# PALM BEACH COUNTY BOARD OF COUNTY COMMISSIONERS AGENDA ITEM SUMMARY

	AGENE	JA II LIVI (	OWNER	<u>.</u>		
Meeting Date:	October 21, 202	5	[ ] Cons			legular Public Hearing
Department: Submitted By: Submitted For:	Engineering and Engineering and Roadway Produ	d Public V	Vorks De			
	<u>I. E.</u>	XECUTIV	BRIEF			
the amount of \$999	9,052.78 to the cor er, LLC (HHL) for	ntract (R20 the Georg	23-1512)	dated (	Octobe	ent No. 4 (Supplement) in er 17, 2023 (Contract) with dge Replacement over the
currently underway complete, it is neomeantime. Approved the full bridge reprodevelopment, survetor potential fund specialized traffic study. Supplement required when approved will finalize the duntil the full replace Committee on July (API) of a 10% committed 5.25% achieved on this 6014 approved by	y. Since the design essary to take addival of this Supplementing to maintain the lacement for the Pley, and data gatheing sources, and count data required No. 3 is for analyplying for grants, are esign plans for replement, currently uruly 6, 2022 and the Cominimum mandate SBE participation Contract is 19.45%	in process itional steplent will propert. The existing Project. The isongoing of the yzing the inder design Committee ory Small for this Substitute of the S	and funding to ensure the original olement Nonger Holement Nonger Holement Market Business upplement ontract is a sessioners (I	ing is e re the b orofess d ensur l contra o. 1 cor element evelopr ered, pi plans fe idge, ei oject v ed an / Enterp . To da subject BCC) o	xpected oridge ional sect focintracted No. ment a reparired vas precented for consuring vas precented in June or June	eplaced and that design is ed to take several years to remains operational in the services necessary for final continued functionality until used on the overall scope d HHL to identify and apply 2 provided for additional and environmental (PD&E) and a PD&E, which is often struction. Supplement No. g its continued functionality esented to the Goal Setting ative Procurement Initiative (SBE) participation. HHL e overall SBE participation ergency ordinance R2025-e 3, 2025. This Project is
	e professional serv	vices requ	ired for the	e Projec	ct. The	approved the Contract with e fee, as detailed in Exhibit asonable compensation as
Basic Services (L.	· ,		7,472,44	M St M Br	edium ructura ovable ridge N	ral Plans, Span Bridge, al Steel Bridge Span and Monitoring)
Optional Services	Total:		7 <u>,472.44</u> 9,052.78	(P	ost De	esign Services)
	e attached Suppler nt recommends BC		_	proper	order,	the Engineering and Public
Attachments: 1. Location Map 2. Supplement No	o. 4 with Exhibits A	., B, C, D a	and Ebix Ir	nsuranc	e Con	npliance (2)
Recommended b		Nas	sed I	Z_//	4	9/26/25
het	POFAM C	ounty Eng	ineer			Date / 2/2/
Approved By:	Deputy	y County A	Administra	tor		Date

## II. FISCAL IMPACT ANALYSIS

## A. Five Year Summary of Fiscal Impact:

Fiscal Years	2026	2027	2028	2029	2030
Capital Expenditures	\$1,114,053	-0-	-0-	-0-	-0-
Operating Costs	-0-	-0-	-0-	-0-	-0-
External Revenues	-0-	-0-	-0-	-0-	-0-
Program Income (County)	-0-	-0-	-0-	-0-	-0-
In-Kind Match (County)	-0-	-0-	-0-	-0-	-0-
NET FISCAL IMPACT	\$1,114,053	-0-	-0-	-0-	-0-
# ADDITIONAL FTE POSITIONS (Cumulative)	-0-	-0-	-0-	-0-	-0-
To Itom Included :-	- G			. [7].	

Is	Item Included in Current	: Budget?	Yes √ No √
Is	this item using Federal	Funds?	Yes No 🗸
Is	this item using State Fu	ands?	Yes No 🗸

Budget Account No:

Fund <u>3500</u> Dept <u>361</u> Unit <u>1989</u> Object 6505

## Recommended Sources of Funds/Summary of Fiscal Impact:

Transportation Improvmt Fund/George Bush Boulevard Bridge over ICWW

Brief Description: Supplement No. 4 to a project contract

## Supplement No. 4

Total Supplement No. 4	Ś	999.052.78
<ul> <li>Optional Services</li> </ul>	\$	417,472.44
Basic Services	\$	581,580.34

## Estimated Staff Costs

Total	Staff C	osts		\$ 115,000.00
•	Traffic			\$ <u>25,000.0</u> 0
•	Survey			\$ 10,000.00
•	Roadway	Production:	Right-of-Way	\$ 20,000.00
	-	Production		\$ 60,000.00

Fiscal Impact \$1,114,052.78

C. Departmental Fiscal Review:

III. REVIEW COMMENTS

A. OFMB Fiscal and/or Contract Dev. and Control Comments

Intract Dev. and Control 26

B. Approved as to Form and Legal Sufficiency:

C. Other Department Review:

**Department Director** 

This summary is not to be used as a basis for payment.

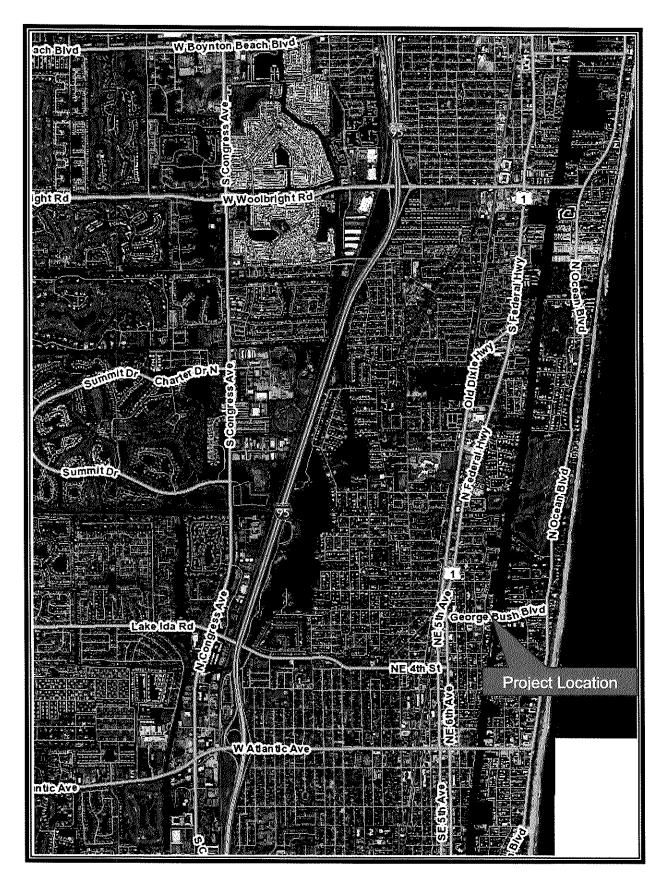
## **PROJECT LOCATION**

## George Bush Boulevard Bridge Replacement over the

## Intracoastal Waterway (ICWW)







**LOCATION MAP** 

**ATTACHMENT 1** 

## SUPPLEMENT NO. 4 TO THE PROJECT CONTRACT

Project Name: George Bush Boulevard Bridge Replacement over the ICWW

Project No: 2022506 Commission District No.: 4 & 7

	SBE
Participation for this authorization	5.25%
Participation to date for this Contract	19.45%
Contract Commitment	13.55%
This authorization is under the EBO Ordin	ance.

