future beach management options -- including continued nourishment, changes in nourishment frequency, additional coastal structures, among others.
2. **Scope of Services:** The Consultant shall provide services as described in “Exhibit A, Scope of Work”. Additional services required beyond those identified in Exhibit A will require an amendment to this Work Assignment.
3. **Schedule:** The Consultant shall complete the services under this Work Assignment within 12 months of Notice to Proceed, as prescribed in Exhibit A.
4. **Compensation:** The Consultant shall receive compensation in the Lump Sum (“LS”) amount of ONE HUNDRED SIXTY NINE THOUSAND SEVEN HUNDRED DOLLARS (\$169,700.00) for rendering all of the identified goods and services as indicated in “Exhibit B,” Fee Schedule.

The Town may authorize, in writing, in advance, adjustments in the compensation for particular tasks identified under this Work Assignment, provided such adjustments do not exceed the LS compensation established herein. The Consultant shall submit to the Town invoices for the fees for those Services rendered, in arrears. The Consultant shall submit one monthly invoice for all Services performed during invoiced month. The Consultant shall submit invoices for compensation for identified goods and services in sufficient detail for a pre-and post-audit. The Town will make payment in accordance with the Florida Prompt Payment Act upon receipt of a proper invoice.

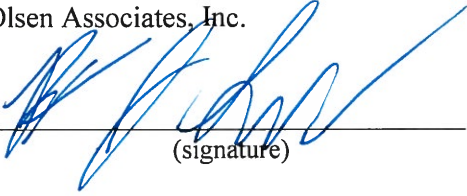
5. Special Conditions: N/A

6. The terms and conditions of the March 19, 2012 Agreement, as amended March 17, 2015 and March 20, 2016, shall remain in full force and effect until the completion of this Work Assignment. When the Consultant and the Town enter into this Work Assignment where the term of this Work Assignment expires on a date that is later than the date of expiration of the agreement dated March 9, 2012 (“Agreement”), as amended March 17, 2015 and March 20, 2016, the Consultant and the Town agree that the terms of the Agreement and any amendments, attachments, or provisions thereof are automatically extended until the expiration or full completion of the requirements of this Work Assignment have been performed. Cancellation by the Town of any remaining service prior to the full completion of the requirements of this WA shall cause the terms of the Agreement to terminate at the same time. This provision only applies when the expiration of this WA extends beyond the expiration of the Agreement. It does not apply when this WA expires or is cancelled prior to the expiration of the Agreement. All other provisions to the Agreement shall remain in full force and effect.

The parties hereto have caused this Work Assignment No. 2017-04 for the required services.

ATTEST:

As to Olsen Associates, Inc.

By: 
(signature)

Patrick J. Snyder, P.E.

(print or type name)


Coastal Engineer

(print or type title)

Date: 09 December 2016

CONSULTANT

Olsen Associates, Inc.

By: 
(signature)

Its Vice President

(title of authorized representative)

Albert E. Browder, Ph.D., P.E.

(print or type name)

Vice President

(print or type title)

Date: 09 December 2016



RECOMMENDED AND APPROVED BY THE TOWN MANAGER BASED ON RFP #11-004 COASTAL ENGINEERING SERVICES, CONTRACT EXECUTED ON MARCH 19, 2012, AMENDMENT #1 TO THE CONTRACT ENTERED INTO ON MARCH 17, 2015, AND AMENDMENT #2 TO THE CONTRACT ENTERED INTO ON MARCH 20, 2016.

ATTEST:

As to Town of Longboat Key, Florida

By: _____
Trish Granger, Town Clerk

Date _____

Seal:

TOWN

Town of Longboat Key, Florida

By: _____
David R. Bullock, Town Manager

Date: _____

Review of Contract as to Form

By: _____
Maggie Mooney-Portale, Esq., Town Attorney

SCOPE-OF-WORK: COASTAL ENGINEERING SERVICES

FOR

Beach Management Planning Study and Proposed Plan Update
Longboat Key, FL

09 December 2016

The Town of Longboat Key, FL, presently maintains over ten miles of engineered beaches along the Gulf of Mexico shoreline along Longboat Key in Manatee and Sarasota Counties, FL (**Figure 1**). To guide the management of the beaches, the Town maintains a Beach Management Plan, first developed in 1995, to document the beach activities and identify future needs for beach nourishment and other shore protection measures. The Beach Management Plan for the Town was last updated in 2008 (CBI_CPE, 2008). The proposed Work Assignment will produce recommendations for consideration as possible updates to the existing Plan for consideration by the Town.

