

Agenda Item is over 50 pages; may be viewed in the Minutes Department

Agenda Item #: 3-C-1

**PALM BEACH COUNTY  
BOARD OF COUNTY COMMISSIONERS  
AGENDA ITEM SUMMARY**

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<b>Meeting Date:</b>	<b>May 2, 2023</b>	<input checked="" type="checkbox"/> <b>Consent</b>	<input type="checkbox"/> <b>Regular</b>
		<input type="checkbox"/> <b>Workshop</b>	<input type="checkbox"/> <b>Public Hearing</b>

<b>Department:</b>	<b>Engineering &amp; Public Works Department</b>
<b>Submitted By:</b>	<b>Engineering &amp; Public Works Department</b>
<b>Submitted For:</b>	<b>Roadway Production Division</b>

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**I. EXECUTIVE BRIEF**

**Motion and Title: Staff recommends motion to approve:** Supplement No. 1 (Supplement) to the Palm Beach Lakes Boulevard over the Florida East Coast (FEC) Railroad (Project) Contract (R2020-0353), dated April 7, 2020 (Contract) with HNTB Corporation (HNTB) in the amount of \$1,116,817.63 for professional services for the Project.

**SUMMARY:** Approval of this Supplement will provide the professional services necessary to complete the design phase for widening and rehabilitating the existing bridge. The solicitation for design professionals was advertised on September 4, 2018, prior to the effective date of the Equal Business Opportunity Ordinance and pursuant to the Small Business Enterprise (SBE) Ordinance at the time with final selection taking place on January 15, 2019. The SBE goal for all contracts was 15%. HNTB agreed to 36.5% SBE participation for the Contract. They agreed to 36.86% SBE participation for this Supplement. Their cumulative SBE participation to date for the Contract including this Supplement is 36.80%. The original Contract provided the professional services necessary to establish the typical section and complete the study phase of the Project. HNTB has an office located in Palm Beach County. Prior to this meeting date, the Contract's contracted amount of \$297,673.02 has been encumbered. **This Project is included in the infrastructure sales tax. District 7 (YBH)**

**Background and Justification:** On April 7, 2020, the Board of County Commissioners (BCC) approved the Contract with HNTB to provide the professional services required for the Project. The fee, as detailed in **Exhibit B** of the attached Supplement, has been negotiated as just and reasonable compensation as follows:

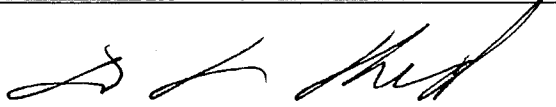
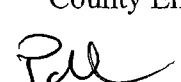
Basic Services (Lump Sum)	\$1,029,135.59	(Roadway Analysis & Plans, Utilities and Structures)
Reimbursable Services (Not to Exceed)	\$ 7,400.00	(Permit Fees)
Optional Services (Not to Exceed)	<u>\$ 80,282.04</u>	(Lighting & Design Analysis)
Total:	\$1,116,817.63	

After reviewing the attached Supplement and finding it in proper order, the Engineering Department recommends BCC approval.

**Attachments:**

1. Location Map
2. Supplement No. 1 with Exhibits A, B, C, D & Ebix Insurance Compliance (2)

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Recommended by: <i>KOF</i> YBH/TEL	 County Engineer	<i>4/14/23</i> Date
Approved By:	 Assistant County Administrator	<i>4/14/23</i> Date

**II. FISCAL IMPACT ANALYSIS**

**A. Five Year Summary of Fiscal Impact:**

Fiscal Years	2023	2024	2025	2026	2027
Capital Expenditures	\$1,563,546	-0-	-0-	-0-	-0-
Operating Costs	-0-	-0-	-0-	-0-	-0-
External Revenues	-0-	-0-	-0-	-0-	-0-
Program Income (County)	-0-	-0-	-0-	-0-	-0-
In-Kind Match (County)	-0-	-0-	-0-	-0-	-0-
<b>NET FISCAL IMPACT</b>	<b>\$ 1,563,546</b>	<b>-0-</b>	<b>-0-</b>	<b>-0-</b>	<b>-0-</b>
# ADDITIONAL FTE					
POSITIONS (Cumulative)	-0-	-0-	-0-	-0-	-0-

Is Item Included in Current Budget? Yes  No   
 Does this item include the use of federal funds? Yes  No

**Budget Account No:**

Fund 3950 Dept 361 Unit 1532 Object 6505-AE10

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

Local Government One-Cent Infrastructure Surtax  
 Palm Beach Lakes Blvd. over FEC R/R (937709)

**Supplement No. 1**

• Basic Services	\$ 1,029,135.59
• Reimbursable	\$ 7,400.00
• Optional Services	\$ 80,282.04
<b>Total Supplement No. 1</b>	<b>\$ 1,116,817.63</b>

