City of Jacksonville, Florida

Lenny Curry, Mayor

Department of Public Works
Engineering & Construction Management Division
214 N. Hogan Street, 10th Floor
Jacksonville, FL 32202
(904) 255-8762
www.coj.net

ONE CITY. ONE JACKSONVILLE.

May 4, 2018

05/04/18 11:11:58
Procurement Division

TO: Gregory W. Pease, Chairman
Professional Services Evaluation Committee

THRU: John P. Pappas, P.E.
Director of Public Works

FROM: Tom Fallin, P. E., Chief
Engineering and Construction Management Division

Thomas H. Goldsbury, P.E., C.B.O., Chief
Building Inspection Division

SUBJECT: P-14-17 Professional Design Services for Jacksonville Beach Pier – Review/Design
Acct #: PWCP166VP519-039410-PWD34E-C3-AFA017-01 AMD #2

Phase 1 of the above referenced professional services has been completed and we are ready to move on to the final design phase. The City has met with the consultant and negotiated a fee and scope, which we believe, is fair and equitable.

Accordingly, this is to recommend that Contract 3140-33 with RS&H for Professional Design Services for Jacksonville Beach Pier Review and Design be amended to include the attached Scope of Services for final design, identified as Exhibit "A-2" and Fee Schedule identified as Exhibit "B-2"; to include an amount for Phase 2 Final Design of $249,642.11, to include a not-to-exceed amount of $20,226.20 for Permitting and Environmental Coordination; and to increase the maximum indebtedness of the City by $269,868.31 to a new total of $525,963.24; with all other terms and conditions of the Contract remaining unchanged.

THG

Attachments: Exhibits A-2 & B-2

cc: Lori A. West, Engineering Contract Specialist

EXHIBIT A-2

SCOPE OF SERVICES

RFP #P-14-17: Professional Design Services for Jacksonville Beach Review, Design – Phase II: Design Department of Public Works
CITY OF JACKSONVILLE, FLORIDA

I. SCOPE OF PROJECT

1. The Jacksonville Beach Pier (Pier) was recently damaged by two major hurricanes, Hurricane Matthew and Hurricane Irma. The damage has rendered sections of the Pier unsafe for public use.

   The objective of this project is for RS&H Inc. (RS&H), herein called the "Consultant", to provide final contract drawings necessary to partially repair and partially replace portions of the Pier. Sections of the existing Pier are suitable to remain; additional sections of the existing Pier are damaged, but can be repaired such that they can remain part of the structure; and portions of the structure were damaged or destroyed such that these portions will have to be completely removed and replaced.

   The design will be based on current building code, the City's desired design features, and the design storm return period criteria specified by the City of Jacksonville, herein called the "Client", based on historical data, predictive analysis, and engineering recommendations presented by the Consultant.

2. Data to substantiate the design storm criteria for storm return period will be finalized in the initial stage of the Design Phase and will include the following:

   a) Consultant coordination with the City to provide assistance in understanding acceptable structural performance and assist the City in selecting the design storm that meets the budget, performance and risk goals for the project.
   b) Consultant development of final design criteria, in close coordination with the City, for the repair and reconstruction of the Pier.
   c) Consultant recommendations regarding individual limits of repair sections and replacement sections based upon field observations and the final design criteria.

3. Scope of Work will include:

   A. **Coastal Investigation and Analysis (to be performed by Intera Incorporated)**

   Intera Incorporated (INTERA) will provide design forces and criteria necessary for the analysis and design of the foundations and pier, based on a storm return period to be accepted by the City.

   INTERA's complete Scope of Services and Fee Proposal is included as "Attachment A" and is summarized below:

   - Develop wave forces on existing pile bents 10-21 based on 25-, 35-, and 50-year conditions.
   - Develop wave forces for all replacement bents.
   - Provide estimates for local scour at each bent.
   - Respond to and incorporate Coastal Engineering Peer Review.

Exhibit A-2

B. **Geotechnical Investigations (to be performed by American Vibracore Services)**
American Vibracore Services (AVS) will provide recommendations for pile driving procedures during test pile and production pile installation based on soil data obtained during Phase 1.

AVS's Scope of Services and Fee Proposal is included as "Attachment B" and is summarized below:

- Perform pile capacity curves and design criteria for three (3) pile shapes/geometries and four (4) loading conditions.
- Develop allowable pile compressive capacities and lateral capacities, including pile embedment depth.

C. **Final Structural Evaluation and Design**
RS&H will use the results from the Coastal Analysis and the Geotechnical Investigation to analyze the existing structure that remains and design the new replacement portions of the structure to provide suitable structural performance when subjected to the forces from the design storm event.

The software FB-MultiPier will be used to analyze and design the foundations with respect to design loadings and soil conditions.

The structural evaluation and assumptions are summarized below. We anticipate that:

- The low chord elevation of for the majority of superstructure for all replacement bents will exceed the wave crest elevation of the selected return period. Any sections that do not exceed the wave crest elevation of the selected return period will be designed to withstand the minimal wave forces.
- The reconstructed sections of the Pier will be designed to withstand the forces from the selected return period.
- Sections of the existing Pier that are suitable to remain will be strengthened to withstand the forces from the selected return period.
- We will provide schematic repair details to address minor damage that exists in multiple areas throughout the pier.
- We will design all structural elements (piles, concrete pile caps, girders, timber decks and rails) in accordance with all applicable building codes, including ADA requirements.
- The Pier will be constructed using an adjacent temporary trestle. No heavy equipment will be allowed on Pier during construction.

Additional tasks to be performed include:

- Electrical and lighting design and plans.
- Plumbing design and plans, including fish washout station and fire services standpipe.
- Quantity take-off and engineer's cost estimate.

D. **Independent Peer Review (to be performed by Kisinger Campo & Associates, Corp.)**
KCA will perform an independent peer review of RS&H's design, by reviewing design calculations and plans. Plans and calculations will be provided to KCA at the 90% stage. KCA will verify assumptions, general accuracy of design and plan details, and provide RS&H with review comments to be discussed and incorporated as agreed upon. KCA's complete Scope of Services and Fee Proposal is included as "Attachment C"

Exhibit A-2

E. **Permitting (to be performed by Environmental Resource Solutions, Inc.)**
ERS will provide assistance in securing the appropriate environmental permits. ERS's complete Scope of Services and Fee Proposal is included as "Attachment D".