## PALM BEACH COUNTY BOARD OF COUNTY COMMISSIONERS

Supplement No. 4 to the Project Contract dated October 17, 2023 (R2023-1512) (CONTRACT), between the COUNTY and the CONSULTANT identified herein is for the Additional Services described in **EXHIBIT A** and **EXHIBIT B** for this Supplement.

Account No.: 3500-361-1989-6505

- 1. CONSULTANT: Hardesty & Hanover, LLC
- 2. Address: 3250 West Commercial Boulevard, Suite 348 Fort Lauderdale, Florida 33309
- 3. CONSULTANT shall begin work promptly on the requested Services, per the schedule attached as part of **EXHIBIT A**.
- **4.** Scope of Services to be provided by CONSULTANT: Provide professional engineering services to Palm Beach County for the George Bush Boulevard Bridge Replacement over the ICWW project. Finalize the repair and design plans for the existing bridge, ensuring its continued functionality until the full replacement, currently under design in accordance with the attached **EXHIBIT A** dated May 23, 2025.
- 5. The compensation to be paid CONSULTANT for providing the requested services as detailed in **EXHIBIT B** shall be:

[x] Basic Services in a lump sum fee of \$ 581,580.34 [x] Optional Services capped at \$ 417,472.44 \$ 999,052.78

- [x] OEBO Schedules 1 & 2 EXHIBIT C
- [x] Project History EXHIBIT D
- **6.** All terms of the CONTRACT, shall apply to this Supplement.

This Contract, including all Schedules, Forms, and attachments, is subject to the County Emergency Ordinance 2025-014, approved by the BCC on June 3, 2025. As a result, the M/WBE participation will not be enforced.

ATTACHMENT Z

Supplement #4 Page 1 of 3 Project #2022506

# SUPPLEMENT NO. 4 TO THE PROJECT CONTRACT

**IN WITNESS WHEREOF,** this Supplement is accepted as of the date signed by the COUNTY below, subject to the terms and conditions of the aforementioned CONTRACT.

CONSULTANT: <b>Hardesty &amp; Hanover</b> ,	COUNTY:
<u>LLC</u> Federal ID: <b>59-3221706</b>	Approved as to Terms and Conditions
Signed:	ik By: SUN ye
Typed Name: Michael J. Sileno, P.E.	Typed Name: Morton L. Rose, P.E.
	Title: <u>Division Director</u>
Title: Managing Member  Date: 9/8/25	
(Corporate Seal)	EAL
ATTEST WITNESS:	
Signed: Soli Sele	
Typed Name: SABRINA SANCH	EZ
Title: Director 07 Operations	Support
Date: 9/8/95	

## SUPPLEMENT NO. 4 TO THE PROJECT CONTRACT

{SIGNATURE PAGES CONTINUED}

COUNTY: **Palm Beach County**, a Political Subdivision of the State of Florida, by and through its Board of County Commissioners

Signed:		
Typed Name: Maria G. Marino		
Title: Mayor		
Date:	_	
ATTEST: Michael A. Caruso Clerk of the Circuit Court & Comptroller By:		
By:	-	
Approved as to Form and Legal Sufficiency		
By:		
Typed Name: Yelizaveta B. Herman		
Title: Assistant County Attorney		
Coll servishedge AppData Local-Microsoft-Windows (NetCache)C	CONCIN.Outlook TRASQKKZ/CSA and Supplement Tem	plan, doex
Supplement #4	Page 3 of 3	Project #2022506



Rev. 05 Date: May 23, 2025 Rev. 04 Date: May 21, 2025 Rev. 03 Date: May 20, 2025 Rev. 02 Date: May 8, 2025 Rev. 01 Date: May 6, 2025

April 14, 2025

Kristine Frazell-Smith, P.E. **Local Roads Section Manager** Palm Beach COUNTY 2300 North Jog Road 3rd Floor, West Wing West Palm Beach, FL 33411

3250 W. Commercial Blvd, Suite 348 Fort Lauderdale, FL 33309 T: 954.835.9119

5/27/2025 5coper Fee raisions

Re: George Bush Boulevard Bridge Replacement over the ICWW, Palm Beach County Project No. 2022506 - Supplement No. 4 - Professional Services for "Mid-Term" Bridge Repairs

Final Design and Plans intended to fully restore the existing bridge to feasibly reliable condition to remain operational until its proposed replacement in approximately ten years. The Mid-Term Repair will address the mechanical systems, electrical systems, and structural elements.

All items listed below apply to both leaves unless noted otherwise.

#### Existing Bascule Span

- o Replace the open geartrain (up to rack and pinion) with a new enclosed parallel shaft gear reducer with output shaft differential. Existing intermediate gearset adjacent to rack and pinion is to be reused.
- Replace existing motor brakes with new and install new machinery brakes at reducer output shafts. Adjust time set delays to minimize shock loading of machinery.
- o Replace mismatched pinion at far leaf with new pinion having correct geometry.
- o Install new floating shafts and fixed-rigid gear type shaft couplings between reducer output shafts and existing intermediate gearset. Machine in place existing intermediate shaft ends to accept new couplings.
- Install new NEMA squirrel-cage inverter duty span drive motors with variable frequency drives (VFDs).
- Furnish and install new controls to operate new drives and brakes and hold leaves in position while brakes set (in both the open and closed positions).
- Install new grid type couplings between motor shafts and reducer input shafts.
- Replace existing flat track and curved tread with new flat track and steel subframe assembly and new segmental curved tread assembly. Re-align and re-level track and tread assemblies.

- o Re-align the movable leaves transversely as part of the work detailed above to avoid contact between the side of the movable leaf and the fixed structure at roadway level.
- o Re-shim racks to level with new flat track and to improve pitch alignment with pinions in conjunction with flat track and curved tread work detailed above.
- o Check and correct areas of high pressure at rack and pinion sets utilizing bluing compound.
- o Replace existing live load shoes with new LLS that allow shimming.
- o Repair open grid welds to MG spacer bar (1 total).
- Clean and paint rear joint traffic plates (2 total).
- Remove concrete from failed patch in left sidewalk and re-patch area near traffic plate over Bascule Pier 4.
- o Apply sealant on cracked deck top area adjacent to the traffic plate over Bascule Pier 4.
- o Clean and paint corrosion on diagonal bracing members and fasteners at the base of the columns inside the bascule piers (5 total).
- o Clean and paint corrosion on SW column near leaf and SE and NE columns far leaf (3 total).
- o Clean and coat rebar with zinc rich epoxy and patch spalls in the bascule piers.
- o Clean and overcoat all bascule span structural steel.
- o Clean and overcoat steel flanking spans structural steel.
- o Clean and coat exposed rebar in the far leaf counterweight with zinc rich epoxy.
- Re-balance the near and far leaves within specifications after completion of rehabilitation improvements.
- Develop a leaf jacking system and tie-back system as required to perform the work detailed above
- o Develop jaw lock modification details.

## **Existing Approach Spans**

- o Repair spall in the right sidewalk edge at End Bent 1 (1 sf).
- o Clean and coat steel and patch spall in deck underside of Span 4 in Bay 4-1 (4 sf).
- o Repair torn joint seal over End Bent 1 (4 ft).
- o Backfill and stabilize undermining at the cap at End Bent 6 (34 ft).
- o Seal gap between the cap and slope pavement at the end bents (1 sf).