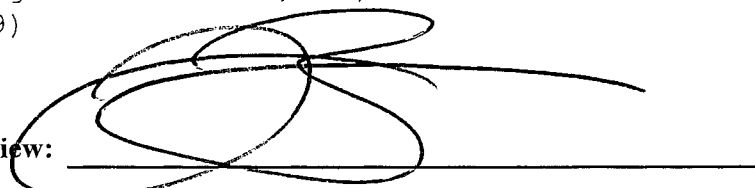
**Estimated Staff Costs**

• Roadway Production	\$ 223,364.00
• Roadway Production: Right-of-Way	\$ 55,841.00
• Survey	\$ 55,841.00
• Traffic	\$ 111,682.00
<b>Total Staff Costs</b>	<b>\$ 446,728.00</b>

**Fiscal Impact** \$ 1,563,545.63

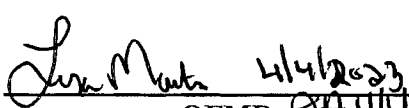
**Note :** Surtax Funding FY 2021 \$ 4,500,000 Palm Beach Lakes Blvd. over FEC R/R (937709)


**C. Departmental Fiscal Review:**



**III. REVIEW COMMENTS**

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

*for review  
4/1/23*  
  
 Jim Manta 4/1/23  
 OFMB 9/1/19

  
 Contract Dev and Control  
 4/5/23

**B. Approved as to Form and Legal Sufficiency:**

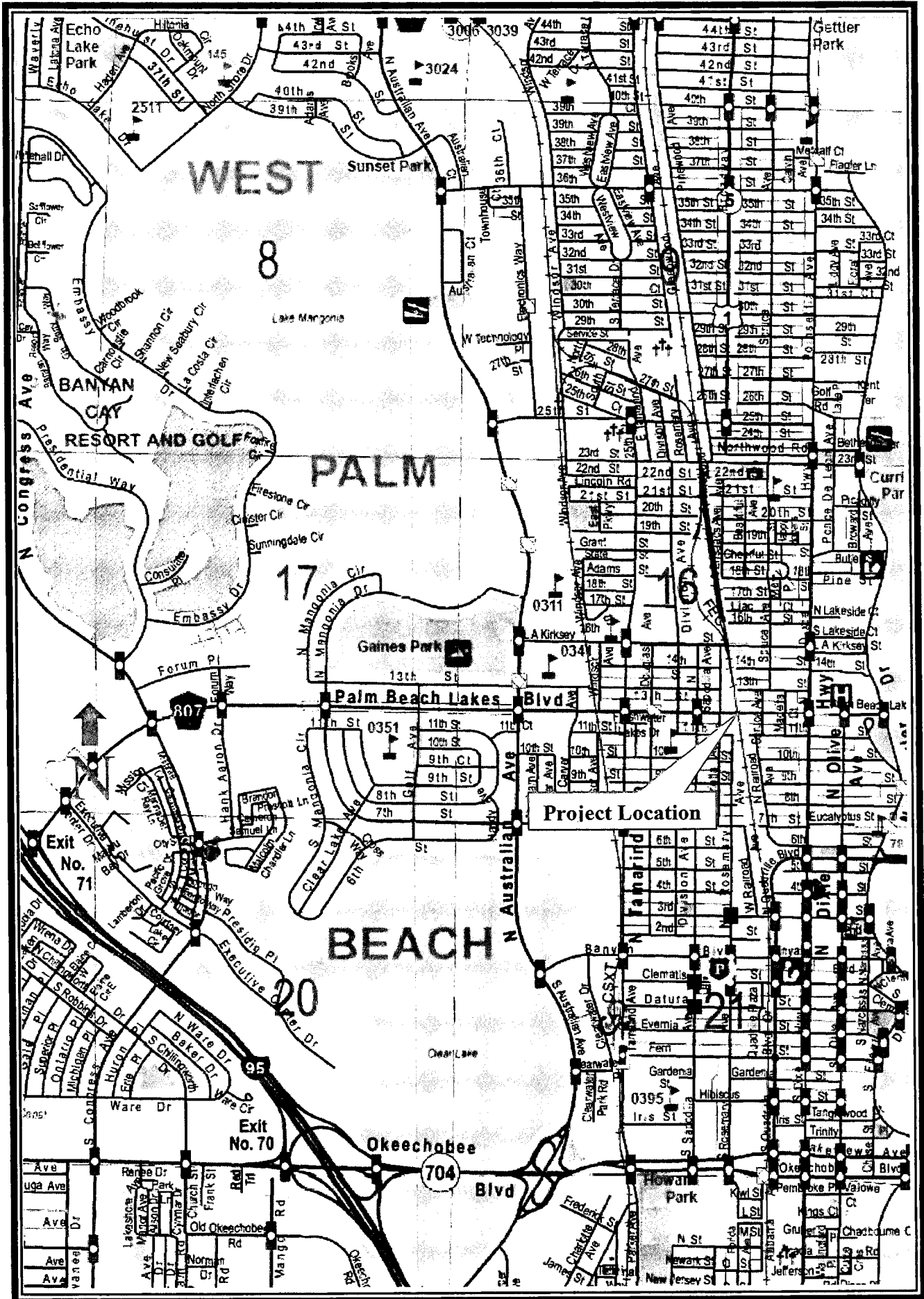
  
 4/12/23  
 Assistant County Attorney

**C. Other Department Review:**

\_\_\_\_\_  
 Department Director

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

**Palm Beach Lakes Boulevard over FEC Railroad  
Palm Beach County Project No. 2017800**



**LOCATION SKETCH**

**Attachment 1**

**SUPPLEMENT NO. 1 TO THE PALM BEACH LAKES BOULEVARD OVER FLORIDA  
EAST COAST (FEC) RAILROAD PROJECT CONTRACT**

Project Name: **Palm Beach Lakes Boulevard over Florida East Coast (FEC) Railroad**

Project No: **2017800**

Commission District No.: **7**

SBE Participation for this authorization is **36.86% SBE**

SBE Participation to date for this Contract is **36.80% SBE**

SBE Commitment is **36.50%**

This authorization is under the SBE Ordinance.