F. **Deliverables**
- Letter-style Coastal/Hydraulic Report
- Letter-style Geotechnical Report
- Structural design calculations
- 90% Plans Submittal
- Final Plans
- Technical Specifications

4. Items <u>not included</u> in the Scope of Work are excluded. The following items are Specifically Excluded from the Scope of Work:

   - Obtaining any and all construction permits.
   - Work related to the attached concession building.
   - City of Jacksonville 10-set review.
   - Coastal Engineering / Analysis Peer Review – City will contract with a qualified form under different Contract.

5. Additional Services can be provided, if necessary, by negotiated supplemental agreements.

6. Assumptions and information to be provided by the City as it becomes available:

   a) The City will provide as-built plans for 2018 deck replacement project.
   b) The City will select a design criteria for the design of the Pier reconstruction/replacement.

II. TIME SCHEDULE

1. Finalize Design Storm Criteria: duration 8-9 weeks from Notice to Proceed (NTP).
   a) Coastal modeling and results to RS&H: 2-3 weeks from NTP
   b) Structural modeling of existing bents 10-21: 3-4 weeks after Item 1a.
   c) Develop Design Criteria with the City: 2 weeks after Item 1b.
2. Develop 90% Plans: duration 16-18 weeks from completion of Item 1.
   a) Coastal modeling and results to RS&H: 4 weeks after completion of Item 1.
   b) Structural modeling and analysis, design structural elements, develop plan details: beginning concurrently with item 2a – 16 weeks.
   c) Geotechnical recommendations: working concurrently with Items 2a and 2b.
   d) Plumbing and electrical / lighting design: working concurrently with Item 2b.
   e) Submit 90% Plans to the City and Peer Review. Approximately 16-18 weeks after beginning Item 2.
3. City and Pier Review of 90% Submittal: duration 4-6 weeks from completion of Item 2.
   a) City to review Plans and provide comment to RS&H.
   b) KCA to perform Peer Review and provide comments to RS&H.
   c) Meet with City to discuss status and review comments.

Exhibit - A2

4. Develop Final Signed and Sealed Plan: duration 6 weeks after completion of Item 3.
   a) Address / incorporate review comments: duration 6 weeks after completion of Item 3.
   b) Submit Final Signed and Sealed Plans and design documentation.

5. Permitting and Environmental Assessment: duration 24 weeks, working concurrently with Items 2 – 4.
6. Total Project Duration: approximately 9 months from NTP

III. FEE

Coastal, Geotechnical, and Structural Engineer and Structural Peer Review will performed for a Lump Sum Fee of $249,642.11. Permitting and Environmental coordination will be performed for a Limiting Amount Fee of $20,226.20. The Total Fee for this Contract is $269,868.31.

Design fee does not cover any permit application fees. Permit application fees to be paid for directly by the City.

IV. NOTICE TO PROCEED

No work on this project shall be performed until a contract has been executed and a NTP is issued which specifically authorizes such work, signified by a signed agreement with the Client.

Exhibit A-2

EXHIBIT B-2

CONTRACT FEE SUMMARY FORMAT FOR ENGINEERING DIVISION
CITY OF JACKSONVILLE, FLORIDA

PART I - GENERAL

1. Project Jacksonville Beach Pier Review, Design - Phase II	**2. Contract Number** P-14-17
3. Name of Consultant RS&H Inc.	**4. Date of Proposal** 5-2-18

PART II - LABOR RELATED COSTS

5. Direct Labor	Hourly Rate	Estimated Hours	Estimated Cost	TOTAL
Project Manager	$ 62.60	136	$ 8,513.60	
Principal	$ 91.40	0	$ 0.00	
Chief Engineer / Architect	$ 86.22	112	$ 9,656.64	
Senior Engineer	$ 65.69	128	$ 8,408.32	
Project Engineer / Architect	$ 53.95	162	$ 8,739.90	
Engineer (Registered)	$ 42.84	240	$ 10,281.60	
Designer / Tech (non-registered)	$ 32.31	302	$ 9,757.62	
Field Inspector / CBI	$ 33.29	0	$ 0.00	
Clerical	$ 24.48	24	$ 587.52	
TOTAL DIRECT LABOR	$50.68	1104		$ 55,945.20

6. Overhead (Combined Fringe Benefit & Administrative)		
Overhead Rate	190.1 % x Total Direct Labor	$ 106,351.83
7. SUBTOTAL: Labor + Overhead (Items 5 & 6)		$ 162,297.03
8. PROFIT: Labor Related Costs (Item 7	x 10%	$ 16,229.70

PART III - OTHER COSTS

9. Miscellaneous Direct		
Transportation & Shipping	$ 76.85	
Original Reproducibles	$ 0.00	
Reproduction	$ 9.29	
Courier	$ 30.00	
MISCELLANEOUS DIRECT COSTS SUB-TOTAL		$ 116.14
10. SUBCONTRACTS (Lump Sum)		
INTERA Inc.	$ 33,145.67	
American Vibracore Services, Inc.	$ 6,504.60	
Kisinger Campo and Associates, Corp.	$ 31,348.97	
SUB-CONTRACT SUB-TOTAL		$ 70,999.24
TOTAL LUMP SUM AMOUNT (Items 5, 6, 8, 9 and 10)		$ 249,642.11
11. REIMBURSABLE COSTS (Limiting Amount)		
Enviromental Resource Solutions, Inc.	$ 20,226.20	
SUB-TOTAL REIMBURSABLES		$ 20,226.20

PART IV - SUMMARY

TOTAL AMOUNT OF CONTRACT (Lump Sum Plus Reimbursables) (Items 5, 6, 8, 9, 10 and 11)	**$ 269,868.31**