## Monthly Operating Machinery Monitoring – Strain Gauge Testing

- Perform monitoring of the two bascule leaves of George Bush Boulevard. H&H will perform strain gauge testing to monitor the current unbalanced condition and strain output of the electro-mechanical operating system for both the north and south bascule leaves. Monitoring will be performed once per month from August 2025 – December 2026.
- Develop a summary memorandum of findings and recommendations for each monthly strain gauge test.

#### **SCOPE OF BASIC SERVICES**

### **1.0 General Tasks –** *H&H and Masse Consulting*

The CONSULTANT shall provide Public Involvement and Project Manager Coordination Meetings.

- 1.0 Develop vehicular detour plan
- 1.8 Railroad, Transit, and/or Airport Coordination
- 1.9 Project Managers Coordination Meetings
- 1.10 Contract Maintenance and Project Documentation

#### **6.0 Permits & Environmental** – Masse Consulting

- 6.3 Analyze Existing Permits
- 6.4 Complete and Submit Permit Applications
- 6.7 Attend Technical Meetings

## 7.0 Utilities – Masse Consulting

- 7.1 Draft Existing Utility Facilities
- 7.2 Prepare Utility Conflict Matrix
- 7.3 Identify Conflict Resolutions
- 7.4 Meetings

### 19.0 Structures Plans - H&H

The CONSULTANT shall analyze, design, and develop contract documents for structures in accordance with applicable provisions.

- 19.1 Key Sheet
- 19.2 Index of Drawings
- 19.6 General Notes and Bid Items
- 19.10 Existing Bridge Plans
- 19.12 Quantities
- 19.13 Cost Estimate
- 19.14 Technical Special Provision and Modified Special Provisions
- 19.17 Field Review
- 19.18 Technical Meetings

### 22.0 Medium Span Concrete Bridge - H&H

The CONSULTANT shall prepare plans for Medium Span Concrete Bridge that include the following:

- 22.3 General Plan and Elevation
- 22.10 End Plan and Elevation
- 22.29 Superstructure Section

## 24.0 Movable Span Bridge - H&H

The CONSULTANT shall prepare plans for Movable Span Bridge that include the following:

## Bascule Pier Dimensions - Detailing

- 24.10 Pier Plan Views
- 24.12 Pier Sections

## Bascule Leaf Detailing

- 24.41 Framing Plan
- 24.43 Typical Section

#### Mechanical Design

24.60 Final Power Requirements

#### Mechanical Drive Design

- 24.64 Drive Shafts, Couplings, Keys, Bearings and Supports
- 24.65 Rack & Pinion, Bearings and Supports
- 24.66 Drive Train
- 24.67 Motor Brakes & Machinery Brakes

## **Machinery Detailing**

- 24.69 Machinery Layout
- 24.70 Machinery Elevation
- 24.71 Machinery Section
- 24.73 Drive Details

## Electrical Design

- 24.75 Load Analysis
- 24.76 Power Distribution
- 24.77 Drive Equipment
- 24.78 Bridge Controls
- 24.79 Grounding
- 24.80 Lightning and Surge Suppression

## Electrical Detailing

- 24.82 Electrical Plan and Elevation
- 24.83 Electrical Symbols and Abbreviations
- 24.84 Single/Three Line Diagram (65% Final)
- 24.86 Wire and Conduit Schedules and Diagrams
- 24.87 Control Desk/Panel Layout
- 24.88 Control Schematics
- 24.94 Miscellaneous Details

## **Bridge Monitoring**

24.103 Preparation

24.104 Field Testing24.105 Summary Memo

## **SCOPE OF OPTIONAL SERVICES**

The CONSULTANT shall provide post design services for the duration of construction. Post design services shall include the following: Plan revisions, shop drawing reviews, request for information resolution, attend progress meetings, attend shop test, and conduct site reviews.

### Optional Services - Post Design Services

- 1.7 Post Design Services
- 1.9 Post Design Breakdown

The CONSULTANT shall provide monthly operating machinery monitoring – Strain Gauge Testing and will include the following:

- Perform monitoring of the two bascule leaves of George Bush Blouleveard. H&H will perform strain gauge testing to monitor the current unbalanced condition and strain output of the electro-mechanical operating system for both the north and south bascule leaves. Monitoring will be performed once per month from January 2027 – December 2027.
- Develop a summary memorandum of findings and recommendations for each monthly stain gauge test.

## Optional Services - Bridge Monitoring

24.103 Preparation

24.104 Field Testing

24.105 Summary Memo

## ANTICIPATED REHABILITATION PHASE SCHEDULE OF KEY ACTIVITIES

Date	Milestone
7/24/2025	Anticipated NTP Design Phase
8/5/2025	Kickoff Meeting
8/7/2025	Data Collection
8/11/2025	Prepare 35% Submittal
8/29/2025	Submit 35% Submittal
9/12/2025	County Review Phase I Engineering Package
9/29/2025	Prepare 65% Plans
11/13/2025	Prepare & Submit Technical Special Provision
11/13/2025	Submit 65% Plans
11/27/2025	County Review Phase II Engineering package
12/15/2025	Prepare 96% Plans
12/15/2025	Prepare Specification Package
1/22/2026	Submit 96% Plans
2/5/2026	County Review Phase III Engineering package
3/9/2026	Prepare Final Plans
4/16/2026	Submit Final Plans
4/30/2026	County Review Phase IV Engineering package
7/16/2026	Letting Date

Respectfully,

Name *Title*  Steve Hedge, PE Project Manager

Attachments: Please see attached detailed staffhour sheets.

#### Estimate of Work Effort and Cost

Name of Project: George Bush Boulevard Bridge over ICWW Bridge Replacement

PBC Project Number: 2022506

Consultant Name: Hardesty & Hanover, LLC

Consultant Number:

Date: 5/21/2025

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		Staff Categories										ì	
Task Description	Total Staff Hours	Principal Engineer	Project Manager 3	Chief Engineer 1	Senior Engineer 1	Senior Engineer 2	Engineer 1	Engineer 2	Engineering Intern	Staff Hours By Activity	Salary Cost By Activity	Average Per Ta	
		\$117.21	\$91.35	\$85.44	\$72.95	\$75.70	\$49.75	\$63,00	\$37.97				
BASIC SERVICES			a subjective									•	
1 General Task	124	6	62	0	19	12	12	6	7	124	\$9,902.20	\$79.8	86
19 Structures Plans	262	12	25	13	52	52	27	40	41	262	\$17,950.81	\$68.	51
22 Medium Span Concrete Bridge	34	2	2	4	4	4	6	6	6	34	\$2,257.80	\$66.4	41
24 Movable Span	2000	100	200	100	400	400	200	300	300	2000	\$138,236.00	\$69.	12
24 Bridge Monitoring (August 2025 - December 2026)	527	0	63	0	0	0	279	185	0	527	\$31,290.30	\$59.3	37
Total Staff Hours (Basic Services)	2947.0	120.0	352.0	117.0	475.0	468.0	524.0	537.0	354.0	2947.0			
Total Staff Cost (Basic Services)		\$14,065.20	\$32,155.20	\$9,996.48	\$34,651.25	\$35,427.60	\$26,069.00	\$33,831.00	\$13,441.38		\$199,637.11	\$	67.74
OPTIONAL SERVICES	e sagar			Transparking				terestrate.	Qirayra, Aut	san a sa asin d			
1 Post Design Services	1588.0	399	232	232	397	149	149	0	0	1558,0	\$135,435.27	\$	86.93
2 Bridge Monitoring (January 2027 - December 20227)	372.0	0	45	0	0	0	197	130	0	372.0	\$22,101.50	\$	59.41
Total Staff Hours (Optional Services)	1960.0	399.0	277.0	232.0	397.0	149.0	346.0	130.0	0,0	1930.0			
Total Staff Cost (Optional Services)		\$46,766.79	\$25,303.95	\$19,822.08	\$28,961.15	\$11,279.30	\$17,213.50	\$8,190.00	\$0.00		\$157,536.77	\$	81.63