**PALM BEACH COUNTY**

**BOARD OF COUNTY COMMISSIONERS**

**Account No.: 3950-361-1532-6505-AE10**

Supplement No. 1 to the Project Contract dated April 7, 2020, (R2020-0353), (CONTRACT), between the COUNTY and the CONSULTANT identified herein is for the Additional Services described in **EXHIBIT A** and **EXHIBIT B** for this Supplement.

1. CONSULTANT: HNTB Corporation

2. Address: 161 N.W. 6<sup>th</sup> Street Suite 1000, Miami, FL 33436

3. CONSULTANT shall begin work promptly on the requested Additional Services, per the schedule attached as part of **EXHIBIT A**.

4. Scope of Services to be provided by CONSULTANT: Provide professional engineering services to Palm Beach County for the Palm Beach Lakes Boulevard over the Florida East Coast (FEC) Railroad design bridge widening and rehabilitation project. Prepare the design plans and construction bid documents, including related documents in accordance with the attached **EXHIBIT A** dated January 5, 2023.

5. The compensation to be paid CONSULTANT for providing the requested services as detailed in **EXHIBIT B** shall be:

<input checked="" type="checkbox"/> Basic Services in a lump sum fee of	\$1,029,135.59
<input checked="" type="checkbox"/> Reimbursable Expenses capped at	\$ 7,400.00
<input checked="" type="checkbox"/> Optional Services capped at	<u>\$ 80,282.04</u>
<b>Totaling</b>	<b>\$1,116,817.63</b>

OEBO Schedules 1 & 2 **EXHIBIT C**

Project History **EXHIBIT D**

6. All terms of the CONTRACT, shall apply to this Supplement.

ATTACHMENT 2

**SUPPLEMENT NO. 1 TO THE PALM BEACH LAKES BOULEVARD OVER FLORIDA  
EAST COAST (FEC) RAILROAD PROJECT CONTRACT**

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

CONSULTANT: HNTB Corporation

Federal ID: 43-1623092

Signed: Leonard C. Becker

Typed Name: Leonard C. Becker

Title: Sr. Vice President

Date: 3/20/2023

Approved as to Terms and Conditions

By: Morton L. Rose

Typed Name: Morton L. Rose, P.E.

Title: Division Director

(Corporate Seal)

ATTEST WITNESS:

Signed: Craig W. Denson

Typed Name: Craig W. Denson

Title: Corporate Secretary

Date: 3/20/2023

**SUPPLEMENT NO. 1 TO THE PALM BEACH LAKES BOULEVARD OVER FLORIDA  
EAST COAST (FEC) RAILROAD PROJECT CONTRACT**

{SIGNATURE PAGES CONTINUED}

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

Signed: \_\_\_\_\_

Typed Name: Gregg K. Weiss

Title: Mayor

Date: \_\_\_\_\_

**ATTEST:**

Joseph Abruzzo  
Clerk of the Circuit Court & Comptroller

By: \_\_\_\_\_

Deputy Clerk

Approved as to Form and Legal Sufficiency

By: \_\_\_\_\_

Typed Name: Yelizaveta B. Herman

Title: Assistant County Attorney

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OK MA 1-19-23

PALM BEACH LAKES  
BOULEVARD OVER  
FLORIDA EAST COAST  
(FEC) RAILROAD

Palm Beach County  
Project No. 2017800

SCOPE OF SERVICES - PHASE C

August 12, 2022  
December 23, 2022  
January 5th, 2023

PREPARED FOR:

**Palm Beach County Department of  
Engineering and Public Works**  
2300 North Jog Road  
West Palm Beach, Florida 33411  
Phone: (561) 684-4000

PREPARED BY

**HNTB Corporation**  
Infrastructure Solutions  
Contact:  
Kyle Cheerangie, PE  
kcheerangie@hntb.com  
Phone: (786)562-7614

Exhibit A  
Palm Beach Lakes Boulevard Over Florida East Coast (FEC) Railroad  
Supplement 1

This scope of services is part of an agreement between Palm Beach County (County) and HNTB Corporation (HNTB) for engineering services relative to the facility described as follows:

<b>Project</b>	Palm Beach Lakes Boulevard Over Florida East Coast (FEC) Railroad
<b>PBC Project #</b>	2017800
<b>Owner</b>	Palm Beach County
<b>Owner PM</b>	Kathleen Farrell, PE and George Beck, PE
<b>HNTB PM</b>	Kyle Cheerangie, PE

The project limits are approximately 0.3 miles and extend from east of Division Avenue to west of Dixie Highway on Palm Beach Lakes Boulevard. This project proposes improvements to the Palm Beach Lakes Boulevard Bridge over the Florida East Coast Railroad (FEC). The bridge also spans Henrietta Avenue and Spruce Avenue. The existing 980-ft long, multi-span bridge (Bridge# 937709) is located in the Northwoods section of the City of West Palm Beach (City). The existing bridge lacks shoulders, features a single sidewalk crossing at the railroad on the north side of the bridge and has existing traffic railings that do not meet current standards.

