



October 26, 2017
Tetra Tech Project: 194-5363 **Task 18**

James W. Bouquet P.E.
Director of Engineering
City of Key West
3140 Flagler Ave
Key West, FL 33040

Reference: **Aquarium Basin Seawall** Investigation, Key West, Florida
Subject: Post Hurricane Irma Seawall Damage Assessment

Dear Mr. Bouquet:

Please find attached the scope of work for post-Hurricane Irma Key West **Aquarium Basin Seawalls** Damage Assessment. Work will be completed under our current Environmental Engineering Services Contract using previously agreed upon terms and conditions. The task budget will not be exceeded without written authorization.

Summary of Budget

Items	Task Title/Task Function	Amount
18	Engineering Services to conduct Damage Assessment	\$ 22,384
	Total Time & Material Estimate	\$ 22,384

If you have any questions or require any additional information, please contact me at 772.200.5113.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Stuart McGahee', written over a circular stamp or watermark.

Stuart McGahee PE
Project Engineer

cc: Shauna Stotler, Tetra Tech



SCOPE OF WORK

DAMAGE ASSESSMENT

KEY WEST AQUARIUM BASIN SEAWALL

POST-HURRICANE IRMA

Key West, FL

This proposal has been prepared in accordance with executed General Environmental Engineering Services Agreement between the City of Key West and Tetra Tech, Inc. dated January 13, 2015. The work described herein will be performed on a Time & Expense basis in accordance with the fee schedule established in this agreement. Fees shall be not-to-exceed unless approved in writing by the City of Key West.

Prepared by: TETRA TECH, Inc.
October 26, 2017



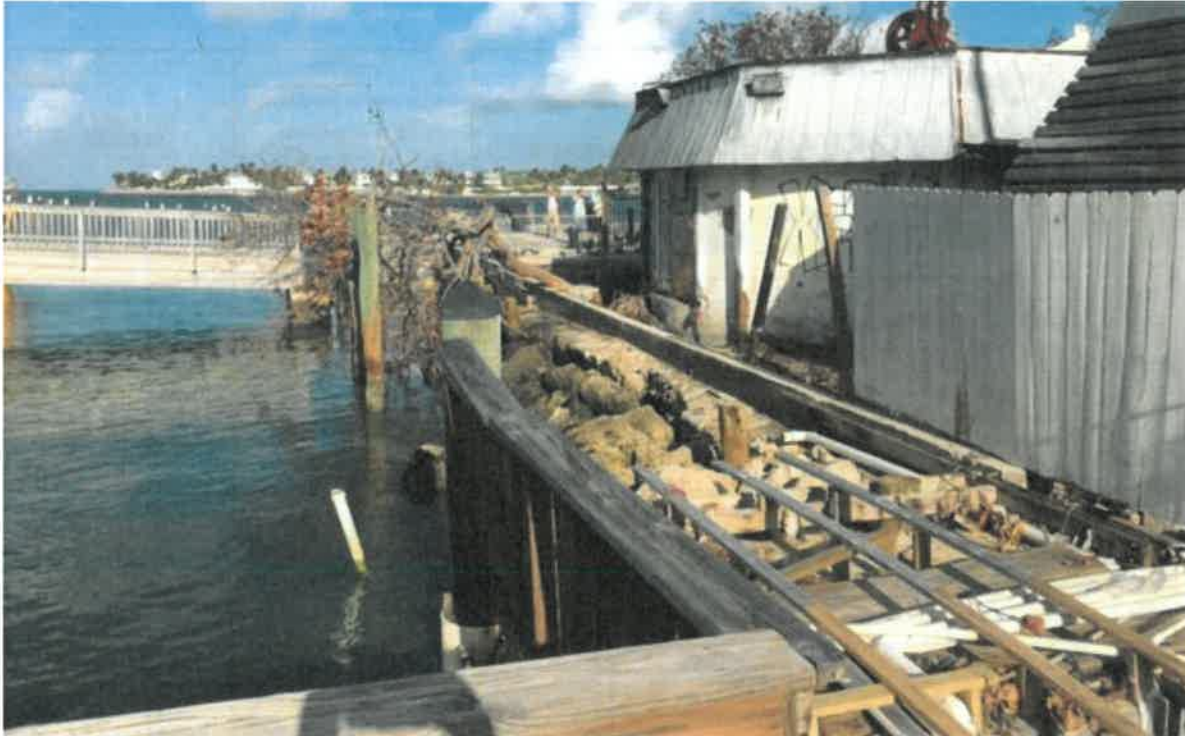
759 South Federal Highway, Suite 314 Stuart, FL 34994
Tel 772.781.3400 Fax 772.781.3411 www.tetrattech.com



SCOPE OF WORK

Tetra Tech will work with the City of Key West (City) to perform a surface and underwater inspection of the post hurricane damage along the **Aquarium Basin Seawalls** in Key West, Florida.