EBO SBE Calculation for this Fee Su	mmary	SBE \$	Non-SBE \$
PRIME		 	\$946,510.78
MASSE CONSULTING SERVICES, LLC		\$52,542.00	
	TOTAL	\$ 52,542.00	\$ 946,510.78

Basic Services:		
Salary Related Costs:	\$199,637.11	
Contract Multiplier	2.65	
Subtotal Basic Services (Prime Consultant):	\$529,038.34	
Basic Services (MASSE CONSULTING SERVICES, LLC)	\$52,542.00	
Subtotal Basic Services (Subconsultants)	\$52,542.00	
Basic Services Total:	\$581,580.34	

Optional Services:								
Salary Related Costs:	\$157,536.77							
Contract Multiplier	2.65							
Subtotal Optional Services (Prime Consultant):	\$417,472.44							
Optional Services Total:	\$417,472.44							

Grand Total Estimated Fees: \$999,052.78

	The state of the s	Es	timate of W	ork Effort a	nd Cost	EXHIBIT B - PAGE 2 OF 19						
Project Activity 1: General Tasks												
Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments						
1.8	Railroad, Transit, and/or Airport Coordination	LS	1	8	8	Complete Aeronautical Study - FAA notification						
1.9	Project Manager Coordination Meetings	LS	1	52	52	See list below						
1.10	Contract Maintenance and Project Documentation	LS	1	64	64	16 Hrs. initial setup plus 4 Hrs/month for 12 months = 64 Hrs.						
			1. General	Tasks Total	124							
					[	:						
1.9 - List	of Project Manager Meetings	Units	No of Units	Hours/ Unit	Total Hours	Comments						
Environm	ental	EA	6	2	12	2 Eng. X 6 meetings x 1 Hrs. / meeting = 12 Hrs.						
Structure	s	EA	4	2	8	2 Eng. X 4 meetings x 1 Hrs. / meeting = 8 Hrs.						
Phase Re	eviews	EA	4	4	16	Includes travel time for in person meeting						
Field Rev	riews	EA	2	8	16	PM Site Visit = 2 Reviews x 8 Hrs./Review = 16 Hrs.						

16

Total PM Meeting Hours carries to Task 1.9 above

5/20/2025 2:58 PM Page 2 of 7

Total Project Manager Meetings

			Project /	Activity 19: S	tructural Pla	ns				
Task			Design a	nd Production S	taffhours					
No.	Task	Units	No. of Units Hours per Unit or Sheet		Total	Comments -				
19.1	Key Sheet	Sheet	1	4	4	Prepare key sheet.				
19.2	Index of Drawings	Sheet	1	8	8	Update Index of Drawings.				
19.6 General Notes and Bid Items		Sheet	1	8	8	Develop general notes and bid item notes.				
19.10 Existing Bridge Plans		LS	1	4	4	Label & incorporate existing bridge plans.				
19.12	Quantites	EA	4	6	24	Determine structures pay items and quantities update w 35%, 65%, 96%, and Final	ith each submittal:			
19.13	Cost Estimate	EA	4	6	24	Prepare cost estimate with each submittal: 35%, 65%, 9	6%, and Final			
Technical Special Provisions and Modified Special Provisions		LS	1	120	120	Technical Special Provisions T465 Movable Bridges (40 hours) T468 Mechanical Construction For Movable Bridges (40 hours) T508 Electrical Construction For Movable Bridges (40 hours)				
19.17	Field Reviews	EA	2	24	48	2 Site Visits / 3 Engineers each visit / 8 hrs. each Engineer 3x8x2= 48 hrs.				
19.18	Technical Meetings	LS	1	22	22	See list below				
		19. Str	uctures - Struct	ural Plans Total	262					
	Technical Meetings	Units	No of Units	Hours/ Unit	Total Hours	Comments	PM Attendance at Meeting Required?			
35%, <del>(</del>	5%, 96 & Final Comment Review	EA	4	2	8	4 meetings for each review comment @ 2 hrs. each PM will attend meeting				
Local (	Governments (cities, counties)	EA	4	2	8	4 meetings for each review comment @ 2 hrs. each PM will attend meeting				
Subto	tal Technical Meetings				16					
Progre	ss Meetings	EA	3	2	6	3 meetings for progress of plans @ 2 hrs. consutant PM attend meetings.	and PBC PM will			
Total	Meetings				22	Total Technical Meetings (car	ries to Tab 19.18)			

#### Estimate of Work Effort and Cost

## EXHIBIT B - PAGE 4 OF 19

## Project Activity 22: Medium Span Concrete Bridge

Task No.	Task	Units	No. of Units	Hours/ Unit or Sheet	Total Hours	Comments							
	General Layout Design and Plans												
22.3	General Plan and Elevation	Sheet	1	5	5								
	End Bent Design and Plans												
22.10	End Bent Plan and Elevation	Sheet	1	24	24	Plan and Elevation to show backfilling at End Bent 6.							
	Superstructure Deck Design and Plans												
22.29	Superstructure Section	Sheet	1	5	5	Typical section at approach spans.							
	22	. Medium Sp	an Concrete	Bridge Total	341								