The proposed work will widen the existing bridge to provide (2) 3-ft shoulders, (2) 10-ft shared use paths, maintain 4 thru lanes with a 4-ft separation between directions, upgrade traffic railings, provide (2) continuous shared use paths connecting Sapodilla Avenue and Madeira Court. The proposed widening will impact the existing pedestrian tower, span wire signal at Sapodilla Ave, bridge retaining walls, bridge traffic railings, bridge deck units, both frontage roads, the existing storm water system and utilities including water mains, sanitary sewer lines and overhead electric lines. Additionally, right of way will be required along the full length of the widened bridge for inspection and maintenance access.

The widening and rehabilitation of the existing bridge will involve construction within the FEC ROW, drainage system improvements (including the addition of two pond sites on both sides of the FEC RR) and a construction phasing that will maintain access for vehicular traffic and pedestrian movements. The project will require coordination with the City, utility owners, SFWMD and the FEC.

There will be coordination with the FEC for construction and widening of the bridge over the railroad's right of way. Per previous discussions with the FEC this coordination must be initiated by the Agreement Holder (PBC) and there is a \$15,000 cost associated with the preliminary





engineering initiation with the FEC which should come from PBC. HNTB will support PBC with this coordination.

There will be coordination with the City to incorporate Community Redevelopment Agency features into the project for the enhancement of the area under the bridge. The City will provide features to be incorporated into the design of the area under the bridge. The features anticipated are the construction of curb, gutter and sidewalks to match the City's proposed layout under the bridge only. It is anticipated that the City will complete their layout outside of the PBC 80-ft ROW with a separate project of their own letting. No architectural features have been finalized at this time, therefore they are not included in this proposal. The features which can be accommodated with little to no change of this Phase C scope include bridge painting only. If the City chooses a decorative railing and roadway light fixture which requires additional structural design a supplement will be developed for that design. The City has provided a conceptual aesthetic package which depicts pedestrian use enhancements on the bridge along the shared use paths. These elements have been accounted for in this Phase C Scope and design loading for these features must be provided to the Structural Engineer two months prior to the 35% submittal. The lighting analysis will accommodate the City's proposed roadway light fixture and that fixture must be decided on two months prior to the 65% submittal to PBC. The lighting analysis will also replace the under-deck lighting at the pedestrian towers only. Special light fixtures at this area must be provided by the City with the light fixtures for the roadway lighting. If additional lighting fixtures of the shared use path are desired a supplement will be developed for their design. Without the necessary design information, FDOT Standard Plan Items will be utilized including traffic railings, fences and lighting.

Additional features noted in the City's conceptual aesthetic package (to be considered during initial design phase) include visual landmarks, fountains, new pedestrian ramp towers (helix design) and special paved areas under and around the bridge. These design features are not included in this Phase C scope.

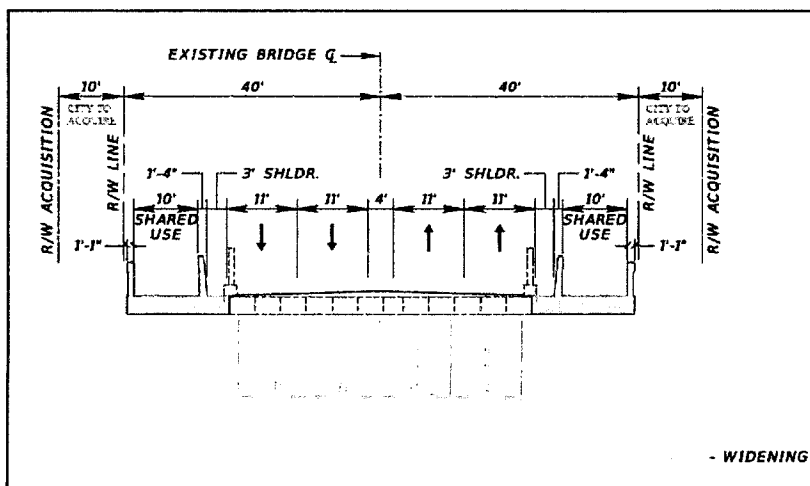


Figure 1 - Proposed Bridge Typical Section

The project has been split into phases:

- Phase A – Master Plan and Stakeholder Coordination
- Phase B – Master Plan Amendment (City Typical Section)
- Phase C – Design Plans

**This scope of services covers the work required for Phase C only.**

All engineering analysis will be prepared in accordance with Palm Beach County Thoroughfare Road Design Procedure (Jan 2019), Florida Department of Transportation (FDOT) Green Book (2018), FDOT Design Manual (2022), and FDOT Standard Plans (FY 2022-23). HNTB shall provide to County the following professional services:

