## CENTRAL FLORIDA EXPRESSWAY AUTHORITY

## MEMORANDUM

TO:

**CFX Board Members** 

FROM:

Aneth Williams

Director of Procurement

DATE:

July 14, 2016

SUBJECT:

Authorization for Approval of Supplemental Agreement No. 2

Post Design Consultant Services

S.R. 528 Econlockhatchee River Bridge Replacements

Project 528-131, Contract No. 001098

Board approval is requested of Supplemental Agreement No. 2 with WSP | Parsons Brinkerhoff in the not-to-exceed amount of \$136,692.41. Services will include shop drawing reviews, attendance at construction meetings, site visits, and responding to the contractor's requests for information.

This Supplemental Agreement will be a continuation of an agreement previously approved by CFX for this project (Original Agreement dated August 13, 2015).

> Original Agreement Amount Amount of Supplemental Agreement No. 1 \$ 165,355.60

> Amount of Supplemental Agreement No. 2 \$ 136,692.41

Total Revised Agreement Amount

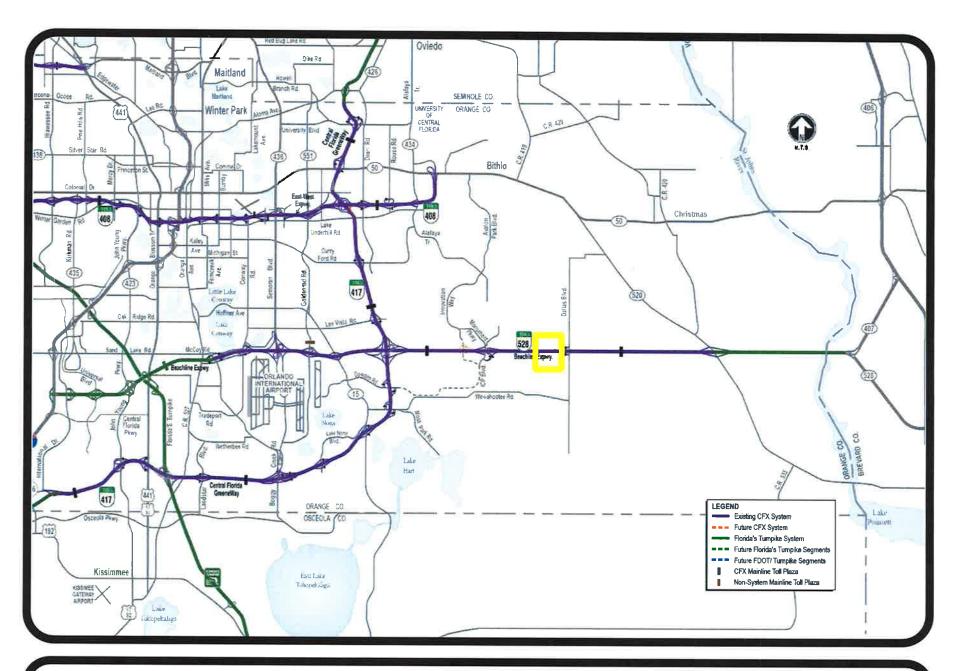
\$1,502,048.01

\$1,200,000.00

Reviewed by: .

Glenn Pressimone, PE Director of Engineering

4974 ORL TOWER RD. ORLANDO, FL 32807 | PHONE: (407) 690-5000 | FAX: (407) 690-5011



Project Location Map for S.R. 528 Econlockhatchee River Bridge Replacement (528-131)

## SUPPLEMENTAL AGREEMENT NO. 2

TO

# AGREEMENT FOR PROFESSIONAL SERVICES POST DESIGN SERVICES (FOR 528-131)

## S.R. 528/Econlockhatchee River Bridge Replacement

,	THIS SUPPLEMENTAL AGREEMENT is made and entered into this da	ıy
of	, 2016, by and between the CENTRAL FLORIDA EXPRESSWAY	
AUTHOI	RITY, an agency of the State of Florida, hereinafter called "CFX" and the consulting	
firm of P	ARSONS BRINCKERHOFF, INC. of Orlando, Florida, hereinafter called the	
"CONSU	ILTANT "	

WHEREAS, Section 4.24 of Exhibit "A" of the Agreement for Professional Services between CFX and the CONSULTANT, dated the 13<sup>th</sup> Day of August 2015 provides that after completion of the services outlined in Exhibit "A" for Project Number 528-131 of the said Agreement for Professional Services, CFX may negotiate with the CONSULTANT a Supplemental Agreement for Post Design Services and whereas, Articles 2.00 and 12.00 of the Agreement for Professional Services provide that in the event that CFX shall change the amount of work of the said Agreement for Professional Services, the fees to be paid to the CONSULTANT shall be subject to adjustment as shall be mutually agreed upon:

#### NOW, THEREFORE, BE IT RESOLVED THAT:

- 1. CFX hereby authorizes the CONSULTANT to proceed with Post Design Services required as outlined in the correspondence to CFX dated June 27, 2016 which is attached hereto and made a part of this Supplemental Agreement.
- 2. All invoices from the CONSULTANT for Post Design Services shall be submitted to CFX with complete documentation. Invoices for Post Design Services shall not be a continuation of the original CONSULTANT 'S contract amount for final design services and shall only be for those services as outlined in this Supplemental Agreement. Compensation for Post Design Services shall be invoiced to CFX at an hourly rate, inclusive of overhead, profit and expenses (exclusive of travel). The hourly rate shall be calculated using the employee's actual direct salary and the negotiated Post Design Services multiplier, as outlined in the correspondence to CFX dated June 27, 2016. Direct expenses will be reimbursed for local travel only (per mile). The maximum fee for Post Design Services shall be \$136,692.41.
- 3. Section 4.24 of the original Agreement for Professional Services is revised as outlined in Exhibit "A," which is attached hereto and made a part of this Supplemental Agreement.
- 4. Any supplemental agreements for Post Design Services shall be in accordance with the appropriate Articles within the original CONSULTANT Agreement for Professional Services.

All provisions of said Agreement for Professional Services, or any Supplements thereto, not modified by the above, shall remain in full force and effect, the same as if they had been set forth

herein. In the event of a conflict between the provisions of this Supplemental Agreement and of the said Agreement for Professional Services, or any Supplements thereto, the provisions of this Supplemental Agreement, to the extent such provision is reasonable, shall take precedence.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be executed, in quadruplicate, the day and year first above written.

	CENTRAL FLORIDA
	EXPRESSWAY AUTHORITY
Witness:	By:
Assistant Secretary	Director of Procurement
	PARSONS BRINCKERHOFF, INC.
Witness:	By:
Print Name:	Print Name:
Title:	Title:

#### Exhibit "A"

## Project 528-131 S.R. 528 Econlockhatchee River Bridge Replacements

Post-Design Scope of Services (Section 4.24)

## 4.24 Post Design Services

## A. Compensation

The Consultant's compensation for post-design services may be added by supplemental agreement and shall be at an hourly rate, inclusive of overhead, profit and expenses, and exclusive of travel. No compensation will be made for correction of errors and omissions or clarifications.

## **B.** General Support

The Consultant shall support the post-design process as follows:

- a) Answer questions relative to the plans, typical sections, quantities and special provisions.
- b) Make any necessary corrections to the plans, typical sections, quantities, notes, etc. as may be required.
- c) Attend pre-award meeting with Contractor, the Authority, and the Authority's CEI.

#### C. Pre-bid Conference

The Consultant shall, prior to the pre-bid conference, be prepared to walk the project with the assigned Authority Resident Construction Engineer to discuss the plans and details. The Consultant shall be prepared to attend the pre-bid conference and respond to questions related to the plans, details, and special provisions.

#### D. Addenda

The Consultant shall prepare any addenda required to clarify the work included in the contract documents. Addenda may be required based on the project inspection with the assigned Authority Resident Construction Engineer, or questions developed in the pre-bid conference, or conditions discovered by bidders during the bid period.

#### E. Field Visits

The Consultant shall be available to respond to questions in the field that may arise relative to the plans, details or special provisions during construction. The Consultant will periodically visit the project site to observe the progress of construction. This visit will not make the place of formal construction inspection by the Authority's Construction Manager and their inspection team. Rather, it is intended to provide the opportunity for members of the design team to observe whether work by the Contractor is being performed in general conformance with the project plans. Written memos of all such field visits shall be submitted to the Authority and their Construction Manager within five business days of the trip.

#### F. Shop Drawing Reviews

The Consultant shall review and approve shop drawings from the Contractor for roadway, utilities, structural, lighting, FON, signing and drainage elements. This work will include the erection procedure plans, review proposals for substitutions, development of supplemental agreements, and assistance with other engineering services required to facilitate construction of the project. Reviews will be conducted and returned within two weeks from receipt of information.

#### G. Post-Design Contact

The Consultant shall appoint a responsible member of the firm to be the contact person for all post-design services. This person shall be continually available during the course of construction for review of design plans.

#### H. Timeliness

The Consultant shall make every reasonable effort to process any material presented for review in a prompt manner recognizing a construction contract is underway.

## I. Meetings

The Consultant shall attend partnering meetings as requested by the Authority. The Consultant will also attend progress / coordination meetings as requested by the Authority including, but not limited to, the Notice to Proceed meeting.

## J. Bridge Load Ratings

Approved design bridge load ratings were obtained by the Consultant under the final design phase of this contract. The Contractor shall be responsible for revising and resubmitting the load ratings if changes to the bridge design occur during construction. Otherwise, the Consultant shall provide written correspondence to FDOT when construction is complete that the bridges were constructed in accordance with the plans and the design load ratings still apply.

## K. Geotechnical Engineering

The Consultant shall provide geotechnical engineering services as needed by the Authority, relative to pile driving, earthwork, embankment and MSE wall construction.

#### L. Utilities

The Consultant shall provide utility consulting services as needed by the Authority, relative to proposed utility adjustments within the project limits.

#### M. Record Drawings

Based on information provided by the Contractor, the Contractor's surveyor and the Authority's Construction Manager, the Consultant will prepare record drawings reflecting improvements built for this project. This scope assumes surveys will be undertaken by a registered surveyor by the Contractor.



301 East Pine Street Suite 1020 Orlando, FL 32801 Main: 407-587-7800 wsp-pb.com/usa

June 27, 2016

Mr. Glenn Pressimone, PE Director of Engineering 4974 ORL Tower Road Orlando, FL 32807

Re:

Contract 528-131

SR 528 Econ River Bridge Replacements Supplemental No. 2, Post Design Services

Dear Mr. Pressimone:

Attached is our scope and fee proposal for Supplemental No. 2 for Post Design Services in connection with the bridge replacements at the Econ River.

Please call if further information is needed.

We look forward to working with you and the Authority during construction of this important project.

Very truly yours,

WSP|Parsons Brinckerhoff

Greg T. Smith, PE Project Manager Vice President

cc: Jeannie Perez

#### ESTIMATE OF POST DESIGN WORK EFFORT AND COST - PRIME CONSULTANT SA NO. 2 POST DESIGN SERVICES

Name of Project: County:

FPN:

SR 528

Orange 528-131

Consultant Name Parsons Brinckerhoff Consultant No :

Estimator	GTS	
	SH	Salary

FAP NO.	528-131 Total Staff					, ,					Da Estimat			
Staff Classification	Hours From "SH	Manager	Senior Engineer	Engineer	Designer	CADD Support	Structures Manager	Senior Struct Eng	Struct Proj Engineer	Struct Engineer		SH	Salary	Average
	Summary - Firm*	\$79.16	\$69.17	\$53.14	\$45.28	\$34.65	\$0.00	\$69.48	\$0.00	\$37.38		By Activity	Cost By Activity	Rate Per Task
3 Project General Tasks	208	104	0	10	94	0	٥	0	0	0		208	\$13,020 36	\$62.60
Roadway/Drainage	266	0	27	66	80	93	0	0	0	0		266	\$12,219 68	\$45 94
5 Utilities	O.	0	0	0	0	0	0	0	0	0		0	\$0.00	#DIV/01
6 Structures	210	0	0	0	0	0	0	53	0	157		210	\$9,551 10	
Signing and Marking	0	0	a	0	0	0	0	0	0	0		210		\$45 48
Signalization	0	0	a	0	0	1 1		0		0		0	\$0	#DIV/01
Lighting	۵	0	0	0	l ,			0	0	0		0	\$0	#DIV/0!
IO ITS	0	0	0	0	Ů		ĕ	0	Ü	O .		0	50	#DIV/0!
Total Staff Hours	684	404	07	75	474	0		0	D	0		0	\$0	#DIV/0!
	084	104	27	76	174	93	.0	53	0	157		684	\$34.791.14	
Total Staff Cost		\$8,232 64	\$1.867.59	\$4,038,64	\$7,878.72	\$3,222 45	\$0.00	\$3.682.44	\$0.00	\$5,868.66			\$34,791,14	\$50.86

Form Revised 04/04/06

Notes:

1 This sheet to be used by Prime Consultant to calculate the Grand Total fee

2 Manually enter fee from each subconsultant. Unused subconsultant rows may be hidden

Check = \$34,791.14 SALARY RELATED COSTS: \$34,791.14 MULTIPLIER 2.85 \$99,154.75 OPERATING MARGIN: \$0.00 FCCM (Facilities Capital Cost Money): LUMP SUM EXPENSES: \$0.00

SUBTOTAL ESTIMATED FEE: \$99,154.75 SUBCONSULTANTS: Antillian \$5,967.93 GEC \$5,024.18 VHB \$11,745.12 WBQ \$7,930.16 WBQ SURVEY \$6,870.27 SUBTOTAL SUBCONSULTANTS: \$37,537.66 **GRAND TOTAL ESTIMATED FEE:** \$136,692.41

SR 528

	Task		Gen	eral Su 3.1	pport	Ad	idenda (i	EA)		s Revis (EA) 1,7.1,8 10.1		Re:	p Draw views (1 2, 6.2, 7 3.2, 10.3	EA)	Res. 4.3, 5.	formati olution 3, 6.3, 7 9.3, 10.3	OF) (EA) ,3, 8.3,	3.2, 4	Review 4, 5.4, 6 4, 9.4, 1	4, 7,4,	Reci	oïd Dwg	(EA)	Total	Comments
Task No.		No of Mtgs			No of Units	Hours / Unit	Total Hours	No of Units	Hours / Unit	Total Hours	No of Units	Hours / Unit	Total Hours	No of Units	Hours / Unit	Total Hours	No of Units	Hours / Unit	Total Hours	No of Units	Hours / Unit	Total Hours			
	Project Manager			104													0	Ō	0				104		
	Adm Support			104																			104 104		
	Roadway/Drainage	6	2	12				2	20	40	- 1	4	- 4	12	2	24	9	4	36	150	1	150	266		
	Utilities																	<u> </u>	0			100	0		
	Structures	6	2	12				1	20	20	10	4	40	16	2	32	9	4	36	70	1 1	70	210		
	Signing & Marking															<u> </u>	-	-		- 10	-	1	210		
	Signalization									0			0			0			0				0		
	Lighting									0			0		-	0			0	-			0		
	ITS									0			0			ŏ			0	_			0		
				232						60			44			56			72			220	684		
																							684		

#### Central Florida Expressway Authority Post Design Services Summary Fee Sheet SR 528 Econlockhatchee River Bridge Widening, Section 528-131

SUB CONSULTANT: Antillian

		Senior Engineer Project Eng				Engineer	ring Intern	CADD	Operator	Enginee	ring Tech					
	POST DESIGN ACTIVITY DESCRIPTION	Rate/Hr.	46.15	Rate/Hr.	45.38	Rate/Hr.	24.00	Rate/Hr.	28.27	Rate/Hr.	14.00	Rate/Hr.	0		TOTAL	
	<b>DESCRIPTION</b>	MAN HRS.	Cost by Pos & Act	MAN HRS.	Cost by Pos & Act	MAN HRS.	Cost by Pos & Act	MAN HRS.	Cost by Pos & Act	MAN HRS.	Cost by Pos & Act	MAN HRS.	Cost by Pos & Act	MH BY ACTIVITY	SALARY COST BY ACTIVITY	AVG HRI
	Pre-Bid Conference	†	\$0.00		\$0.00	_	\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00	#DIV/0
_	Addenda		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00	#DIV/09
ij	Field Visits	16	\$738.40		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	16	\$738.40	\$46.15
	Shop Drawing Reviews		\$0.00		\$0.00		\$0.00		\$0,00		\$0.00		\$0.00	0	\$0.00	#DIV/0!
_]	Roadway		\$0.00		\$0,00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00	#DIV/0!
	Drainage/Permits		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00	#DIV/0!
ij	Fiber Optic Network		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00	#DIV/0!
	Signing and Marking		\$0.00		\$0.00		\$0.00		\$0.00		\$0,00		\$0.00	0	\$0.00	#DIV/0!
	Structures		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00	#DIV/0!
Ī	Lighting		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00	#DIV/0!
7	Utilities		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00	#DIV/0!
	Aesthetic Elements	1	\$0.00		\$0.00		\$0.00		50.00		50.00		\$0.00	0	\$0.00	#DIV/0!
٦	Geotechnical Elements	4	\$184.60	1	\$0.00	ì	\$0.00		\$0.00		\$0.00		\$0.00	4	\$184,60	\$46.15
i.	Requests for Information	10	\$461.50		\$0.00	ì	\$0.00		\$0.00		\$0.00		\$0.00	10	\$461.50	\$46.15
ı. j	Meetings	6	\$276.90		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	6	\$276.90	\$46.15
. [	Plan Revisions		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00	#DIV/0!
	Bridge Load Ratings	1	\$0.00	1	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00	#DIV/0!
	Geotechnical Services	8	\$369.20		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	8	\$369.20	\$46.15
	Utilities		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00	#DIV/0!
1.	Record Drawings		\$0.00	ì	\$0.00	î	\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00	#DIV/0!
ı.	Project Management		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	0	\$0.00	#DIV/0!
j	TOTALS:	44	\$2,030.60	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	44	\$2,030.60	\$46.15
_	DISTRIBUTION OF COST ELEM	MENTS TO BASI	C ACTIVITIES:			TOTAL CON	TRACT FEE CON	APUTATIONS:							T T	
						TOTAL ACTIV	VITY SALARY CO: 2.939						14	\$2,030.60 \$5,967.93		
											AN'	TILLIAN FEE:		\$5,967.93	-	

## POST DESIGN SERVICES

**Activity E: Field Visits** 

Task	Basis of Estimate	of	Hours per Unit	Number of Sheets	Total Hours	CADD Hours	Remarks
1. Field Visits	EA	2	4		8		
2. Surcharge Monitoring	EA	2	4		8		
3.							
4.							
Subtotal:				0	16	0	
11. Quality Control	0%		N/A	N/A	N/A	0	
12. Supervision	1600%		N/A	N/A	N/A	0	
Totals:				0	16	0	

## **POST DESIGN SERVICES**

**Activity F: Shop Drawing Reviews** 

Task	Basis of Estimate	Number of Units	Hours per Unit	Number of Sheets	Total Hours	CADD Hours	Remarks
1. Geotechnical Elements	LS	1	4	N/A	4	0	
2.	LS			N/A	0	0	
3	LS			N/A	0	0	
4.	LS			N/A	0	0	
Subtotal:				0	4	0	
11. Quality Control			N/A	N/A		0	
12. Supervision			N/A	N/A		0	
Totals:				0	4	0	

## POST DESIGN SERVICES

**Activity G: Requests for Information** 

Task	Basis of Estimate	Number of Units	Hours per Unit	Number of Sheets	Total Hours	CADD Hours	Remarks
1. Geotechnical Elements	EA	2.5	4	N/A	10	0	
2,	EA			N/A	0	0	
3.0	EA			N/A	0	0	
4.0	EA			N/A	0	0	
Subtotal:				0	10	0	
11. Quality Control	0%		N/A	N/A	0	0	
12. Supervision	0%		N/A	N/A	0	0	
Totals:				0	10	0	

## Wekiva Parkway 429-206 Central Florida Expressway Authority

## POST DESIGN SERVICES

Activity H: Meetings

Task	Basis of Estimate	Number of Units	Hours per Unit	Number of Sheets	Total Hours	CADD Hours	Remarks
1. Project Meetings	EA	2	3		6		
2.	EA				0		
3,	EA				0		
4.	EA				0		
Subtotal:				0	6	0	
11. Quality Control	0%		N/A	N/A	N/A	0	
12. Supervision	0%		N/A	N/A	N/A	0	
Totals:				0	6	0	

## **POST DESIGN SERVICES**

## **Activity K: Geotechnical Services**

Task	Basis of Estimate	of	Hours per Unit	Number of Sheets	Total Hours	CADD Hours	Remarks
1. Geotechnical Services - Surcharge	EA	2	4	N/A	8	0	
2.	EA			N/A	0	0	
3.	EA			N/A	0	0	
4.	EA			N/A	0	0	
Subtotal:				0	8	0	
11. Quality Control	0%		N/A	N/A	0	0	
12. Supervision	0%		N/A	N/A	0	0	
Totals:				0	8	0	



At the very foundation of our community

May 31, 2016 Revised June 6, 2016 Revised June 23, 2016

WSP/Parsons Brinckerhoff Capital Plaza Two 301 E. Pine St., Suite 1020 Orlando, FL 32801

Attention:

Mr. Greg T. Smith, P.E.

Subject:

**Proposal for Post-Design Geotechnical Services** 

SR 528 OVER THE ECONLOCKHATCHEE RIVER BRIDGE REPLACEMENT

Orange County, Florida GEC Proposal No. 8671G

Dear Mr. Smith:

Geotechnical and Environmental Consultants, Inc. (GEC) is pleased to present this proposal to provide post-design geotechnical engineering services for the above-referenced project. This proposal was requested by you and our recommended scope of services is based on the results of our geotechnical investigation for the SR 528 over the Econlockhatchee River bridge design project.

#### **Scope of Services**

#### K. Geotechnical Services

The following geotechnical engineering services as requested by the Authority will be provided:

- Geotechnical review of contractor submittals
- Responses to requests for information from the contractor
- Field observation of geotechnical conditions during construction
- Geotechnical analysis

- Recommendations to address construction geotechnical issues
- Written documentation of our field observations and recommendations
- Attend meetings as requested
- Consult on Pile Driving Issues

#### **Cost Breakdown**

Attachment 1 provides a detail of our estimated fees for the services described above. Our estimated fee is based on the rates authorized under our original fee proposal. We will not exceed the Limiting Amount without prior authorization from you. Our estimated cost to perform these services is \$5,024.18.

GEC appreciates the opportunity to work with you on this project. If you have any questions regarding this proposal, or if we can be of further assistance, please contact the undersigned.

Very truly yours,

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS, INC.

Kevin Baboolall, E.I.

Geotechnical Engineer

Daniel C. Stanfill, P.E. Senior Vice President

Daniel C. Starfiel

## Attachment 1

# Post-Design Geotechnical Services SR 528 Over The Econlockhatchee River Bridge Replacement Geotechnical and Environmental Consultants, Inc.

## Post-Design Geotechnical Engineering

Labor Cost Estimate				
Description	Unit	Loaded Unit Price	No of Units	Cost
Chief Engineer	HR	\$233.68	2	\$ 467.36
Senior Engineer	HR	\$204.48	6	\$ 1,226.88
Project Engineer	HR	\$155.22	18	\$ 2,793.96
Engineer Intern	HR	\$87.83	0	\$ 25
Designer (CADD)	HR	\$111.79	0	\$ B
Secretary	HR	\$89.33	6	\$ 535.98
Senior Engineering Technician	HR	\$102.97	0	\$ -
			<b>Total Staff Cost</b>	\$ 5,024.18
			TOTAL	\$ 5,024.18

Central Florida Expressway

VHB, INC.