### Estimate of Work Effort and Cost

## Project Activity 24: Movable Span Bridge

Task	Unit	No. of Units	Hours/ Unit or Sheet	Total Hours	Comments
Bascule Pier Dimensions - Detailing					
Pier Plan Views	Sheet	1	22	22	Plan view at machinery level showing elements to be repaired inside the bascule piers.
Pier Sections	Sheet	1	22	22	Transverse section showing elements to be repaired inside the bascule piers.
Bascule Leaf Detailing					
Framing Plan	Sheet	1	32	32	Provide structural framing layout depicting the location and plan dimensions of the main girders, bracing,and floor beam (all members will be cleaned and coated).
Typical Section	Sheet	1	18	18	Provide typical section at bascule span.
Mechanical Design			<u>,</u> ,		
Final Power Requirements	LS	1	12	12	Calculate operating resistance requirement for planned machinery modifications. Includes calculations for auxiliary emergency drive.
Mechanical Drive Design	•	•			
Drive Shafts, Couplings, Keys, Bearings and Supports	LS	1	58	58	Size new Floating Shafts (8 hours) Reducer input/output shafts (8 hours) Proposed modifications to existing pinion shafts (32 hours) New supports for connection to existing structural steel (10 hours)
Rack & Pinion, Bearings and Supports	LS	1	132	132	Check existing rack assemblies for re-use (60 hours) Check existing pinion assemblies and connections for re-use (72 hours) (These checks involve an evaluation of the existing gear geometry and material and compare how they perform with the loads from the new machinery.)
Drive Train	LS	1	100	100	Size new primary reducer (44) Size new drive motor(s), (24) Size new supports for connection to existing structural steel. (32)
Motor Brakes & Machinery Brakes	LS	1	68	68	Size new motor brakes (24 hrs) Size new machinery brakes (24 hrs) Size and detail new supports for connection to existing structural steel. (20 hrs)
Machinery Detailing					
Machinery Layout	Sheet	1	40	40	Plan and Elevation Views of movable leaf showing proposed machinery rehabilitation.
Machinery Elevation	Sheet	1	40	40	Elevation view showing proposed drive machinery rehabilitation. Callouts for all drive machinery components to be replaced and installed.
Machinery Section	Sheet	1	40	40	Section view(s) showing proposed drive machinery rehabilitation to clarify assemblies.
Drive Details	Sheet	10	40	400	<ol> <li>(1) Sheet for overall Plan view of complete drive machinery.</li> <li>(1) Sheet for primary reducer details.</li> <li>(1) Sheet for span drive motor and motor brake details.</li> <li>(1) Sheet for output floating shafts, shaft couplings and keys, and machinery brake details.</li> <li>(1) Sheet for mismatched pinion replacement details and intermediate gear shaft machining details.</li> <li>(2) Sheets for new flat track and subframe assembly and new segmental curved tread assembly details.</li> <li>(1) Sheet for details of new machinery supports.</li> <li>(1) Sheet to detail re-alignment of machinery.</li> <li>(1) Sheet for movable leaf jacking and tie back system details.</li> </ol>
	Pier Plan Views Pier Sections  Bascule Leaf Detailing Framing Plan Typical Section  Mechanical Design Final Power Requirements  Mechanical Drive Design  Drive Shafts, Couplings, Keys, Bearings and Supports  Rack & Pinion, Bearings and Supports  Drive Train  Motor Brakes & Machinery Brakes  Machinery Detailing  Machinery Layout  Machinery Section	Bascule Pier Dimensions - Detailing Pier Plan Views Sheet Pier Sections Sheet  Bascule Leaf Detailing Framing Plan Sheet  Typical Section Sheet  Mechanical Design Final Power Requirements LS  Mechanical Drive Design  Drive Shafts, Couplings, Keys, Bearings and Supports LS  Rack & Pinion, Bearings and Supports LS  Drive Train LS  Motor Brakes & Machinery Brakes LS  Machinery Detailing  Machinery Layout Sheet  Machinery Elevation Sheet  Machinery Section Sheet	Bascule Pier Dimensions - Detailing Pier Plan Views Sheet 1  Pier Sections Sheet 1  Bascule Leaf Detailing Framing Plan Sheet 1  Typical Section Sheet 1  Mechanical Design  Final Power Requirements LS 1  Mechanical Drive Design  Drive Shafts, Couplings, Keys, Bearings and Supports LS 1  Rack & Pinion, Bearings and Supports LS 1  Drive Train LS 1  Motor Brakes & Machinery Brakes LS 1  Machinery Detailing  Machinery Layout Sheet 1  Machinery Section Sheet 1  Machinery Section Sheet 1	Bascule Pier Dimensions - Detailing	Sheet   Hours

T1-	T			Stilliate of Work		EXHIBIT B - PAGE 6 OF 19
Task No.	Task	Unit	No. of Units	Hours/ Unit or Sheet	Total Hours	Comments
24.75	Load Analysis	LS	1	24	24	Calculation of new and existing electrical loads for design and detailing covered in subsequent tasks. Includes load, voltage drop, and short circuit calculations.
24.76	Power Distribution	L.S	1	60	60	Calculation and sizing of power distribution equipment (OCPDs, disconnects, starters, etc.) for new drive equipment (see following task) and brakes and existing gates and panels. Includes check of existing system to confirm suitability to accommodate added load. No impacts expected to existing power distribution.
24.77	Drive Equipment	LS	1	40	40	Calculation and sizing of new drives and associated equipment (braking resistors, OCPDs, disconnects, enclosure, etc.) to operate span motors at the loads specified by the mechanical design.
24.78	Bridge Controls	LS	1	160	160	Design of relay logic controls and safety interlocks to coordinate the traffic signals, traffic gates, motor and machinery brakes, and span motors. Includes sequencing of near and far leaves for jaw locks. Overall reduced complexity compared to FDOT standard of care due to lack of span locks and County preferences regarding PLC and control desk.
24.79	Grounding	LS	1	24	24	Sizing and design of grounding system for new equipment only.
24.80	Lightning and Surge Suppression	LS	1	36	36	Design of control house lightning protection systemincluding SPDsto safeguard new equipment.
	Electrical Detailing					
24.82	Electrical Plan and Elevation	Sheet	1	14	14	Overall plan and elevation view of bridge with callouts for new equipment to clarify the general scope visually.
24.83	Electrical Symbols and Abbreviations	Sheet	1	10	10	Show all symbols and abreviations used in the plans.
24.84	Single/Three Line Diagram	Sheet	1	30	30	Single-Line Diagram (or Three-Line Diagram as appropriate) showing the existing electric service, generator, ATS, and lighting panels as well as the new starters and drives. Includes design for layout/compartmentalization of power distribution and drive equipment in the switchboard and other panels as appropriate.
24.86	Wire and Conduit Schedules and Diagrams	Sheet	4	24	96	Design and detailing of the conduit and conductor system, including sizing of conduit for wire fill. Consists of the following 4 sheets:  Conduit Diagram (1 of 2)  Conduit Diagram (2 of 2)  Conduit and Cable Schedule (1 of 2)  Conduit and Cable Schedules (2 of 2)
24.87	Control Desk/Panel Layout	Sheet	3	24	72	Design and detailing of the control system panels. Consists of the following 3 sheets:  Control Desk Layout Control Desk Details Control Panel Layout (Includes Drives)
24.88	Control Schematics	Sheet	15	24	360	Prepare a complete set of control schematics to integrate the existing and new equipment, control desk, limit switches, etc. Estimated to consist of 15 sheets.
24.94	Miscellaneous Details	Sheet	5	18	90	Prepare the miscellaneous layout and detail sheets not covered under other tasks as noted below. "Details" sheets include multiple details and layouts associated with the system described.  Control Room Equipment Layout Machinery Area Equipment Layout Lightning Protection Details Flexible Cable Details Limit Switch Details
		24 Struc	fures - Mov	able Span Total	2000 🗸	enno enno, sociale
		A-7, JUUL	,.uica - IMUY	anie ohaii iorai	#000 1/	

Task No.	Task	Unit	No. of Units	Hours/ Unit	No. of Sheets	Total Hours	Comments							
	Strain Gage Testing													
24.103	Preparation	EA	17	1	N/A	17	Prepare inspection sketches and review data							
24.104	Field Inspection/Testing	EA	17	20	N/A		Perform strain gage testing: 2 Eng. x 17 Visit x 10 Hrs./Visit = 340 Hrs. (includes travel time)							
24.105	Summary Memo	EA	17	10	N/A	170	Develop a summary memorandum of the findings and recommendations.							
·		24.	Bridge Mor	nitoring Total		527								

## Optional Services – Post Design Services

George Bush Blvd. over ICWW Mid-Term Repairs - Project No. 2022506 Supplement No. 4