Proposal Conditions The analyses proposed in this Work Assignment will rely upon existing information and data, including the recently collected survey data from the Town's 2016 beach nourishment projects. No additional physical survey or environmental data shall be collected as part of this Work Assignment.

TASK 1 – Update of Beach Construction Activities, Beach Shoreline/Volume Conditions, Monitoring Requirements

The Consultant shall update the history of beach management activities since the publication of the 2008 Plan. These activities include both sand placement (nourishment) activities and structural installations made along the Longboat Key shoreline. Likewise the Consultant shall analyze and present updated shoreline and beach volume conditions, up through the 2016 phased beach nourishment projects. The updates shall be presented on a segment-by-segment basis along the shoreline, generally based upon the 2014 reformulated beach segments (OAI, 2014).

Monitoring Requirements - With the completion of the 2016 nourishment projects, the Town now has several permit-mandated post-construction monitoring requirements (physical and environmental) that must be implemented. The Consultant shall catalog these requirements and seek to identify opportunities to streamline the monitoring efforts where possible.

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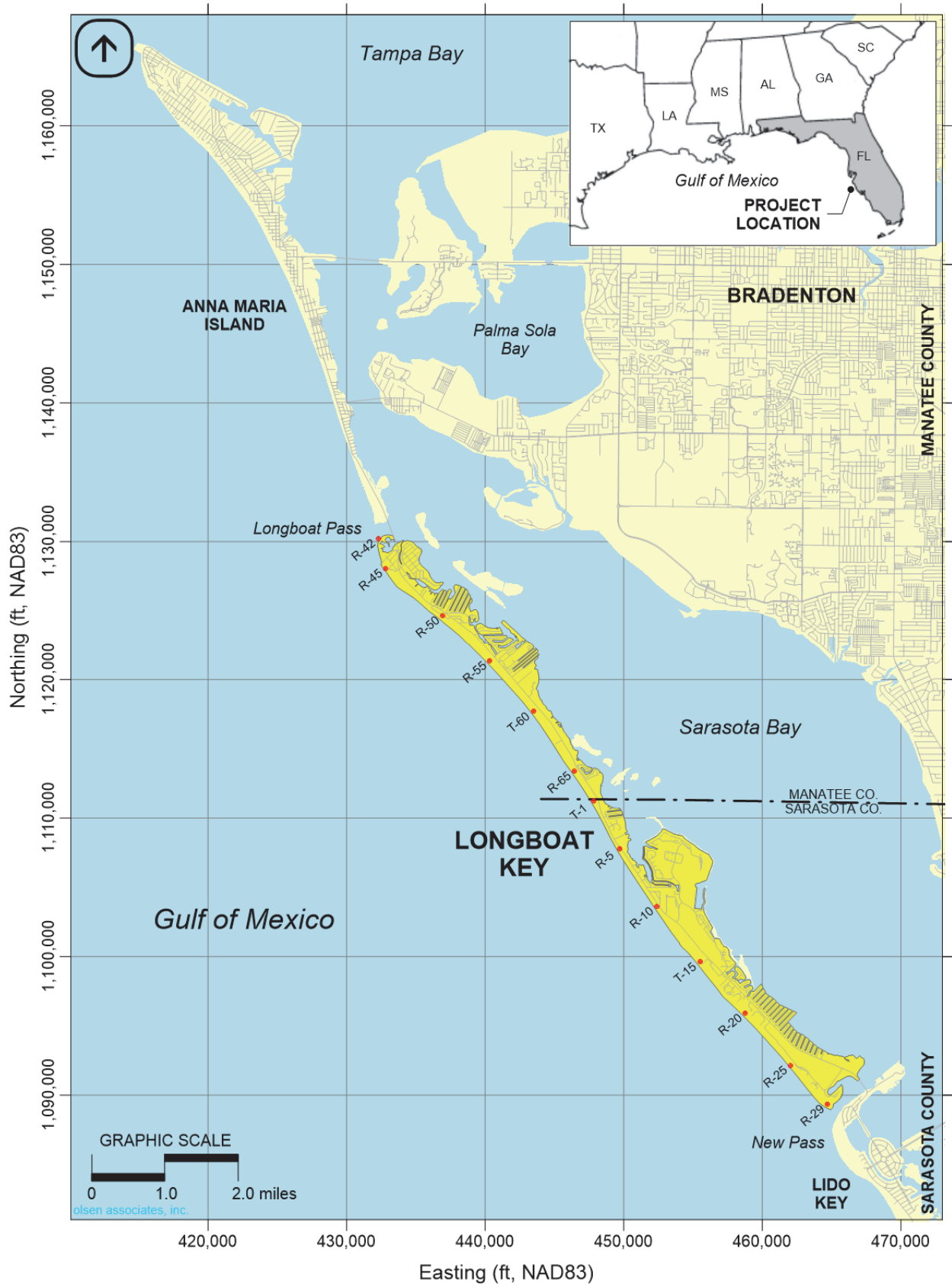


Figure 1 Location Map –Longboat Key, Manatee/Sarasota Counties, FL. The map also identifies the FDEP R-monument survey markers (e.g. R-10) used to track beach performance.

TASK 2 – Assessment of Project Design Template and Baseline

The Consultant shall perform several design analyses intended to evaluate the current adequacy of the existing design template and baseline for the beach management plan. This evaluation will include analyses of:

- the recent and historical shoreline and beach volume changes, including
 - a review of the effect of dune and dune vegetation growth, both on the level of protection offered to the upland and the effect of dune vegetation upon recreational beach space and perceived narrowing of the shoreline.
 - consideration of areas of increased erosional stress (hot-spots) and what additional shore protection measures must be undertaken to maintain a design width in those areas.
- updated storm recession modeling results along the entire Gulf of Mexico shoreline using the SBEACH model. These modelling efforts will seek to better describe the vulnerability of the beaches and upland properties to a range of storm impacts.

The results of these analyses will be applied to the current design template and baseline positions to make recommendations regarding potential changes to the design profile elevation and beach width intended to be maintained by the Beach Management program.

TASK 3 – Assessment of Available Sand Sources

The Consultant shall update the planning document to describe the existing geotechnical data regarding available sand sources, both permitted and otherwise, as well as the design of currently permitted borrow areas that may be used in future Town beach nourishment projects. Using the available data, the Consultant shall seek to identify other potential sand sources and areas where additional geotechnical data collection may be beneficial to the Town.

TASK 4 – Future Project Planning and Funding

Using the data and analyses described, the Consultant shall develop a description of the beach nourishment/shore protection needs projected both for the near term (5-10 yrs) and beyond (generally, 20 yrs+). The Consultant shall formulate different project alternatives or scenarios, with input from Town staff, to address those needs and conduct a comparative analysis of the costs to achieve the desired level of shore protection over those time frames.

Funding Options – For the various project scenarios, the Consultant shall review funding opportunities and options available to the Town, including potential Federal, State, and local options.

TASK 5 – Preparation of Proposed Beach Management Plan Update

The Consultant shall utilize the information from Tasks 1-4 to develop a proposed update to the Town's Comprehensive Beach Management Plan. The proposed update would resemble the Plan Summary presented in previous updates to the Beach Management Plan. The elements of the proposed update can then be considered for implementation by the Town (potentially via adoption of the plan by resolution).

DELIVERABLES

Deliverables for the project shall include a report that summarizes the findings of the analyses and the recommendations for future work related to a formal update to the Comprehensive Beach Management Plan. The Consultant shall also prepare for and present the results to the Town Commission and staff, as necessary.

Schedule The final report shall be delivered to the Town of Longboat Key within 12 months of the issuance of the Notice-to-Proceed by the Town.

EXHIBIT B
WORK ASSIGNMENT #2017-04 FEE SCHEDULE

Task No.	Title	
1	Update Beach Construction Activities, Shoreline/Volume Conditions and Monitoring Requirements	\$ 34,100 (LS)
2	Assessment of Project Design Template and Baseline	\$ 60,000 (LS)
3	Assessment of Available Sand Sources	\$15,800 (LS)
4	Future Project Planning and Funding	\$ 41,500.00 (LS)
5	Preparation of Proposed Beach Management Plan Update	\$ 18,300.00 (LS)
TOTAL, TASKS 1-5:		\$ 169,700 (Lump Sum)

Requested Completion Date: 12 months from Notice-to-Proceed

EXHIBIT B
Work Assignment #2017-04

BASIS FOR LUMP SUM COSTS \$ 169,700.00

WORK ASSIGNMENT 2017-04 - LONGBOAT KEY, FL

Beach Management Study and Plan Update Proposal

Task 1 - Update of Activities, Conditions, Monitoring Requirements Subtotal \$ 34,100.00

DIRECT LABOR									
LABOR CATEGORY	ADMIN/ MGMT	ENGR. ANALYSES	QA/QC	REPORT PREP.	ASSESS MONITORING		TOTAL HOURS	2017 RATE	COST
Principal	2						2	\$ 234	\$ 468.00
Principal II							0	\$ 209	\$ -
Senior Engineer	4	40	4	16	8		72	\$ 177	\$ 12,744.00
Coastal Engineer I		16					16	\$ 137	\$ 2,192.00
Coastal Engineer II							0	\$ 112	\$ -
Coastal Engineer III		120		40	8		168	\$ 103	\$ 17,304.00
Field Inspector							0	\$ 85	\$ -
Draftsman/Designer (CADD)				16			16	\$ 69	\$ 1,104.00
Administrative Assistant	4						4	\$ 73	\$ 292.00
SUBTOTAL DIRECT LABOR									\$ 34,104.00

Task 2 - Assess Design Template and Baseline Subtotal \$ 60,000.00

DIRECT LABOR									
LABOR CATEGORY	ADMIN/ MGMT	ENGR. ANALYSES	QA/QC	REPORT PREP.	MODELING	MAPPING	TOTAL HOURS	2017 RATE	COST
Principal							0	\$ 234	\$ -
Principal II							0	\$ 209	\$ -
Senior Engineer	16	40	8	16	24	16	120	\$ 177	\$ 21,240.00
Coastal Engineer I		8			40		48	\$ 137	\$ 6,576.00
Coastal Engineer II							0	\$ 112	\$ -
Coastal Engineer III		40		40	160	40	280	\$ 103	\$ 28,840.00
Field Inspector							0	\$ 85	\$ -
Draftsman/Designer (CADD)						40	40	\$ 69	\$ 2,760.00
Administrative Assistant	4			4			8	\$ 73	\$ 584.00
SUBTOTAL DIRECT LABOR									\$ 60,000.00

Task 3 - Assessment of Existing Sand Sources Subtotal \$ 15,800.00

DIRECT LABOR									
LABOR CATEGORY	ADMIN/ MGMT	ENGR. ANALYSES	QA/QC	REPORT PREP.	MODELING		TOTAL HOURS	2017 RATE	COST
Principal							0	\$ 234	\$ -
Principal II							0	\$ 209	\$ -
Senior Engineer		40	4	16			60	\$ 177	\$ 10,620.00
Coastal Engineer I							0	\$ 137	\$ -
Coastal Engineer II							0	\$ 112	\$ -
Coastal Engineer III		24		16			40	\$ 103	\$ 4,120.00
Field Inspector							0	\$ 85	\$ -
Draftsman/Designer (CADD)		16					16	\$ 69	\$ 1,104.00
Administrative Assistant							0	\$ 73	\$ -
SUBTOTAL DIRECT LABOR									\$ 15,844.00

Task 4 - Future Project Planning and Funding Options Subtotal \$ 41,500.00

DIRECT LABOR									
LABOR CATEGORY	ADMIN/ MGMT	ENGR. ANALYSES	QA/QC	REPORT PREP.	ASSESS FUNDING	MAPPING	TOTAL HOURS	2017 RATE	COST
Principal	4				4		8	\$ 234	\$ 1,872.00
Principal II							0	\$ 209	\$ -
Senior Engineer	40	80	8	16	16		160	\$ 177	\$ 28,320.00
Coastal Engineer I							0	\$ 137	\$ -
Coastal Engineer II							0	\$ 112	\$ -
Coastal Engineer III		80		16			96	\$ 103	\$ 9,888.00
Field Inspector							0	\$ 85	\$ -
Draftsman/Designer (CADD)		16					16	\$ 69	\$ 1,104.00
Administrative Assistant	4						4	\$ 73	\$ 292.00
SUBTOTAL DIRECT LABOR									\$ 41,476.00

Task 5 - Proposed Plan and Report Assembly Subtotal \$ 18,300.00

DIRECT LABOR									
LABOR CATEGORY	ADMIN/ MGMT	PLAN DEVEL.	QA/QC	REPORT ASSY.	MODELING		TOTAL HOURS	2017 RATE	COST
Principal	4	4					8	\$ 234	\$ 1,872.00
Principal II							0	\$ 209	\$ -
Senior Engineer	8	40		32			80	\$ 177	\$ 14,160.00
Coastal Engineer I							0	\$ 137	\$ -
Coastal Engineer II							0	\$ 112	\$ -
Coastal Engineer III				8			8	\$ 103	\$ 824.00
Field Inspector							0	\$ 85	\$ -
Draftsman/Designer (CADD)							0	\$ 69	\$ -
Administrative Assistant	4	8		8			20	\$ 73	\$ 1,460.00
SUBTOTAL DIRECT LABOR									\$ 18,316.00