VHB, INC.

Project No. 528-131

DESCRIPTION: SR 528 Econlockhatchee River Bridge Replacement

#### SUMMARY FEE SHEET - SA No. 2 POST DESIGN SERVICES

Ī	ACTIVITY MANHOURS		Principal Engineer	Project Manager	Sr. Designer	Specialist	Engineering Intern	Clerical	Sr. Engineer	Project Engineer		Senior Surveyor	Surveyor & Mapper				Salary Cost by	Average Hourly
L			\$74,55	\$57,59	\$57.59	\$33.66	\$25,85	\$15.00	\$57.70	\$31,74					by Activ	ity	Activity	Rate by Activity
١.																$\Box$		
	Project Meetings	4		4	0	0	0	0	0		-	0	0	0	1	4	\$230.36	\$57.59
	RFI Support	12	l	2	0	3	0	0	2	5						12	\$490.26	\$40.86
	Shop Drawings	21	١ .	4	6	0	0	0	11	0	-					21	\$1,210.60	\$57.65
	Plan Revisions/Record Dwg Load Ratings	36	2	4	0	8	0	0	8	10						36	\$1,658,10	\$46,06
	Coordination (with Tolling DB)	8	١ ،	0	0	0	0 0	١	0	0	0					9	\$0.00	#DIV/0!
17	Geotechnical		0	1 6	0		0	0	0 0	0 0	0			1		8	\$460_72	\$57.59
ľ	Utilities	"	١	0	0	0	0	0	0		-					٥	\$0,00 \$0.00	#DIV/0! #DIV/0!
	TOTAL MANHOURS	81	2	18	14	11	0	0	21	15		0	0	0		81	\$4,050.04	\$50.00
			\$ 149.10			\$ 370.26		\$ -		\$ 476.10		\$ -			s -	. E	\$ 4,050.04	400.00
			•	, ,,	•	* 0.0.00		*	¥ .,			RELATED	COSTS:	•			4 4,000,04	\$4,050.04
											MULTIP			2.90				\$11,745.12
												ING MARG	SIN:	2,00				\$0.00
											FCCM (I	acilities Ca	pital Cost M	oney):				\$0.00
											EXPENS	SES:						
														4-man crew				
												Field - if by		days @	\$ -		/ day	\$0.00
											SUBTO	TAL ESTIMA	ATED FEE:					\$11,745.12
											SUBTO	TAL ESTIM	ATED FEE:					\$11,745.12
											Geotech	nnical Field	and Lab To	esting				\$0.00
											SUBTO	TAL ESTIMA	ATED FEE:	•				\$11,745.12
											Optional	Services						
											GRAND	TOTAL ES	TIMATED F	EE;				\$11,745.12

Central Florida Expressway Project No. 528-131 DESCRIPTION: SR 528 Econlockhatchee	River Bridge Replacem	ent					VHB, INC.
Project Meetings	Basis	Number	Hours	Number	Total	CADD	
Task	of	of	per	of	Hours	Hours	Remarks
	Estimate	Units	Unit	Sheets		%	
Pre-bid Meeting	EA	0	0	N/A	0		
Preconstruction Meeting	EA	0	4	N/A	0		
Construction Meetings	EA	1	4	N/A	4		
			4	IN/A	4		
TOTAL					4	0	
RFI Support	Basis	Number	Hours	Number	Total	CADD	
Task	of	of	per	of	Hours	Hours	Remarks
	Estimate	Units	Unit	Sheets		%	
1. Roadway/MOT	EA	0	0	N/A	0		
2. Drainage	EA	0	0	N/A	0		
3. Lighting	EA	2	3		6		
4. ITS	EA	2	3		6		
5. Landscaping	EA	0	0	N/A	0		
6. Structures	EA	0	0	N/A	0		
7 Utilities	EA	0	0	N/A	0		
8. Signalization	EA	0	0		0		
TOTAL					12	0	

Central Florida Expressway
Project No. 528-131
DESCRIPTION: SR 528 Econlockhatchee River Bridge Replacement

VHB, INC.

Shop Drawings	Basis	Number	Hours	Number	Total	CADD	
Task	of	of	per	of	Hours	Hours	Remarks
	Estimate	Units	Unit	Sheets		%	TOTIGING
1. Roadway	LS	0			0	70	
2. Drainage	EA	0	0		0		
3. ITS	EA	5	3		15		
Signalization	LS	0	0		0		
5. Lighting	EA	2	3		6		
6. Utilities	LS	0			0		
7. Landscaping	LS	0	0		0		
8. Structures							
Elastomeric Pads	EA	0	0	N/A	0		
Structural Steel Girders	EA	0			0		
Tapered Sole Plates	EA	0			0		
Metal Stay-In-Place Forms	EA	0			0		
Re-Submittals	EA	0			0		
Retaining Walls							
MSE Walls	EA	0	0	N/A	0		
Temporary Critical (Tie-Back)	EA	0	0		0		
Temporary Critical (Wire Face)	EA	0	0	N/A	0		
Temporary Critical (Cantilever)	EA	0	0	N/A	0		
Sign Structures	LS	0	0	N/A	0		
Misc Submittals							
ITS Conduit Hangers	LS	0	0	N/A	0		Included in Item #3
Underdeck Lighting	LS	0	0		0		Included in Item #5
Concrete Mix Designs	LS	0	0	11111	0		modece in item #0
Pourable Joint Seals	LS	0	0		0		
Wall, Sign & Misc Re-Submittals	LS	0	0		0		
TOTAL				0	21	0	

Central Florida Expressway							VHB, INC.
roject No. 528-131 ESCRIPTION: SR 528 Econlockhatchee F	Shora Daistan Danistan						,
ESCRIPTION. SR 928 ECONIOCKNATCHEE P	kiver Bridge Replacem	ent					
Plan Revisions/Record Dwg	Basis	Number	Hours	Number	Total	CADD	
Task	of	of	per	of	Hours	Hours	Remarks
	Estimate	Units	Unit	Sheets		%	
1. Roadway	EA	0	0	N/A	0		
2. Drainage	EA	0			0		
3. ITS	EA	1	20		0 20		
4. Signalization	EA	Ó	0		0		
5. Lighting	EA	1	16		16		
6. Utilities	EA	0	0		0		
7. Landscaping	EA	0	0		0		
8. Structures	EA	0	0		0		
TOTAL				0	36	0	
oad Ratings	Basis	Number	Hours	Number	Total	CADD	
Task	of	of	рег	of	Hours	Hours	Remarks
	Estimate	Units	Unit	Sheets		%	
1 Load Ratings	LS	0	0	N/A	0		
Load (Manigo	10			INIA	U	_	
TOTAL					0		
N							
Coordination	Basis	Number	Hours	Number	Total	CADD	
Task	of	of	per	of	Hours	Hours	Remarks
	Estimate	Units	Unit	Sheets		%	
1. Coordination	EA	1	8	N/A	8		

VHB Staff-hour SR528 - Econ - PDS 060616 xisx

## **ESTIMATE OF WORK EFFORT AND COST - PRIME CONSULTANT**

Name of Project SR 528
County, Orange
FPN: 528-131

FAP No Lorar Start L - L

Consultant Name: WBQ Design & Engineering, Inc. Consultant No :

Date: June 7, 2016

	Total Starr										Estima	or. I roy Vargas		
Staff Classification	Hours From	Principal	Project Manager	Chief Engineer	Senior Utility Coordinator	Sr. Project Engineer	Project Engineer		Contract Coordinator			SH	Salary	Average
	Summary -	\$86 56	\$72.96	\$62.25	\$52.02	\$43.72	532 67	\$0.00	\$24 24			Activity	Cost By Activity	Rate Per Task
Project General Tasks	0	0	0	0	0	۵	0	0	0	0		nontray	\$0	
Roadway	0	0	0	0	0	0	o o	0	0	0		0	I - I	#DIV/0!
5 Utilities	8	0	0	0	8	0	n	0	0 1	o l		U	\$0	#DIV/0!
Structures	0	0	0	n	0	0	0	0	9 1	0		8	\$416	\$52 02
7 Signing and Marking	36	0	2	25	4	4	0	0		0		0	50	#DIV/0!
3 Signalization	0		0	0	0	7	0	0	1 3 1	0		36	\$2,109	\$58 59
Lighting	0	0	0	,	"	0	0	Û	9	0		0	\$0	#DIV/0!
10 Landscape Architecure	0		0	0		0	u	0	8	0		0	\$0	#DIV/0!
Total Staff Hours	Q.	U	U	0	0	0	0	0	0	0		0	\$0	#DIV/0!
	44	0	2	25	12	4	0	0	1	0		44	1 1	
Total Staff Cost		\$0 00	\$145 92	\$1,556 25	\$624.24	\$174.88	\$0.00	\$0.00	\$24.24	\$0.00			\$2,525,53	\$57.40

Form Revised 04/04/06

Notes:

1. This sheet to be used by Prime Consultant to calculate the Grand Total fee

2 Manually enter fee from each subconsultant. Unused subconsultant rows may be hidden

SALARY RELATED COSTS \$2,525.53

MULTIPLIER 3.14 \$7,930.16

SUBTOTAL: \$7,930.16

PROFIT \$0.00

SURVEY \$6,870.27

GRAND TOTAL ESTIMATED FEE:

\$14,800.43

			ject Ma leeting ( 3.1			s Revis (EA) 1, 7.1, 8 10.1		Re 4.2, 5.	op Draw views ( 2, 6.2, 7 9.2, 10.3	EA) .2, 8.2,	Res 4.3, 5.3	equest ( formation olution 3, 6.3, 7 9.3, 10.3	on (EA) .3, 8.3,	3.2	1 Revieu 2, 4.4, 5.4 3, 8.4, 9.4		528-131 Total
Task No.	Task	No of Mtgs	Hours / Mtg	Total Hours	No of Units		Total Hours		Hours / Unit	Total Hours		Hours / Unit			Hours / Unit	Total Hours	
3	General Task	0		0										0	0	0	0
4	Roadway/Drainage	MOT S	Support				0			0			0		0	0	0
5	Utilities	]								0	2	4	8			0	8
6	Structures	1					0			0			0			0	
7	Signing & Marking	1			2	4	8	2	8	16	4	2	8	1	4	4	36
8	Signalization	ļ		0			0			0			0			0	0
9	Lighting	Į		0			0			0			0			0	0
10	Landscape Architecture						0			0			0			0	0
									1								44

Form Revised 06/27/07

#### ESTIMATE OF WORK EFFORT AND COST - PRIME CONSULTANT SA No. 2 POST DESIGN SERVICES

o dott42517 SR 528 Bridge over the Econ Name of Project

County FPN. FAP No Orange 528-131 Consultant Name: WBQ Consultant No :

Staff Classification	Hours From "SH Summary -	Principal	Project Manager	Chief Engineer	Sr. Utility Coordinator	*	Sr. Project Engineer	Project Engineer	Contract Coordinator	Sr, Surveyor & Mapper	Surveyor & Mapper	Survey Technician	ä	SH By	Salary Cost By	Average
	Frent	\$86.56	\$72.96	\$62.25	\$52.02	\$0.00	\$43.72	\$32.67	524 24	\$48.25	\$30.87	\$22.00	\$0.00	Activity	Activity	Rate Per
Project General and Project Common Tasks	0	0	٥	0	0	0	0	0	0	0	0	0	0	O	SO	Task
Roadway Analysis	0	0	0	0	0	0	0	0	0	0	0		٥	, a	50	#DIV/0!
Roadway Plans	0	0	0	0	o	0	8	0	0	0	0		0		50	#DIV/0!
Drainage Analysis	٥	0	Q	0	0	0	0	0	a	0	0		ò		\$0	#DIV/0!
Drainage Plans	0	0	0	0	0	0		٥	0	0	0			0	50	#DIV/01
Ululries	٥	٥	0	0	0	0	0	0		0	b			,	50	#DIV/01
Environmental Permits, Compliance & Clearances	0	0	0		0		0		0	0	0	0	0	0	\$0	#D(V/Q! #D(V/Q!
Structures - Misc Tasks, Dwgs, Non-Tech	0	0	0	0	0	0	0	0	D	0	0	0	0	0	\$0 \$0	#DIV/0!
Structures - Bridge Development Report	0	0	0	0	٥	٥			0	0	0	0	a	,	50	
1 Structures - Temporary Bridge	۰	0	0	0	0	0					o				\$0 \$0	#DIV/0!
Structures - Short Span Concrete Bridge	0	0	0	0	0	0	0				٥		0		50	#DIV/0!
Structures - Medium Span Concrete Bridge	0	0	0	0	0	0	,		0						\$0 \$0	#DIV/0!
4 Structures - Structural Steel Bridge	٥	٥	6	0	0				0	0	0		٥	,	\$0 \$0	#DIV/0!
Structures - Segmental Concrete Bridge	0	0			0	0			0		0		0	0	\$0	#DIV/0!
6 Structures - Movable Span	٥	0	0	0	0	6	n	8	0	0	0		0	0	\$0 \$0	
17 Structures - Retaining Walls	0	G	0	0	0	0	0	1 2		1 0 1	٥		0	0	\$0	#DIV/0]
18 Structures - Miscellaneous	٥	0	0	0	0	D	٥		, a		0	0	0		\$0 \$0	#DIV/0!
Signing & Pavement Marking Analysis	٥	0	0	0	0	0	0			0	0	0	٥			#D(V/0)
30 Signing & Pavement Marking Plans		0	0		0	0	0	Š	0		ő	0	0		\$0	#D(V/0!
21 Signalization Analysis	0		0			0	9	8	0	0 1	0		47.0		\$0	#DIV/0!
22 Signalization Plans	0		0	0	0	0	0		0	0	0	9	0	0	\$0	#DIV/0!
Lighting Analysis	٥		0		ō		0		٥		0	0	0		\$0	#DIV/0!
4 Lighting Plans	٥	۵	0		0	0	0		0	0	0		0	0	\$0 50	#DIV/0!
25 Landscape Architecture Analysis	٥	0	0		o l	0	,		0	0	0	ő	0	0		#DIV/0!
6 Landscape Architecture Plans	0	0	0	٥	٥	٥	0	ō	0	0	a	0	0	0	\$0 \$0	#DIV/0! #0IV/0I
Survey (Field & Office Support)	14	٥	٥	٥	0	0					7	2	0	14	3370	\$26 44
6 Photogrammetry	0	۵		٥			,	ì	0	0	0		37.0	877		
29 Mapping	0	٥	0	i i		č	0	ů	0	0	0	0	9	9	50	#DIV/0!
0 Terrestrial Mobile LiDAR		n .	D				4			1973					50	#DIV/0[
Architecture Development	0	,	0	0	0	0	0		٥	9	0	0			\$0	#DIV/0!
Noise Barriers Impact Design Assessment		0	0		0	9	0	,		0	0		9		\$0	#DIV/01
13 Intelligent Transportation Systems Analysis	ő	٥	0	0	0	0	0		0	1 0 1	U				\$0	#DIV/0!
M Intelligent Transportation Systems Plans		٥	0				0	0	0	0	ű	0			\$0	#DIV/0!
5 Geotechracal	0	0	0	0		Š	0		1 -	0	0	0	0	9	\$0	#DIV/0!
Total Staff Hours	14	0	0	0	0	0	0	0	0		0	0	0	0	S0	#DIV(0)
Total Staff Cost		SQ 00	.80.00	\$0.00	\$0.00	\$0.00	20.00	\$0.00	50 00	50 00	7 \$216.09	7 5154 00	00 02	14	\$370.09	\$26.44

Survey Field Days by Subconsultant 4 - Person Crew

Page 5 of 1

1. This sheel to be used by Prime Consultant to calculate the Grand Total fee

2. Manually enter fee from each subconsultant. Unused subconsultant rows may be hidden

SALARY RELATED COSTS: MULTIPLIER \$370.09 3.1400 \$1,162.08 SUBTOTAL: \$1,162.08 PROFIT \$0.00 SUBTOTAL ESTIMATED FEE: \$1,162.08 days @ 10

Survey (Field - if by Prime 3 hr days \$ 1,902.73 10 hours / day \$5,708.19 SUBTOTAL ESTIMATED FEE: \$6,870.27 Subconsulta Sub 1 \$0.00 SUBTOTAL ESTIMATED FEE: \$6,870.27 Geotechnical Field and Lab Testing \$0.00 SUBTOTAL ESTIMATED FEE: \$6,870.27 Optional Services \$0.00 GRAND TOTAL ESTIMATED FEE: \$6,870.27

#### <u> 27. Survey</u>

Estimator: D.Williams

Post Design 6/15/2016

#### SA No. 2 POST DESIGN SERVICES

SR 528 Bridge over the Econ 528-131

Task No.	Task	Units	No of Units	Field Crew Days/Unit	Crew Days	Field Support Hours / Crew Days	Field Support Hours	Support Hours / Crew Days	Office Support Hours	Conuments		
27 1	Horizontal Project Control (HPC)											
	2-Lane Roadway	Mile			0.00		0.00		0.00			
	Multi-lane Roadway	Mile			0 00		0.00		0.00	Coordinate Control with Contractor		
	interstate	Mile	1.00	1 00	1 00	0.50	0 50	4.00	4 00			
27 2	Vertical PC / Bench Line						-					
	2-Lane Roadway	Mile			0 00		0 00		0 00			
	Multi-lane Roadway	Mile			0 00		0.00		0.00	Coordinate Control with Contractor		
	Interstate	Mile	1.00	1.00	1 00	0 50	0.50	4 00	4 00			
27 3	Alignment and Existing R/W Lines											
		Mile			0 00		0 00		0 00	N/A		
27 4	Aerial Targets			Units/Day								
	2-Lane Roadway	EA			0 00		0.00		0 00			
	Multi-lane Roadway	EA			0.00		0.00		0.00	N/A		
	Interstate	EA			0 00		0.00		0 00			
27 5	Reference Points	"A"		Units/Day								
	2-Lane Roadway	EA			0 00		0.00		0.00			
	Multi-lane Roadway	EA			0 00		0 00		0.00	N/A		
	Interstate	EA			0 00		0 00		0 00			
	Reference Points	"B"		Units/Day								
	Non Alignment Points/Approximate	EA			0 00	1	0 00		0.00	N/A		

#### 27. Survey

Task No.	Task	Units	No of Units	Field Crew Days/Unit	Crew Days	Field Support Hours / Crew Days	Field Support Hours	Office Support Hours / Crew Days	Office Support Hours	Comments
27 6	Topography/DTM (3D)									
		Mile	0 00	1 00	0 00	0 25	0.00	4 00	0 00	Topo as directed by EOR and design team
27.7	Planimetric (2D)									
		Mile			0 00		0.00		0.00	N/A
27 8	Roadway Cross-Sections/Profiles									
		Mile			0 00		0.00		0.00	N/A
27 9	Side Street Surveys									N/A
27 10	Underground Utilities						_			
	Designates	Mile/Site			0 00		0.00		0 00	
	Locates	Point			0 00		0.00		0 00	N/A
	Survey		0%	0.00	0 00		0 00		0.00	<del></del>
27 11	Outfall Survey									
		Mile			0.00		0.00		0 00	N/A
27 12	Drainage Survey			Units/Day				-		AMA
		EA			0 00		0.00		0.00	N/A
27 13	Bridge Survey									N/A
	Minor / Major	EA			0 00		0.00		0.00	NA
27 14	Channel Survey									
		EA			0.00		0.00		0.00	N/A
27 15	Pond Site Survey									Alla
		EA			0 00		0.00		0 00	N/A
27 16	Mitigation Survey									N/A
		Mile			0 00		0.00		0.00	INC
27 17	Jurisdiction Line Survey	Ania			0 00		2.00		0.00	N/A
27 18	Geotechnical Support	Mile		Units/Day	0.00		0 00		0.00	
		EA	1	1	1 00	0.25	0 25	3 00	3.00	Settlement Survey (2 visits)

#### 27. Survey

Task No.	Task	Units	No of Units	Field Crew Days/Unit	Crew Days	Field Support Hours / Crew Days	Field Support Hours	Office Support Hours / Crew Days	Office Support Hours	Comments
27 19	Sectional / Grant Survey									
6		Corner			0.00		0 00		0 00	N/A
		Mile			0.00		0.00		0.00	
27 20	Subdivision Location									
		Block			0 00		0 00		0.00	N/A
27 21	Maintained R/W								-	
		Mile			0.00		0 00		0 00	N/A
27 22	Boundary Survey						-	-		
		EA			0.00		0 00		0 00	N/A
27 23	Water Boundary Survey			-		-				
		EA			0.00		0 00		0.00	N/A
27 24	R/W Staking / R/W Line									
		EA			0.00		0.00		0 00	N/A
		Mile			0.00		0 00		0.00	
27 25	R/W Monumentation	-1								
		Point			0 00		0 00		0 00	N/A
27 26	Line Cutting									
		Mile			0.00					N/A
27 27	Work Zone Safety			1			_			LIOT.
				0.125	0 00					MOT as appropriate to maintain safe work zone to traveling public and field survey crew
27 28	Miscellaneous Surveys									
	· · · · · · · · · · · · · · · · · · ·				0 00		0 00		0 00	
	Survey Subtotal			Crew Days	3	Field Support	1	Office Support	11	
27 29	Supplemental Surveys					Hours		Hours		
			0%	3	0	0.00	0		0	N/A
27 30	Document Research	Units				0.00		7.0	-	
			0.00						0	N/A
27 31	Field Reviews	Ųnits								
		Ç3	0 00						0	N/A
27 32	Technical Meetings	LS	0 00						U	
2. 02	- sormout mountings		0 00						0	N/A
			0 00						U	

#### 27. Survey

ľask No.	Task	Units	No of Units	Field Crew Days/Unit	Crew Days	Support Hours / Crew Days	Field Support Hours	Office Support Hours / Crew Days	Office Support Hours	Comments				
27 33	Quality Assurance / Quality Control	LS												
								5%	1	Sr PSM				
27.34	Supervision	LS								Cr DOM				
								5%	1	Sr PSM				
27 35	Coordination	LS												
27 00								3%	0	Sr PSM				
		27. S	urvey Total	Crew Days	3	Field Support Hours	1	Office Support Hours	13					

PLS =

Office Support =

Total Hours =

Technical Meetings	Units	No of Units	Hours/ Unit	Total Hours	
Kickoff Meeting with CFX	EA	1	2	2	
Baseline Approval Review	EA	0	a	0	
Network Control Review	EA		2	2	
Vertical Control Review	EA	(3)	2	2	
Local Governments (cities, counties)	EA	. 0	0	0	
Final Submittal Review	EA	0	0	0	
Other Meetings	EA	0	0	0	
Subtotal Technical Meetings				6	
Progress Meetings (if required by FDOT)	EA	2	2	4	
Phase Review Meetings	EA	2	2	4	
Total Meetings				14	
				Clarrick Int 27-32	Carnes to Fab

<sup>\*\*</sup> Project Manager attendance at progress, phase and field review meetings are manually entered on General Task 3

## SUPPLEMENTAL AGREEMENT NO. 1

TO

## AGREEMENT FOR PROFESSIONAL SERVICES

#### **FINAL DESIGN**

## S.R. 528/Econlockhatchee River Bridge Replacement

WHEREAS, Articles 2.00 and 12.0 of the Agreement for Professional Services between CFX and the CONSULTANT, dated the 13th Day of August 2015, provides that in the event that CFX shall change the amount of work in Exhibit A of the said Agreement for Professional Services, the fees to be paid to the CONSULTANT shall be subject to adjustment as shall be mutually agreed upon:

#### NOW, THEREFORE, BE IT RESOLVED THAT:

- CFX hereby authorizes the CONSULTANT to proceed with additional services
  as outlined in the CONSULTANT'S April 22, 2016 transmittal to CFX, which is
  attached hereto and made a part of this Supplemental Agreement.
- 2. Exhibit "B", Article 2.00 of the Agreement for Professional Services is amended as follows:
  - a. The Salary related costs are adjusted upward by \$169,674.42 to \$815,471.48.
  - b. The Direct Expenses (Lump Sum) remain unchanged at \$4,887.59
  - c. The Subcontract Items are adjusted upward by \$51,341.97 to \$544,996.53.

•	Antillian	\$38,617.52
•	VHB	\$8,102.81
•	WBQ	\$4,621.64

- d. The Allowance is adjusted downward by \$55,660.79 to \$0.00
- e. The total Maximum Limiting Amount is adjusted upward by \$165,355.60 to \$1,365,355.60
- 3. All provisions of said Agreement for Professional Services, or any Supplements thereto, not modified by the above, shall remain in full force and effect, the same as if they had been set forth herein. In the event of a conflict between the provisions of this Supplemental Agreement and of the said Agreement for Professional Services, or any Supplements thereto, the provisions of this

Supplemental Agreement, to the extent such provision is reasonable, shall take precedence.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be executed, in triplicate, the day and year first above written.

> CENTRAL FLORIDA **EXPRESSWAY AUTHORITY**

PARSONS BRINCKERHOFF, INC.

Attest: Kathy D. Thomas

By: Michelle Kordell

Print Name: Korthy D. Thomas

Title: Vice President, Area Maraya

Approved as to form and execution, only.

General Counsel for CFX

R:\Departments\Engineering\General\528-131\Supplemental Agreements\Parsons Brinckerhoff-528-131 - SA1.doc



301 East Pine Street Suite 1020 Orlando, FL 32801 Main: 407-587-7800 wsp-pb.com/usa

April 22, 2016

Mr. Glenn Pressimone, PE Central Florida Expressway Authority 4974 Orl Tower Rd, Orlando, FL 32807

Re:

Supplemental Services, Revised

Dear Mr. Pressimone:

This supplemental request covers the following additional services associated with this project. Additional details regarding these supplementals and associated fees are included in the attachments.

Supplemental No. 1A – Design of New Stormwater Management Facility
Supplemental No. 1B – Design of Grading Improvements to New Right-of-Way for All Aboard
Florida and MSE Wall Improvements to Accommodate Future Expansion of SR 528

Please call if any further information is needed.

Very Truly Yours,

WSP|Parsons Brinckerhoff

Greg T. Smith, PE Vice President

cc: Jeannie Perez

## Parsons Brinckerhoff

## SR 528 ECONLOCKHATCHEE BRIDGE WIDENING TO DALLAS BLVD PROJECT № 528-131

## Supplemental No. 1A Scope of Services

## Supplemental Services Description:

This supplemental request covers additional services for the design of a stormwater treatment pond and preparing cross-sections to reflect the All Aboard Florida (AAF) improvements.

Prior to receiving NTP, PB held discussions with SJRWMD, who indicated that stormwater permitting would not be necessary under the proposed Econ River bridge reconstruction project (similar to the SR 50 design build project). SJRWMD indicated at the time that permitting could be delayed until the future widening of SR 528 takes place.

However, after receiving NTP, PB held a meeting with other SJRWMD personnel and after internal consultations, SJRWMD determined that stormwater permitting would be necessary under this contract. Consequently, supplemental efforts are needed to design a stormwater pond which has been tentatively sited for the NW quadrant of the Dallas Boulevard Interchange in an existing pond site.

Also, CFX has requested that preliminary cross-sections be prepared to show the proposed AAF improvements. Once this work is completed, additional grading, drainage design, and other plan sheet modifications may be initiated by CFX, though this engineering and plan production are not part of this supplemental.

The services under this supplemental include additional project plan sheets for the Stormwater Management Facility (SMF) and preliminary cross-sections reflecting only the AAF improvements, and not final grading. Additional geotechnical borings and surveys for the SMF are also included to support this design. No surveys or geotechnical services are included at this time for the AAF improvements, though depending on the desired level of engineering by CFX, additional surveys and/or geotechnical services may be requested under a separate supplemental.

## ESTIMATE OF WORK EFFORT AND COST - PRIME CONSULTANT

Name of Project County: FPN: FAP No.

SR 528-131

SUPPLEMENTAL ADDITIONAL SERVICES NO. 1A

Consultant Name: Parsons Brindwittoff Consultant No.: 528-131

Staff Classification	SH	Manager	Senior Engineer	Engineer	Designer	CADO Support	Structures Maragor	Senior Struct Eng	Struct Proj Engineer	Struct Engineer	Engineer	Structures Designer	Staff Classi- fication 12	ensort name	Subsy	Average
											letern			1		
Desired Consendered P. L. C.	Samuery -	\$79.16	\$69.17	533.14	\$45,28	\$34,65	\$0.00	569,48	30.00	537,36	\$0.00	50.00	50 00	By Activity	Cost By	Rate Per
Project General and Project Common Tasks	11	11	0	0	0	0	0	0	0	0	2	0			Activity	Tack
Roadway Atralysis	126	8	23	33	32	30	9		.0	ō	1		0	11	\$871	\$79 16
Roadway Plans	190	31	33	50	48	46	Q.	ا ه ا	0			"		126	35,466	\$51 32
Orkinige Analysis	62	5	14	21	21	21	0		,		1 2	100		190	\$9,647	\$50.77
/ Ulbbes	0		0	0	0	0	0	,	ů	0		۰		82	\$4,159	\$50 72
Environmental Permits, Compliance & Clearances	26	2	6	6	7	5		;				0	0	Q.	\$0	\$0.00
Structures - Misc Tasks, Dwgs, Non-Tech	0	G.	0			اما	6			0		۰	0	26	\$1,382	\$53 17
10 Structures - Badge Development Report	٥	a	٥	0			0.	"		8		0		o.	\$0	#DIV/0!
11 Structures - Temporary Bridge	0	ا ء ا	a				0					•	0	0	90	#DIVIDI
12 Structures - Short Span Concrete Bridge		0	٥			,			C	9	٥	•		o o	\$0	#0.00
13 Structures - Medium Span Concrete Bridge	0	a	i			1 1	0		0	0	٥	۰	0	0	80	\$0.00
4 Structures - Structural Steel Bridge	0	اما					G	0	0	٥	٥	0	.0.	0	80	#DIV/0!
5 Structures - Segmental Concrete Bridge	o	0			1 2	1 , 1	6	0	٥	0	٥		0	0	\$0	\$0.00
6 Structures - Movable Soun	6	اما			1 1	1 1		0	2	o.	0	0	0	0	50	80.00
7 Structures - Rataining Walls	ì	ا م				0	C		ū	9	0	0		0	20	\$0.00
15 Structures - Miscolamocus		8	,		0	0	0	0	9	a	0	•	٥	O.	\$0	<b>FDIVAY</b>
19 Signing & Payement Marking Analysis	ĭ	· *	0			0	٥	0	0	G	0	۰		0	80	#DEV/0!
2) Signing & Patricinon: Marking Plans		ا ما		•	0	6	6		٥	0	٥	0	0	0	80	80.00
21 Signatization Analysis							0	0	0	0	0	0	0	0	80	SD 00
22 Signaturion Plans		٥	0	0		0	٥	0	٥	0	٥	0	0	0	80	50 00
2) Lighting Analysis		0	9		0	0	0	0	8	۵	0	٥	0	0	50	20.00
N Lighting Plans	0	o	٥	•		0	Ď	0	0	٥		0	0	0	100	40.00
S Landscape Architecture Apalysis		0	a	•	٥	e	¢	0	0	0	٥		0		\$0	80.00
El Landroupe Architecture Arabysts		0	9	٥			0	0	0	0		0	0	a	50	50 00
	0	0	0	. 0	D	8	0	0	0	8	٥	0	0	0	so so	30.00
7 Survey (Field & Office Support)	0	0	9	٥	0	0	0	0	9	٥	0	0		o o	\$0	20.00
il Photogrammary	0	0	0	٥		0		0	٥	0	0			0	\$0	\$0.00
9 Mapping	0	0	0	0	0	0	9	0	0	0	0		ı i	0	\$0	\$0.00
0 Geotechnical	0	0	C		0	0	0	0	a l	α	0			0	En En	\$0.00
1 Architecture Development	0	0	0	0	0	0	a	0	0	0	0	0		0	\$0	\$0.00
2 Noise Barriers Impact Design Assessment	D	0	0	0	٥	0	Ð	0		0				0	80	\$0.00
3. Intelligent Transportation Systems Analysis	0	0	0	0	0	0	0	0	0	ā	ě	0	6	ů		
4. Intelligent Transportation Systems Plans	_ 0		. 0	6	0		0	0	ò	ő			0	ŭ	20	\$0.00
Total Staff Hours	435	37	76	110	108	104	0	0	0	0	0	0	0	435	30	\$0.00
Total Staff Cost		\$2,928.92	\$5,256.92	\$5,845.40	\$4,590.24	\$3,503,60	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	930	\$22,525,00	\$51,79

Survey Field Days by Subconsultant 4 - Person Crew

- 1 This shoot to be used by Prime Consultant to calculate the Grand Total fee
- 2. Mamurally enter fee from each subconsultant. Unused subcursultant rows may be hidden.

Check = \$22,525.06 SALARY RELATED COSTS: \$22,525,08 OVERHEAD: 153,94% \$34,675.11 OPERATING MARGIN: 12% 0 00% \$6,864.02 FCCM (Facilities Capital Cost Money): LUMP SUM EXPENSES: 4-man crew Survey (Field - if by Prime 0 SUBTOTAL ESTIMATED FEE: days 🚇 \$64,064,21 Subconsulta Antilitan \$7,889.13

Subconsulta GEC Subconsulta VHB Subconsulta WBQ \$4,621.64 Subconsulta McKim and Creed

SUBTOTAL SUBCONSULTANTS: \$12,510.77

**GRAND TOTAL ESTIMATED FEE:** \$76,574.08

## Project Activity 3: Project Common and Project General Tasks

#### Estimator:

Updated 080818

Task No.	Task	Units	No of Units	Hours/ Unit	SUPPL	Comments
3.1	Public Involvement		1	0	0	
3.1.1	Community Awareness Plan	LS	1	0	0	
3.1.2	Notifications	LS	1	0	0	
3.1.3	Prepare Mailing Lists	LS	1	0	0	
3.1.4	Median Modification Letters	LS	1	0	0	
3.1.5	Driveway Modification Letters	LS	1	0	0	
3.1.6	Newsletters	LS	1	0	0	
3.1.7	Renderings and Fly Throughs	LS	1	0	0	
3.1.8	PowerPoint Presentation	LS	1	0	0	
3.1.9	Public Meeting Preparations	LS	1	0	0	
3.1.10	Public Meeting Attendance/Followup	LS	1	0	0	
3.1.11	MPO Meetings	LS	1	0	0	
3.1.12	Web Site	LS	1	0	0	
	3.1 Public Involvement St	ubtotal			0	
3.2	Quality Control Plan	EA	1	0	0	
3.3	Specifications Package Preparation	LS	1	0	0	
3.4	Contract Maintenance	LS	1	0	0	
3.5	Value Engineering (Multi-Discipline Team) Review	LS	1	0	0	
3.6	Prime Consultant Project Manager Meetings	LS	1	11	11	See Listing Below
3.7	Plans Update	LS	1	0	0	

SR 528 Econ River Bridges, SA 1, SMF, V4, Apr 22, 16.xlsx 3. Project General Task

## Project Activity 3: Project Common and Project General Tasks

Task No.	Task	Units	No of Units	Hours/ Unit	SUPPL	Comments
3.8	Post Design Services	LS	1	0	0	
3.9	Electronic Delivery	LS	1	0	0	
3.10	Other Project General Tasks	LS	1	0	0	
	3. Project Common and	Project Ge	neral Ta	sks Total	11	

### 3.6 - List of Project Manager Meetings

Roadway Analysis	EA	0	3	0	
Drainage	EA	1	3	3	For SMF Permit Meeting.
Utilities	EA	0	3	Õ	. or our round incoming.
Environmental	EA	Ō	3	Ö	For SMF.
Structures	EA	0	3	ŏ	· or order.
Signing & Pavement Marking	EA	Õ	Ö	Ö	
Signalization	EA	ō	ō	Ö	
Lighting	EA	ō	ŏ	ō	
Landscape Architecture	EA	ō	Ŏ	Ď	
Survey	EA	ō	ō	Ď	
Photogrammetry	EA	ō	ō	ő	
ROW & Mapping	EA	ō	Ö	ő	
Geotechnical	EA	ŏ	3	ő	
Architecture	EA	Ö	Ö	Ô	
Noise Barriers	EA	Ö	Ö	ő	
ITS Analysis	EA	ō	ō	ŏ	
Bi-Weekly Progress Meetings	EA		4	0	
Phase Reviews	EA		3	Ô	
Field Reviews	EA	1	8	8	For SMF and AAF.
Total Project Manager Meetings		2		11	=

#### Notes:

- 1. If the hours per meeting vary in length (hours) enter the average in the hour/unit column.
- 2. Do not double count agency meetings between permitting agencies.
- 3. Project manager meetings are calculated in each discipline sheet and brought forward to column D except for Photogrammetry.

SR 528 Econ River Bridges, SA 1, SMF, V4, Apr 22, 16.xlsx

<sup>3.</sup> Project General Task

## Project Activity 4: Roadway Analysis

#### Estimator:

Task No.	Task	Units	No of Units	Hours/ Unit	SUPPL	Comments
4.1	Typical Section Package	LS	1	0	0	
4.2	Pavement Design Package	LS	1	0	0	
4.3	Access Management	LS	1	0	0	
4.4	Horizontal/Vertical Master Design Files	LS	1	0	0	
4.5	Cross Section Design Files	LS	1	94	94	70 Hrs/MI x 1000/5280 = 14 Hrs For SMF and 70 Hrs/Mi x 6000/5280 = 80 Hr to Integrate AAF Improvements into CFX file. STA 1390 to STA 1450 for AAF.
4.6	Traffic Control Analysis	LS	1	0	0	
4.7	Master TCP Design Files	LS	1	0	0	
4.8	Design Variations and Exceptions	LS	1	0	0	
4.9	Preliminary Design Report	LS	1	0	0	
4.10	Computation Book & Quantities	LS	1	8	8	Develop additional quantities associated SMF. Does not include quantities for AAF.
4.11	Cost Estimate	LS	1	8		
4.12	Technical Special Provisions	LS	1	0	0	
4.13	Submittal Preparations	EA	5	0	0	
	Roadway An	alysis T	echnical	Subtotal	102	
4.14	Field Reviews	LS	1	8	8	
4.15	Technical Meetings	LS	1	0	0	
4.16	Quality Assurance/Quality Control	LS	%	5%	6	
4.17	Independent Peer Review	LS	%	0%	0	
4.18	Supervision	LS	%	5%	6	
	Roadway Analys	ds Nont	echnical	Subtotal	20	
4.19	Coordination	LS	%	3%	4	
	4	. Roadw	ay Analy	sis Total	126	

SR 528 Econ River Bridges, SA 1, SMF, V4, Apr 22, 16.xlsx 4. Roadway Analysis

## Project Activity 4: Roadway Analysis

Task No. Task	Units	No of Units	Hours/ Unit	SUPPL	Comments
------------------	-------	----------------	----------------	-------	----------

Total Meetings				0
Phase Review Meetings	EA			
Progress Meetings	EA			
Subtotal Technical Meetings				0
Other Meetings	EA	1	8	
30/60/90/100% Comment Review Meeting:	EA			
Work Zone Traffic Control	EA			
MPO)	EA			
Local Governments (cities, counties,				
Driveways	EA			
15% Line and Grade	EA			
Access Management	EA			
Pavement	EA			
Typical Section	ĒΑ			

Note: Project Manager attendance at progress, phase and field review meetings are manually entered on General Task 3

### Project Activity 5: Roadway Plans

#### Estimator.

Task No. of No. of Total Task Scale Units SUPPLE No. Comments Units Sheets Hours MENTAL Key Sheet Sheet 1 2 2 Update for SMF. Does Not include AAF Summary of Pay Items Including Quantity 5.2 Sheet 0 0 0 0 Input 5.3 Drainage Map Sheet 24 1 24 Update for SMF. Does Not Include AAF 5.4 Interchange Drainage Map Sheet 0 0 0 5.5 Typical Section Sheets Sheet 0 0 5.6 General Notes/Pay Item Notes Sheet 0 0 Summary of Quantities 5.7 0 Sheet 0 0 5.8 Box Culvert Data Sheet Sheet 0 0 0 5.9 Bridge Hydraulics Recommendation Sheets 0 Sheet 36 0 0 5.10 | Summary of Drainage Structures Sheet 0 0 5.11 Optional Pipe/Culvert Material Sheet 0 0 0 0 5.12 Project Layout Sheet 0 12 0 0 5.13 | Plan/Profile Sheet Sheet 0 0 0 0 5.14 Profile Sheet Sheet ٥ 7 0 0 Does Not Include AAF 5.15 Plan Sheet Sheet 0 7 0 0 Does Not Include AAF 5.16 | Special Profile Sheet 0 0 0 5.17 Back of Sidewalk Profile Sheet Sheet 0 0 0 0 5.18 Interchange Layout Sheet Sheet ٥ 0 0 0 5.19 Ramp Terminal Details (Plan View) Sheet 0 0 0 0 5.20 Intersection Layout Details Sheet 0 0 0

SR 528 Econ River Bridges, SA 1, SMF, V4, Apr 22, 16.xlsx

<sup>5.</sup> Roadway Plans

## Project Activity 5: Roadway Plans

Task No.	Task	Scale	Units	No. of Units	SUPPLE	No. of Sheets	Total Hours	Comments
5.21	Miscellaneous Detail Sheets		Sheet	0	24	0	0	
5.22	Drainage Structure Sheet (Per Structure)		EA	8	3	4	24	2 Outfall / 2 Control Structures Plus 4 Add Struc
5.23	Miscellaneous Drainage Detail Sheets		Sheet	2	24	2	48	Control Structure Detail Sheet and One Sheet for Details for temp ditch blocks for treatment during construction.
5.24	Lateral Ditch Plan/Profile		Sheet	0	16	0	0	- Constant C
5.25	Lateral Ditch Cross Sections		EA	0	0		0	
5.26	Retention/Detention Ponds Detail Sheet		Sheet	1	12	1	12	SMF Only.
5.27	Retention Pond Cross Sections		EA	2	1	1	2	SMF Only.
5.28	Cross-Section Pattern Sheet		Sheet	0	8	0	0	
5.29	Roadway Soil Survey Sheet		Sheet	0	4	0	0	
5.30	Cross Sections		EA	120	0.5		60	For AAF.
5.31	Traffic Control Plan Sheets		Sheet	0	10	0	0	
5.32	Traffic Control Cross Section Sheets		EA	0	0.5		0	
5.33	Traffic Control Detail Sheets		Sheet	0	12	0	0	
5.34	Utility Adjustment Sheets		Sheet	0	8	0	0	
5.35	Selective Clearing and Grubbing		Sheet	0	7	0	0	
5.36	Erosion Control Plan		Sheet		4	0	0	
5.37	SWPPP		Sheet	0	6	0	0	
5.38	Project Control Network Sheet		Sheet	0	0	0	0	
5.39	Environmental Detail Sheets		LS	0	0		0	
5.40	Utility Verification Sheet (SUE Data)		Sheet	0	0	0	0	
		Roadw	ay Plans	Technica	l Subtotal	10	172	

## Project Activity 5: Roadway Plans

Task No.	Task	Scale	Units	No. of Units	SUPPLE	No. of Sheets	Total Hours	Comments
5.41	Quality Assurance/Quality Control		LS	%	5%		9	
5.42	Supervision		LS	%	5%		9	
			5. Ro	adway P	lans Total	10	190	

## Project Activity 6: Drainage Analysis

#### Estimator:

Task No.	Task	Units	No of Units	Hours/ Unit	SUPPL	Comments
6.1	Determine Base Clearance Water Elevation	Per Location	0	0	0	
6.2	Pond Siting Analysis	Per Basin	2	16	32	Siting Analysis for SMF and for FCP.
6.3	Design of Cross Drains	EA	0	0	0	
6.4	Design of Roadway Ditches	Per Ditch Mile	0	0	0	
6.5	Design of Outfalls	EA	0	0	0	
6.6	Design of Stormwater Management Facility (Offsite Pond)	EA		40	0	Modifications to Pond 1-A, NW Quad of Dallas Blvd Interchange - Covered under Original Agreement
6.7	Design of Stormwater Management Facility (Roadside Ditch as Linear Pond or Infield Pond)	Per System	0	0	0	
6.8	Design of Flood Plain Compensation Area	Per Encroachment	0	0	0	SJRWMD Has Requested Floodplain Impact Calcs Which Will Be Covered by Hours in Original Proposal.
6.9	Design of Storm Drains	EA	8	2	16	For SMF. Does Not Include AAF.
6.10	Optional Culvert Material	LS	0	0	0	
6.11	French Drain Systems	Per 1000 Feet of French Drain	0	0	0	
6.12	Drainage Wells	EA	0	0	0	
6.13	Drainage Design Documentation Report	LS	1	16	16	For SMF. Does Not Include AAF.
6.14	Bridge Hydraulic Report	EA	0	0	0	
6.15	Temporary Drainage Analysis	LS	1	0	0	
6.16	Cost Estimate	LS		8	0	
6.17	Technical Special Provisions	LS	1	0	0	

SR 528 Econ River Bridges, SA 1, SMF, V4, Apr 22, 16.xlsx 6. Drainage Analysis

## Project Activity 6: Drainage Analysis

_ ,	Task	Units	No of Units	Hours/ Unit	SUPPL	Comments
6.18	Other Drainage Analysis	LS	1	0	0	
		Drainage Analysi	Technical	Subtotal	64	
6.19	Field Reviews	LS	0	0	0	
6.20	Technical Meetings	LS	1	8	8	
6.21	Quality Assurance/Quality Control	LS	%	5%	4	
6.22	Independent Peer Review	LS	%	0%	0	
6.23	Supervision	LS	%	5%	4	
	Dra	Inage Analysis No	ontechnical	Subtotal	16	
6.24	Coordination	LS	%	3%	2	
		6. Dra	inage Analy	sis Total	82	
	Technical Meetings  Base Clearance Water Elevation	EA				
	Pond Siting Agency	EA EA	1	8	8	
	Local Governments (cities, counties)	EA	ı	b	0	
	CFX/Atkins Drainage	EA				
	Other Meetings (Bi- weekly Team Meetings) Subtotal Technical Meetings	EA				
ŝ						

Note: Project Manager attendance at progress, phase and field review meetings are manually entered on General Task 3

Total Meetings

Carries to 6.20

## Project Activity 8: Environmental Permits, Compliance and Clearances

#### Estimator.

Service a COCCAC
Updated 080818

Task No.	- Task	Units	No. of Units	Hours/ Units	SUPPLE	Comments
8.1	Preliminary Project Research	LS	1	0	0	
8.2	Complete Permit Involvement Form	LS	1	D	0	
8.3	Establish Wetland Jurisdictional Lines and Assessments	LS	1	8	8	Coordination w/Atkins for AAF.
8.4	Agency Verification of Wetland Data	LS	1	0	0	
8.5	Complete And Submit All Required Permit Applications	LS	1	15	15	For SMF. Does Not Include AAF.
8.6	Prepare Dredge and Fill Sketches	LS	1		0	TBD
8.7	Prepare USCG Permit Sketches	LS	1	0	0	Not Included
8.8	Prepare Water Management District Right-of-Way Occupancy Sketches	LS	1	0	0	
8.9	Prepare Coastal Construction Control Line (CCCL) Permit Application	LS	1	0	0	
8.10	Prepare Tree Permit Information	LS	1	0	0	Not included
8.11	Mitigation Coordination and Meetings	LS	1	0	0	RHPZ & Wetlands - Not Required
8.12	Mitigation Design	LS	1	0	0	Not Included
8.13	Environmental Clearances and Technical Support	LS	1	0	0	Not Included
8.14	Environmental Clearances and Reevaluations	LS	1	0	0	Not included
8.15	Other Environmental Permits	LS	1	0	0	Not included
	Environmental Permits, Compliance and Clea	rances T	echnical	Subtotal	23	
8.16	Technical Meetings	LS	1	0	0	Meetings are listed below
8,17	Quality Assurance/Quality Control	LS	%	5%	1	
8.18	Supervision	LS	%	5%	1	
	Environmental Permits, Compliance and Clearan	ces Non	echnical	Subtotal	2	
8.19	Coordination	LS	%	3%	1	
	8. Environmental Permits, Compile	ance and	Clearan	ces Total	26	

0

## Project Activity 8: Environmental Permits, Compliance and Clearances

Task No. of Units Units Units Supple Comments
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EA EA EA	0	0	0 0
EA EA	0	0	0
			0
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	ĒΑ	EA EA EA	EA EA EA

Note: Project Manager attendance at progress, phase and field review meetings are manually entered on General Task 3

### Antillian Engineering

### SR 528 ECONLOCKHATCHEE RIVER BRIDGE WIDENING TO DALLAS BLVD PROJECT No. 528-131

### Scope of Services Summary

#### **Project Description:**

#### 4.05 Geotechnical Investigation for New Proposed SWF

- · Perform site reconnaissance and utility clearance coordination.
- Perform a total of 2 auger borings to a depth of 20 feet each for the water retention area on the NW corner of the Dallas Boulevard interchange
- Visually examine all recovered soil samples in the laboratory utilizing the Unified Soil
  Classification System. Perform laboratory tests on selected representative soil samples,
  including grain size analysis, Atterberg limits, organic content, natural moisture content, LBR
  and corrosion series testing as appropriate.
- Collect groundwater level measurements and estimate wet seasonal high groundwater tables.

## ESTIMATE OF WORK EFFORT AND COST - PRIME CONSULTANT SA 1A

Name of Project: County: FPN: FAP No.

SR 528 Econlockhatchee Bridge Wildening Orange 528-131 N/A

Consultant Name: PB/Antitian Engineering Associates, Inc.
Consultant No.: enter consultants pro; number
4/22/2016

PAP NO.	Total Stell								4				Estimator	9/22/2016 P/35		
Stell Classification	Hours From	Child Eng	Senior Eng \$135.63	Project Eng \$133.36	Eng letern	Sr. Eng Tech	CADD	Clerical	Staff Classi- fication II	Staff Classi- Scation S	Staff Classi- fication 18	Staff Classi- Scation 11	Stall Classi- fication 12	SH By	Salary Cost By	Average Rate Par
3 Project General and Project Common Tasks	o o	0		\$133.36	50 00	\$0.00	\$57.09	50.00	\$7.00	50 00	\$0.00	\$0.00	\$0.00	Activity	Activity	Test
4 Roadway Analysis	ă	l v	0		•	0	D	٥	0	0	0	0	0	G	80	IKDIV/DI
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12 Structures - Short Span Concrete Bridge		0	6		•	0	Q.	0	0	0	٥	0	a	8	50	(IDIV/III
13. Skrudiures - Medium Span Concrete Bridge	6		G	0		0	0	0			0		0	B	l iii	#DIV/DI
14 Structures - Structural Steel Bridge		9	Q	٥	0	0	G.	0			6				100	#DIV/01
15. Structures - Segmental Concrete Bridge		٥	6	0			C	0						, v	- E	#OIV/0
16 Structures - Movable Spen	0	0	0	0	٥	0	Q		0	C	0				so :	#DIV/BI
17 Structures - Retaining Walls	a	6	0	8		0	Q	0							30	#DIV/DI
18, Structures - Miscellantous		٥	a .	0			G			0	0			R .		#OIV/0
19. Signing & Pavement Marking Analysis	9		0	0		1 0 1	a							, ,	80	SDIVIOI .
20. Signing & Percenent Manking Plans	0		0	0	۰		d							ů	, a	#DIV/Q
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22. Signalization Piers	0		0	0	6	6	0							, i	20	#DIVIDE
21. Lighting Analysis.	0		0			1 6 1	a				0				20	BDIWO!
24 Lighting Plans	0			0	٥		0								50	#DIV/O
25. Lancscape Architectum Assalysis			0	0			6						0	8	, and	#DIV/ID
25 Laddscape Architectura Plans	2	6					a		1 6					, i	50	#DIV/Ot
27 Survey (Field & Office Support)		6				0	0				;				20	#CIV/O
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30. Terrestrial Mobile LiDAR				a		ا ه ا	0		1 6					ů	80	#DIV/OI
31 Architecture Development			0	0	8	1 6								6	\$20	
12 Noise Barriers Impaci Design Assessment		2	ا ه ا			8			1 .							#DIV/Q!
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M Intelligent Transportation Systems Plans	6	i			ă	ا ہُا								0	#O	#DIV/01
35 Gentectpical	42		ı i	29		ا هٔ ا	2							0	\$0	#DIV/0i
Total Staff Hours	10	0	11	29	0	0	2	0	1 0	0	0	0	0	42	\$5,526	\$131.57
Total Staff Cost		\$0,00	51,481.93	\$3.868.02	\$0.00	30.00	\$186.18	\$0.00	\$0.00	50.00	30.00	\$0.00	\$5.00	42	\$5,526,13	\$131,57

Survey Field Cays by Subconsultani 4 - Person Crew.

- 1. This sheet to be used by Prime Consultant to calculate the Grand Total fee.
- 2. Mamually enter fee from each subconsultion). Unused subconsultant rows may be hidden.

135 63485	133 37182	G	0	\$3,08553

		Check = S	5.525.13
SALARY RELATED COSTS:			\$5,526.13
OVERHEAD:		1 000	\$0,00
PROFIT			\$0.00
FCCM (Facilities Capital Cost Money):	0.00%		\$0.00
EXPENSES:	0.00%		\$0.00
and the same of th	4-man crew		
Survey (Field - if by Prime)	days @	\$ / 04	
SUSTOTAL ESTIMATED FEE:			\$5,526.13
Subconsullant: Gub 1			\$0.00
Bubconsultant: Sub 2			\$0.00
Buliconsultant: Sap 3			\$0,00
Switconsultant: 3u6-4			80,00
Subconstant: Sub 5			\$0.00
Subconsultant: Sub 6			\$0,00
Subconsultant Bub 7			\$0.00
Subconsultant: Sub 8			\$0,00
Subconsultant: Sub 9			\$0.00
Subconsultant: Sub 10			\$0.00
Subcommittent: Sub 11			\$0.00
Subconsultant: Sub 12			\$0.00
SUSTOTAL ESTIMATED FEE:			\$5,526.13
Geotechnical Field and Lab Testing			\$2,363,00
QUETTOTAL ESTIMATED FEE:			\$7,589.13
Optional Services			\$0,00
GRAND TOTAL ESTIMATED FEE:			\$7,889.13

### 35. Geotechnical

Estimator: PGS

12/9/2015

ANTILLIAN scope for: Roadway, Drainage and Misc Structures

SR 528 Econlockhatchee Bridge Widening

528-131

Representing	Print Name	Signature / Date
FDOT District	CFX	
Consultant Name	Antillian Engineering Associates, Inc.	

NOTE: Signature Block is optional, per District preference

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Commenta
	Roadway					
35.1	Document Collection and Review	LS	1	2	2	
35.2	Develop Detailed Boring Location Plan	LS	1	1	1	
35.3	Stake Borings/Utility Clearance	Boring	2	0.5	1	FPC Pond: 0 AB to 10 ft.  NW Pond:: 2 AB to 20 ft, NW corner Dallas 6llvd interchange Incl. travel time and time to prepare locate request
35.4	Muck Probing	Crew Day	0	8	0	
35.5	Coordinate and Develop MOT Plans for Field Investigation	EA	0	8	0	
35.6	Drilling Access Permits	Location	0	0	0	
35.7	Property Clearances	EA	0	0.5	0	
35.8	Groundwater Monitoring	EA	1	2	2	Stabilized groundwater measurements (following day)
35,9	LBR/Resilient Modulus Sampling	EA	0	0.75	0	
35.10	Coordination of Field Work	100 lf of boring	0.4	1	1	I he minimum
35.11	Soil and Rock Classification - Roadway	100 lf of boring	0.4	1.5	1	
35.12	Design LBR	LS	0	4	0	
35.13	Laboratory Data	100 If of boring	0.4	0.5	0	See 35.17
35.14	Seasonal High Water Table	Boring	0.4	0.1	0	See 35.17
35.15	Parameters for Water Retention Areas	EA	1	2	2	Pond in NW comer Dallas Blvd interchange

### 35. Geotechnical

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
35.16	Delineate Limits of Unsuitable Material	Cross-section	2	0.25	1	Assume 20% of mainline (18)
35.17	Electronic Files for Cross-Sections	100 if of boring	0.4	1	1	1 hr min., incl 35.13 Laboratory Data and 35.14 Seasonal High Water Table
35.18	Embankment Settlement and Stability	Embankment Boring	0	2	0	
35.19	Protection of Existing Structures	LS	0	4	0	
35.20	Stormwater Volume Recovery and/or Background Seepage Analysis	EA	0	4	0	
35.21	Geotechnical Recommendations	LS	1	8	8	
35.22	Pavement Condition Survey and Pavement Evaluation Report	LS	1	0	0	
35.23	Pretiminary Roadway Report	LS	1	8	8	30% submittal
35.24	Final Report	EA	4	2	8	60%,90%,100%, final submittalis
35.25	Auger Boring Drafting	100 If boring	0,4	3	1	
35.26	SPT Boring Drafting	100 If boring	0	5	0	
		Roadwa	y Geotechni	ical Subtotal	37	
		9tructur	al Geotechni	ical Subtotal	0	
		Geoteci	ınical Techni	ical Subtotal	37	
35,50	Technical Special Provisions	EA	0	0	0	Assume not required
35.51	Field Reviews	LS	0	4	0	
35.52	Technical Meetings	LS	1	0	0	Meetings listed below
35.53	Quality Assurance/Quality Control	LS	%	5%	2	
35.54	Supervision	LS	%	5%	2	
		Geotechnic	al Nontechni	cal Subtotal	4	
35.55	Coordination	LS	%	3%	1	
			35. Gented	hnical Total	42	

Technical Meetings Units No of Units Hours/ Unit	Total Hours	PM Attendance at Meeting Required?	Number
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### 35. Geotechnical

Task No. Task	Units	No of Units	Hours/ Unit	Total Hours	Comments	
Kickoff Meeting with CFX	EA	0	2	0		0
Boring Layout Approval	EA	0	0	0		0
Attend in BDR Review Meeting	EA	0	0	0		0
30/60/90% Submittal Review	EA	0	2	0		0
Other Meetings	EA	0	0	0		
Subtotal Technical Meetings				0	Subtotal Project Manager Meetings	0
Progress Meetings (if required by CFX)	EA	0	2	0	M attendance at Progress Meetings is manually entered on General Task	
Phase Review Meetings	EA	0	2	0	attendance at Phase Review Meetings is manually entered on General Ta-	
Total Meetings		2	2	0	Total Project Manager Meetings (carries to Tab 3)	0

Cerrica to 33 18

Carries to Tab 3

...OJECT: SR 528 Econlockhatchee Bridge Widening

FEE SCHEDULE:

2015

PREPARED BY:

PGS

FPID:

DATE:

: 4/22/2016

Item	Description	Unit	Unit Price	No of Units	Cost
01.00.00	GEOTECHNICAL FIELD EXPLORATION				
01.01.00	Crew & Equipment Mobilization:				
01.01.01	Truck Rig Mobilization	EA	\$450.00	0	\$ -
01.01.02	Mudbug Mobilization	EA	\$500.00	1	\$ 500.00
01.01.03	Track Rig Mobilization	EA	\$3,000.00	0	\$ :: <b>+</b> 0.
01.01.04	Barge (small) Mobilization	EA	\$8,500.00	0	\$ •
01.01.05	Barge (offshore) Mobilization	EA	N/A	0	\$
01.01.06	CPT Rig Mobilization	EA	\$500.00	0	\$ •
01.01.07	Support Boat Mobilization	EA	\$200.00	0	\$
01.01.08	Pavement Coring Equipment Mobilization	EA	\$250.00	0	\$ -
01.01.09	Soil Survey/Coring/GPR Crew Mobilization	EA	\$250.00	0	\$ -
01.01.10	Tri Pod Rig Mobilization	EA	\$2,500.00	0	\$ •
^^ 01.11	Low Clearance Rig Mobilization	EA	N/A	0	\$ -
U1.01.12	Drill Rig Remobilization	EA	\$150.00	0	\$ _
01.02.00	Auger Borings (ASTM D-1452):				
01.02.01	Truck Auger Borings	LF	\$9.00	0	\$ 
01.02.02	Mudbug Auger Borings	LF	\$11.25	40	\$ 450.00
01.02.03	Track Auger Borings	LF	\$13.50	0	\$ -
1.03.00	Standard Penetration Test Borings (ASTM D-1586):				
1.03.01	SPT - Truck/MB:				
1.03.01A	SPT - Truck/MB: 0-50 FT	LF	\$12.00	0	\$ -
1.03.01B	SPT - Truck/MB: 50-100 FT	LF	\$14.00	0	\$ -
1.03.01C	SPT - Truck/MB: 100-150 FT	LF	\$21.00	0	\$ -
1.03.01D	SPT - Truck/MB: 150-200 FT	LF	\$28.00	0	\$ -
1.03.01E	SPT - Truck/MB: 200-250 FT	LF	\$38.00	0	\$ -
1.03.01F	SPT - Truck/MB: 250-300 FT	ĹF	N/A	0	\$ -
1.03.02	SPT - B/T/A:				
1.03.02A	SPT- B/T/A: 0-50 FT	LF	N/A	0	\$ -
73.02B	SPT- B/T/A: 50-100 FT	ĹF	N/A	0	\$ -

FEE SCHEDULE:

2015

JOJECT: SR 528 Econlockhatchee Bridge Widening

PREPARED BY:

PGS

FPID:

4/22/2016 DATE:

Item	Description	Unit	Unit Price	No of Units	Cost
01.03.02C	SPT- B/T/A: 100-150 FT	LF	N/A	0	\$ <b>(#</b> 0
01.03.02D	SPT- B/T/A: 150-200 FT	LF	N/A	0	\$ •
01.03.02E	SPT- B/T/A: 200-250 FT	LF	N/A	0	\$ -
01.03.02F	SPT- B/T/A: 250-300 FT	LF	N/A	0	\$ •
01.04.00	Cone Penetration Test Soundings (ASTM D-3441):				
01.04.01	CPT - Truck/MB:				
01.04.01A	CPT - Truck/MB: 0-50 FT	LF	\$11.50	0	\$
01.04.01B	CPT - Truck/MB: 50-100 FT	LF	\$11.50	0	\$ 
01.04.01C	CPT - Truck/MB: 100-150 FT	LF	\$12.50	0	\$
01.04.01D	CPT - Truck/MB: 150-200 FT	LF	N/A	0	\$ •
01.04.01E	CPT - Truck/MB: 200-250 FT	LF	N/A	0	\$ -
01.04.01F	CPT - Truck/MB: 250-300 FT	LF	N/A	0	\$ -
.04.02	CPT - B/T/A:				
04.02A	CPT - B/T/A: 0-50 FT	LF	N/A	0	\$
01.04.028	CPT - B/T/A: 50-100 FT	LF	N/A	0	\$
1.04.02C	CPT - B/T/A: 100-150 FT	LF	N/A	0	\$ •
1.04.02D	CPT - B/T/A: 150-200 FT	LF	N/A	0	\$ L.
1.04.02E	CPT - B/T/A: 200-250 FT	LF	N/A	0	\$ •
1.04.02F	CPT - B/T/A: 250-300 FT	LF	N/A	0	\$ •
1.05.00	Rock Coring - HW Barrel (ASTM D-2113):				
1.05.01	Rock Coring - Truck/MB:				
1.05.01A	Rock Coring - Truck/MB: 0-50 FT	LF	\$35.00	0	\$ *
1.05.01B	Rock Coring - Truck/MB: 50-100 FT	LF	\$38.00	0	\$ *
1.05.01C	Rock Coring - Truck/MB: 100-150 FT	LF	\$43.00	0	\$ -
1.05.01D	Rock Coring - Truck/MB: 150-200 FT	LF	\$48.00	0	\$ iii.
1.05.01E	Rock Coring - Truck/MB: 200-250 FT	LF	\$55.00	0	\$
1.05.01F	Rock Coring - Truck/MB: 250-300 FT	LF	N/A	0	\$
1.05.02	Rock Coring - B/T/A:				
* 05.02A	Rock Coring - B/T/A: 0-50 FT	LF	N/A	O	\$ -

FEE SCHEDULE:

2015

...OJECT: SR 528 Econlockhatchee Bridge Widening

PREPARED BY:

PGS

FPID:

4/22/2016 DATE:

Item	Description	Unit	Unit Price	No of Units	Cost
01.05.02B	Rock Coring - B/T/A: 50-100 FT	LF	N/A	0	\$ •
01.05.02C	Rock Coring - B/T/A: 100-150 FT	LF	N/A	0	\$ •
01.05.02D	Rock Coring - B/T/A: 150-200 FT	LF	N/A	0	\$
01.05.02E	Rock Coring - B/T/A: 200-250 FT	LF	N/A	0	\$ •
01.05.02F	Rock Coring - B/T/A: 250-300 FT	LF	N/A	0	\$
01.06.00	Grout Seal Boreholes:				
01.06.01	Grout Boreholes - Truck/MB:				
01.06.01A	Grout - Truck/MB: 0-50 FT	LF	\$4.50	0	\$ -
01.06.01B	Grout - Truck/MB: 50-100 FT	LF	\$5.00	0	\$
01.06.01C	Grout - Truck/MB: 100-150 FT	LF	\$5.50	0	\$ 5=
01.06.01D	Grout - Truck/MB: 150-200 FT	LF	\$6.00	0	\$ :•
01.06.01E	Grout - Truck/MB: 200-250 FT	LF	\$6.50	0	\$ -
06.01F	Grout - Truck/MB: 250-300 FT	LF	N/A	0	\$ -
U1.06.02	Grout Boreholes - B/T/A:				
01.06.02A	Grout - B/T/A: 0-50 FT	LF	N/A	0	\$ ); <b>=</b> 1
01.06.02B	Grout - B/T/A: 50-100 FT	LF	N/A	0	\$ 
01.06.02C	Grout - B/T/A: 100-150 FT	LF	N/A	0	\$ -
01.06.02D	Grout - B/T/A: 150-200 FT	LF	N/A	0	\$ *
01.06.02E	Grout - B/T/A: 200-250 FT	LF	N/A	0	\$ (
01.06.02F	Grout - B/T/A: 250-300 FT	LF	N/A	0	\$ -
01.07.00	Temporary Casing:				
01.07.01	3" Temp. Casing - Truck/MB:				
01.07.01A	3" Casing - Truck/MB: 0-50 FT	LF	\$9.00	0	\$ •
1.07.01B	3" Casing - Truck/MB: 50-100 FT	LF	\$10.00	0	\$ 
1.07.01C	3" Casing - Truck/MB: 100-150 FT	LF	\$12.00	0	\$ -
1.07.01D	3" Casing - Truck/MB: 150-200 FT	LF	\$14.00	0	\$ •
1.07.01E	3" Casing - Truck/MB: 200-250 FT	LF	\$16.00	0	\$ -
1.07.01F	3" Casing - Truck/MB: 250-300 FT	LF	N/A	0	\$
77.02	3" Temp. Casing - B/T/A:				

ROJECT: SR 528 Econlockhatchee Bridge Widening

FEE SCHEDULE:

2015

PREPARED BY:

PGS

FPID:

DATE:

4/22/2016

Item	Description	Unit	Unit Price	No of Units	Cost
01.07.02A	3" Casing - B/T/A: 0-50 FT	LF	N/A	0	\$ -
01.07.02B	3" Casing - B/T/A: 50-100 FT	LF	N/A	0	\$ -
01.07.02C	3" Casing - B/T/A: 100-150 FT	LF	N/A	0	\$ ~
01.07.02D	3" Casing - B/T/A: 150-200 FT	LF	N/A	0	\$ -
01.07.02E	3" Casing - B/T/A: 200-250 FT	LF	N/A	0	\$ -
01.07.02F	3" Casing - B/T/A: 250-300 FT	LF	N/A	0	\$ -
01.07.03	4" Temp. Casing - Truck/MB:				
01.07.03A	4" Casing - Truck/MB: 0-50 FT	LF	\$10.00	0	\$ -
01.07.03B	4" Casing - Truck/MB: 50-100 FT	LF	\$12.00	0	\$ -
01.07.03C	4" Casing - Truck/MB: 100-150 FT	LF	\$14.00	0	\$ -
01.07.03D	4" Casing - Truck/MB: 150-200 FT	LF	\$16.00	0	\$ -
01.07.03E	4" Casing - Truck/MB: 200-250 FT	LF	\$18.00	0	\$ -
97.03F	4" Casing - Truck/MB: 250-300 FT	LF	N/A	0	\$ -
01.07.04	4" Temp. Casing - B/T/A:				
01.07.04A	4" Casing - B/T/A: 0-50 FT	LF	N/A	0	\$ -
01.07.04B	4" Casing - B/T/A: 50-100 FT	LF	N/A	0	\$ -
01.07.04C	4" Casing - B/T/A: 100-150 FT	LF	N/A	0	\$ -
01.07.04D	4" Casing - B/T/A: 150-200 FT	LF	N/A	0	\$ -
01.07.04E	4" Casing - B/T/A: 200-250 FT	LF	N/A	0	\$ -
01.07.04F	4" Casing - B/T/A: 250-300 FT	LF	N/A	0	\$ -
1.08.00	Extra SPT Samples:				
1.08.01	Extra SPT Samples - Truck/MB:				
1.08.01A	Extra SPT Samples - Truck/MB: 0-50 FT	EA	\$35.00	0	\$ -
	Extra SPT Samples - Truck/MB: 50-100 FT	EA	\$37.00	0	\$ -
	Extra SPT Samples - Truck/MB: 100-150 FT	EA	\$75.00	0	\$ -
	Extra SPT Samples - Truck/MB: 150-200 FT	EA	\$90.00	0	\$ -
	Extra SPT Samples - Truck/MB: 200-250 FT	EA	\$105.00	0	\$ -
	Extra SPT Samples - Truck/MB: 250-300 FT	EA	N/A	0	\$ -
	Extra SPT Samples - B/T/A:				

. . .OJECT: SR 528 Econlockhatchee Bridge Widening

FEE SCHEDULE:

2015

PREPARED BY:

PGS

FPID:

DATE:

**4/22/2016** 

item	Description	Unit	Unit Price	No of Units	Cost
01.08.02A	Extra SPT Samples - B/T/A: 0-50 FT	EA	N/A	0	\$ -
01.08.02B	Extra SPT Samples - B/T/A: 50-100 FT	EA	N/A	0	\$ -
01.08.02C	Extra SPT Samples - B/T/A: 100-150 FT	EA	N/A	0	\$ •
01.08.02D	Extra SPT Samples -B/T/A: 150-200 FT	EA	N/A	0	\$ •
01.08.02E	Extra SPT Samples - B/T/A: 200-250 FT	EA	N/A	0	\$ -
01.08.02F	Extra SPT Samples - B/T/A: 250-300 FT	EA	N/A	0	\$ -
01.09.00	Undisturbed Samples (ASTM D-1587):				
01.09.01	Undisturbed Samples - Truck/MB:				
01.09.01A	Undisturbed Samples - Truck/MB: 0-50 FT	EA	\$120.00	0	\$ -
01.09.01B	Undisturbed Samples - Truck/MB: 50-100 FT	EA	\$140.00	0	\$ •
01.09.01C	Undisturbed Samples - Truck/MB: 100-150 FT	EA	\$240.00	0	\$ S <b>=</b> 1
01.09.01D	Undisturbed Samples - Truck/MB: 150-200 FT	EA	\$300.00	0	\$ -
09.02	Undisturbed Samples - B/T/A:		gr=	***************************************	
U1.09.02A	Undisturbed Samples - B/T/A: 0-50 FT	EA	N/A	0	\$ 13 <b>4</b> 5
01.09.02B	Undisturbed Samples - B/T/A: 50-100 FT	EA	N/A	0	\$ 5 <b>9</b> 0
01.09.02C	Undisturbed Samples - B/T/A: 100-150 FT	EA	N/A	0	\$ •
01.09.02D	Undisturbed Samples - B/T/A: 150-200 FT	EA	N/A	0	\$
01.10.00	Drill Rig and Crew (Clearing/Difficult Access)				
01.10.01	Orill Rig and 2-Man Crew - Truck/MB	HR	\$200.00	0	\$ -
01.10.02	Drill Rig and 2-Man Crew - B/T/A	HR	\$300.00	0	\$ -
01.10.03	Drill Rig and 3-Man Crew - Truck/MB	HR	\$250.00	1	\$ 250.00
01.10.04	Drill Rig and 3-Man Crew - B/T/A	HR	\$375.00	0	\$ -
1.11.00	Drill Mud Contain/Disposal				
1.11.01	Drill Mud Contain/Disposal - Truck/MB	EA	\$200.00	0	\$ -
1.11.02	Drill Mud Contain/Disposal - B/T/A	EA	\$400.00	0	\$
1.12.00	Hand Probing/Wash Borings				
1.12.01	Hand Probing/Wash Borings - 2 Person Crew	HR	\$125.00	0	\$ 5 <b>-</b> 0
1.12.02	Hand Probing/Wash Borings - 3 Person Crew	HR	\$175.00	0	\$ -
13.00	Field Permeability Test	F:			

### **ENUMBER OF SERVICES**

FEE SCHEDULE:

2015

rkOJECT: SR 528 Econlockhatchee Bridge Widening

PREPARED BY:

PGS

FPID:

4/22/2016 DATE:

item	Description	Unit	Unit Price	No of Units	Cost
01.13.01	Field Permeability Test (0-10')	EA	\$300.00	2	\$ 600.00
01.13.02	Field Permeability Test (10-25')	EA	\$400.00	0	\$ •
01.14.00	Temporary Piezometer				
01.14.01	Temporary Piezometer (0-50')	LF	\$25.00	0	\$ •
01.14.02	Temporary Plezometer Locking Assembly	EA	N/A	0	\$ -
01.15.00	Pavement Cores (Excluding MOT)	EA	\$100.00	0	\$ -
01.16.00	Ground Surface D.R.I	EA	\$500.00	0	\$ ·
01.17.00	Field Vane Shear Strength	EA	\$400.00	0	\$ (***
01.18.00	Dilatometer Sounding	HR	\$240.00	0	\$ •
01.19.00	Ground Penetrating Radar Crew - 2 Person	HR	\$250.00	0	\$ Œ.
01.20.00	CPT Data Reduction	EA	N/A	0	\$ -
01.21.00	Maintenance of Traffic		011		
21.01	MOT - Barricades	DAY	\$50.00	0	\$ -
01.21.02	MOT - Flashing Arrowboard	DAY	\$125.00	0	\$ -
01.21.03	MOT - Law Enforcement Officer	DAY	\$400.00	0	\$ -
01.21.04	MOT - Crash Truck	DAY	\$1,500.00	0	\$ _
01.21.05	MOT - Support Vehicle	DAY	\$40.00	0	\$ -
01.21.06	MOT - Signs	DAY	\$40.00	1	\$ 40.00
01.21.07	MOT - Certified Traffic Control Specialist	HR	\$75.00	0	\$ 125
01.22.00	Other Support Services				
1.22.01	Support Vehicle	DAY	\$50.00	0	\$ 1.00
1.22.02	Support Boat	DAY	\$200.00	0	\$ •
1.22.03	Heavy Equipment	DAY	N/A	0	\$ -
1.22.04	GPS Unit	DAY	\$45.00	0	\$ (4)
2.00.00	GEOTECHNICAL LABORATORY TESTING SERVICES				
2.01.00	Grain Size Analysis:				
2.01.01	Full Gradation	EA	\$60.00	4	\$ 240.00
2.01.02	Single Sieve	EA	\$36.00	0	\$ •
72.00	Hydrometer (FM 1-T 88)	EA	\$150.00	0	\$ *

FEE SCHEDULE:

2015

SR 528 Econlockhatchee Bridge Widening

PREPARED BY:

PGS

FPID:

DATE:

4/22/2016

ltem	Description	Unit	Unit Price	No of Units	Cost
02.03.00	Organic Content (FM 1-T 267)	EA	\$40.00	1	\$ 40.00
02.04.00	Atterberg Limits:				
02.04.01	Atterberg - Liquid Limit	EA	\$38.00	<b>1</b> m	\$ 38.00
02.04.02	Atterberg - Plastic Limit	EA	\$38.00	1	\$ 38.00
02.05.00	Natural Moisture Content (FM 1-T 265)	EA	\$11.00	2	\$ 22.00
02.06.00	Unit Weight	EA	\$40.00	0	\$ •
02.07.00	Consolidation (FM 1-T 216)	EA	\$450.00	0	\$ -
02.08.00	Permeability (FM 1-T 215/5-513)	EA	\$250.00	0	\$ •
02.09.00	Corrosion Series (pH, Sulfate, Chloride, Resistivity)	EA	\$145.00	1	\$ 145.00
02.11.00	Unconfined Compression:				
02.11.01	Unconfined Comp Soil	EA	\$225.00	0	\$ -
02.11.02	Unconfined Comp Rock	EA	\$150.00	0	\$ -
12.00	Limerock Bearing Ratio (FM 5-515)	EA	\$330.00	0	\$ -
02.13.00	Specific Gravity (FM 1-T 100)	EA	\$55.00	0	\$ -
02.14.00	Bitumen Extraction (FM 1-T 164)	EA	\$90.00	0	\$ -
02.15.00	Aggregate Gradation (FM 1-T 30)	EA	\$60.00	0	\$ -
02.16.00	Direct Shear (ASTM D-3080)	EA	\$230.00	0	\$ -
2.17.00	Shrinkage Factor (FM 1-T 092)	EA	\$50.00	0	\$ •
2.18.00	Swell Potential (ASTM D-4546)	EA	\$50.00	0	\$ -
2.19.00	Proctor Compaction (FM 5-521/525)	EA	\$100.00	0	\$ 
2.20.00	Splitting Tensile (ASTM D-3967)	EA	\$150.00	0	\$
3.00.00	GEOTECHNICAL ENGINEERING AND TECHNICAL SERVICES				
3.01.00	Senior Engineer	HR	\$135.63	11	\$ 1,491.93
3.03.00	Project Engineer	HR	\$133.38	29	\$ 3,868.02
3.04.00	CADD/Computer Technician	HR	\$83.09	2	\$ 166.18
	GEOTECHNICAL MAN HOUR TOTAL	42	GEOTEC	HNICAL TOTAL	\$ 7,889.13
4.00.00	CONTAMINATION FIELD EXPLORATION				
	CONTAMINATION MAN HOUR TOTAL	0	CONTAMIN	IATION TOTAL	\$ -
			AFP	ADJUSTMENT	\$ -

FEE SCHEDULE:

2015

**PREPARED BY:** 

PGS

FPID:

SR 528 Econlockhatchee Bridge Widening

DATE:

4/22/2016

item	Description	Unit	Unit Price	No of Units	Cost
	PROPOSAL MAN HOUR TO	<b>FAL</b> 42	PRO	OPOSAL TOTAL	\$ 7,889.13



Pebruary S, 2016

From: Danny Williams, IN PSM

Central Floride Expressway Authority (CFX) SR 528 Bridge Replacement over the Econ River Project No. 528-131 Contract No. 001088

#### Additional Scape of Services

WBQ Design & Engineering, inc. additional scope of services for the survey of the pend and beauting Roadway at NW Quadrant of Delies Interchange. The office and field survey will include the below referenced tests.

#### Survey

- additional horizontal and vertical control as required.
- Pond Site and boarding roadway Survey. NW Quad of Dalias Intersection

  Work Zone Selety. MOT as appropriate to maintain safe work zone to traveling public and field survey crew.
- QA/QC
- Supervision
- Coordination

### ESTIMATE OF WORK EFFORT AND COST - PRIME CONSULTANT

Name of Project: County FPN

SR 528 Bridge Replacement over the Econ River

Orange

Consultant Name: WBQ Design & Engineering, Inc. Consultant No.: enter consultants proj number Date: 4/22/2016

FAP No. 528-131 Estimator. sup for pone and resowery at NW Dates r Total Staff Project Germay Staff Chessionalis Sr. Serveyor 8 Surveyor & Staff Chessi-Stuff Cheek. Stuff Classi-Staff Chasi-Staff Classi-Staff Charles House Fron Stuff Classic Mapper fication 6 Scation 7 Scation 18 fication 11 3H **Fication 12** Ву Cost By Rate Per Summers Fem \$0.00 \$48.25 \$30.67 \$22.00 \$0.00 50.08 EG 00 50.00 50.00 50.00 \$0.00 3 Project General and Project Common Tenks 0 0 Roadway Analysis 0 #DIVAGE 0 q 9 o -Routery Plans . а . \$8 4DN/01 0 8 3 G . 0 \$0 Drainage Analysis #DM/ADI 0 а 0 8 . 0 Udious . 0 20 #DIV/OI 0 0 0 0 0 ٥ a 8 0 . \$0 DIVIU: Environmental Permits, Compliance & Clearant 9 ¢ 8 0 e 0 0 0 50 **ACIAVINI** Structures - Misc Tasto, Dwgs, Non-Tech ñ 0 n 0 D 0 . 0 100 to Sinuctures - Bridge Development Report. 0 /ON/O 0 0 9 . 0 ā 0 8 0 0 **F**0 11 Bruchires - Temporary Bridge #DIVIO Ω . 0 0 ٥ 0 \$8 12 Structures - Short Span Concrete Bridge #DM/DB 0 0 3 a 0 0 13 Structures - Medium Span Concrete Bridge . . 50 #D(V/01 0 9 0 0 0 ۵ 0 50 . #DN/ID! 14 Structures - Structural Strell Bridge 0 8 0 0 ۵ 0 0 50 15. Structures - Segmental Concrete Bridge 0 #DN/DI 0 0 a 6 Þ 0 ٥ 0 #DIV/0! 16 Structures - Movable Span 0 a g. 0 0 ò 0 0 20 C 406/69 17 Structures - Retaining Walls 0 0 0 0 0 0 0 0 a 0 0 \$8 #DIV/OI 18 Structures - Miscellaneous 0 n 8 0 D 0 . 0 50 CON/EN 19 Soring & Pavement Marking Analysis G a • D 0 0 . 0 50 **FDMOI** 20 Signing & Personners Marking Plans . 3 0 a 0 0 0 **3**0 **FONOS** 21 Signalization Analysis . 0 9 0 0 0 0 C 0 #DM/04 22 Seculation Plans . . o a 9 0 . 0 \$0 6 #DM/DI 23 Lighting Analysis . • 0 0 0 e Q ٥ 0 . . \$0 #DIV/QI 24 Lighting Plans 0 ۵ G 0 ٥ 0 . 0 0 #DN/O! 25 Landscape Architecture Armheis 0 Û Q 0 0 0 . 20 #DN/OI Landscape Architecture Plans G 0 0 0 23 0 a 0 . 20 #DRV/DI 27 Survey (Field & Office Support) 6 a Ġ 0 . 0 6260 \$25.06 28. Photogrammetry 0 0 0 0 0 0 5 0 #DIV/OI 29. Mapping 0 9 0 0 0 ò . 0 \$DB//01 0 30. Terrestrial Mobile LiDAR 0 a . 0 ø à 0 0 0 . **SD IDM/ID** 31 Architecture Development 0 ø ۵ . 0 ٥ 0 **S**0 #DN/01 32 Noise Barriers Impact Design Ass . q . . á 0 ٥ 0 80 #DAARI 33 Inteligent Transportation Systems Analysis . 6 0 . ٥ 0 . 0 a 0 \$0 POIVO! 34 Intelligent Transportation Systems Plans 0 D. #DIV/0! 0 35 Geolochvicol #DIMB! **Total Staff Hours** 0 4 0 0 0 0 9 Total Staff Cost 90 00 \$48.25 5123 48 \$88.00 \$0.00 50 00 \$0.00 \$0.00 50.00 \$0.00 \$0.00 \$0.00 \$29.86

> Survey Field Days by Subconsultant 4 - Person Crew

1. This sheet to be used by Prime Consultant to calculate the Grand Total fee.

2 Manually enter fee from each subconsultant. Unused subconsultant rows may be hidden

T. IAA W. T.				#E38.13
Total Multiplier	182.49%			\$473.98
OPERATING MARGIN:	11.24%			\$82.47
FCCM (Facilities Capital Cost Money):				\$0.00
EXPENSES:				\$0.00
	4-man crew			
Survey (Field - if by Prime 2	10 hr days @	\$ 1,902.73	/ day	\$3,805 48
SUBTOTAL ESTIMATED FEE:				\$4,621,64
Subconsulta Enter Name Sub 1				\$0.00
Subconsulta Sub 2				80.00
Subconsulta Sub 3				\$0.00
Subconsulta Sub 4				\$0.00
				40.00
Subconsulta Sub 5				\$0.00
Subconsulta Sub 6				\$0.00
Subconsulta Sub 7				80.00
Subconsulta Sub 8				\$0.00
Subconsulta Sub 9				\$0.00
Subconsulta Sub 10				\$0.00
Subconsulta Sub 11				\$0.00
Subconsulta Sub 12				80.00
SUBTOTAL ESTIMATED FEE:				\$4,521.64
Geotechnical Fleld and Lab Testing				\$0,00
SUBTOTAL ESTIMATED FEE:				\$4,621.64
Optional Services				\$0.00
GRAND TOTAL ESTIMATED FEE:				\$4,621.64

SALARY RELATED COSTS:

Check =

\$259.73

**\$250.73** 

Estimator: D, Williams
4/8/2016 Sup for pond and boarding roadway NW Quad Dallas\_rev

SR 528 Bridge Replacement over the Econ River

Task	Units	No of Units	Floid Grow Days/Usit	Creur	Finid Support Hours / Creer Days	Field Support	Office Support Hours / Crew Days	Office Support	Comments
prizontal Project Control (HPC)				-		Hours			
Laine Roadway	Mile			0.00		0.00	F	0.00	
Mi-lane Roadway	points			0.00		0.00		0.00	Set additional control points for Project Control. This control datum will based on local project control as provided by CFX (AAF information)
nestale	Mile	0 20	3.25	0.65	0.50	0.33	400	2 60	A CALL MANIMOND
rtical PC / Bench Line		-							
ane Roadway	Mile			000		0.00	Γ	0.00	Vertical PC / Bench Line. 3 wire bench run thru points set in 27.1. This
Mi-lane Roadway	Miles			0.00		0,00	ļ	0.00	control datum will be NAVO 88 based on local project control as provide
erstrie	Mile	0 15	1,75	0.2625	0.50	0 13	3.00	0.79	by CFX (AAF information)
gnment and Existing R/W Lines				_					
	mile			0.00		0.00		0.00	N/A
rial Targets			Units/Day						
0 scale	EA			0.00		0.00	1	0.00	
O scale	EA			0,00		0.00		0.00	N/A
ersiate	EA			0.00		0.00		0.00	
ference Paints	"A"	_	Units/Day						
Lane Roadway	EA			0.00		0.00		0.00	
ulti-tane Roadway	EA			0.00		0.00		0.00	N/A
eratelo	EA			0.00		0.00		0.00	
ference Points	-8-		Units/Day						
on Alignment Points/Approximate	EA			0,00		0.00		0 00	
pography/DTM (3D)									
	Alije	0.15	6.50	0 9750	0.25	0 24	4,00	3,90	Topo of pond and boarding roadway at Dallas NW intersection
mimetric (20)									N/A
2000 2016 20 22 - or c	Mile			0.00		0 00		0.00	THEFT
ederay Cross-Sections/Profiles	-			0.00					N/A
le Street Surveys	64			UAU		0,00		0,00	
adway Cross-Se		89	octions/Profiles 89	octions/Profiles 84	ctions/Profiles 0.00	ctions/Profiles eq 0.00	ctions/Profiles 88 0.00 0.00	ctions/Profiles 0.00 0.00	######################################

#### Project Activity 27: Survey

Task No.	Tenk	Velts	No of Units	Field Crew Days/Unit	Crew Days	Field Support Hours / Crew Days	Support Hours	Office Support Hours / Crew Days	Office Support Hours	Corresponda
27 10	Underground Utilities							-		
	Designates	Mile/Site			0.00		0.00		0.00	
	Locales	Point			00,0		0 00		0.00	N/A
	Survey		0%	0.00	0.00		0.00		0.00	
27 11	Outfall Survey									N/A
		Shile			0.00		0.00		00.00	N/A
27 12	Drainage Survey			Units/Day						Mia
		EA			0.00		0.00		0,00	N/A
27,13	Bridge Survey									
	Minor / Major	EA			0.00		0.00		0.00	N/A
27 14	Channel Survey									
		EA			0.00		0.00		0.00	N/A
27 15	Pand Site Survey									A410
		EA			00,0		0.00		0.00	N/A
27 16	Mitigation Survey									
		Mile			0.00		0.00		8.00	N/A
27 17	Jurisdiction Line Survey									A.V.
		Mile			0.00		0 00		0,00	N/A
27.18	Geotechnical Support			Units/Day					`	
		EA			0 00		0.00		0.00	N/A
27.19	Sectional / Grant Survey									
		Corner			0.00		0.00	T	0.00	N/A
		Mile			0.00		0.00		0.00	
27.20	Subdivision Location			-	-				-	
		subs			0.00		0.00		0.00	<b>N/A</b>
27.21	Maintained R/W									
		Mile			0.00		0.00		0.00	N/A
27,22	Boundary Survey							10		ANA
		EA			0.00		0.00	1	0.00	NA
27.23	Water Boundary Survey					*				N. A.
		EA			0.00		0.00		0.00	N/A
27:24	RAW Stalding / RAW Line									Anna .
		EA			0,00		0.00	T	0.00	N/A
		Mite			0,00		0.00		0.00	
27.25	R/W Monumentation									
27.25	IN MONITONIZATION	Point			0.05		0.00			N/A
		POST			0.00		0.00		0.00	

#### Project Activity 27: Survey

ank No.	Tank	Units	No of Units	Field Crew Days/Unit	Crew Days	Fleid Support Hours / Crew Days	Field Support Hours	Office Support Hours / Grew Days	Office Support Hours	Comments
27 26	Line Cutting									
		Mile			0.00					N/A
27.27	Work Zone Safety									MOT as appropriate to maintain safe work zone to traveling public and
			4	0 125	0,50					field survey crew.
27 28	Miscellaneous Surveys									N/A
					0.00		0 00		0.00	NA
	Survey Subtotal			Crow Days	2	Fleid Support Hours	1	Office Support Hours	7	
27 29	Supplemental Surveys									THE STAN COLUMN TO SERVICE A SERVICE AS A SE
			0%	2	0		0		0	THIS ITEM CAN ONLY BE USED IF AUTHORIZED BY CFX
27 30	Document Research	Units								Review provided AAF topo/DTM information
									0	Coversor Storages Storage (Storage Storage)
27,31	Field Reviews	Units								
									0	
27,32	Technical Meetings	LS	-		-					N/A
27.33	Quality Assurance / Quality Control	LS	-	L						
			(E.S.)	N. A. S.	25/97	S COLUMN	100	5%	0	Sr. PSM
27.34	Supervision	LS					-	-	-	
			0.50	100		St. 1256-1574		5%	0	Sr PSM
27.35	Coordination	LS								Sr. PSM
					ATPL A			3%	0	of Pow
		27. Sa	rvey Total	Crew Days	2	Fleid Support Hours	1	Office Support Hours		

PLS = Office Support = Total Hours =

Kickoff Meeting with CFX	EA	٥	Q	0
Baseline Approval Review	EA	0	0	o
Network Control Review	EA	Ð	0	٥
Vertical Control Review	EA	0	0	Q
Local Governments (cities, counties)	EA	0	۵	0
Final Submittal Review	EA	0	0	٥
Other Meetings	EA	0	0	o
Subtotal Technical Meetings				6
Progress Meetings	EA	Ð	0	0
Phase Review Meetings	EA	0	0	0
Yotal Meetings	_			
•				Carries to 27 3

Note: Project Manager attendance at progress, phase and field review steadings are manually eclared on General Task 3

#### Parsons Brinckerhoff

# SR 528 ECONLOCKHATCHEE BRIDGE WIDENING TO DALLAS BLVD PROJECT № 528-131

# Supplemental No. 1B Scope of Services

#### Supplemental Services Description:

This supplemental request covers additional services for the design of MSE Walls, associated drainage system, and final grading for Ali Aboard Florida (AAF) improvements.

CFX has advised that with the final execution of their agreement with AAF, CFX will be required to maintain the newly acquired area south of SR 528. To allow for maintenance, the area will be graded to allow for drainage flow, provide connections between SR 528 and the AAF service road, and other related operations and maintenance activities.

During the course of design, it was determined that certain cost benefits would occur by building portions of the ultimate improvements as part of this contract and as a result, a MSE wall system along the north side of SR 528 is needed to contain the proposed embankment along the north side of the proposed SR 528 improvements to avoid encroachment beyond the existing right-of-way. This work will be consistent with the CFX SR 528 8-Lane Concept Study which includes an ultimate 10-lane section in the project area. As part of this work, a storm sewer system will be installed that will be compatible with the anticipated future profile adjustments for the ultimate improvements.

During the geotechnical investigations for this project, some muck areas were found that require removal prior to embankment placement, which in turn will affect the existing IT lines. To address these impacts and removal activities, temporary IT lines will be installed initially. After the final embankment is placed, the permanent IT lines will be installed to match the new, raised profile which will allow more efficient access to these lines.

The services under this supplemental include additional project plan sheets for the MSE walls, storm sewer system, drainage map revisions, plan and profile sheets, updated cross-sections, final grading for AAF, environmental dredge and fill sketches, temporary IT lines, and other related changes.

We estimate the above additional work will impact our schedule by three weeks.

#### ESTIMATE OF WORK EFFORT AND COST - PRIME CONSULTANT

Name of Project County: FPN: FAP No. SR 528-131

SUPPLEMENTAL ADDITIONAL SERVICES NO. 18 - MISE WALLS AND FINAL AAF GRADING

Consultant Name: Persons Brinckerhoff Consultant No.: 528-131

Date: 4/22/2016

Staff Classification	Hours From	Manager	Senior Engineer	Engineer	Designer	CADD Support	Structures	Senior Struct	Baract Proj	Struct	Engineer	Structures	Steff Classi-	ensert name	Salary	Average
	Summery -	\$79.10	-			E - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -	Manager	Eng	Engineer	Engineer	intern	Designer	Sication 12	By	Cost By	Rate Per
3. Project General and Project Common Tasks			\$69.17	\$63,14	H5.28	634.65	\$8.00	\$86,48	\$9.00	537.38	\$0.00	\$0.00	50.00	Activity	Activity	Tack
Roadway Analysis	11	11	0		0	0 1	9	0	0	0	0	0	0	11	\$871	\$79 16
Roadumy Plans	144		26	37	28	36	0	0	0	0	0	0		144	\$7,355	\$51 07
10	133		24	35	23	33	0	0	٥	0	0			133	\$6,791	\$51.06
5 Draintage Analysis 7 Lutteres	29	2	5	7	7	0	0	0	0	0		0	0	29	\$1,470	\$50.70
	0	0	0		0	0	٥	0	0	0				~	*1,410	\$0.00
Environmental Pennils, Compliance & Clearances		6	19	25	25	23	0	1 6 1	0	6	ا ه			99	\$5,100	
9 Structures - Misc. Tauts, Dags, Non-Tech.	52	3	0	G.	0	0	0	12	0	37				52	\$2,454	\$51.51
10, Structures - Bridge Development Report	0	0	0	0	0		0	0		"				🛣	\$2,454	\$47.20
11, Sinutures - Temporary Bridge	0	0	e e	0	٥		0		0	ا م	ľ		١	"	\$0	#DIV/OI
12 Sitructures - Short Spain Concrets Bridge	٥	0	6		a		D	1 6 1	0		l °		"		\$0	30.00
13. Structures - Medium Span Concrete Bridge	0	0	0	0	0		٥		0		;		"	0	\$0	30.00
14. Structures - Structural Steel Bridge	0	0	0		0	6		0			, a		"		\$0	#DIV/0!
15. Structures - Segmental Concrete Bridge	0	0	0	0	٥	ا ه ا			0	١٠	l °			0	\$0.	\$0.00
16. Structures - Movable Span	٥	0	0		٥	1 6 1	ő	ا د ا		١،	"	9	0	0	\$0	\$0.00
17 Structures - Retaining Wells	278	17	0		0	ا ہا		62		199	l "		0	0	80	\$0.00
18. Structures - Miscellaneous	0	0	0	۵	, i			0 0	ŏ	100		9	0	278	\$13,092	\$47.09
19 Signing & Pavement Marking Analysis		0	6		a	1 1	š				9	0	0	0	80	#DFV/01
20. Signing & Pevernent Marking Plens	0	0				;	ž	ا ۱	0	1 "		0	0	0	92	<b>80 00</b>
21. Signafization Artalysis	0	1 6	0		1 7		ž						a	a	30	\$0,00
22. Signalization Plans	, i	1 6			ő				0	"		0	٥	0	80	\$0.00
23. Lighting Analysis	ň	1 6 1	,		0						0	0	0	D	50	\$0.00
24 Lighting Plans			4		5					0		0	0	0	\$0	20 00
25 Landacape Architecture Analysis	, i				,	1 1		, ,	0	0	0	5	9	0	\$0	\$0.00
26 Landscape Architecture Plans	,				ŏ	1 6 1	5	"	0	0	0	0	0	0	\$0	<b>\$0</b> 00
27 Survey (Field & Office Support)	يّ ا					1 0 1		0 1	9	0	0	٥	0	0	\$0	\$0.00
26 Photogrammetry	١				Q .		0		3	0	D	0	0	0	80	\$0.00
29 Mapping	١		0		0	0	٥	0	0	0	0	0	0	0	\$0	SD.00
30 Geolechnical	,		3		0	0	٥	0	e	0	6	0	0	0	\$0	\$0.00
31 Architecture Development	, i	1 2 1			P .	0	0	0	Đ	0	8	0	0	0	\$0	\$0.00
32 Noise Barriers Impact Design Assessment	"		9		0		0	0	0	0	9	0	0	0	\$0	\$0.00
33. Intelligent Transportation Systems Analysis	"		8		0	0 1	0	0	9	۵	٥	0	0	0	\$0	\$0,00
34 Infoligent Transportation Systems Plans	U			0	D D	0	0	0	0	a	0	0	0	0	30	\$3.00
Total Staff Hours	- 0	0		0	- 8	-	_ 0	0	0	0	0	0	D	0	- 80	90.00
Total Staff Hours Total Staff Cost	746	56	74	105	101	100		74	0	238	0	0	0	745		
t cash bedr Cost		\$4,432.56	\$5,118.58	\$5,579.70	\$4,573,28	\$3,465 00	\$0.08	\$5.141.52	\$3.00	\$8.821.68	\$0.00	\$0.00	\$0.00		\$37,122.72	549.78

Survey Field Days by Subconsultant 4 - Person Cree:

Medica

1 This sheet to be used by Prime Consultant to calculate the Grand Total fee

2. Manually enter fee from each subconsultant. Unused subconsultant rows may be hidden.

SALARY RELATED COSTS: \$37,132,72 OVERHEAD: 153.94% \$57,162.11 OPERATING MARGIN: 12% \$11,315.38 FCCM (Facilities Capital Cost Money): 0.00% LUMP SUM EXPENSES: 4-man crew Survey (Field - if by Prime 0 SUBTOTAL ESTIMATED FEE: days (2) / day \$105,610,21 Subconsulta Antillian \$30,728.39 Subconsulta GEC Subconsulta VHB \$8,102.81 Subconsulta WBQ Subconsulta Mickim and Creed

Check = \$37,132.72

SUBTOTAL SUBCONSULTANTS: \$38,831.20

GRAND TOTAL ESTIMATED FEE;

\$144,441.41

### Project Activity 3: Project Common and Project General Tasks

#### Estimator.

Task No.	Task	Units	No of Units	Hours/ Unit	SUPPL	Comments
3.1	Public Involvement		1	0	0	
3.1.1	Community Awareness Plan	LS	1	0	0	
3.1.2	Notifications	LS	1	0	0	
3.1,3	Prepare Mailing Lists	LS	1	0	0	
3.1.4	Median Modification Letters	LS	1	0	0	
3.1.5	Driveway Modification Letters	LS	1	0/	0	
3.1.6	Newsletters	LS	1	0	0	
3.1.7	Renderings and Fly Throughs	LS	1	0	0	
3.1.8	PowerPoint Presentation	LS	1	0	0	
3.1.9	Public Meeting Preparations	LS	1	0	0	
3.1.10	Public Meeting Attendance/Followup	LS	1	0	0	
3.1.11	MPO Meetings	LS	1	0	0	
3,1,12	Web Site	LS	1	0	0	
	3.1 Public Involvement St	ubtotal		-	0	
3.2	Quality Control Plan	EA	1	0	0	
3.3	Specifications Package Preparation	LS	1	0	0	
3.4	Contract Maintenance	LS	1_	0	0	
3.5	Value Engineering (Multi-Discipline Team) Review	LS	1	0	0	
3.6	Prime Consultant Project Manager Meetings	LS	1	11	11	See Listing Below
3.7	Plans Update	LS	1	0	٥	
3.8	Post Design Services	LS	1	0	0	
3,9	Electronic Delivery	LS	1	0	0	
3.10	Other Project General Tasks	LS	1	0	0	
	3. Project Common and Pro	iect Ge	neral Ta	sks Total	11	

### Project Activity 3: Project Common and Project General Tasks

Task	Units	No of Units	Hours/ Unit	SUPPL	Comments
3.6 - List of Project Manager Meet	ings				
Roedway Analysis	EA	0	3	0	
Drainage	EA	0	3	0	
Utilities	EA	0	3	0	
Environmental	EA	0	3	0	
Structures	EA	0	3	0	
Signing & Pavement Marking	EA	0	0	0	
Signalization	EA	0	0	0	
Lighting	EA	0	0	0	
Landscape Architecture	EA	0	0	0	
Survey	EA	0	0	0	
Photogrammetry	EA	0	0	0	
ROW & Mapping	EA	0	0	0	
Geotechnical	EA	0	3	a	
Architecture	EA	0	0	0	
Noise Barriers	EA	0	0	G	
Other Meetings (AAF, SJRWMD)	EA	1	3	3	•
Bi-Weekly Progress Meetings	EA	2	4	8	Two Additional Progress Meetings
Phase Reviews	EA		3	0	
Field Reviews	EA	0	8	0	
Total Project Manager Meetings		3		11	= 1

#### Notes:

- 1. If the hours per meeting vary in length (hours) enter the average in the hoursunit column.
- 2. Do not double count agency meetings between permitting agencies.
- 3. Project manager meetings are calculated in each discipline sheet and brought forward to column D except for Photogrammetry.

Task No.	Task	Units	No of Units	Hours/ Unit	SUPPL	Comments
4.1	Typical Section Package	LS	0	3	0	
4.2	Pavement Design Package	LS	1	0	0	
4.3	Access Management	LS	1	0	0	
4.4	Horizontal/Vertical Master Design Files	LS	1	85	85	AAF and MSE Walls impact. Total length of MSE walls, Sta. 1410+00 and the western bridge abutment at Sta.1415+50, and between the eastern bridge abutment at Sta. 1418+50 and Sta. 1428+00, or approx 1500 feet. 300 Hrs/Mile x 1500/5280 = 85 Hrs.
4.5	Cross Section Design Files	LS	1	20	20	70 Hrs/Mi x 1510/5280 = 20 Hr to Integrate MSE Walls and provide maintenance access along North R/W. Adjust design to provide addition lanes for the future 10-Lane Section between station1412+35 and 1421+65
4.6	Traffic Control Analysis	LS	1	0	0	
4.7	Master TCP Design Files	LS	1	0	0	
4.8	Design Variations and Exceptions	LS	1	0	0	
4.9	Preliminary Design Report	LS	1	0	0	
4.10	Computation Book & Quantities	LS	1	12	12	Develop additional quantities associated AAF, new paving limits, guardrail, and new stormsewer.
4.11	Cost Estimate	LS	1	0	0	
4.12	Technical Special Provisions	LS	1	0	0	
4.13	Submittal Preparations	EA	5	0	0	
	Roadway An	alysis T	sts Technical Subtotal			
4.14	Field Reviews	LS	1	0	0	
4.15	Technical Meetings	LS	1	11	11	SJRWMD coordination
4.16	Quality Assurance/Quality Control	LS	%	5%	6	
4.17	Independent Peer Review	LS	%	0%	0	
4.18	Supervision	LS	%	5%	6	
	Roadway Analys	sis Nont	echnical	Subtotal	23	
4.19	Coordination	LS	%	3%	4	
	4	. Roadw	ay Anely	rsis Total	144	

-			TOPOCE	LACTIAIL	108	uway Anaiysis
Task No.	Task	Units	No of Units	Hours/ Unit	SUPPL	Comments

Typical Section	EA			
Pavement	EA			
Access Management	EA			
15% Line and Grade	EA			
Driveways	EA			
Local Governments (cities, counties,	5			
MPO)	EA			
Work Zone Traffic Control	EA			
30/60/90/100% Comment Review Meeting:	EA			
Other Meetings (AAF, SJRWMD)	EA	1	3	3
Subtotal Technical Meetings		•		3
Progress Meetings	EA	2	4	8
Phase Review Meetings	EA	_	•	Ö
Total Meetings				11

Note: Project Manager attendance at progress, phase and field review meetings are manually entered on General Task 3

Task No. of No. of Task Task										
No.	Task	Scale	Units	No. of Units	SUPPLE	No. of Sheets	Total Hours	Comments		
5.1	Key Sheet		Sheet		2	0	0	Update		
5.2	Summary of Pay Items Including Quantity Input		Sheet	0	0	0	0	·		
5.3	Drainage Map		Sheet	2	6	2	12	Update for AAF Improvements, New Storm Sewer, Grading Limits		
5.4	Interchange Drainage Map		Sheet	0	0	0	0	•		
5.5	Typical Section Sheets		Sheet	2	2	2	4	Includes MSE Walls		
5.6	General Notes/Pay Item Notes		1	0	0		0			
5.7	Summary of Quantities		Sheet	2	4	2	8	MSE Walls		
5.8	Box Culvert Data Sheet		Sheet	0	6	0	0			
5.9	Bridge Hydraulics Recommendation Sheets		Sheet	0	36	0	0			
5.10	Summary of Drainage Structures		Sheet	1	12	1	12	Includes new structures for AAF and MSE walls		
5.11	Optional Pipe/Culvert Material		Sheet	0	0	0	0	7		
5.12	Project Layout		Sheet	0	12	0	0			
5.13	Plan/Profile Sheet		Sheet	0	0	0	0			
5.14	Profile Sheet		Sheet	5	3	5	15	Add Ditch Profiles for MSE Walls and AAF		
5.15	Plan Sheet		Sheet	5	3	5	15	Add, MSE Wall and Roadway Lane addition		
5.16	Special Profile		Sheet	2	4	2	8	Two Extra Sheets for Ditch profiles for AAF and Future MSE Wall to Accommodate Ultimate		
5.17	Back of Sidewalk Profile Sheet		Sheet	0	0	0	0			
5.18	Interchange Layout Sheet		Sheet	0	0	0	0			
5.19	Ramp Terminal Details (Plan View)		Sheet	0	0	0	0			
5.20	Intersection Layout Details		Sheet	0	0	0	0			
5.21	Miscellaneous Detail Sheets		Sheet	0	4	0	0			
5.22	Drainage Structure Sheet (Per Structure)		EA	1	3	1	3			
5.23	Miscellaneous Drainage Detail Sheets		Sheet	0	24	0	0			
5.24	Lateral Ditch Plan/Profile		Sheet	0	8	0	0			

SR 528 Econ River Bridges, SA 2, SMF, V7.xlsx 5. Roadway Plans

Project Activity Roadway Plans

Task No.	Task	Scale	Units	No. of Units	SUPPLE	No. of Sheets	Total Hours	Comments
5.25	Lateral Ditch Cross Sections		EA	88	0.5	88	44	MSE Walls and Final Grading for AAF
5.26	Retention/Detention Ponds Detail Sheet		Sheet	0	12	0	0	
5.27	Retention Pond Cross Sections		EA	0	1	1	0	
5.28	Cross-Section Pattern Sheet		Sheet	0	8	0	0	
5.29	Roadway Soil Survey Sheet		Sheet	0	4	0	0	
5.30	Cross Sections		EA	0	0.5		0	
5.31	Traffic Control Plan Sheets		Sheet	0	10	0	0	
5.32	Traffic Control Cross Section Sheets		EA	0	0.5		0	
5.33	Traffic Control Detail Sheets		Sheet	0	12	0	0	
5.34	Utility Adjustment Sheets		Sheet	0	8	0	0	
5.35	Selective Clearing and Grubbing		Sheet	0	7	0	0	
5.36	Erosion Control Plan		Sheet	0	8	0	0	
5.37	SWPPP		Sheet	0	6	0	0	
5.38	Project Control Network Sheet		Sheet	0	0	0	0	
5.39	Environmental Detail Sheets		LS	0	0		0	¥:
5.40	Utility Verification Sheet (SUE Data)		Sheet	0	0	0	0	
		Roadw	ay Plans	Technica	l Subtotal	109	121	
5.41	Quality Assurance/Quality Control		LS	%	5%		6	
5.42	Supervision		LS	%	5%		6	
			5. Ro	adway P	lans Total	109	133	

## Project Activity 6: Drainage Analysis

Task No.	Task	Units	No of Units	Hours/ Unit	SUPPL	Comments
6.1	Determine Base Clearance Water Elevation	Per Location	0	0	0	
6.2	Pond Siting Analysis	Per Basin	0	16	0	
6.3	Design of Cross Drains	EA	0	0	0	
6.4	Design of Roadway Ditches	Per Ditch Mile	0	0	0	
6.5	Design of Outfalls	EA	0	0	0	
6.6	Design of Stormwater Management Facility (Offsite Pond)	EA	1	0/	0	
6.7	Design of Stormwater Management Facility (Roadside Ditch as Linear Pond or Infield Pond)	Per System	0	0	0	
6.8	Design of Flood Plain Compensation Area	Per Encroachment	0	0	0	
6.9	Design of Storm Drains	EA	1	2	2	
6.10	Optional Culvert Material	LS	0	0	0	
6.11	French Drain Systems	Per 1000 Feet of French Drain	0	0	0	
6.12	Drainage Wells	EA	0	0	0	
6.13	Drainage Design Documentation Report	LS	1	16	16	For AAF and MSE Walls.
6.14	Bridge Hydraulic Report	EA	0	0	0	
6.15	Temporary Drainage Analysis	LS	1	0	0	
6.16	Cost Estimate	LS	0	8	0	
6.17	Technical Special Provisions	LS	1	0	0	
6.18	Other Drainage Analysis	LS	1	0	0	
		Orainage Analysis To	echnical	Subtotal	18	

### Project Activity 6: Drainage Analysis

Task No.	Task	Units	No of Units	Hours/ Unit	SUPPL	Comments
6.19	Field Reviews	LS	0	0	0	
6.20	Technical Meetings	LS	1	8	8	
6.21	Quality Assurance/Quality Control	LS	%	5%	1	
6.22	Independent Peer Review	LS	%	0%	0	
6.23	Supervision	LS	%	5%	1	
		Drainage Analysis No	ntechnical	Subtotal	10	
6.24	Coordination	LS	%	3%	1	
		6. Drai	nage Analy	sis Total	29	

Technical Meetings				
Base Clearance Water Elevation	EA			
Pond Siting	EA			
Agency	EA	1	8	8
Local Governments (cities, counties)	EA			
CFX/Atkins Drainage	EA			
Other Meetings (Bi- weekly Team Meetings)	EA			
Subtotal Technical Meetings				
Progress Meetings (if required by CFX)	EA			
Phase Review Meetings	EA		5	
Total Meetings	-			8

Carries to 6.20

Note: Project Manager attendance at progress, phase and field review meetings are manually entered on General Task 3

## Project Activity 8: Environmental Permits, Compliance and Clearances

Task No.	Task	Units	No. of Units	Hours/ Units	SUPPLE	Comments
8.1	Preliminary Project Research	LS	1	0	0	
8.2	Complete Permit Involvement Form	LS	1	0	0	
8.3	Establish Wetland Jurisdictional Lines and Assessments	LS	0	8	0	
8.4	Agency Verification of Wetland Data	LS	1	0	0	
8.5	Complete And Submit All Required Permit Applications	LS	1	8	8	Update for AAF.
8.6	Prepare Dredge and Fill Sketches	LS	1	80	80	Prepared, Modify Plans to Reflect Wetland Impacts, 2 Drain Maps, 8 Plan sheets @ 8 Hrs Ea
8.7	Prepare USCG Permit Sketches	LS	1	0	0	Not Included
8.8	Prepare Water Management District Right-of-Way Occupancy Sketches	LS	1	0	0	
8.9	Prepare Coastal Construction Control Line (CCCL) Permit Application	LS	1	0	0	
8.10	Prepare Tree Permit Information	LS	1	0	0	Not Included
8.11	Mitigation Coordination and Meetings	LS	1	0	0	RHPZ & Wetlands - Not Required
8.12	Mitigation Design	LS	1	0	0	Not Included
8.13	Environmental Clearances and Technical Support	LS	1	0	0	Nat Included
8.14	Environmental Clearances and Reevaluations	LS	1	0	0	Not Included
8.15	Other Environmental Permits	LS	1	0	0	Not Included
	Environmental Permits, Compliance and Clea	rances 1	'echnical	Subtotal	88	
8.16	Technical Meetings	LS	1	0	0	Meetings are listed below
8.17	Quality Assurance/Quality Control	LS	%	5%	4	
8.18	Supervision	LS	%	5%	4	
	Environmental Permits, Compliance and Clearan	ces Non	echnical	Subtotal	8	
8.19	Coordination	LS	%	3%	3	
	8. Environmental Permits, Complia	ance and	Clearan	ces Total	99	

### Project Activity 8: Environmental Permits, Compliance and Clearances

Task No.	Tack	Unite	No. of Units	Hours/ Units	SUPPLE	Comments	
Te	chnical Meetings						
W	MD	EA					
AC	OE	EA					
US	SCG	EA					
US	FWS	EA					
FF	WCC	EA					
FD	OT	EA					

Carries to 8.16

Subtotal Technical Meetings 0

Progress Meetings EA 0 0 0

Phase Review Meetings EA 0 0 0

Total Meetings

Note: Project Manager attendance at progress, phase and field review meetings are manually entered on General Task 3

EA

Other Meetings

## Project Activity 9: Structures - Summary and Miscellaneous Tasks and Drawings

Task	4500 - 20		Design	and Produ	ection Sta	ffhours					
No.	Task	Units	No. of Units	Hours per Unit	No. of Sheets	Total			Comment	8	
	General Drawings										
9.1	Index of Drawings	Sheet	0	0	0	0					
9.2	Project Layout	Sheet	0	85	0	0					
9.3	General Notes and Bid Item Notes	Sheet	0	20	0	0					
9.4	Miscellaneous Common Details	Sheet	1	0/	0					IV.	
9.5	Incorporate Report of Core Borings	Sheet	0	0	0	0					
9.6	Existing Bridge Plans	LS	0	0		0					
9.7	Assemble Computation Book and Quantities	LS	1	4		4		nour for MS fter BCM @		each subm	ittal (4
9.8	Cost Estimate	LS	1	4		4		nour for MS fter BCM @		each subm	ittal (4
9.9	Technical Special Provisions	LS	1	0		0					
Stru	ctures - Summary and Miscellaneous and Drawings S				0	8					
Task No.	Task	Total	Task 10	Task 11	Task 12	Task 13	Task 14	Task 15	Task 16	Task 17	Task 18
10-16	Bridge 1	0	0	0	0	0	0	0	0		
10-16	Bridge 2	0									
10-16	Bridge 3	0									
17	Retaining Walls	278								278	
18	Miscellaneous Structures	0									0
	Structures Technical Subtotals	278	0	0	0	0	0	0	0	278	0

## Project Activity 9: Structures - Summary and Miscellaneous Tasks and Drawings

Task No.	Task	Units	No. of Units	Hours per Unit	Total	Comments
9.10	Field Reviews	LS	1	0	0	0
9.11	Technical Meetings	LS	1	0	0	Meetings are listed below
9.12	Quality Assurance/Quality Control	LS	%	5%	14	
9.13	Independent Peer Review	LS	%	0%	0	
9.14	Supervision	LS	%	5%	14	
	Structures Nontechnical	Subtotal			28	
9.15	Coordination	LS	%	5%	16	Management & Coordination
	9. Structures - Summary and Misce Tasks and Drawings Nontechr Coordinat	ical and			52	

Technical Meetings					_
BCR Coordination/Review 90/100% Comment Review	EA EA	0 0	0 0	0	1 person @ 2 hours each inc. prep and minutes 1 person @ 2 hours each inc. prep and minutes
Aesthetics Coordination	EA	0	0	0	
Regulatory Agency	EA	O	0	0	
Local Governments (cities, counties)	EA	0	0	0	
Utility Companies	EA	0	0	0	
Other Meetings	EA	0	0	0	
Subtotal Technical Meetings				0	
Progress Meetings	EA	0	0	0	1 person @ 2 hours each inc. prep
Phase Review Meetings	EA	0	0	0	1 person @ 3 hours each inc. prep and minutes

## Project Activity 9: Structures - Summary and Miscellaneous Tasks and Drawings

**Total Meetings** 

0

## Project Activity 17: S. tures - Retaining Walls

Task No.	Task	Unit	No. of Units	SUPP		Total Hours	Comments
	General Requirements						
17.1	Key Sheet	Sheet	0	0	0	0	
17.2	Horizontal Wall Geometry	Per Wall	2	4		8	North Bridge: Two Permanent MSE Walls
	Permanent Proprietary Walls						
17.3	Vertical Wall Geometry	Per Wall	2	18		36	North Bridge: Permanent MSE Walls, determine geometry/elevations of future widening vs. tie-in to end bents
17.4	Semi-Standard Drawings	Sheet	1	8	1	8	
17.5	Wall Plan and Elevations (Control Drawings)	Sheet	5	22	5	110	North Bridge: Wall 1 = 500' (2 sheets), Wall 2 = 950' (3 sheets), numerous drainage structures
17.6	Details	Sheet	3	16	3	48	North Bridge: Wall details (plan and sections at end bent), aesthetic details
	Temporary Proprietary Walls						
17.7	Vertical Wall Geometry	Per Wall				0	
17.8	Semi-Standard Drawings	Sheet				0	
17.9	Wall Plan and Elevations (Control Drawings)	Sheet				0	
17.10	Details	Sheet				0	
	Cast-in-Place Retaining Walls						
17.11	Design	EA Design	0	0		0	
17.12	Vertical Wall Geometry	EA Wall	0	0		0	
17.13	General Notes	Sheet	0	0	0	0	
17.14	Wall Plan and Elevations (Control Drawings)	Sheet	0	0	0	0	
17.15	Sections and Details	Sheet	0	0	0	0	
17.16	Reinforcing Bar List	Sheet	0	0	0	0	

## Project Activity 17: St. tures - Retaining Walls

Task No.	Task	Unit	No. of Units	SUPP		Total Hours	Comments
	Other Retaining Walls and Bulkheads						
17.17	Design	EA Design	1	16		16	North Bridge: Temporary Steel sheet pile design
17.18	Vertical Wall Geometry	EA Wall	2	8			North Bridge: Temporary Steel sheet pile design
17.19	General Notes, Tables and Misc. Details	Sheet					James and a state of the state
17.20	Wall Plan and Elevations	Sheet	3	12	3	36	North Bridge: Temporary Steel sheet pile design
17.21	Details	Sheet	0	0	0	0	and the second
	17. Struc	tures - Retain	ing Wal	ls Total	12	278	

#### **Antillian Engineering**

# SR 528 ECONLOCKHATCHEE BRIDGE WIDENING TO DALLAS BLVD PROJECT № 528-131

#### **Geotechnical Scope of Services Summary**

#### **Project Description:**

#### 4.05 Geotechnical Investigation for Permanent MSE Walls (by Antillian)

- Perform a total of 11 SPT borings to 30-50 feet each for the 1,500 linear feet of proposed permanent face MSE walls approximately 14 feet high between Sta. 1410+00 and the western bridge abutment at Sta.1415+50, and between the eastern bridge abutment at Sta. 1418+50 and Sta. 1428+00. Field and lab effort were reduced by using bridge borings drilled at abutments by GEC for MSE wall analysis. Wall straps will be estimated to account for the future raising of the MSE walls to approximately 23 feet high at STA 1428 to accommodate the estimated ultimate Dallas Boulevard profile as indicated in the CFX SR 528 8-Lane Concept Study.
- Visually examine all recovered soil samples in the laboratory utilizing the Unified Soil
  Classification System. Perform laboratory tests on selected representative soil samples,
  including grain size analysis, Atterberg limits, organic content, natural moisture content, LBR
  and corrosion series testing as appropriate.
- Collect groundwater level measurements and estimate wet seasonal high groundwater tables.

#### ESTIMATE OF WORK EFFORT AND COST - PRIME CONSULTANT SA 1B

Name of Project: County:

SR 526 Econlockhalchee Bridge Widening

Ocenos 528-131 Consultant Name: PB/Antillan Engineering Associates, Inc. Consultant No.: enter consultants proj number

Detc: 4/22/2016

FAP No. NIA Estimator: PGS Chief Eeo Senior Eng Project Eng Staff Classic Staff Cleans Stuff Classi-Staff Classi-Otali Chas Br. Eng Yech Hours From Eng laten CADD fication 8 fication 8 fication 18 fication 11 fication 12 SH бу Cost By Rate Per \$135 63 5133 38 20 00 20 00 50.00 \$83.09 Summery \$0.00 \$0.00 20 00 \$0.00 50.00 \$0.00 Activity Activity Task 3. Project General and Project Common Tesks 30 #DIV/IP **Floodway Analysis** 0 ė. . ۵ . 0 0 O \$0 #CIV/III Roadway Plans 0 ō . a . . 0 0 . 0 0 ô 50 #DIV/0I 6a. Drainage Analysis 0 0 C ٥ 0 0 Q 60 . #DIV/OI to Drainage Plans 0 0 0 0 0 0 0 80 #D6//01 Unities 0 0 a • 0 . 30 #DIV/QI Environmental Permits, Compliance & Clearances 0 Ö. 6 ē 0 9 0 0 50 0 #D0/70# Structures - Misc Tasks, Dwgs, Non-Tech. . 0 0 0 0 0 G 90 #DIV/IIIt C Structures - Bridge Development Report 0 . ø 0 2 0 ٥ . 50 #DIV/DE 11 Structures - Temporary Bridge 0 . 0 0 0 . 0 . 0 **S**0 #DIV/08 12 Structures - Short Span Concrete Bridge o 0 0 ٥ 0 0 0 30 #DIV/Ot . 15 Strectures - Madken Span Concrete Bridge 0 a ۵ 0 0 . 50 #DIV/Or 14 Structures - Strectural Steel Bridge 0 . a 0 0 ٥ 0 #DIV/GI 15 Structures - Segmental Concrete Bridge 0 ā 0 0 0 0 Đ 0 SD #DIV/IDI 0 16 Structures - Moveble Spen 6 0 0 0 6 . ٥ 0 0 **\$**0 #DIV/0 17: Structures - Relaining Walls a 0 0 0 **S**0 HOIV/0! . 18 Structures - Miscalianeous 0 0 0 ō 0 6 0 . **S**0 #D(V/OI 19. Signing & Pavement Marking Analysis ٥ 0 a ٥ 0 0 0 80 #DIV/OI 25 Signing & Perrement Merting Plens **COVACI** 0 0 D . 20 21. Signafization Analysis a 0 a 0 a 0 0 0 0 \$0 #DIV/0 22 Signalization Plans 0 0 0 0 30 #DIV#0 0 . Ð 23 Lighting Analysis 0 0 0 0 0 ٥ 0 . 50 #DIV/DI 24 Lighting Plans à ٥ . 0 0 #DIV/U 25 Landscape Architecture Analysis ٥ 0 a 30 #DIV/O 0 25 Landscape Architecture Plans Ð 0 0 . 8 0 ٥ 20 #DIV/01 27 Survey (Field & Office Support) 0 D #DIV/OI 22. Photogrammetry 0 0 0 0 0 . \$0 (DIVIDE 0 . 0 6 29 Mapping 0 0 0 ٥ ô . ø 0 30 #DIV/DI 33 Terrestrial Mobile LiDAR #DIV/DI 21 Architecture Development G 0 ٥ 0 0 50 **SULVIO** 0 Ω . 0 0 à 37 Noise Busiers Imped Design Assessm 0 0 0 ¢ 0 0 \$0 (ICHONO) 35 Intelligent Transportation Systems Analysis #CNV/01 0 0 0 9 34. Intelligent Transportation Systems Plans đ ė 0 0 0 0 ۵ 100 #DIV/DI 35 Geolechnicat 135 \$124.25 **Total Staff Hours** 136 0 81 0 0 26 0 0 0 0 B 0 136 Total Staff Cost \$0.00 \$3.933.77 \$10.803.76 20.00 50.00 \$2 1A0 34 50,00 \$0.00 50.00 \$0.00 \$0.00 20.00 \$16,897,30 \$1,34,25

> Survey Field Days by Subconsultant 4 - Person Crew.

1. This shoul to be used by Prime Consultant to calculate the Grand Total fee

2. Manually enter his from each subconsultent. United subcomplaint rove may be hidden

135.63485 133.37162 83 08555

Check = \$16,897,39 \$16,897.39 SALARY RELATED COSTS: OVERHEAD: 1,000 \$0.00 PROFIT 30.00 0.00% \$0.00 FCCM (Facilities Capital Cost Money): EXPENSES: 0.00% \$0.00 \$0.00 Survey (Finia - If by Prime) days 🚇 / day SUBTOTAL ESTIMATED FEE. \$16,897.39 Subconsultant: Sub 1 \$0.00 30 00 Subcorrections: Sub 2 Guiboonsulterni: Sub 3 **SO.00** Subconsultant: Stib 4 \$0,00 Subconsultant: Sub 5 an on Subconsultant: Sub 6 \$0,00 Subconsultant: Sub 7 20.00 Subconsultant: Stub 8 \$0.00 Subconsultant: Sub 9 20.00 \$0.00 Subconsultant: Stub 10 Subconsultant: Sub 11 \$0.00 Subconsultant: Sub 12 \$0.00 \$16,897,30 SUSTOTAL ESTIMATED FEE: Geotechnical Field and Lab Testing \$13,831,00 SUBTOTAL ESTIMATED FEE: \$30,728.39 Optional Services \$0.00 \$30,728.39 GRAND TOTAL ESTIMATED FEE

#### 35. Geotechnical

Estimator, PGS

2/24/2016

#### ANTILLIAN scope for Permanent MSE Walls on N Side of SR 528

SR 528 Econlockhatchee Bridge Widening 52B-131

Representing	Print Name	Signature / Date
FDOT District	CFX	
Consultant Name	Antillian Engineering Associates, Inc.	

NOTE: Signature Block is optional, per District preference

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Continents
	Roadway					
		Roadwa	y Geotechni	cal Subtotal	0	
	Structures					
35.27	Develop Detailed Boring Location Plan	LS	1	2	2	
35.28	Stake Borings/Utility Clearance	Boring	11	0.3	3	MSE Walls: 2 SPT to 30 ft, 2 SPT to 35 ft, 3 SPT to 40 ft, 2 SPT to 45 ft, 2 SPT to 50 ft (440 ft) NIC GEC bridge borings
35.29	Coordinate and Develop MOT Plans for Field Investigation	EA	0	6	0	, and the second second
35.30	Drilling Access Permits	Location	0	0	0	
35.31	Property Clearances	EA	0	0	0	
35.32	Collection of Corrosion Samples	EA	7	0.25	2	One per 300 LF of wall
35.33	Coordination of Field Work	100 lf of boring	4.4	0.3	1	
35.34	Soil and Rock Classification - Structures	100 lf of boring	4.4	2	9	
35.35	Tabulation of Laboratory Data	100 if of baring	4.4	0.5	2	
35.36	Estimate Design Groundwater Level for Structures	EA	2	0 25	1	
35.37	Selection of Foundation Alternatives (BDR)	Bridge boring	0	4	0	
35.38	Detailed Analysis of Selected Foundation Alternate(s)	Bridge boring	0	4	0	
35.39	Bridge Construction and Testing Recommendations	Bridge boring	0	3	0	
35.40	Lateral Load Analysis (Optional)	Bridge boring	0	o	0	

#### 35. Geotechnical

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
35.41	Walls	Wall Boring	13	2	26	GEC bridge borings included in analysis
35.42	Sheet Pile Wali Analysis (Optional)	Wall Boring	13	2	26	External stability analysis only, structural design of sheetpile wall not included.
35.43	Design Soil Parameters for Signs, Signals, High Mast Lights, and Strain Poles and Geotechnical Recommendations	Boring	0	2	0	
35.44	Box Culvert Analysis	EA	0	0	0	
35.45	Preliminary Report - BDR	EA	0	16	0	90%, 100%, Final submittals
35.46	Final Report - Bridge and Associated Walls	EA	0	24	0	
35.47	Final Reports - Signs, Signals, Box Culvert, Walks and High Mast Lights	EA	1	24	24	
	SPT Boring Drafting	100 If of boring	4.4	5	22	
35.49	Other Geotechnical	LS	1	0	0	
		Structur	al Geotechni	ical Subtotal	118	
		Geoteci	nnical Techni	ical Subtotal	118	
35.50	Technical Special Provisions	EA	0	0	0	
35.51	Field Reviews	LS	0	6	0	
35.52	Technical Meetings	LS	1	2	2	Meetings listed below
35.53	Quality Assurance/Quality Control	LS	%	5%	6	
35.54	Supervision	LS	%	5%	6	
		Geotschnic	al Nontechni	cal Subtotal	14	
35.55	Coordination	LS	%	3%	4	
			35. Geotec	hnical Total	136	

Technical Meetings	Units	No of Units	Hours/ Unit	Total Hours	PM Attendance at Meeting Required?	Number
Kickoff Meeting with CFX	EA	0	2	0		0
Boring Layout Approval	EA	0	0	0		0
Attend in BDR Review Meeting	EA	0	0	0		0

#### 35. Geotechnical

Task No. Task	Units	No of Units	Hours/ Unit	Total Hours	Comments	
30/90/90% Submittal Review	EA	0	2	0		0
Other Meetings	EA	0	0	0		0
Subtotal Technical Meetings				0	Subtotal Project Manager Meetings	
Progress Meetings (If required by CFX)	EA	1	2	2	M attendence at Progress Meetings is manually entered on General Task	
Phase Review Meetings	EA	0	2	0	attendance at Phase Review Meetings is manually entered on General Ta	
Total Meetings		2	2	2	Total Project Manager Meetings (carries to Tab 3)	-

Carries to 33 18

Carries to Tab 3

**OJECT:** SR 528 Econlockhatchee Bridge Widening

FEE SCHEDULE:

2015

PREPARED BY:

PGS

FPID:

DATE:

item	Description	Unit	Unit Price	No of Units	Cost
01.00.00	GEOTECHNICAL FIELD EXPLORATION				
01.01.00	Crew & Equipment Mobilization:				
01.01.01	Truck Rig Mobilization	EA	\$450.00	0	\$ 
01.01.02	Mudbug Mobilization	EA	\$500.00	1	\$ 500.00
01.01.03	Track Rig Mobilization	EA	\$3,000.00	0	\$ 0 <b>€</b> 0
01.01.04	Barge (small) Mobilization	EA	\$8,500.00	0	\$ •
01.01.05	Barge (offshore) Mobilization	EA	N/A	0	\$ *
01.01.06	CPT Rig Mobilization	EA	\$500.00	0	\$ -
01.01.07	Support Boat Mobilization	EA	\$200.00	0	\$
01.01.08	Pavement Coring Equipment Mobilization	EA	\$250.00	0	\$ •
01.01.09	Soil Survey/Coring/GPR Crew Mobilization	EA	\$250.00	0	\$ 
01.01.10	Tri Pod Rig Mobilization	EA	\$2,500.00	0	\$ -
01.01.11	Low Clearance Rig Mobilization	EA	N/A	0	\$ -
01.12	Drill Rig Remobilization	EA	\$150.00	1	\$ 150.00
01.02.00	Auger Borings (ASTM D-1452):				
01.02.01	Truck Auger Borings	LF	\$9.00	0	\$
01.02.02	Mudbug Auger Borings	LF	\$11.25	0	\$ 3#0
01.02.03	Track Auger Borings	LF	\$13.50	0	\$ 
01.03.00	Standard Penetration Test Borings (ASTM D-1586):				
01.03.01	SPT - Truck/MB:	100			
01.03.01A	SPT - Truck/MB: 0-50 FT	LF	\$12.00	330	\$ 3,960.00
01.03.01B	SPT - Truck/MB: 50-100 FT	LF	\$14.00	0	\$ _
01.03.01C	SPT - Truck/MB: 100-150 FT	LF	\$21.00	0	\$ -
1.03.01D	SPT - Truck/MB: 150-200 FT	LF	\$28.00	0	\$ -
1.03.01E	SPT - Truck/MB: 200-250 FT	LF	\$38.00	0	\$ -
1.03.01F	SPT - Truck/MB: 250-300 FT	LF	N/A	0	\$ •)
1.03.02	SPT - B/T/A:				
1.03.02A	SPT- B/T/A: 0-50 FT	LF	N/A	0	\$
1 03.02B	SPT- B/T/A: 50-100 FT	LF	N/A	0	\$

FEE SCHEDULE:

2015

...OJECT: SR 528 Econlockhatchee Bridge Widening

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Item	Description	Unit	Unit Price	No of Units		Cost
01.03.02C	SPT- B/T/A: 100-150 FT	LF	N/A	0	\$	
01.03.02D	SPT- B/T/A: 150-200 FT	LF	N/A	0	\$	74
01.03.02E	SPT- B/T/A: 200-250 FT	LF	N/A	0	\$	•
01.03.02F	SPT- B/T/A: 250-300 FT	LF	N/A	0	\$	-
01.04.00	Cone Penetration Test Soundings (ASTM D-3441):				101	
01.04.01	CPT - Truck/MB:					
01.04.01A	CPT - Truck/MB: 0-50 FT	LF	\$11.50	0	\$	
01.04.01B	CPT - Truck/MB: 50-100 FT	LF	\$11.50	0	\$	•
01.04.01C	CPT - Truck/MB: 100-150 FT	LF	\$12.50	0	\$	•
01.04.01D	CPT - Truck/MB: 150-200 FT	LF	N/A	0	\$	•
01.04.01E	CPT - Truck/MB: 200-250 FT	LF	N/A	0	\$	•
01.04.01F	CPT - Truck/MB: 250-300 FT	LF	N/A	0	\$	-
04.02	CPT - B/T/A:					
01.04.02A	CPT - B/T/A: 0-50 FT	ĹF	N/A	0	\$	•
01.04.02B	CPT - B/T/A: 50-100 FT	LF	N/A	0	\$	-
01.04.02C	CPT - B/T/A: 100-150 FT	LF	N/A	0	\$	-
01.04.02D	CPT - B/T/A: 150-200 FT	LF	N/A	0	\$	( <del>#</del> %)
01.04.02E	CPT - B/T/A: 200-250 FT	LF	N/A	0	\$	
)1.04.02F	CPT - B/T/A: 250-300 FT	LF	N/A	0	\$	
1.05.00	Rock Coring - HW Barrel (ASTM D-2113):					
1.05.01	Rock Coring - Truck/MB:					
1.05.01A	Rock Coring - Truck/MB: 0-50 FT	LF	\$35.00	O	\$	•
1.05.01B	Rock Coring - Truck/MB: 50-100 FT	LF	\$38.00	0	\$	-
1.05.01C	Rock Coring - Truck/MB: 100-150 FT	LF	\$43.00	0	\$	•
1.05.01D	Rock Coring - Truck/MB: 150-200 FT	LF	\$48.00	0	\$	-
1.05.01E	Rock Coring - Truck/MB: 200-250 FT	LF	\$55.00	0	\$	
1.05.01F	Rock Coring - Truck/MB: 250-300 FT	LF	N/A	0	\$	
1.05.02	Rock Coring - B/T/A:					
175.02A	Rock Coring - B/T/A: 0-50 FT	LF	N/A	0	\$	-

FEE SCHEDULE:

2015

. AOJECT: SR 528 Econlockhatchee Bridge Widening

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Item	Description	Unit	Unit Price	No of Units	Cos	st
01.05.02B	Rock Coring - B/T/A: 50-100 FT	LF	N/A	0	\$	<u>.</u>
01.05.02C	Rock Coring - B/T/A: 100-150 FT	LF	N/A	0	\$	
01.05.02D	Rock Coring - B/T/A: 150-200 FT	LF	N/A	0	\$	-
01.05.02E	Rock Coring - B/T/A: 200-250 FT	LF	N/A	O	\$	-
01.05.02F	Rock Coring - B/T/A: 250-300 FT	LF	N/A	0	\$	-
01.06.00	Grout Seal Boreholes:					
01.06.01	Grout Boreholes - Truck/MB:					
01.06.01A	Grout - Truck/MB: 0-50 FT	LF	\$4.50	0	\$	-
01.06.01B	Grout - Truck/MB: 50-100 FT	LF	\$5.00	0	\$	-
01.06.01C	Grout - Truck/MB: 100-150 FT	LF	\$5.50	0	\$	•
01.06.01D	Grout - Truck/MB: 150-200 FT	LF	\$6.00	0	\$	-
01.06.01E	Grout - Truck/MB: 200-250 FT	LF	\$6.50	0	\$	(-0)
^* 06.01F	Grout - Truck/MB: 250-300 FT	LF	N/A	0	\$	-
01.06.02	Grout Boreholes - B/T/A:					
01.06.02A	Grout - B/T/A: 0-50 FT	LF	N/A	0	\$	•
01.06.02B	Grout - B/T/A: 50-100 FT	LF	N/A	0	\$	
01.06.02C	Grout - B/T/A: 100-150 FT	LF	N/A	0	\$	•
01.06.02D	Grout - B/T/A: 150-200 FT	LF	N/A	0	\$	-
01.06.02E	Grout - B/T/A: 200-250 FT	LF	N/A	0	\$	-
01.06.02F	Grout - B/T/A: 250-300 FT	LF	N/A	0	\$	-
01.07.00	Temporary Casing:					
01.07.01	3" Temp. Casing - Truck/MB:					
01.07.01A	3" Casing - Truck/MB: 0-50 FT	LF	\$9.00	0	\$	-
01.07.01B	3" Casing - Truck/MB: 50-100 FT	LF	\$10.00	0	\$	•
01.07.01C	3" Casing - Truck/MB: 100-150 FT	LF	\$12.00	0	\$	*
01.07.01D	3" Casing - Truck/MB: 150-200 FT	LF	\$14.00	0	\$	-
01.07.01E	3" Casing - Truck/MB: 200-250 FT	ĹF	\$16.00	0	\$	-
01.07.01F	3" Casing - Truck/MB: 250-300 FT	LF	N/A	0	\$	-
97.02	3" Temp. Casing - B/T/A:					

...OJECT: SR 528 Econlockhatchee Bridge Widening

FEE SCHEDULE:

2015

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Item	Description	Unit	Unit Price	No of Units	Cost
01.07.02A	3" Casing - B/T/A: 0-50 FT	LF	N/A	0	\$
01.07.02B	3" Casing - B/T/A: 50-100 FT	LF	N/A	0	\$
01.07.02C	3" Casing - B/T/A: 100-150 FT	LF	N/A	0	\$ 141
01.07.02D	3" Casing - B/T/A: 150-200 FT	LF	N/A	0	\$
01.07.02E	3" Casing - B/T/A: 200-250 FT	LF	N/A	0	\$ •
01.07.02F	3" Casing - B/T/A: 250-300 FT	LF	N/A	0	\$ •
01.07.03	4" Temp. Casing - Truck/MB:				
01.07.03A	4" Casing - Truck/MB: 0-50 FT	LF	\$10.00	110	\$ 1,100.00
01.07.03B	4" Casing - Truck/MB: 50-100 FT	LF	\$12.00	0	\$ 1-
01.07.03C	4" Casing - Truck/MB: 100-150 FT	LF	\$14.00	0	\$ -
01.07.03D	4" Casing - Truck/MB: 150-200 FT	LF	\$16.00	0	\$ •
01.07.03E	4" Casing - Truck/MB: 200-250 FT	LF	\$18.00	0	\$ •
° 07.03F	4" Casing - Truck/MB: 250-300 FT	LF	N/A	0	\$ -
U1.07.04	4" Temp. Casing - B/T/A:				
01.07.04A	4" Casing - 8/T/A: 0-50 FT	LF	N/A	0	\$
01.07.04B	4" Casing - B/T/A: 50-100 FT	LF	N/A	0	\$ Sæl
01.07.04C	4" Casing - B/T/A: 100-150 FT	LF	N/A	0	\$ ( <b>••</b> )
01.07.04D	4" Casing - B/T/A: 150-200 FT	LF	N/A	0	\$ -
01.07.04E	4" Casing - B/T/A: 200-250 FT	LF	N/A	0	\$ •
01.07.04F	4" Casing - B/T/A: 250-300 FT	LF	N/A	0	\$ 520
01.08.00	Extra SPT Samples:				
01.08.01	Extra SPT Samples - Truck/MB:				
01.08.01A	Extra SPT Samples - Truck/MB: 0-50 FT	EA	\$35.00	0	\$ is.
01.08.01B	Extra SPT Samples - Truck/MB: 50-100 FT	EA	\$37.00	0	\$ -
1.08.01C	Extra SPT Samples - Truck/MB: 100-150 FT	EA	\$75.00	0	\$ 
1.08.01D	Extra SPT Samples - Truck/MB: 150-200 FT	EA	\$90.00	0	\$ -
)1.08.01E	Extra SPT Samples - Truck/MB: 200-250 FT	EA	\$105.00	0	\$ -
1.08.01F	Extra SPT Samples - Truck/MB: 250-300 FT	EA	N/A	0	\$
78.02	Extra SPT Samples - B/T/A:				

. . OJECT: SR 528 Econlockhatchee Bridge Widening

FEE SCHEDULE:

2015

PREPARED BY:

PGS

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DATE:

ltem	Description	Unit	Unit Price	No of Units	Cost
01.08.02A	Extra SPT Samples - B/T/A: 0-50 FT	EA	N/A	a	\$ •
01.08.02B	Extra SPT Samples - B/T/A: 50-100 FT	EA	N/A	0	\$ -
01.08.02C	Extra SPT Samples - B/T/A: 100-150 FT	EA	N/A	0	\$ -
01.08.02D	Extra SPT Samples -B/T/A: 150-200 FT	EA	N/A	0	\$
01.08.02E	Extra SPT Samples - B/T/A: 200-250 FT	EA	N/A	0	\$ •
01.08.02F	Extra SPT Samples - B/T/A: 250-300 FT	EA	N/A	0	\$ -
01.09.00	Undisturbed Samples (ASTM D-1587):				
01.09.01	Undisturbed Samples - Truck/MB:				
01.09.01A	Undisturbed Samples - Truck/MB: 0-50 FT	EA	\$120.00	2	\$ 240.00
01.09.01B	Undisturbed Samples - Truck/MB: 50-100 FT	EA	\$140.00	0	\$ -
01. <b>09</b> .01C	Undisturbed Samples - Truck/MB: 100-150 FT	EA	\$240.00	0	\$ -
01.09.01D	Undisturbed Samples - Truck/MB: 150-200 FT	EA	\$300.00	0	\$ -
09.02	Undisturbed Samples - B/T/A:				
09.02A	Undisturbed Samples - B/T/A: 0-50 FT	EA	N/A	0	\$ -
01.09.02B	Undisturbed Samples - B/T/A: 50-100 FT	EA	N/A	0	\$ •
01.09.02C	Undisturbed Samples - B/T/A: 100-150 FT	EA	N/A	0	\$ =
01.09.02D	Undisturbed Samples - B/T/A: 150-200 FT	EA	N/A	0	\$ 
01.10.00	Drill Rig and Crew (Clearing/Difficult Access)				
01.10.01	Drill Rig and 2-Man Crew - Truck/MB	HR	\$200.00	16	\$ 3,200.00
1.10.02	Drill Rig and 2-Man Crew - B/T/A	HR	\$300.00	0	\$ 3-
1.10.03	Drill Rig and 3-Man Crew - Truck/MB	HR	\$250.00	0	\$ -
1.10.04	Drill Rig and 3-Man Crew - B/T/A	HR	\$375.00	0	\$ -
1.11.00	Drill Mud Contain/Disposal				
1.11.01	Drill Mud Contain/Disposal - Truck/MB	EA	\$200.00	0	\$ -
1.11.02	Drill Mud Contain/Disposal - B/T/A	EA	\$400.00	0	\$ -
1.12.00	Hand Probing/Wash Borings				
1.12.01	Hand Probing/Wash Borings - 2 Person Crew	HR	\$125.00	0	\$
1.12.02	Hand Probing/Wash Borings - 3 Person Crew	HR	\$175.00	0	\$
13.00	Field Permeability Test				

.OJECT: SR 528 Econlockhatchee Bridge Widening

FEE SCHEDULE:

2015

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ltem	Description	Unit	Unit Price	No of Units	Cost
01.13.01	Field Permeability Test (0-10')	EA	\$300.00	0	\$ -
01.13.02	Field Permeability Test (10-25')	EA	\$400.00	0	\$ •
01.14.00	Temporary Piezometer				
01.14.01	Temporary Piezometer (0-50')	LF	\$25.00	0	\$ •
01.14.02	Temporary Plezometer Locking Assembly	EA	N/A	0	\$ •
01.15.00	Pavement Cores (Excluding MOT)	EA	\$100.00	0	\$ -
01.16.00	Ground Surface D.R.I	EA	\$500.00	0	\$ ×
01.17.00	Field Vane Shear Strength	EA	\$400.00	0	\$ •
01.18.00	Dilatometer Sounding	HR	\$240.00	0	\$ -
01.19.00	Ground Penetrating Radar Crew - 2 Person	HR	\$250.00	0	\$ -
01.20.00	CPT Data Reduction	EA	N/A	0	\$ -
01.21.00	Maintenance of Traffic		·		
P1 21.01	MOT - Barricades	DAY	\$50.00	5	\$ 250.00
U1.21.02	MOT - Flashing Arrowboard	DAY	\$125.00	0	\$ (●)(
01.21.03	MOT - Law Enforcement Officer	DAY	\$400.00	0	\$
01.21.04	MOT - Crash Truck	DAY	\$1,500.00	0	\$
01.21.05	MOT - Support Vehicle	DAY	\$40.00	0	\$ -
01.21.06	MOT - Signs	DAY	\$40.00	5	\$ 200.00
01.21.07	MOT - Certifled Traffic Control Specialist	HR	\$75.00	0	\$ -
01.22.00	Other Support Services				
01.22.01	Support Vehicle	DAY	\$50.00	0	\$ -
1.22.02	Support Boat	DAY	\$200.00	0	\$ -
1.22.03	Heavy Equipment	DAY	N/A	0	\$ -
1.22.04	GPS Unit	DAY	\$45.00	0	\$ -
2.00.00	GEOTECHNICAL LABORATORY TESTING SERVICES				
2.01.00	Grain Size Analysis:				
2.01.01	Full Gradation	EA	\$60.00	0	\$ -
2.01.02	Single Sieve	EA	\$36.00	28	\$ 1,008.00
72.00	Hydrometer (FM 1-T 88)	EA	\$150.00	0	\$ -

.OJECT: SR 528 Econlockhatchee Bridge Widening

FEE SCHEDULE:

2015

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Item	Description	Unit	Unit Price	No of Units	Cost
02.03.00	Organic Content (FM 1-T 267)	EA	\$40.00	12	\$ 480.00
02.04.00	Atterberg Limits:				
02.04.01	Atterberg - Liquid Limit	EA	\$38.00	4	\$ 152.00
02.04.02	Atterberg - Plastic Limit	EΑ	\$38.00	4	\$ 152.00
02.05.00	Natural Moisture Content (FM 1-T 265)	EA	\$11.00	14	\$ 154.00
02.06.00	Unit Weight	EA	\$40.00	1	\$ 40.00
02.07.00	Consolidation (FM 1-T 216)	EA	\$450.00	1	\$ 450.00
02.08.00	Permeability (FM 1-T 215/5-513)	EA	\$250.00	0	\$ -
02.09.00	Corrosion Series (pH, Sulfate, Chloride, Resistivity)	EA	\$145.00	12	\$ 1,740.00
02.11.00	Unconfined Compression:				
02.11.01	Unconfined Comp Soil	EA	\$225.00	0	\$ -
02.11.02	Unconfined Comp Rock	EA	\$150.00	0	\$ •
12.00	Limerock Bearing Ratio (FM 5-515)	EA	\$330.00	0	\$ -
د.13.00	Specific Gravity (FM 1-T 100)	EA	\$55.00	1	\$ 55.00
02.14.00	Bitumen Extraction (FM 1-T 164)	EA	\$90.00	0	\$ -
02.15.00	Aggregate Gradation (FM 1-T 30)	EA	\$60.00	0	\$ -
02.16.00	Direct Shear (ASTM D-3080)	EA	\$230.00	0	\$
2.17.00	Shrinkage Factor (FM 1-T 092)	EA	\$50.00	0	\$ **
2.18.00	Swell Potential (ASTM D-4546)	EA	\$50.00	0	\$ œx
2.19.00	Proctor Compaction (FM 5-521/525)	EA	\$100.00	0	\$ 1783
2.20.00	Splitting Tensile (ASTM D-3967)	EA	\$150.00	0	\$ •
3.00.00	GEOTECHNICAL ENGINEERING AND TECHNICAL SERVICES				
3.01.00	Senior Engineer	HR	\$135.63	29	\$ 3,933.27
3.03.00	Project Engineer	HR	\$133.38	81	\$ 10,803.78
3.04.00	CADD/Computer Technician	HR	\$83.09	26	\$ 2,160.34
	GEOTECHNICAL MAN HOUR TOTAL	136	GEOTEC	INICAL TOTAL	\$ 30,728.39
4.00.00	CONTAMINATION FIELD EXPLORATION				
	CONTAMINATION MAN HOUR TOTAL	0	CONTAMIN	IATION TOTAL	\$
167			AFP	ADJUSTMENT	\$ *

FEE SCHEDULE:

2015

OJECT: SR 528 Econlockhatchee Bridge Widening

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PGS

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item	Description		Unit Price No of Units		Cast
	PROPOSAL MAN HOUR TOTA	L 136	PRO	OPOSAL TOTAL	\$ 30,728.39

#### VHB

## SR 528 ECONLOCKHATCHEE BRIDGE WIDENING TO DALLAS BLVD PROJECT № 528-131

#### Supplemental No. 1B Scope of Services

#### Supplemental Services Description:

This supplemental request covers additional services for the design of additional project plan sheets to address the need for temporary IT lines prior to muck removal and other related changes.

## ESTIMATE OF WORK EFFORT AND COST - PRIME CONSULTANT 8A 1B

Name of Project County: FPN: FAP No.

CFX Project No 528-131 - SR 628 Bridge Replecement Over The Econolockhatchee River Orange 0 100/1900

Consultant Name: VHB
Consultant No.: enter consultants proj number
472/2016

Staff Classification	Hours From	Principal Engineer	Project Manager	Sv. Designer	Specialist	Engineering latern	Clerical	Sr. Engineer	Project	Staff Classi-	Staff Checi-	Staff Classyl-	Staff Clausi-	560	Satary	Awarage
	Summary -	\$74.55	\$57.59	\$57.59	\$33.66	\$25 S5		-	Engineer	fication 8	fication 10	Sication 11	Scattern 12	By	Coat By	Rate Pe
Project General and Project Common Tasks	-	414.00	237.30				515.00	\$57.70	\$31.74	50 00	\$0.00	\$0.00	50.00	Activity	Activity	Tank
Roadway Analysis					0	٥		0	0	0	0	0	0	Q	\$0	#DIV/O
Roadway Plans					0		0	0	٥	٥	0	0	0	0	50 1	#DP//01
Drainage Anarysis					٥		۵		0	0	0	0	0	8	\$0	#DIV/OI
Unities		🖁	9	0	۰		٥	0	٥	0	0	0	٥	G	20	#D(V/0!
Environmental Permits, Compliance & Clearances	980	"	9	0	0	0	0	0	0	0	۰	۵	0	0	\$0	HOLVIOR:
Structures - Misc Tasks, Deps, Non-Tech		"		0	٥		۰	0	٥	0	0	0	0	0	\$0	#DIV/01
Structures - Bixige Development Report		•	0		•		0	0	0	0	0	0	0	0	20	#DIV/01
1 Structures - Entage Development Report	9				•		•	0	٥	0	0	0		ا ہ ا	50	#DIV/DI
		9	۰		0	0	٥	0	٥	0	0	0	0	°	20	#DIV/01
2 Structures - Short Span Concrete Bridge	0	0	0		0	0	٥	0	0	0	0		0		\$0	#DRV/D!
3 Structures - Medium Span Concrete Bridge		B	6	0	0	0	0	0	٥	0	۰	٥	0		50	#DIV/DI
4 Structures - Structural Steel Bridge		6	9	0	0	4		0	٥	0	٥	0	0		50	#OIV/OI
5 Structures - Segmental Concrete Bridge		0	9	0	٥	6	0	0	0	0	0	0	0	ا ہ ا	\$0	#OIV/0
6 Structures - Movable Span		0	19	0	٥	0	0	0	0	0	6	0			80	#DIVIDE
7 Structures - Retaining Walls		0	0	0	0		D	0	0	0	0	0			\$0	#DIV/D
8 Structures - Miscellaneous	0 1	9	0	0	0	0	0	0	0	0		0	a		\$0	#DIV/U!
9 Signing & Perement Manking Analysis	0	.0	0	0	0	0	0		0	0	٥	0		a	\$0	#DIV/0
0. Signing & Pavement Marking Place.		8	۵	0	0		0	0		٥	0	٥		ا هٔ ا	\$50	1014/01
1 Signatustion Analysis	0	8	8	0	0		0	0	0			٥		اما	30	#DIV/OI
2 Signalizatios Plans		0		0	0	0	0	0	٥	0	0	0		ا ہ	\$0	#DIV/DI
Lighting Analysis		0	9	٥	0	0	0	0	ð		0	0	a		30	#DIV/01
H Lighting Plans		0	0.	0	0				٥	0				6.	\$0	#DIV/01
5 Lundrospe Architecture Assiyais	0	9	6	0	0	0	0	0	0						50 E	#DIVIDI
5 Landscape Architecture Plans	0	0	O	0	0			0	0	0		0		ā	30 I	#DIV/U
7 Survey (Field & Office Support)	0	9	a	G	0	0		0	0	0		٥	0	6	\$0	#DIV/01
5 Photogrammetry	0	0	Û	c c	٥	0	0	0	•	6		0			50	#DIWO
S Mapping	0	0	6		٥		0				0			0	\$50	#DIV/01
O Testessal Mobile LUAR	8	0	0	0	0		0	0	0	0		0			50	#DIV/DI
11. Architecture Development		9	0	٥	0		0			0	0			ا ه ا	50	#DIV/DI
<ol> <li>Noise Barriers Impact Design Assessment</li> </ol>	0		0		0		0				0			ا ما	, so	#DIV/DI
13. Intelligent Transportation Systems Analysis	16	0	3	s		2	2				9			16	2077	\$42.32
A. Intelligent Transportation Systems Plans	52	1 1	13	12	13	10			۵					52	\$2,128	\$40.92
is Geolocialical	9	0	6		0-									, ~ l	\$50	#DIV/01
Total Staff Hours	.08	1	13	17	17	12	8	0	0	0	0	0	0	68		22,000
Total Staff Cost		\$74.55	\$748.67	3979 03	1572.22	\$310.20	\$120.00	\$0.00	\$0.00	\$0.00	\$0.00	50.00	\$0.00		\$2.864.67	\$41.25

Survey Field Days by Subconsultant 4 - Penson Crew:

1 This sheet to be used by Prime Consultant to calculate the Grand Total Inc.

2. Milmanily enter fee from each subconsultant. Unused autoconsultant rows may be hidden.

SALARY RELATED COSTS:					\$2,804.67
OVERHEAD:		157.95%			\$4,429.98
OPERATING MARGIN:		12%			\$868.16
FCCM (Facilities Capital Cost Money):					\$0.00
EXPENSES:	Se	e Expense Estim 4-man crew	als Sivel		
Survey (Field - If by Prime)	٥	🗨 خرهه	\$	/ day	\$0.00
SUSTOTAL ESTIMATED FEE					\$8,102.81
Subconsultani: Enter Name Sub 1					\$0.00
Buldoopesukumit: Sub 2					\$0.00
Subcomolant: Sub 3					\$0.00
Subcontuitant: Sub 4					\$0.00
Subcommitant: Sub ä					\$0,00
Subconsultant Sub 6					\$0,00
Subconsultant: Sub 7					\$0.00
Subconsultant: Sub 8					30.00
Subconnutant: Sub D					\$0.00
Subconsultant: Sub 10					\$0.00
Subconsultant: Sub 11					\$0.00
Subconsultant: Sub 12					\$0.00
SUBTOTAL ESTIMATED PEE:					\$8,102.81
Geoluctwical Field and Lab Testing	3				\$0.00
SUSTOTAL ESTIMATED FEE:					\$8,102.21
Optional Services					
GRAND TOTAL ESTIMATED FEE					\$8,102.81

#### Estimator.

CFX Project No 528-131 - SR 528 Bridge Replacement Over The Econologichalchee River

Tauk Mo.	Task	Units	No of Units	Hours/ Unit	Total Hours	Commonts					
33 1	ITS Analysis	LS	1	0	Q	Provide Temporary IT System Until Final Grading Nears Completion					
33.2	1.2 Communications Plan Analysis		1	0	0	Temporarily communication analysis					
33.3	1.3 Lightning Protection Analysis		1	0	0						
33.4	.4 Power Subsystem		1	6	6	MOC Temp Power					
33.5	Voltage Drop Calculations	LS	1	0	0						
33.6	Design Documentation	LS	1	2	2						
33,7	Existing ITS System	LS	1	0	0						
33.8	Queue Analysis	LS	1	0	0						
33.9	Reference and Master (TS Design File	LS	1	0	0						
3 10	Reference and Master Communications Design File	LS	1	0	0						
211	Pole Elevation Analysis	LS	1	0	0						
33.12	Sign Panel Design Analysis	LS	1	0	0	By Others					
3.13	Quantilies	LS	1	4	4	MOC Quartities					
33.14	Cost Estimate	LS	1	2	2	MOC Cost Estimate					
3.15	Technical Special Provisions	LS	1	0	0						
3,16	Other ITS Analyses	LS	1	0	0						
	leteligent Transportation Systems An	alysis T	ochnical	Subtotal	14						
33 17	Field Reviews	LS	1	0	0						
33,16	Technical Meetings	LS	1	0	0	Meetings are listed below					
33.19	Quality Assurance/Quality Corrirol	LS	%	5%	1						
3.20	Supervision	LS	%	5%	1						
k	felligent Transportation Systems Analys	le Nont	ochnical	Subtotal	2						
33 21	Coordination	LS	%	3%	0						
	33. Intelligent Transportatio	n Syster	ns Anah	rols Total	16						

Kickoff Meeting	EA	0	0	0
Local Governments (cities, counties,				
MPO)	EA	0	0	a
Utility Owners	EA	0	٥	0
Field Meetings	EA	0	Q	0
Other Meetings	EA	0	0	G
Subtotal Technical Meetings				0
Progress Meetings (if required by FDIOT)	EA	0	٥	a
Phase Review Meetings	EA	0	D	0
Total Meetings				0
≅			^	armes lo

Note: Project Manager stiendance at progress, phase and field review meetings are manually entered on General Tank 3

### Project Activity 34: Intelligent Transportation Systems Plans

Estimator.

CFX Project No 528-131 - SR 528 Bridge Replacement Over The Econolockhatchee River

Task No.	Task	Scale	Units	No. of Units	Hours/ Unit	No. of Sheets	Total Hours	Comments
34.1			Sheet	0	0	0	0	-
34.2	Summary of Pay Items Including Trns*port Input		Sheet	0	0	0	0	
34.3	Tabulation of Quantities		Sheet	1	2	1	2	MOC Quantities
34.4	General Notes/Pay Item Notes		Sheet	1	2	1	2	MOC Notes
34.5	Project Layout		Sheet	0	0	0	0	
34.6	Typical and Special Detaits		Sheet	0	0	0	0	
34.7	Plan Sheet		Sheet	10	4	10	40	MOC Plan Sheets
34.8	ITS Communications Plans		Sheet	1	4	1	4	MOC
34.9	Fiber Optic Splice Diagrams		Sheet	0	0	0	0	
34.10	Lightning Protection Plans		Sheet	0	0	0	0	
34.11	Cross Sections		Sheet	0	D	0	0	
34.12	Guide Sign Worksheet(s)		Sheet	0	0	0	0	
34.13	Special Service Point Details		Sheet	0	0	0	0	
34.14	Strain Pole Schedule		Sheet	0	0	0	0	
34.15	Overhead/Cantilever Sign Structure		Sheet	0	0	0	0	By Others
34.16	Other Overhead Sign Structures (Long Span, Monotube, etc.)		Sheet	0	0	0	0	By Others
34.17	Traffic Control Plans		Sheet	0	0	0	0	
34.18	Interim Standards		Sheet	0	0	0	0	
34.19	GIS Data and Asset Management Requirements		LS		0	0	0	
	Intelligent Transporta	tion Syst	em Plans	Technica	Subtotal	13	48	
34.20	Quality Assurance/Quality Control		LS	%	5%		2	
34.21	Supervision		LS	%	5%		2	
	34. Intellige	ent Trans	portation	System P	lans Total	13	52	