			OPTIC	NAL SERVICI	ES - POST DE	SIGN			
Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments			
1.7	Post Design Services	LS	1	1,558	1558	See post design optional services breakdown below			
			1. Genera	al Tasks Total	1558				
l.9 - Post	Design Breakdown	Units	No of Units	Hours/ Unit	Total Hours	Comments			
Plans Rev	isions	EA	8	4	32	5% of Structure plan sheets - 2 to 4 hours per sheet. Includes QA/QC, Supervision and Coordination. 75 Plan Sheets x 10% = 8 Plan Sheets 8 Plan Sheets x 4 hours = 32 Hours			
Shop Draw	ving Reviews	LS	1	604	604	, See attached backup sheets with shop review details			
Request fo	r Information Resolution	EA	96	3	288	Estimate one per week for length of construction. 1 to 3 hours per RFI. 672 estimated construction days ~ 96 Weeks 96 Weeks x 1 RFI's x 3 Hrs. = 288 Hours			
Prime Con	sultant Project Manager Meetings	LS	1	68	66	Progress meeting: 24 meetings x 2 hrs. (assume virtual) x 1 Engineer =48 hrs. Handoff Meeting: 1 meeting x 4 hrs. prep. + 2 hrs. x 1 Engineer = 6 hrs. (Includes meeting prep.) Pre-Construction Meeting: 1 meeting x 4 hrs. x 2 Engineers = 8 hrs. Partnering: 1 meetings x 4 hrs. x 1 Engineer = 4 hrs.			
³rogress N	fleetings/Field Reviews/Shop Tests	LS	1	344	344	Estimated 1 per month for length of construction (8 hours each including travel time). 672 Days Const. Schedule ~ 24 Months x 1 Field Review x 8 Hrs. = 192 Hours  Electrical Systems: 1 Engineer x 3 Days x 8 Hrs./Day = 24 Hours  Mechanical Systems: 1 Engineer x 5 Days x 8 Hrs./Day = 40 Hours  Structural Steel Shop Inspection: 1 Engineer x 5 Days x 8 Hrs./Day = 40 Hours  Functional Checkout - Electrical Systems: 1 Engineer x 3 Days x 8 Hrs./Day = 24 Hours  Functional Checkout - Mechanical Systems: 1 Engineer x 3 Days x 8 Hrs./Day = 24 Hours			
ield Revie	ews for Prime PM/EOR	EA	28	8	224	Attend site visit for the duration of construction. Includes meeting time and travel time.			
otal Proj	ect Manager Meetings		190		1558 🗸	Total PM Meeting Hours carries to Task 1.9 above			

No.	Shop drawing reviews (list anticipated shop drawings)	Hrs.
	BASCULE LEAVES	
1		20
	BASCULE PIERS	1
1	Sections - repairs	5
1	Plan views - repairs	5
	BASCULE SPAN - MECHANICAL	, <b></b>
1	Pinion Forging and Machining Details	16
1	Span Drive Couplings	6
1	Motor and Machinery Brakes	24
1	Track and Tread Castings and Machining Details	40
1	Span Operating Machinery & Gen. Notes	16
1	Span Operating Machinery Plan & Elev	16
1	Span Operating Machinery Supports	24
1	Span Oper. Mach. Installation Proc.	48
1	Trunnion Assemblies	40
1	Machinery Protective Coatings	4
1	Machinery Corrosion Inhibitor	4
1	CH - HVAC Ducts and Castings	8
1	CH - HVAC Air Duct Accessories	8
	BASCULE SPAN - ELECTRICAL	
1	Control System Engineer Credentials	4
1	Journeyman Electrician Credentials	4
1	Wire & Cable	12
1	Grounding & Bonding	12
1	Conduit & Fittings	12
1	Boxes & Enclosures	12
1	Terminal Blocks	10
1	Wiring Devices	8
1	CCTV System	18
1	Span Drive	12
1	Motors .	20
1	Motor Shop Testing Results	2

#### **OPTIONAL SERVICES - POST DESIGN** Shop drawing reviews No. Hrs. (list anticipated shop drawings) 1 Control System 24 Control System Shop Testing Procedure 12 1 Limit Switches & Inclinometer 10 1 Control Desk 12 1 Programable Logic Controller 18 1 Motor Control Center (MCC) 12 1 Lightning Protection 14 1 Surge Suppressors 10 1 Flexible Cables 6 1 Panel Boards & Breakers 12 1 Bascule Pier Lighting 12 1 Disconnects & Fuses 14 1 Flexible Cable Termination Cabinet 6 1 Traffic Gates & Assemblies 18 4 1 Submersible Pump 1 Functional Checkout Testing Procedure 10 58 Total Shop Drawings 604 √

## **Optional Services**

## Bridge Monitoring (January 2027 – December 2027)

George Bush Blvd. over ICWW Mid-Term Repairs - Project No. 2022506

Supplement No. 4

### OPTIONAL SERVICES - Bridge Monitoring (Jan. 2027 - Dec. 2027)

Task No.	Task	Unit No. of Units Hours/ Unit			No. of Sheets	Total Hours	Comments
	Strain Gage Testing						
24,103	Preparation	EA	12	1	N/A	12	Prepare inspection sketches and review data
24.104	Field Testing	EA	12	20	N/A	240	Perform strain gage testing: 2 Eng. x 17 Visit x 10 Hrs./Visit = 680 Hrs. (includes travel time)
24,105	Summary Memo	EA	12	10	N/A	120	Develop a summary memorandum of the findings and recommendations.
		16. Structu	res - Movat	ole Span Total		372 ~	



Date: May 6, 2025 (revised)

April 14, 2025 (Revised)

April 11, 2025

To: Michael Sileno, P.E.

Project Manager

Hardesty & Hanover, LLC

3250 W. Commercial Boulevard, Suite 348

Fort Lauderdale, FL 33309

Re: Scope of Services

GEORGE BUSH BOULEVARD BRIDGE REPLACEMENT OVER THE ICWW

MID-TERM REPAIRS

PALM BEACH COUNTY PROJECT NO.: 2022506

Dear Mr. Sileno:

Masse Consulting Services, LLC (Masse Consulting) is pleased to provide you with this scope of professional services for the above referenced project described below.

### PROJECT DESCRIPTION

As a sub-consultant to Hardesty & Hanover, LLC, Masse Consulting will provide professional engineering services in connection with the mid-term repair of the existing George Bush Boulevard Bridge over the Intracoastal Waterway in Palm Beach County. The project involves developing rehabilitation plans for structural, mechanical, and electrical repairs to restore the existing bridge to feasible reliable condition to remain operational until its proposed replacement in approximately ten years. The length of the project is approximately 955 LF (0.181 miles).

Masse Consulting's scope of services will be limited to the following services: Temporary Traffic Control Plan (TTCP), Permits and Utility Coordinations as described under the Scope of Services.

The plans and construction documents will be prepared in accordance with the following design standards:

- Palm Beach County Thoroughfare Roadway Design Procedures (January 2019).
- Manual of Uniform Minimum Standards for Design, Construction, and Maintenance for Streets and Highways, commonly known as the Florida Greenbook (2023 Edition).
- Palm Beach County Typical for Pavement Markings, Signing & Geometrics No. T-P-24 (July 2024).
- Manual on Uniform Traffic Control Devices for Streets and Highways (2019 edition with revisions).
- SFWMD Environmental Resource Permit Information Applicants Handbook, Vol. 1 & 2, effective June 2024.