**PROJECT GENERAL TASKS**

- Contract Maintenance: HTNB will provide progress reports at phase submittals.
- Coordination with: Palm Beach County, City of West Palm Beach, Community Redevelopment Agency, Florida East Coast Rail, South Florida Water Management District and UAOs
- Plans will be digitally signed and sealed
- Railroad Coordination – Assist with coordination with FEC by attending meetings with PBC and FEC. Any fees for permitting must come directly from PBC per the FEC criteria.
- Aeronautical Evaluation – Complete FAA Study Applications for construction equipment.
- Attend meetings to discuss City of West Palm Beach items, permitting, structural design, traffic operations and phase reviews.

**ROADWAY ANALYSIS & PLANS**

- Analysis: Horizontal geometry and vertical alignments will be developed for the Palm Beach Lakes centerline, Shared Use Path PGLs LT & RT, Sapodilla Ave (tie-down at intersection) and Madeira Court (tie-down at side street). Horizontal geometry and vertical alignments will also be developed for Henrietta Ave, Spruce Ave and 11<sup>th</sup> Street for reconstruction of those roadways for needed drainage upgrades. *(Optional Services - Temporary Traffic Control Plans (TTCP) will be developed to account for phased construction of the bridge. Up to 3 unique phases are anticipated. The TTCP will include horizontal geometry and vertical alignments (vertical as needed) as well as 3 phased construction typical sections.)* The City of West Palm Beach will provide features to be incorporated in the design of the area under the bridge. These features must be finalized and provided by the City, 2 months prior to the scheduled 35% submittal to PBC. The widened bridge section will transition back to the exiting five lane section west and east of the bridge with a deflection angle that meets FDOT Green Book criteria.



- Plans: Plans will be provided per the Palm Beach County Roadway Design Procedures (2019)

## STRUCTURAL ANALYSIS & PLANS

- Analysis: The design of a widening bridge to both sides of the existing bridge will be developed. This design will retain the existing super and sub structure which will require pier strengthening. The existing 980' long bridge elevation has 22 spans (21 piers, and two end bents). Spans vary in length and section including sixteen deck units or "sonovoid slabs", using 40' spans with 15" Deck Units, two 50' spans, using 21" deck units, spanning Spruce Avenue (and the adjacent bay), two 60' spans using AASHTO Type 2 girders, one spanning Henrietta Avenue and a 129' span using AASHTO Type IV girders over the FEC Railway R/W. Additionally, there is an existing pedestrian ramp connected to the bridge at the span over the FEC railroad. The pedestrian ramp will be removed and replaced by continuous shared-use paths along the entire bridge. The existing sonovoid slabs will be replaced with deck units to provide the full proposed width and the AASHTO girder spans will also be widened. The shared use path will be barrier separated to provide independent PGLs. The widening will impact all bridge retaining wall segments which will be removed and replace with MSE walls. The signal mast arms at Sapodilla will require structural analysis and there will be a special sign mount on the bridge for a flashing beacon or signal head to alert drivers of the signal at Sapodilla
- Signalization and ITS components to be accommodated in bridge design included: Conduits (2-2" ITS and 2-2" signalization), and pull boxes as needed to connect signal to the flashing beacon on bridge.
- Plans: Plans will be provided per the Palm Beach County Roadway Design Procedures (2019)


## UTILITY COORDINATION

Coordination: Attend Utility (3) Coordination Meetings per Palm Beach County Roadway Design Procedures (2019). Create meeting minutes and coordinate impacts with Utility Matrix. Follow up with UAOs for mitigation strategies to conflicts.

## SIGNING AND MARKING ANALYSIS & PLANS

- Signing and Marking Analysis & Plans will be provided by K&F Group. Proposal is attached.

## SIGNALIZATION ANALYSIS & PLANS

- Analysis: The existing span wire signal at Sapodilla will be impacted by the widening and a new mast arm signal will be designed as a replacement. Additionally, the existing frontage/service road signal will no longer be required and shall be removed. A special
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signal or flashing beacon will be designed for the west bound direction and placed at the crest of the bridge alerting driver's when the light at Sapodilla Ave is red. No improvements to the Federal Highway signal are anticipated. *(Optional Services - Update school zone flashers (TS-26092) at UB Kinsey/Palm View Elementary School at Douglass Ave crossing.)*

- Plans: Plans will be provided per the Palm Beach County Roadway Design Procedures (2019)

**LIGHTING ANALYSIS & PLANS**

- Lighting Analysis & Plans will be provided by HBC Engineering. Proposal is attached.

**DRAINAGE ANALYSIS & PLANS**

- Drainage Analysis & Plans will be provided by K&F Group. Proposal is attached.

**ENGINEERING SURVEY**

- Engineering survey and will be provided by Brown and Phillips Inc. Proposal is attached.

**GEOTECHNICAL INVESTIGATIONS**

- Geotechnical investigations by Radise International. Proposal is attached.