ESTIMATE OF WORK EFFORT AND FEE FOR
STRUCTURAL ENGINEERING AND EVALUATION

CONSULTANT: RS&H Inc.
CONTRACT NO.: P-14-17

ESTIMATOR NAME / DATE: S. Starnes / 5-2-18

NAME OF PROJECT: Jacksonville Beach Pier Review, Design - Phase II
FROM: N/A
TO: N/A
LENGTH: N/A

No. / ACTIVITY	Project Manager RATE/HR $ 62.60		Principal RATE/HR $91.40		Chief Engineer / Architect RATE/HR $86.22		Senior Engineer RATE/HR $65.69		Project Engineer / Architect RATE/HR $53.95	
	HOURS	COST	HOURS	COST	HOURS	COST	HOURS	COST	HOURS	COST
Project Management / Coordination	60	$3,756.00	0	$0.00	20	$1,724.40	20	$1,313.80	24	$1,294.80
Analysis: Evaluate Remain Structure	22	$1,377.20	0	$0.00	20	$1,724.40	0	$0.00	26	$1,402.70
Pier Design Analysis and Details	46	$2,879.60	0	$0.00	72	$6,207.84	40	$2,627.60	112	$6,042.40
Plumbing and Lighting	0	$0.00	0	$0.00	0	$0.00	36	$2,364.84	0	$0.00
Technical Specs	8	$500.80	0	$0.00	0	$0.00	32	$2,102.08	0	$0.00
TOTAL	136	$8,513.60	0	$0.00	112	$9,656.64	128	$8,408.32	162	$8,739.90

No. / ACTIVITY	Engineer (Registered) RATE/HR $42.84		Designer / Tech (non-registered) RATE/HR $32.31		Field Inspector / CBI RATE/HR $ 33.29		Clerical RATE/HR $ 24.48		MAN HOURS	SALARY	AVG.	SALARY COST
	MAN HOURS	LABOR COST	MAN HOURS	LABOR COST	MAN HOURS	LABOR COST	MAN HOURS	LABOR COST	BY ACTIVITY	COST BY ACTIVITY	HOURLY COST	DIST. %
Project Management / Coordination	0	$0.00	0	$0.00	0	$0.00	16	$391.68	140	$8,480.68	$60.58	15.2
Analysis: Evaluate Remain Structure	40	$1,713.60	0	$0.00	0	$0.00	0	$0.00	108	$6,217.90	$57.57	11.1
Pier Design Analysis and Details	180	$7,711.20	262	$8,465.22	0	$0.00	0	$0.00	712	$33,933.86	$47.66	60.7
Plumbing and Lighting	20	$856.80	40	$1,292.40	0	$0.00	0	$0.00	96	$4,514.04	$47.02	8.1
Technical Specs	0	$0.00	0	$0.00	0	$0.00	8	$195.84	48	$2,798.72	$58.31	5.0
TOTAL	240	$10,281.60	302	$9,757.62	0	$0.00	24	$587.52	1104	$55,945.20	$50.68	100.0

MISCELLANEOUS DIRECT COST

CONSULTANT: RS&H Inc.
CONTRACT NO.: P-14-17
PREPARED: STS

NAME OF PROJECT: Jacksonville Beach Pier Review, Design - Phase II
FROM: N/A
TO: N/A

ITEM DESCRIPTION										ITEM TOTAL	COMMENTS
Drafting Medium: (Original Reproducibles)											
Reproduction (Blue Line & Sepias)											
		24 x 36			11 x 17						
Bridge Plans		0			18	Sheets					
		0			0	Sheets					
		0			0	Sheets					
		0			0	Sheets					
Total Sheets		0			18						
Cost:		0	Sheets @	$	0.54	=	$0.00				
		0	Sheets @	$	0.05	=	$0.00	8.5x11			
		108	Sheets @	$	0.09	=	$9.29	11x17		$9.29	3 copies x 2 submittals
Travel From: site-to-site											
	# Trips										
Transport.	1	x	25	miles x	$	0.53	per mile*		$13.25		Site Visit
	# Trips										
Transport.	4	x	30	miles x	$	0.53	per mile*		$63.60		Meetings at COJ
To Other Agency:	# Trips										
Transport.	0	x	0	miles x	$	0.53	per mile*		$0.00	$76.85	
Shipping	Courier	x	2		$	15.00	each		$30.00	$30.00	
Other (Specify)											
TOTAL COST										$116.14	

SHEET 8

BRIDGE DESIGN

CONSULTANT: RS&H Inc.
CONTRACT NO.: P-14-17
PREPARED: STS

NAME OF PROJECT: Jacksonville Beach Pier Review, Design - Phase II
FROM: N/A
TO: N/A

ITEM	SCALE	UNIT	NO. OF UNITS	NO. OF SHEETS	M-H PER UNIT	TOTAL MANHOURS	COMMENTS
115 Bridge Design	1"=						
Key Map & Summary Qty.		Sheet	**1**	**1**	**12.00**	12.00	
General Notes		Sheet	**1**	**1**	**16.00**	16.00	
Plan & Elevation		Sheet	**1**	**1**	**24.00**	24.00	
Report of Core Borings		Sheet	**2**	**2**	**2.00**	4.00	
Pile Data Table		Sheet	**1**	**1**	**8.00**	8.00	
Substructure Pile Layout		Sheet	**1**	**1**	**16.00**	16.00	
Typical Bent		Sheet	**1**	**1**	**24.00**	24.00	
Bents at End		Sheet	**1**	**1**	**36.00**	36.00	
Superstructure / Framing Plan		Sheet	**1**	**1**	**20.00**	20.00	
Typical Section		Sheet	**1**	**1**	**16.00**	16.00	
Beam Details		Sheet	**1**	**1**	**24.00**	24.00	
Superstructure Details		Sheet	**1**	**1**	**32.00**	32.00	
Deck and Railing Details		Sheet	**1**	**1**	**32.00**	32.00	
Misc. Details		Sheet	**1**	**1**	**40.00**	40.00	
Repair Details		Sheet	**1**	**1**	**40.00**	40.00	
Lighting Details		Sheet	**1**	**1**	**24.00**	24.00	
Plumbing Details		Sheet	**1**	**1**	**24.00**	24.00	
BRIDGE DESIGN TOTALS			0	18		392.00	