## Scope of Services

## GEORGE BUSH BOULEVARD BRIDGE REPLACEMENT OVER THE ICWW MID-TERM REPAIRS

### PALM BEACH COUNTY PROJECT NO.: 2022506

## **SCOPE OF SERVICES**

Masse Consulting will provide the following services:

## 1. Temporary Traffic Control Plans (TTCP)

Masse Consulting will develop a schematic vehicular detour route for the bridge closure for repair works. The plans will be prepared on 11"x17" with an aerial background.

#### 6. Permits

Permits from the following agencies are required: South Florida Water Management District (SFWMD) Right-of-Way permit, United States Coast Guard (USCG), and U.S. Army Corps of Engineers (USACE). No Environmental Resource Permits (ERP) or dewatering permits from SFWMD are anticipated for the proposed maintenance work on the existing bridge. Masse Consulting will be responsible for preparing and submitting the required permit applications. All plans, supporting documents, permit sketches, and any modifications will be provided by the prime consultant, Hardesty & Hanover. Masse Consulting will provide the following services:

- 6.3 Analyze Existing Permits
- 6.4 Complete and submit permit applications, respond to requested additional information, and obtain permits
- 6.7 Attend Technical Meetings

## 7. Utilities

Masse Consulting Services will assist the Prime consultant in the utility coordination by providing the following services:

- 7.1 Draft existing utility facilities
- 7.2 Prepare utility conflict matrix
- 7.3 Identify conflict resolutions
- 7.4 Attend three (3) meetings

## SUBMITTALS AND DELIVERABLES

All deliverables to Hardesty & Hanover, LLC will be only in PDF format.

## EXCLUDED SERVICES

Design of any utility relocation work Signalization Plans TTCP Typical and Cross Sections Lane Closure Analysis

We are looking forward to working with you on this project. Should you have any questions, please feel free to contact us.

Sincerely,

Basher Khan, P.E.

Bash Khan

Manager

Masse Consulting Services, LLC | 2101 Vista Parkway, Suite 277 West Palm Beach, 33411 | Phone: (561) 577-3482

#### Project Staff Hour Summary

		George Bush Repairs	Boulevard Brid	ige Replacement	t over the ICWW	Mid-Term	Consultant Name	:	MASSE CONSULTIN	G SERVICI	ES, LLC
	PBC Project Number:	2022506					Consultant Proj. Number:			20	025-105
					/		Date:			5	/6/2025
					Staff Categorie	18					
	Task Description		Project Manager	Senior Engineer	Project Engineer	Engineering Intern	GADD/Computer Technician	Staff Hours By Activity	Salary Cost By Activity	Average Rate Pe	
			\$67.00	\$62.00	\$47.00	\$33.00	\$30.00		 1		
BAS	C SERVICES							1,51 - 15.			
1	Temporary Traffic Control Plans (TTCP)	80	16	20	28	8	8	80	\$4,132.00	\$	51.65
6	Permits & Environmental	148	30	36	52	30	0	148	\$7,676.00	\$	51.86
7	Utilities	110	22	28	39	11	10	110	\$5,706.00	\$	51.87
	Total Staff Hours (Basic Services)	338	68	84	119	49	18	200	447 #44 00		
	Total Staff Cost (Basic Services)		\$4,556.00	\$5,208.00	\$5,593.00	\$1,617.00	\$540.00	338	\$17,514.00	\$	51.82
									Basic Services:		
								Salary Related	·	\$17,51	4.00
								Contract Multi	plier	3.00	
								Su	btotal Basic Services:	\$52,54	2.00
									Basic Services Total:	\$52,54	2.00
									Total Estimated Fees:	\$52,54	2.00

	<b>O8</b>	1. Temporary Traffic Control Plans (TTCP) Total				•
Schematic detour plans (11x177) on aerial background	08	08	ŀ	รา	Develop vehicular detour plan	0.1
Сотпепв	fatoT snuoH	Hours/ Unit	atinU to oM	silnU	Task	Task No.
ffic Control Plans (TTCP)	STT YIESO	vity 1: Temp	itoA toslor	i		•

Project Activity 6. Permits & Environmental									
Task No.	Task	Units	No. of Units	Hours/ Units	Total Hours	Comments:			
6.3	Analyze Existing Permits	LS	1	40	40	Review and research existing permits from three agencies			
6.4	Complete and Submit Permit Applications	EA	3	28	84	Prepare permit applications (16 hrs), and response to RAIs (12 hrs) for 3 agencies			
6.7	Attend Technical Meetings	EA	3	8	24	Three meetings (one meeting for each agency), 4 hours per meeting, two persons, include preparation for meeting and minutes			
		6. Permits a	and Environ	mental Total	148				

	Project Activity 7: Utilities										
Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments					
7.1	Draft Existing Utiltiy Facilities	LS	1	48	48	Develop initial utility contact plan (16 hrs), Follow up with Prime & provide PDF files (8 hrs), Collect and review plans (24 hrs)					
7.2	Prepare Utility Conflict Matrix	EA	2	12	24	Prepare conflict matrix (1 @ 65% plans; 1@ final plans) for 13 agencies					
7.3	Identify Conflict Resolutions	EA	13	2	26	Coordinate with 13 utility agencies, and follow up with utility owners					
7.4	Meetings	EA	2	6	12	2 utility coordination meetings (65% and 96%), 1 hr per meeting; 2 hrs per meeting preparation and meeting minutes; 2 persons; 13 agencies					
			7. U	tilities Total	110						

## **OEBO SCHEDULE 1\***

BAHIBIT 6 - PREE 1 OF 3

SOLICITATION/PROJECT/BID NAME: George Bush Blvd. Bridge Re	placement Over ICW	W SOLICITATION/PROJECT/BIE	No.: 2022506			
SOLICITATION OPENING/SUBMITTAL DATE: August 9, 2022		COUNTY DEPARTMENT: <u>E</u>	ngineering & Public Wo	orks		
Section A PLEASE LIST THE DOLLAR AMOUNT OR PERCEN	TAGE OF WORK TO BE	COMPLETED BY THE PRIME CON	TRACTOR/CONSULTANT* (	ON THE PROJECT:		
NAME OF PRIME RESPONDENT/BIDDER: Hardesty & Hanover, L	LC	ADDRESS: 3250 \	V. Commercial Blvd. Suit	e 348, Fort Lauderdale FL 3330		
CONTACT PERSON: Steve Hedge, PE	PH	ONE NO.: 954-368-6350	E-MAIL: shedge@	hardestyhanover.com		
PRIME'S DOLLAR AMOUNT OR PERCENTAGE OF WORK: \$946,510 SBE Prime's must include their percentage or dollar amount in the Total Partic		B. Non-SBE SBE				
Section B PLEASE LIST THE DOLLAR AMOUNT OR PERCENT	TAGE OF WORK TO BE (	COMPLETED BY ALL SUBCONTRA	CTORS/SUBCONSULTANTS	ON THE PROJECT BELOW:		
Subsantractor/Subsancellant No.	(Check all App	licable Categories)	DOLLAR AMOUNT OR			
Subcontractor/Sub consultant Name	<u>Non-SBE</u>	<u>SBE</u>	PERCENTAG	E OF WORK		
1. MASSE Consulting Services, LLC			\$52,542.00			
2.		Lagrandia.				
3.						
4.	at restored.					
5.	ALL					
(Please use additional sheets if necessary)			¢52 542 00	1		
Total Bid/Offer Price \$ \$999,052.78		/ / Total Certified SRF P.	Total \$52,542.00 articipation \$ \$52,542.00			
hereby certify that the above information is accurate to the best of my knowledge:	Michael Sileno, PE	11 11 0 2 11		Managing Member		
Note: 1 The amount listed on this form for a Subsection to the last		Authorized Signature		Title		
Note: 1. The amount listed on this form for a Subcontractor/sub consultant must	ne supported by price or per	centage listed on the properly executed :	Schedule 2 or attached signed pro	posal.		