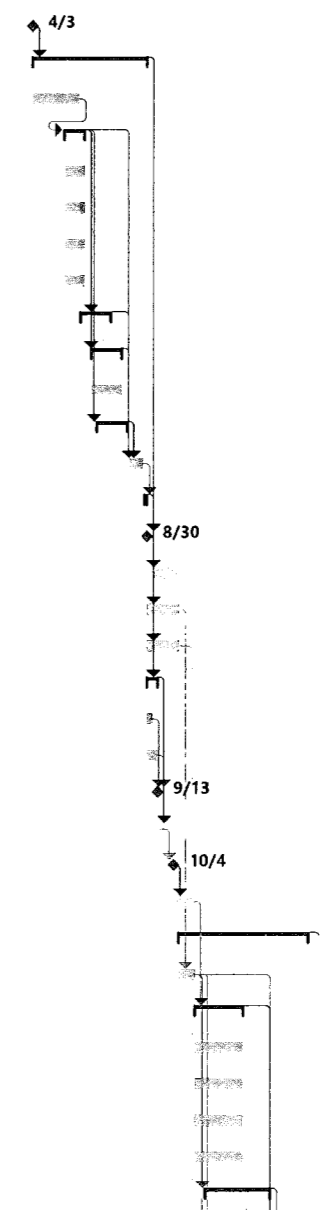
**PROJECT SCHEDULE**

- Widening and rehabilitation of the Palm Beach Lakes Blvd Bridge over the Florida East Coast Railroad
- Improvements to side streets under bridge to alter circulation routes for closed frontage roads.



Palm Beach Lakes Blvd Bridge - Design Schedule

ID	Task Name	Duration	Start	Finish	Qtr 1, 2022	Qtr 2, 2022	Qtr 3, 2022	Qtr 4, 2022	Qtr 1, 2023	Qtr 2, 2023	Qtr 3, 2023	Qtr 4, 2023	Qtr 1, 2024	Qtr 2, 2024	Qtr 3, 2024	Qtr 4, 2024	Qtr 1, 2025	Qtr 2, 2025	
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
0	<b>Project Summary</b>	<b>523 days</b>	<b>Mon 4/3/23</b>	<b>Wed 4/2/25</b>															
1	NTP	0 days	Mon 4/3/23	Mon 4/3/23															
2	[REDACTED]	108 days	Mon 4/3/23	Wed 8/30/23															
3	Data Collection: Geotech Investigation & Pond Survi	45 days	Mon 4/3/23	Fri 6/2/23															
4	<b>Roadway and Drainage Analysis</b>	<b>20 days</b>	<b>Mon 5/15/23</b>	<b>Fri 6/9/23</b>															
5	Horizontal and Vertical Design - Mainline	20 days	Mon 5/15/23	Fri 6/9/23															
6	Horizontal and Vertical Design - Under Bridge	20 days	Mon 5/15/23	Fri 6/9/23															
7	Vertical Design - Sidewalk Profile	20 days	Mon 5/15/23	Fri 6/9/23															
8	Drainage Calculations and Permit Development	20 days	Mon 5/15/23	Fri 6/9/23															
9	<b>Roadway Plans</b>	<b>30 days</b>	<b>Mon 6/5/23</b>	<b>Fri 7/14/23</b>															
19	<b>Bridge Analysis</b>	<b>30 days</b>	<b>Mon 6/19/23</b>	<b>Fri 7/28/23</b>															
20	Design Calculations	30 days	Mon 6/19/23	Fri 7/28/23															
21	<b>Bridge Plans</b>	<b>30 days</b>	<b>Mon 6/26/23</b>	<b>Fri 8/4/23</b>															
29	QC/QA	15 days	Mon 8/7/23	Fri 8/25/23															
30	<b>Phase ID Package Submittal</b>	<b>3 days</b>	<b>Mon 8/28/23</b>	<b>Wed 8/30/23</b>															
36	Submittal	0 days	Wed 8/30/23	Wed 8/30/23															
37	PBC Review Period	30 days	Thu 8/31/23	Wed 10/11/23															
38	Coordination with City of West Palm Beach	30 days	Thu 8/31/23	Wed 10/11/23															
39	Coordination with Florida East Coast Rail	30 days	Thu 8/31/23	Wed 10/11/23															
40	[REDACTED]	10 days	Thu 8/31/23	Wed 9/13/23															
41	Repackage Phase ID Plans as UTL Coordination Set	5 days	Thu 8/31/23	Wed 9/6/23															
42	Utility Conflict Matrix	10 days	Thu 8/31/23	Wed 9/13/23															
43	Submittal	0 days	Wed 9/13/23	Wed 9/13/23															
44	PBC Schedule UTL Coordination Meeting	5 days	Thu 9/14/23	Wed 9/20/23															
45	Phase IIB (1st UTL Coordination Meeting)	0 days	Wed 10/4/23	Wed 10/4/23															
46	Phase IIC (UTLs - Pothole Utilities)	20 days	Thu 10/5/23	Wed 11/1/23															
47	[REDACTED]	120 days	Thu 10/12/23	Wed 3/27/24															
48	Review and Distribute Phase I Comments	15 days	Thu 10/12/23	Wed 11/1/23															
49	<b>Roadway and Drainage Analysis</b>	<b>45 days</b>	<b>Thu 11/2/23</b>	<b>Wed 1/3/24</b>															
50	Horizontal and Vertical Design - Mainline	45 days	Thu 11/2/23	Wed 1/3/24															
51	Horizontal and Vertical Design - Under Bridge	45 days	Thu 11/2/23	Wed 1/3/24															
52	Vertical Design - Sidewalk Profile	45 days	Thu 11/2/23	Wed 1/3/24															
53	Drainage Calculations and Permit Development	45 days	Thu 11/2/23	Wed 1/3/24															
54	<b>Roadway Plans</b>	<b>60 days</b>	<b>Thu 11/16/23</b>	<b>Wed 2/7/24</b>															