PHOTO OF AQUARIUM BASIN SEAWALL AFTER HURRICANE IRMA



Insert: Photo of collapsed concrete seawall located inside the Key West Aquarium Basin taken on October 12, 2017

Task 4.18 Surface and Underwater Inspection and Damage Assessment (Report)

Tetra Tech will perform a surface and underwater inspection along the **Aquarium Basin Seawalls** damaged by Hurricane Irma. The services associated with this task include the following:

1. Surface inspection along the top and behind the seawall
 - Catalog damage, take photographs and measurements
2. Underwater inspections along the face and toe of the seawall from the **Mallory Square pedestrian bridge to the Aquarium's seawall, including the Aquarium turtle kraal area.**
 - Includes all of the sub-basins we can access with the help of the Aquarium staff
 - Non-destructive inspection only
 - Does not include the timber pedestrian bridge
3. Summary Report & Damage Assessment
 - Includes quantities and estimated cost for repair/replacement

NOT TO EXCEED ESTIMATE: \$ 22,384



City of Key West (Project TR1503)
Aquarium Basin Seawalls Damage Assessment / Post Hurricane Irma
Tetra Tech Project Number 194-5363 Task 18

PROPOSAL COST ESTIMATE

City of Key West 194-5363 / Task 18 / CoKW Aquarium Basin Seawall			Task 18		TOTAL	
			AQUARIUM MALLORY BASIN SEAWALL Investigation and Report			
BILLING CLASS	NAME	UNIT RATE	UNITS	COST	UNITS	COST
Tetra Tech Staff						
Tech Prof II	S. Stotler-Hardy	\$ 115.00	2	\$230	2	\$230
Tech Prof I	R. Garland	\$ 95.00	2	\$190	2	\$190
Tech Prof II	C. Warren - Procurement	\$ 115.00	4	\$460	4	\$460
Sr. Project Manager	S. McGahee	\$ 192.00	24	\$4,608	24	\$4,608
Sr. Tech Prof III	A. McDonald	\$ 179.00	2	\$358	2	\$358
Sr. Tech Prof II	P. Zuloaga	\$ 158.00	-	-	-	-
Tech Prof I	M. Mendoza	\$ 95.00	-	-	-	-
Sr. Tech Prof I	L. Canty	\$ 125.00	-	-	-	-
Tech Prof I	F. Martinez	\$ 95.00	40	\$3,800	40	\$3,800
Sr. Tech Prof II	D. Frodsham	\$ 158.00	64	\$10,112	64	\$10,112
TOTAL LABOR COST			138	\$19,758	138	\$19,758
TRAVEL						
R/T Airfare	\$ 450.00	-	-	-	-	-
Mileage/Gas	\$ 0.54	500	\$270	500	\$270	
Rental Car w/Fuel	\$ 60.00	6	\$360	6	\$360	
Misc Travel Costs	\$ 50.00	6	\$300	6	\$300	
Lodging	\$ 204.00	4	\$816	4	\$816	
Meals & IE	\$ 69.00	6	\$414	6	\$414	
TOTAL TRAVEL COSTS				\$2,160		\$2,160
OTHER DIRECT COSTS						
Shipping/Postage	\$ 25.00	2	\$50	2	\$50	
Reproduction - B&W	\$ 0.08	200	\$16	200	\$16	
Misc. Equip & Supplies	\$ 100.00	2	\$200	2	\$200	
Air fills	\$ 6.00	-	-	-	-	
Dive Equipment	\$ 35.00	-	-	-	-	
H/S Equipmnet	\$ 100.00	2	\$200	2	\$200	
TetraTech Truck	\$ 100.00	-	-	-	-	
Restoration materials	\$ 300.00	-	-	-	-	
Vessel	\$ 400.00	-	-	-	-	
TOTAL OTHER DIRECT COSTS				\$466		\$466
GRAND TOTAL				\$22,384		\$22,384