WORK PROPOSAL

JACKSONVILLE FISHING PIER DESIGN
FOR
RS&H
10748 DEERWOOD PARK BLVD SOUTH
JACKSONVILLE, FL 32256

By

INTERA INCORPORATED
2114 NW 40th TERRACE, SUITE A-1
GAINESVILLE, FLORIDA 32605

April 2018

JACKSONVILLE FISHING PIER DESIGN

Introduction:

The Jacksonville Beach Fishing Pier sustained significant damage during the passing of Hurricane Matthew. The Department of Public Works of the City of Jacksonville (COJ) has contracted with the RS&H Team to design either repairs or a complete replacement of the pier. The scope of the project is divided into two phases. The first phase evaluates the failure of the existing pier during Hurricane Matthew. The second phase employs the design conditions developed in Phase 1 to design the new pier. That said, the COJ would like to preserve as much of the undamaged existing pier as practical, while designing to a reasonable return period event. This prompted an addendum to that Phase 1 that develops the design bed profile (based on the historical profiles at the adjacent FDEP monuments) and associated wave crest elevations for the 25-, 30-, 35- 40- 45-, and 50-year return period events. However, to make the appropriate recommendation to the COJ, the structural engineers at RS&H need the wave forces associated with those events. As such, this phase will include an evaluation of the wave forces on those bents. This scope, the design phase, includes that evaluation.

Assumptions:

We based our scope of services on the following assumptions:

1. RS&H will INTERA with plans
2. INTERA will evaluate at most three alternatives
3. The low chord of the superstructure for all replacement bents will exceed the wave crest elevation of the selected return period

Scope of Services:

The tasks required to provide the design conditions include the following:

Task 1. Wave Forces on the Undamaged Existing Pier Bents

INTERA will employ the 25-, 35-, and 50-year conditions developed during the Phase 1 Addendum to develop the wave forces on the substructure (piles and pile caps) and superstructure (beams) for bents 10 through 21.

Task 2. Wave Forces on the Proposed Structure

INTERA will evaluate wave forces on the substructure (piles and pile caps) for all replacement bents. This assumes the low chord of the superstructure for all replacement bents will exceed the wave crest elevation of the selected return period for the design. This is expected to be an iterative process where INTERA will evaluate up to three pile sizes and shapes.

Task 3. Local Scour

INTERA will estimate local scour at each bent employing standard USACE methodologies.

Task 3. Quality Assurance/Quality Control and Coordination

This task assumes multiple levels of review on this project. INTERA will perform internal QAQC of all its work and reporting for this project. We assume other reviews may originate from RS&H as well as reviews by the COJ. We anticipate addressing multiple but reasonable rounds of comments from each reviewer as the project progresses from one review level to another.

Coordination will involve contract administration and regular teleconferences with RS&H as well as expected consultation on coastal engineering issues during the design process.

INTERA will attend up to four meetings at the COJ offices to discuss the results.

Task 4. Report

INTERA will provide a draft report detailing the methods and procedures employed for this study.

INTERA will incorporate review comments into the Bridge Hydraulics Report and submit the final signed and sealed report to RS&H.

Budget:

The total cost to perform this work is $33,145.67. This value reflects all burdened labor and other direct costs.

CONTRACT FEE SUMMARY FORMAT FOR ENGINEERING DIVISION
CITY OF JACKSONVILLE, FLORIDA

PART I - GENERAL	
1. Project Jacksonville Beach Pier Review, Design - Phase II	**2. Contract Number** P-14-17
3. Name of Consultant Intera	**4. Date of Proposal** 4-30-18

PART II - LABOR RELATED COSTS				
5. Direct Labor	Hourly Rate	Estimated Hours	Estimated Cost	TOTAL
Chief Engineer	$ 70.90	4	$ 283.60	
Project Manager	$ 64.26	23	$ 1,477.98	
Senior Engineer	$ 57.20	154	$ 8,808.80	
Project Engineer	$ 43.25	32	$ 1,384.00	
Engineer Intern	$ 30.00	0	$ 0.00	
	$ -		$ 0.00	
	$ -		$ 0.00	
TOTAL DIRECT LABOR	$56.12	213		$ 11,954.38
6. Overhead (Combined Fringe Benefit & Administrative)				
Overhead Rate	150 % x Total Direct Labor			$ 17,931.57
7. SUBTOTAL: Labor + Overhead (Items 5 & 6)				$ 29,885.95
8. PROFIT: Labor Related Costs (Item 7			x 10%	$ 2,988.60

PART III - OTHER COSTS		
9. Miscellaneous Direct		
Transportation & Shipping	$ 271.12	
Original Reproducibles	$ 0.00	
Reproduction	$ 0.00	
Other	$ 0.00	
MISCELLANEOUS DIRECT COSTS SUB-TOTAL		$ 271.12
10. SUBCONTRACTS (Lump Sum)		
SUB-CONTRACT SUB-TOTAL		$ -
TOTAL LUMP SUM AMOUNT (Items 5, 6, 8, 9 and 10)		$ 33,145.67
11. REIMBURSABLE COSTS (Limiting Amount)		
SUB-TOTAL REIMBURSABLES		$ -

PART IV - SUMMARY	
TOTAL AMOUNT OF CONTRACT (Lump Sum Plus Reimbursables) (Items 5, 6, 8, 9, 10 and 11)	**$ 33,145.67**

ESTIMATE OF WORK EFFORT AND FEE FOR COASTAL ENGINEERING AND ANALYSIS

CONSULTANT: INTERA Inc.
CONTRACT NO.: P-14-17

ESTIMATOR NAME / DATE: P. Dompe / 4-30-18

NAME OF PROJECT: Jacksonville Beach Pier Review, Design - Phase II
FROM: N/A
TO: N/A
LENGTH: N/A

No. / ACTIVITY	Chief Engineer		Project Manager		Senior Engineer		Project Engineer		Engineer Intern	
	RATE/HR:	$ 70.90	RATE/HR:	$64.26	RATE/HR:	$57.20	RATE/HR:	$43.25	RATE/HR:	$30.00
	HOURS	COST	HOURS	COST	HOURS	COST	HOURS	COST	HOURS	COST
Task #1 Data Collection and Site V	0	$0.00	2	$128.52	8	$457.60		$0.00	24	$720.00
Task #2 Model Development and A	4	$283.60	4	$257.04	40	$2,288.00	32	$1,384.00	24	$720.00
Task #3 Hurricane Matthew Hindca	0	$0.00	8	$514.08	40	$2,288.00	60	$2,595.00		$0.00
Task #4 Quality Assurance/Quality	8	$567.20	32	$2,056.32		$0.00		$0.00	0	$0.00
Task #5 Report	2	$141.80	4	$257.04	32	$1,830.40	40	$1,730.00	24	$720.00
		$0.00		$0.00		$0.00		$0.00		$0.00
TOTAL	14	$992.60	50	$3,213.00	120	$6,864.00	132	$5,709.00	72	$2,160.00

No. / ACTIVITY	0		0		MAN HOURS	SALARY	AVG.	SALARY COST
	RATE/HR:	$0.00	RATE/HR:	$0.00				
	MAN HOURS	LABOR COST	MAN HOURS	LABOR COST	BY ACTIVITY	COST BY ACTIVITY	HOURLY COST	DIST. %
Task #1 Data Collection and Site V	0	$0.00	0	$0.00	34	$1,306.12	$38.42	6.9
Task #2 Model Development and A	0	$0.00	0	$0.00	104	$4,932.64	$47.43	26.0
Task #3 Hurricane Matthew Hindca	0	$0.00	0	$0.00	108	$5,397.08	$49.97	28.5
Task #4 Quality Assurance/Quality	0	$0.00	0	$0.00	40	$2,623.52	$65.59	13.9
Task #5 Report	0	$0.00	0	$0.00	102	$4,679.24	$45.87	24.7
0	0	$0.00	0	$0.00	0	$0.00	$0.00	0.0
TOTAL	0	$0.00	0	$0.00	388	$18,938.60	$48.81	100.0

MISCELLANEOUS DIRECT COST

CONSULTANT: INTERA Inc.
CONTRACT NO.: P-14-17
PREPARED: PD

NAME OF PROJECT: Jacksonville Beach Pier Review, Design - Phase II
FROM: N/A
TO: N/A

ITEM DESCRIPTION										ITEM TOTAL	COMMENTS
Drafting Medium: (Original Reproducibles)											
Reproduction (Blue Line & Sepias)											
		24 x 36			11 x 17						
		0			0	Sheets					
		0			0	Sheets					
		0			0	Sheets					
		0			0	Sheets					
	Total Sheets	0			0						
Cost:		0	Sheets @	$	0.54	=	$0.00				
		0	Sheets @	$	0.05	=	$0.00				
		0	Sheets @	$	0.09	=	$0.00			$0.00	
Travel From: site-to-site											
	# Trips										
Transport.	0	x	100	miles x	$	0.535	per mile*		$0.00	0	
	# Trips										
Transport.	4	x	108	miles x	$	0.535	per mile*		$231.12	231.12	Meetings (COJ Offices)
To Other Agency:	# Trips										
Transport.	0	x	0	miles x	$	0.535	per mile*		$0.00	$231.12	
Shipping								40	40	$40.00	FedEx Draft and Final Reports
Other (Specify)	Hurricane Matthew Wind and Pressure Fields								0	0	
TOTAL COST										$271.12	

* MAXIMUM $ 0.535 / MILE

ATTACHMENT "B"

AMERICAN VIBRACORE
SERVICES

March 30, 2018

Steven Starnes, PE
Senior Bridge Engineer
RS&H, Inc.
10748 Deerwood Park Blvd South,
Jacksonville, FL 32256
O 904-256-2196 | M 904-654-3437

RE: Proposal for Professional Consulting Services
Jacksonville Beach Fishing Pier
Limited Pile Design Recommendations
Jacksonville Beach, Duval County, Florida
AVS Proposal No. 17-0522.01

Dear Mr. Starnes:

American Vibracore Services, Inc. (AVS) appreciates the opportunity to become a part of your project design team for the above mentioned project. Our professional staff are dedicated to making this project a success, both on schedule and within budget. We are proud of our commitment to maintaining the highest levels of customer service and client satisfaction, and respectfully submit the following for your consideration.

PROJECT DESCRIPTION

AVS understands the project will consist of the reconstruction of the Jacksonville Fishing Pier, Jacksonville, Florida.

For the project, AVS performed an offshore geotechnical investigation and published a Geotechnical Exploration Report dated March 25th, 2018 to RS&H, Inc. to be used in the design process of the new pier. In further support of the project, AVS has been requested by RSH, Inc. to develop this proposal to provide pile design recommendations for the proposed structure.

PILE DESIGN RECOMMENDATION SERVICES

The objective of AVS's services for this phase of the project will be to provide limited pile design recommendations. It is AVS's understanding that 3 pile types are being considered and that AVS is being requested to provide pile capacities for each of the 4 borings drilled for each pile type. 2 – square prestressed (24" and 30" piles) and 1-circular shaped pile, for a total of 12 pile capacity curves including recommendations for pile driving criteria.

Based on discussions with Steve Starnes, PE, on 3/28/18, AVS understands that RS&H will perform the following:

- Scour analysis to determine effective height of bridge pile options
- Development of lateral design loads on piles, including contribution from wave, ship impact and wind
- Development of design compressive loads on piles from dead load, live load and impact loads
- Determination of allowable lateral deflection of piles for analysis purposes
- Structural evaluation of pier members, including piles

Based on the information provided by RS&H, AVS will analyze the pile options to provide recommendations for allowable compression and lateral capacities (including embedment depth) for each option. In addition, AVS will provide general recommendations for pile driving procedures during test pile and production pile installation. Actual pile driving criteria would be dependent on the actual equipment and hammer size and would outside the scope of our services offered in this proposal.

Specifically excluded from AVS's scope is performing PDA on test piles and WEAP or CAPWAP analysis to determine final pile driving criteria during production piles.

An Estimated Budget for the scope of services detailed above is presented below:

Jacksonville Fishing Pier Project
Table 1

Item	*Units*	*No. of units*	*cost per unit*	*total cost*
Engineering				
Principle Engineer, P.E. (Design Eng.)	HR	25	$130.35	$3,258.75
Project Manager	HR	10	$90.75	$907.50
Staff Engineer, E.I.	HR	35	$61.05	$2,136.75
Clerical	HR	8	$29.70	$237.60
			Engineering Subtotal	**$6,504.60**
			Total Estimate	**$6,504.60**

AVS

PROJECT SCHEDULE

Upon authorization, we estimate the following schedule:

1. Draft Deliverables - 2 weeks
2. Final Deliverables - 1 week

Please note that we will look to minimize field time on the project location and try our best to schedule with consideration to weather and forecasted sea conditions. Daily /hourly rates will apply in the case of standby for jack up vessel and drill/drill crew.

CONDITIONS AND QUALIFICATIONS

AVS will provide detailed invoices at completion of the project. If credit is established, our terms will be 2/10/net-30 days. The pricing contained herein is subject to change if this proposal is not authorized within 90 days from the date of this proposal. If more than 90 days have passed since the date of this proposal, please contact us for an updated proposal. Additional items not listed in this proposal will be quoted upon request.

AUTHORIZATION

All services will be conducted in accordance with this proposal and attached Terms and Conditions. To initiate services, please complete and return the included Proposal Acceptance Agreement form. The Terms and Conditions are part of this agreement. **The signed proposal acceptance agreement form must be received by AVS via email prior to any work being performed, and an original copy must be received before completed reports can be distributed.**

CLOSING

AVS appreciates the opportunity to submit this proposal, and looks forward to working with you as a member of the project team. Please contact the undersigned at 561.414.7631 if you have any questions or comments.

From our team to yours,

Fred Kaub, P.G.
Professional Geologist #1344
State of Florida

Paul Danforth, P.E.
Professional Engineer # 44653
State of Florida

AMERICAN VIBRACORE
SERVICES

PROPOSAL ACCEPTANCE AGREEMENT

Description of Services:	Professional Consulting Service, Pile Design Recommendations
Project Name:	Jacksonville Beach Pier Project
Project Locations:	Jacksonville Beach, Duval County, FL
AVS Proposal No.:	17-0522.01
Proposal Date:	March 30, 2018

APPROVAL & PAYMENT OF CHARGES

Invoices will be charged and mailed to the account of:

Firm: _____ FED ID#: _____

Attention: _____

Address: _____

Telephone: _____ Fax: _____

Email: _____

PROPERTY OWNER IDENTIFICATION: (If other than above)

Name: _____

Address: _____

Telephone: _____ Fax: _____

American Vibracore Services, Inc. (AVS) reserves the right to withhold all reports until such time as we receive a signed Proposal Acceptance Agreement or other written authorization referencing this in its entirety. This AGREEMENT, the proposal and terms and conditions constitute the entire agreement between the client and AVS, and supersede all prior written or oral understanding. Please note that pricing is valid for a period of ninety (90) days from proposal date.

The above signed, having full legal authority to bind the Client identified in the foregoing Proposal Agreement, has read the foregoing Proposal Agreement and hereby agrees to all of the terms and conditions contained in AVS's Standard Terms and Conditions attached hereto as Exhibit "A" which are incorporated herein by reference as a fundamental and material pert of the Proposal Agreement. The Client agrees and understands that AVS's Standard Terms and Conditions have been established in a large measure to allocate certain risks between Client and AVS, and AVS will not initiate services without Client's execution of agreement to the terms of the Proposal Agreement and the Standard Terms and Conditions and other terms and conditions set forth in this Agreement.

PURSUANT TO FLORIDA STATUTE 558.0035, A DESIGN PROFESSIONAL, AS DEFINED IN FLORIDA STATUTE 558.002, ACTING AS AN INDIVIDUAL EMPLOYEE OR AGENT OF AMERICAN VIBRACORE SERVICES, INC. MAY NOT BE HELD INDIVIDUALLY LIABLE FOR NEGLIGENCE.

AUTHORIZED SIGNATURE: _____

PRINTED NAME & TITLE: _____

DATE ACCEPTED: _____

(See below for service line acceptance)

SERVICES ACCEPTED: Geotechnical Drilling and Engineering Services_____

Initial accepted service line(s)

ATTACHMENT "C"

Environmental Resource Solutions
Our Science. Your Success.

27 March 2018

Mr. Steven Starnes, P.E.
RS&H
10748 Deerwood Park Blvd South
Jacksonville, FL 32256

RE: Jacksonville Beach Pier Reconstruction
Duval County, Florida
Proposal/Contract for Services
ERS Proposal No. P18090

Dear Mr. Starnes:

Environmental Resource Solutions, Inc. (ERS) is pleased to provide you with this proposal/contract for assisting RS&H in securing permits for the reconstruction of the Jacksonville Beach Pier. Our services will include coordinating with the U.S. Army Corps of Engineers (USACE) and Florida Department of Environmental Protection (FDEP) to secure permits.

As always, we appreciate the opportunity to assist RS&H. Please feel free to call me call me if you have any questions or require additional information.

Sincerely,

ENVIRONMENTAL RESOURCE SOLUTIONS, INC.

Kim M. Allerton
President

Attachment: Proposal/Contract for Services

KMA/P18090_Jax Beach Pier_3-27-18

Environmental Resource Solutions, Inc.

Jacksonville Headquarters:
8711 Perimeter Park Blvd., Suite 1, Jacksonville, Florida 32216
T: (904)-285-1397, F: (904) 285-1929
Email: mail@ersenvironmental.com

SW Florida Regional Office:
19607 Lake Osceola Lane, Odessa, Florida 33556
T: (813) 404-3963
Email: sbrammell@ersenvironmental.com

PROPOSAL/CONTRACT
Prepared for:
Mr. Steven Starnes, P.E.
RS&H
10748 Deerwood Park Blvd South
Jacksonville, FL 32256

RE: Jax Beach Pier Reconstruction
Duval County, Florida
Proposal/Contract for Services
ERS Proposal No. P18090

Scope of Services

Environmental Resource Solutions, Inc. (ERS) has reviewed both the U.S. Army Corps of Engineers (USACE) permit (No. 200300237- IP-RLW) and the Florida Department of Environmental Protection (FDEP) permit (No. 0208187-001-JC) issued in 2003 to the City of Jacksonville for the for the construction of the 1,300-foot long fishing pier in Jacksonville Beach. The pier was constructed per plans and both permits expired in 2008. Approximately 50% of the existing pier was damaged/destroyed by Hurricanes Matthew and Irma in 2016 and 2017. We will assist RS&H is securing a Joint Coastal Permit for the reconstruction of the pier. Our tasks include attending agency pre-application meetings, conducting the necessary coordination with U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) for potential impacts to Federally-protected species (including, but not necessarily limited to, sea turtles, West Indian Manatee, smalltooth sawfish, and shortnose sturgeon), and preparing permit application text and graphics. It is our understanding that the proposed pier reconstruction will occur within the same footprint as the previous pier.

Task 1 – Preliminary Evaluation and Agency Pre-Application Meetings. ERS will evaluate proposed pier plans and consult with RS&H and the City to develop a preliminary permitting strategy. We will attend pre-application meetings with RS&H, the City of Jacksonville, the USACE and FDEP, prior to permit application preparation.

Task 2 – Permitting Assistance. ERS will prepare all necessary documentation and graphics required for permit application submittal to the FDEP and USACE. We will coordinate with USACE to evaluate potential impacts to federally-listed species and assist in the completion of a Biological Opinion (BO) if required. We will consult with USFWS and NMFS to seek concurrence that the project may affect, but likely to adversely affect protected marine fish and wildlife. This task includes assisting RS&H and the City of Jacksonville with preparation of responses to agency Requests for Additional Information, and ERS attendance at meetings with the regulatory agencies as needed. Prior to commencement of this task, ERS will require a digital file (AutoCAD or ArcGIS) of the site boundary.

Project Fee.....$20,226.20*
***See attached spreadsheet**

Jacksonville Headquarters:
8711 Perimeter Park Blvd., Suite 1, Jacksonville, Florida 32216
T: (904)-285-1397, F: (904) 285-1929
Email: mail@ersenvironmental.com

SW Florida Regional Office:
19607 Lake Osceola Lane, Odessa, Florida 33556
T: (813) 404-3963
Email: sbrammell@ersenvironmental.com

Additional tasks may be addressed in a separate proposal as the project progresses, if and when they are deemed necessary.

Meetings/Consultation. Any requested meetings or consultation that are beyond the scope of services as specifically described above will be invoiced on time and materials basis. Site plan revisions often result in additional ERS work or re-performance of work by ERS; all ERS work necessitated by site plan revision(s) or additional requested services beyond the scope of this contract will be identified and billed (on a time and materials basis) on invoices.

ERS is pleased to provide you with these services. Our invoices are prepared monthly on a fixed fee basis. Payment is due within 30 days of receipt of invoice. Both parties agree to resolution of any disputes within a Duval County, Florida court. This serves as an agreement between Environmental Resource Solutions, Inc. and the below signatory. If the client's account, after default, is referred to an attorney or collection agency for collection, client shall pay all of ERS expenses incurred in such collection efforts including, but not limited to court costs and reasonable attorneys' fees.

TERMS ACCEPTED:

For:	_____	For:	**Environmental Resource Solutions, Inc.**
Date:	_____	Date:	27 March 2018
By:	_____ (Signature)	By:	_____ (Signature)
	_____ (Printed/Typed)		Kim Allerton (Printed/Typed)

P18090_Jax Beach Pier Reconstruction_3-27-18

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Email: sbrammell@ersenvironmental.com

CONTRACT FEE SUMMARY FOR ENGINEERING DIVISION
CITY OF JACKSONVILLE, FLORIDA

PART I - GENERAL	
1. Project Jacksonville Beach Pier	2. Proposal Number P-14-17
3. Name of Consultant Environmental Resource Solutions	4. Date of Proposal 3/20/2018

PART II - LABOR RELATED COSTS

5. Direct Labor	Hourly Rate	Estimated Hours	Estimated Cost	TOTAL
Project Manager	$62.66	16	$1,002.56	
Sr. Environmental Scientist	$52.00	60	$3,120.00	
Environmental Scientist I	$42.43	30	$1,272.90	
Environmental Secientist II	$39.00		$0.00	
Environmental Scientist III	$33.65	20	$673.00	
Environmental Scientist IV	$31.63		$0.00	
Environmental Technician	$22.88		$0.00	
GIS Specialist	$28.61	12	$343.32	
Drafter / CADD Operator	$22.88	12	$274.56	
Clerical	$18.60		$0.00	
TOTAL DIRECT LABOR		150	Hours	$6,686.34
6. Overhead (Combined Fringe Benefit & Administrative)			175%	$11,701.10
7. SUBTOTAL: Labor + Overhead (Items 5 & 6)				$18,387.44
8. PROFIT: Labor Related Costs (Item 7)			x 10%	$1,838.76

PART III - OTHER COSTS

9. Miscellaneous Direct Costs		
	$	
	$	
	$	
	$	
MISCELLANEOUS DIRECT COSTS SUB-TOTAL		$0.00
10. SUBCONTRACTS (Lump Sum)		
	$	
	$	
SUB-CONTRACT SUB-TOTAL		$0.00
TOTAL LUMP SUM AMOUNT (Items 5, 6, 8, 9 and 10)		$20,226.20
11. REIMBURSABLE COSTS (Limiting Amount)		
	$ 0.00	
	$ 0.00	
	$ 0.00	
	$ 0.00	
SUB-TOTAL REIMBURSABLES		$0.00

PART IV - SUMMARY

TOTAL AMOUNT OF CONTRACT (Lump Sum Plus Reimbursables) (Items 5, 6, 8, 9, 10 and 11)	**$20,226.20**

CONTRACT FEE SUMMARY FORMAT FOR ENGINEERING DIVISION
CITY OF JACKSONVILLE, FLORIDA

ATTACHMENT "D"

PART I - GENERAL	
1. Project Jacksonville Beach Pier Review, Design - Phase II	**2. Contract Number** P-14-17
3. Name of Consultant Kisinger Campo & Associates	**4. Date of Proposal** 3/16/2018

PART II - LABOR RELATED COSTS

5. Direct Labor	Hourly Rate	Estimated Hours	Estimated Cost	TOTAL
Chief Engineer	$ 73.85	30	$ 2,215.50	
Senior Engineer	$ 62.65	80	$ 5,012.00	
Project Engineer	$ 47.38	56	$ 2,653.28	
Designer	$ 38.99	0	$ 0.00	
Rate Class 5	$ -	0	$ 0.00	
Rate Class 6	$ -	0	$ 0.00	
Rate Class 7	$ -	0	$ 0.00	
Rate Class 8	$ -	0	$ 0.00	
Rate Class 9	$ -	0	$ 0.00	
TOTAL DIRECT LABOR	$59.52	166		$ 9,880.78
6. Overhead (Combined Fringe Benefit & Administrative)				
Overhead Rate	186.93 % x Total Direct Labor			$ 18,470.14
7. SUBTOTAL: Labor + Overhead (Items 5 & 6)				$ 28,350.92
8. PROFIT: Labor Related Costs (Item 7		x	10%	$ 2,835.09

PART III - OTHER COSTS

9. Miscellaneous Direct		
Transportation & Shipping	$ 122.96	
Original Reproducibles	$ 0.00	
Reproduction	$ 10.00	
Courier	$ 30.00	
MISCELLANEOUS DIRECT COSTS SUB-TOTAL		$ 162.96
10. SUBCONTRACTS (Lump Sum)		
	$	
	$	
SUB-CONTRACT SUB-TOTAL		$ -
TOTAL LUMP SUM AMOUNT (Items 5, 6, 8, 9 and 10)		$ 31,348.97
11. REIMBURSABLE COSTS (Limiting Amount)		
	$	
SUB-TOTAL REIMBURSABLES		$ -

PART IV - SUMMARY

TOTAL AMOUNT OF CONTRACT (Lump Sum Plus Reimbursables) (Items 5, 6, 8, 9, 10 and 11)	**$ 31,348.97**

ESTIMATE OF WORK EFFORT AND FEE FOR
STRUCTURAL ENGINEERING AND EVALUATION

CONSULTANT: KCA Corp.
CONTRACT NO.: P-14-17

ESTIMATOR NAME / DATE: G. Madriz (KCA)

NAME OF PROJECT: Jacksonville Beach Pier Review, Design - Phase II
FROM: N/A
TO: N/A
LENGTH: N/A

No. / ACTIVITY	Chief Engineer RATE/HR $ 73.85 HOURS	COST	Senior Engineer RATE/HR $62.65 HOURS	COST	Project Engineer RATE/HR $47.38 HOURS	COST	Designer RATE/HR $38.99 HOURS	COST	Rate Class 5 RATE/HR $0.00 HOURS	COST
Task 1	30	$2,215.50	80	$5,012.00	56	$2,653.28	0	$0.00	0	$0.00
Task 2	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00
Task 3	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00
Task 4	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00
Task 5	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00
TOTAL	30	$2,215.50	80	$5,012.00	56	$2,653.28	0	$0.00	0	$0.00

No. / ACTIVITY	Rate Class 6 RATE/HR $0.00 MAN HOURS	LABOR COST	Rate Class 7 RATE/HR $0.00 MAN HOURS	LABOR COST	Rate Class 8 RATE/HR $ - MAN HOURS	LABOR COST	Rate Class 9 RATE/HR $ - MAN HOURS	LABOR COST	MAN HOURS BY ACTIVITY	SALARY COST BY ACTIVITY	AVG. HOURLY COST	SALARY COST DIST. %
Task 1	0	$0.00	0	$0.00	0	$0.00	0	$0.00	166	$9,880.78	$59.52	100.0
Task 2	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0.00	0.0
Task 3	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0.00	0.0
Task 4	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0.00	0.0
Task 5	0	$0.00	0	$0.00	0	$0.00	0	$0.00	0	$0.00	$0.00	0.0
TOTAL	0	$0.00	0	$0.00	0	$0.00	0	$0.00	166	$9,880.78	$59.52	100.0

MISCELLANEOUS DIRECT COST

CONSULTANT: KCA Corp.
CONTRACT NO.: P-14-17
PREPARED: GM

NAME OF PROJECT: Jacksonville Beach Pier Review, Design - Phase II
FROM: N/A
TO: N/A

ITEM DESCRIPTION										ITEM TOTAL	COMMENTS
Drafting Medium: (Original Reproducibles)											
Reproduction (Blue Line & Sepias)		24 x 36			11 x 17						
		0			0	Sheets					
		0			0	Sheets					
		0			0	Sheets					
		0			0	Sheets					
	Total Sheets	0			0						
Cost:		0	Sheets @	$	0.54	=	$0.00				
		200	Sheets @	$	0.05	=	$10.00	8.5x11			Peer Review Analysis
		0	Sheets @	$	0.09	=	$0.00			$10.00	
Travel From: site-to-site											
	# Trips										
Transport.	1 x	232	miles x	$	0.53	per mile*			$122.96		Site Visit
	# Trips										
Transport.	0 x	0	miles x	$	0.53	per mile*			$0.00		0
To Other Agency:	# Trips										
Transport.	0 x	0	miles x	$	0.53	per mile*			$0.00	$122.96	
Shipping	Courier x	2		$	15.00	each			$30.00	$30.00	
Other (Specify)											
TOTAL COST										$162.96	