2. Only those firms certified by Palm Beach County at the time of solicitation due date are eligible to meet the established OEBO Affirmative Procurement Initiative (API). Please check the applicable box and list the dollar amount or percentage under the appropriate demographic category.

3. Modification of this form is not permitted and will be rejected upon submittal.

4. If a Mandatory API goal applies, failure to submit a properly executed Schedule 2 will result in a determination of non-responsiveness to the solicitation.

A completed Schedule 2 is a binding document between the Prime Contractor/consultant and a Subcontractor/subconsultant (for any tier) and should be treated as such. All Subcontractors/subconsultants, including any tiered Subcontractors/ subconsultants, must properly execute this document. If a Mandatory API goal applies, failure to submit a properly executed Schedule 2

OEBO LETTER OF INTENT - SCHEDULE 2\* EXHIBIT C- PAGE 208-3

will result in a determination of non-responsiveness to the solicitation. Each properly executed Schedule 2 must be submitted with the bid/proposal. SOLICITATION/PROJECT NUMBER: 2022506 SOLICITATION/PROJECT NAME: George Bush Blvd. Bridge Replacement Over ICWW Prime Contractor: Hardesty & Hanover, LLC Subcontractor: (Check box(s) that apply) ☐ SBE ☒ Non-SBE □ Supplier Date of Palm Beach County Certification (if applicable):\_\_ SBE PARTICIPATION - SBE Primes must document all work to be performed by their own work force on this form. Specify in detail, the scope of work to be performed or items supplied with the dollar amount and/or percentage for each work item. When applicable, identify the line item(s) associated with the service/product being supplied. SBE credit will only be given for the areas in which the SBE is certified. A detailed quote/proposal may be attached to a properly executed Schedule 2 for additional information. Line Item Description **Unit Price** Quantity/ Contingencies/ Total Price/Percentage **Allowances** Item Units 4.03 94.74% include project management, structural, mechanical, and electrical services covered under work categories 4.02, 4.03, 10.01 The undersigned Subcontractor/subconsultant is prepared to self-perform the above-described work in conjunction with the aforementioned project at the following total price or percentage: If the undersigned intends to subcontract any portion of this work to another Subcontractor/subconsultant, please list the business name and the amount below accompanied by a separate properly executed Schedule 2. Price or Percentage: Name of 2<sup>nd</sup>/3<sup>rd</sup> tier Subcontractor/subconsultant HARDESTY & HANOVER, LLC N/A Print Name of Subcontractor/subconsultant Print Name of Prime Authorized Signature **Authorized Signature** Michael Sileno, PE Print Name Print Name Managing Member Title Date: 7/10/2025 Date: \_\_\_

\*Revised 6.5.2025 pursuant to Emergency Ordinance 2025-014, approved on June 3, 2025

# OEBO LETTER OF INTENT - SCHEDULE 2\* EXHIBIT 6 - PAGE 3 OF 3

will result in a determination of non-responsiveness to the solicitation. Each properly executed Schedule 2 must be submitted with the bid/proposal. SOLICITATION/PROJECT NUMBER: 2022506 SOLICITATION/PROJECT NAME: George Bush Blvd. Over ICWW Bridge Replacement Prime Contractor: Hardesty & Hanover, LLC Subcontractor: Masse Consulting Services, LLC (Check box(s) that apply) Date of Palm Beach County Certification (if applicable)  $\frac{3/1/24}{2}$  -  $\frac{3}{10/27}$ ☑ SBE □ Non-SBE □ Supplier SBE PARTICIPATION - SBE Primes must document all work to be performed by their own work force on this form. Specify in detail, the scope of work to be performed or items supplied with the dollar amount and/or percentage for each work item. When applicable, identify the line item(s) associated with the service/product being supplied. SBE credit will only be given for the areas in which the SBE is certified. A detailed quote/proposal may be attached to a properly executed Schedule 2 for additional information. Line Item Description Unit Price Quantity/ Contingencies/ Total Price/Percentage ltem **Allowances** 3.02 Permit and Utility Coordination 5.26% The undersigned Subcontractor/subconsultant is prepared to self-perform the above-described work in conjunction with the aforementioned project at the following total price or percentage: 5.26%If the undersigned intends to subcontract any portion of this work to another Subcontractor/subconsultant, please list the business name and the amount below accompanied by a separate properly executed Schedule 2. Price or Percentage: \_\_\_ Name of 2<sup>nd</sup>/3<sup>rd</sup> tier Subcontractor/subconsultant HARDESTY & HANOVER, LLC Masse Consulting Services, LLC Print Name of Prime Print Name of Subcontractor/subconsultant Fash Hon Authorized Signature Authorized Signature Michael Sileno, PE Md Abul Basher Khan, PE Print Name Print Name Principal Manager Date: 7/10/2025 Date: 7/10/2025

A completed Schedule 2 is a binding document between the Prime Contractor/consultant and a Subcontractor/subconsultant (for any tier) and should be treated as such. All Subcontractors/subconsultants, including any tiered Subcontractors/ subconsultants, must properly execute this document. If a Mandatory API goal applies, failure to submit a properly executed Schedule 2

<sup>\*</sup>Revised 6.5.2025 pursuant to Emergency Ordinance 2025-014, approved on June 3, 2025

## George Bush Boulevard Bridge Replacement over the ICWW

## Project# 2022506

Authorization	Supplement	Date Approved	Total Amount			SBE Amount	SBE %	
BCC	Original Contract	10/17/2023	\$	907,256.01	\$	684,210.41	75.41%	
Lead	Supplement #1	1/17/24	\$	24,724.00	\$	-	0.00%	
CRC	Supplement #2	5/8/2024	\$	80,180.70	\$	77,857.44	97.10%	
BCC	Supplement #3	5/6/25	\$	5,106,469.49	\$	569,989.90	11.16%	
BCC	Supplement #4	Pending	\$	999,052.78	\$	52,542.00	5.25%	
		Project Totals	\$	7,117,682.98	\$	1,384,599.75	19.45%	



## Palm Beach County **Compliance Summary Report**

Vendor Number	Vendor Name	AM Best Rating	Insurance Carrier	Policy #	Eff. Date	Exp. Date	Coverage	Contract Number	Contract Name
DX00002131	Hardesty & Hanover, LLC		Compliant					2022506	George Bush Boulevard over ICWW Bridge Replacement
		Ag , XV	Aspen American Insurance Company	сх009п725	8/1/2025	8/1/2026	Excess Liability		
		Ap, XV	National Union Fire Insurance Company of Pittsburg	GL9566090	8/1/2025	8/1/2026	General Liability		
		Ag , XV	Beazley Insurance Company, Inc.	V38122250201	8/1/2025	8/1/2026	Professional Liability		
		Ar, XV	New Hampshire Insurance	WC43172130	8/1/2025	8/1/2026	Workers Comp		

Risk Profile:

Standard - Professional Services

Required Additional Insured: Palm Beach County Board of County Commissioners

Ownership Entity: