



# **ARTIBUS DESIGN**

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**ENGINEERING AND PLANNING**

**Task Order #2509-02**

**Coral Relocation, Monitoring and Compliance  
Per FKNMS Permit # FKNMS-2025-182**

**Mallory Square  
Key West, FL 33040**

**Prepared for  
City of Key West Engineering Department**

**September 2025**

**By:  
Artibus Design LLC,  
3710 N Roosevelt Blvd,  
Key West, FL 33040**

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**3710 N. ROOSEVELT BLVD,  
KEY WEST, FL 33040**

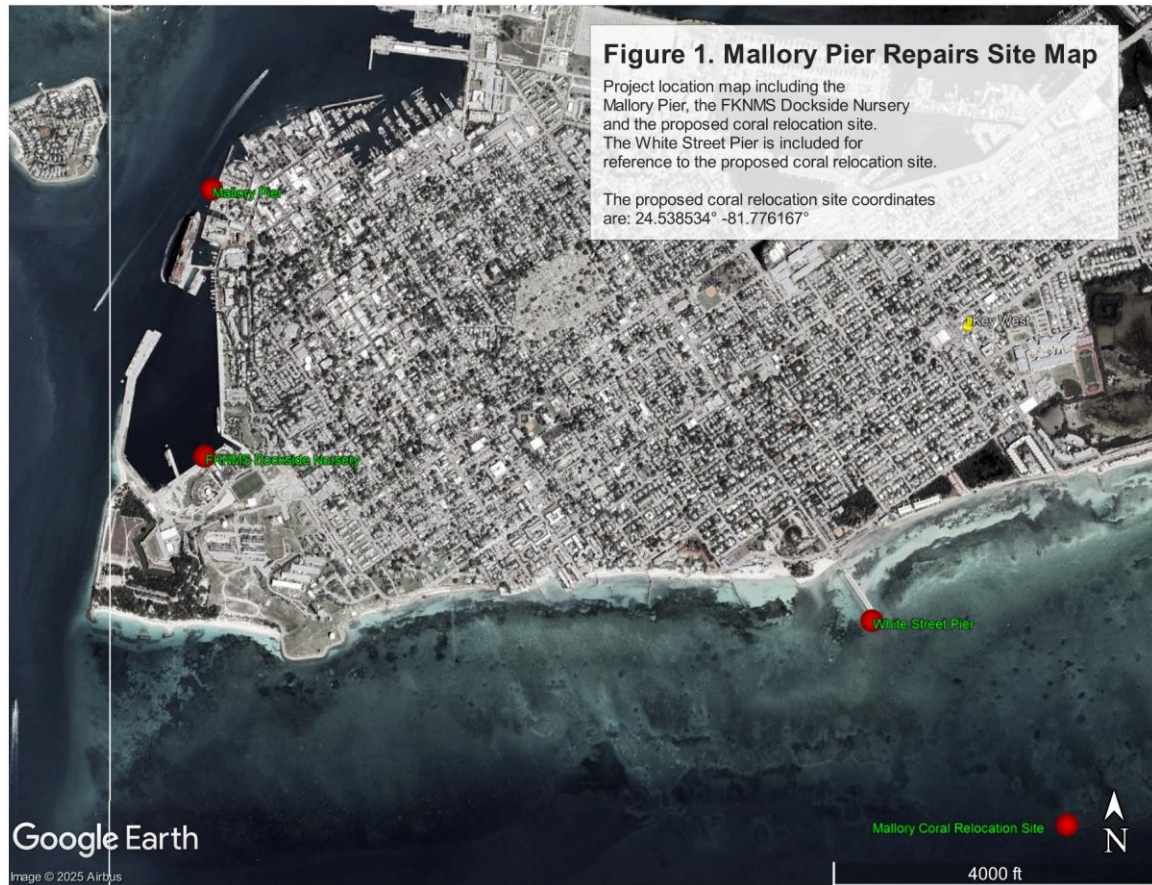
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**TASK ORDER #2509-02, CITY OF KEY WEST**



# ARTIBUS DESIGN

## ENGINEERING AND PLANNING



**Location Map**

### **Project Description:**

Artibus Design LLC is working in conjunction with Terramar Environmental Services, Inc to provide the coral relocation, monitoring, and compliance required by Florida Keys National Marine Sanctuary Permit # FKNMS-2025-182.



# ARTIBUS DESIGN

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## ENGINEERING AND PLANNING

Artibus Design LLC is pleased to present this engineering services proposal for the scope described below.

### Scope of work:

#### **Task 1. Contract Administration Completed by Artibus Design LLC**

- 1.1 Provide support services for Terramar Environmental Services, Inc.
  - 1.1.1 Contract Administration
  - 1.1.2 Pay Applications
  - 1.1.3 Document Preparation
  - 1.1.4 Drafting

#### **Task 2. Execution of Mallory Square Coral Relocation Plan Completed by Terramar Environmental Services, Inc.**

- 2.1 Per Appendix A

### Deliverables:

- 1. Monitoring reports that describe the coral relocation effort and subsequent monitoring events determined in accordance with the FKNMS permit. See Appendix A for project milestones.

### Assumptions:

- 1. City will provide full and unrestricted access to the property, as required for work to be completed.
- 2. It is understood that the work may be terminated at the end of any task, if the City deems it necessary.

### Cost of Work:

The proposed total lump sum fee for this scope of work shall be: \$132,140.00

#### **Task 1.**

Engineer (P.E.):	20 hours @	\$180.00 /hr	\$3,600.00
Engineering Technician (non-P.E.)	20 hours @	\$105.00 /hr	\$2,100.00
Clerical	120 hours @	\$78.00 /hr	\$9,360.00

#### **Task 2. (Per Appendix A)**

Terramar Environmental Services, Inc. \$117,080.00



# ARTIBUS DESIGN

ENGINEERING AND PLANNING

## Schedule of Hourly Rates (Per Approved Contract)

Title or work description	Hourly Rate
Licensed Professional Engineer (P.E.)	\$180.00
Project Manager	\$156.00
Certified Engineer Intern (E.I.)	\$130.00
Structural Inspector (non-P.E.)	\$130.00
Expert Witness (Legal)	\$350.00
Inspector (non-P.E.)	\$105.00
Engineering Technician	\$105.00
Drafting Technician	\$105.00
Clerical	\$78.00

## Schedule of Reimbursable Expenses

Item description	Rate
Large Format Prints (Arch-D, 24"x36") Color	\$35.00/Each
Large Format Prints (Arch-D, 24"x36") Black&White	\$15.00/Each
Prints (Tabloid, 11"x17") Color	\$5.00/Each
Prints (Tabloid, 11"x17") Black&White	\$0.75/Each
Prints (8.5"x11") Color	\$0.50/Each
Prints (8.5"x11") Black&White	\$0.25/Each
Binding Large Format	\$50.00/Each
Binding Tabloid and Letter Format	\$20.00/Each
Mailing and Shipping Expenses	Cost + 20%
Travel Expenses (outside Monroe County)	Cost + 20%
Misc. (Discs, Flash Drives, etc.)	Cost + 20%

Reviewed for Legal Sufficiency:

*Kendal Harden*

Client:

Signature \_\_\_\_\_ Date \_\_\_\_\_

Brian L. Barroso  
City Manager

By:

Signature *Serge Mashtakov* Date 09/09/2025

Serge Mashtakov, PE  
President, Artibus Design LLC

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TASK ORDER #2509-02, CITY OF KEY WEST



Terramar Environmental Services, Inc.  
1241 Crane Boulevard  
Sugarloaf Key, Florida 33042  
(305) 393-4200 [terramar.env@gmail.com](mailto:terramar.env@gmail.com)

# APPENDIX A

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## Scope of Services and Cost Proposal

**Date:** August 25, 2025

**Client:** Serge Mashtakov P.E.  
President  
Arbitus Design LLC  
3710 N. Roosevelt Blvd  
Key West, FL 33040

**Project:** Mallory Pier Repairs, FKNMS Permit # FKNMS-2025-182, Coral Relocation, Monitoring and Compliance

**Scope of Work:** Terramar Environmental Services will execute the Mallory Square Pier Coral Relocation Plan (4.21.25 rev 1) which is incorporated by reference into Florida Keys National Marine Sanctuary Permit # FKNMS-2025-182. This involves the removal and relocation of all corals within anticipated impact areas on the pier in accordance with the means and methods outlined in the coral relocation plan and FKNMS permit, including all required monitoring events.

**Schedule:** Florida Keys National Marine Sanctuary Permit # FKNMS-2025-182 expires on December 31, 2025. Therefore, the proposed schedule for coral relocation is November 2025 with the subsequent monitoring reports to follow the schedule determined by the FKNMS permit.

**Deliverables:** The deliverable for the project will be monitoring reports that describes the coral relocation effort and subsequent monitoring events determined in accordance with the FKNMS permit. The following table lists project milestones and deliverables.

Monitoring Event	Estimated Date
Baseline	December 2025
1 week post relocation	December 2025
1 month post relocation	January 2026
3-month post relocation	March 2026
6-month post relocation	June 2025
12-month post relocation	January 2027

**Staffing and Rates:** Staffing for the project requires a field team consisting of four biologists qualified to conduct coral identification, assessment and relocation. Rates are based on current contract rates per the attached 2025-26 rate summary.

**Compensation:** This proposal is based on our best estimates of the effort needed to complete the project. A fixed-cost budget of **\$117,080** is proposed to complete the project, see attached cost estimate worksheet for details.

**Terms:** Terms of payment are “paid when paid”. Arbitus Design will submit invoices to the City of Key West within 15 days of receiving an invoice from Terramar Environmental Services. Arbitus Design will make payment to Terramar Environmental Services within 15 days of receiving payment from the City of Key West.

**Exceptions:** This proposal is for coral relocation and monitoring only. Terramar Environmental Services makes no warranty of the survival of relocated corals. Any additional mitigation requirements imposed on the City of Key West by the Florida Keys National Marine Sanctuary, or any other entity is the sole responsibility of the City of Key West.

**PAGE 2 – Cost Estimate Worksheet**

Cost Estimation Summary				
TASK	# Field Days	Chief Scientist	Senior Environmental Scientist	Environmental Scientist
Planning and coordination	0	24	0	0
Mobilization	0	0	24	0
Coral Reocation Site Assessment	1	8	16	0
Coral Relocation Field	5	40	80	40
Monitoring Event - Baseline	2	16	32	16
Monitoring Event - 1 Month	2	16	32	16
Monitoring Event - 3 Month	2	16	32	16
Monitoring Event - 6 Month	2	16	32	16
Monitoring Event - 12 Month	2	16	32	16
Total Estimated Hours / Days	16	152	280	120
Contract Rates (\$)		\$225.00	\$185.00	\$135.00
Subtotal Fees (\$)		\$34,200.00	\$51,800.00	\$16,200.00
Total Fees	\$102,200.00			
Expenses		Rate / Day	UNITS	
19'-22' Work Boat (incl. fuel)		\$575	16	\$9,200.00
Boat Mobilization: Transport, Dockage & Ramp Fees		\$75	16	\$1,200.00
Dive Gear Set (includes two tanks per day)		\$85	48	\$4,080.00
U/W Digital Video Camera		\$25	16	\$400.00
Total Expenses	\$14,880.00			
Total Costs (Fees + Expenses)	\$117,080.00			



Terramar Environmental Services, Inc.  
1241 Crane Boulevard  
Sugarloaf Key, Florida 33042  
(305) 393-4200 [terramar.env@gmail.com](mailto:terramar.env@gmail.com)

### BILLING RATES 2025-26

JOB CLASSIFICATION	BILLING RATE
Project Manager / Chief Scientist	\$225.00
Senior Environmental Scientist	\$185.00
Environmental Scientist	\$135.00
Environmental Technician	\$110.00

EXPENSES	BILLING RATE
Mileage	\$0.67 / mile
Work Boat 21	\$575.00 / day
Work Boat 16	\$375.00 / day
Boat Mobilization: Transport, Dockage & Ramp Fees	\$75.00 / day
Dive Gear Set	\$85.00 / day / set
Trimble Survey GPS	\$100.00 / day
Printing, mailing, shipping	Reimbursed at Cost