Name of Project:		Palm Beach Lakes Boulevard Over Florida East Coast (FEC) Railroad (Phase B - Design)						Consultant Name:		HNTB Corporation	
PBC Project Number:		2017800						Consultant Number:			
		Date: 12/22/2022									
Task Description	Total Staff Hours	Staff Categories							Staff Hours By Activity	Salary Cost By Activity	Average Rate Per Task
		Principal	Senior Engineer	Project Engineer (Structural)	Project Engineer (Roadway)	Engineer Intern	Engineer Tech				
		\$80.00	\$65.00	\$52.00	\$45.00	\$34.00	\$30.00				
<b>BASIC SERVICES</b>											
3. Project General Tasks	63	19	32	6	6	0	0	63	\$4,182.00	\$ 66.38	
4. Roadway Analysis	442	14	225	0	138	66	27	442	\$24,977.00	\$ 56.51	
5. Roadway Plans	332	17	100	0	16	83	66	332	\$15,632.00	\$ 47.08	
7. Utilities	36	4	16	0	16	0	0	36	\$2,080.00	\$ 57.78	
9. Structures Summary	290	17	97	91	0	58	29	290	\$15,079.00	\$ 52.00	
10. Structures-BDR	717	36	244	222	0	100	115	442	\$37,134.00	\$ 57.78	
12. Short Span Concrete	567	28	199	170	0	85	85	567	\$29,455.00	\$ 51.95	
13. Medium Span Concrete	1474	74	516	442	0	221	221	1474	\$76,588.00	\$ 51.96	
17. Str-Retaining Walls	179	9	62	53	0	27	27	179	\$9,299.00	\$ 51.95	
18. Structures-Miscellaneous	58	0	16	0	0	4	4	28	\$1,482.00	\$ 52.93	
21. Signalization Analysis	137	17	62	0	27	17	16	137	\$7,531.00	\$ 54.97	
22. Signalization Plans	58	0	16	0	13	17	12	58	\$2,608.00	\$ 54.97	
<b>Total Staff Hours (Basic Services)</b>	<b>4323</b>	<b>255</b>	<b>1577</b>	<b>992</b>	<b>272</b>	<b>627</b>	<b>600</b>	<b>4323</b>	<b>\$ 226,047.00</b>	<b>\$ 52.29</b>	
<b>Total Staff Cost (Basic Services)</b>		<b>\$20,400.00</b>	<b>\$102,505.00</b>	<b>\$51,584.00</b>	<b>\$12,240.00</b>	<b>\$21,318.00</b>	<b>\$18,000.00</b>				
<b>OPTIONAL SERVICES</b>											
1	467	33	182	32	103	66	51	467	\$24,543.00	\$ 52.55	
<b>Total Staff Hours (Optional Services)</b>	<b>467</b>	<b>17</b>	<b>442</b>	<b>32</b>	<b>442</b>	<b>66</b>	<b>51</b>	<b>467</b>	<b>\$24,543.00</b>	<b>\$ 52.55</b>	
<b>Total Staff Cost (Optional Services)</b>		<b>\$2,640.00</b>	<b>\$11,830.00</b>	<b>\$1,664.00</b>	<b>\$4,635.00</b>	<b>\$2,244.00</b>	<b>\$1,530.00</b>				
<b>EBO SBE Calculation for this Fee Summary</b>											
		<b>SBE \$</b>	<b>Non-SBE \$</b>								
Prime		17	\$705,052.00								
Subconsultant 1	Brown and Phillips, Inc	\$24,092.05									
Subconsultant 2	K-F Group, Inc	\$207,277.27									
Subconsultant 3	Radise International LC	\$116,960.95									
Subconsultant 4	HBC Engineering Company	\$63,435.36									
		17									
<b>Totals</b>		<b>\$ 411,765.63</b>	<b>\$ 705,052.00</b>								
SBE % Achieved		36.86%									
SBE % Committed		36.50%									
<b>Component Submittals # of Prints Cost</b>											
Plans (11"x17")	5	4	\$ 1,400.00								
Roadway Design Report (8.5" x11")	5	4	\$ 1,400.00								
Structure Design Report (8.5" x11")	5	4	\$ 1,000.00								
<b>Total Reimbursable Printing Cost</b>			<b>\$ 3,400.00</b>								
<b>Basic Services:</b>											
Salary Related Costs:									\$226,047.00		
Contract Multiplier:									2.80		
<b>Subtotal Basic Services (Prime Firm):</b>									<b>\$632,931.60</b>		
Subconsultant 1	Brown and Phillips, Inc	\$24,092.05									
Subconsultant 2	K-F Group, Inc	\$207,277.27									
Subconsultant 3	Radise International LC	\$116,960.95									
Subconsultant 4	HBC Engineering Company	\$51,873.72									
<b>Subtotal Basic Services (Subconsultants)</b>									<b>\$396,203.99</b>		
<b>Basic Services Total:</b>									<b>\$1,029,135.59</b>		
<b>Reimbursables:</b>											
Prime Consultant									\$0.00		
Subconsultant 2 - Permit Fees (K-F Group, Inc.)									\$4,000.00		
Permit Fees									\$0.00		
Printing									\$3,400.00		
<b>Reimbursables Total:</b>									<b>\$7,400.00</b>		
<b>Optional Services:</b>											
Prime Consultant (Unloaded)									\$24,543.00		
Contract Multiplier									2.80		
Prime Consultant (Loaded)									\$68,720.40		
Subconsultant 4 (HBC Engineering Company)									\$11,561.64		
Sketch and Legal Descriptions (Survey Firm)									\$0.00		
<b>Optional Services Total:</b>									<b>\$80,282.04</b>		
<b>Grand Total Estimated Fees:</b>									<b>\$1,116,817.63</b>		

Estimator:

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Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
<b>3.1 Public Involvement Subtotal</b>					<b>0</b>	
3.6	Contract Maintenance and Project Documentation	LS	1	4	4	Design Phase: Progress Reports - 1 hour per submittal @ 4 submittals
3.6	Prime Consultant Project Manager Meetings	LS	1	33	33	See listing below
3.9	Digital Delivery	10	1	10	10	Design Phase: Setup of signature sheet (4 hours) + 1 hour for signing and sealing for each EOR (1) Roadway (2) Structures (1) Signals (1) Signing and Marking (1) Signalization
3.11	Railroad, Transit, and/or Airport Coordination	LS	1	12	12	Design Phase: Meetings and coordination with FEC for 3 meetings @ 4 hours each
3.11.1	Aeronautical Evaluation	LS	1	4	4	Complete FAA Aeronautical Study Application
<b>3. Project Common and Project General Tasks Total</b>					<b>63</b> ✓	

3.6 - List of Project Manager Meetings	Units	No of Units	Hours/ Unit	Total Hours	Comments
Roadway Analysis	EA	2	3	6	Meeting with PBC to address City's comments to the design outside of phase submittals
Drainage	EA	1	3	3	Meetings with permitting agency
Structures	EA	3	3	3	Meeting with PBC Structure Reviewer
Signalization	EA	1	3	3	Meeting with PBC Traffic Ops Division
Stakeholder Meetings	EA	4	3	12	Meetings with City of West Palm Beach
<b>Total Project Manager Meetings</b>		<b>11</b>		<b>33</b> ✓	<b>Total PM Meeting Hours carries to Task 3.6 above</b>

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.



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Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
4.5	Horizontal /Vertical Master Design Files	1	1	254	254	<u>Design Phase:</u> 300 hours per mile X 0.38 miles of roadway alignment along Palm Beach Lakes Blvd (from Division Ave to US 1) + 30 hours for intersection design @ Sapodilla Ave + 35 hours per sidewalk PGL x 2 sidewalk PGLs + 300 hours per mile x 0.25 miles (Henrietta and Spruce from 11th to 13th)
4.9	Cross Section Design Files	1	1	90	90	<u>Design Phase:</u> 380 hours per mile X 0.2 miles (1000 ft) of roadway along Palm Beach Lakes Blvd + 220 hours per mile x 0.15 miles(800 ft) (Henrietta and Spruce from 11th to 13th) (ALL SECTIONS AT 100-FT INTERVALS) (Exhibit of section locations is attached and includes 52 driveway sections) Total anticipated number of roadway cross sections = 60 sections 60 sections x 1.5 hours per section = 90 hours
4.16	Quantity Computation Book	LS	1	50	50	<u>Design Phase:</u> Include CADD for developing Quantity Computation Book for 50 payitems x 1 hours per item
4.17	Cost Estimate	LS	1	40	40	<u>Design Phase:</u> Develop Cost Estimate and research unit prices.
<b>Roadway Analysis Technical Subtotal</b>					<b>434</b> ✓	
4.20	Field Reviews	LS	1	8	8	
4.22	Technical Meetings	LS	1	0	0	Meetings are listed below
<b>Roadway Analysis Nontechnical Subtotal</b>					<b>8</b>	
<b>4. Roadway Analysis Total</b>					<b>442</b> ✓	

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Task No.	Task	Scale	Units	No. of Units or Sheet	Hours/ Unit or Sheet	Total Hours	Comments
5.1	Key Sheet		Sheet	1	6	6	<u>Design Phase:</u> 8 hours for setup and reuse/updating for 4 phase submittals and 3 UAO meetings
5.2.1	Typical Sections		Sheet	8			<u>Design Phase:</u> 4 sections along Palm Beach Lakes @ 12 hours each (48 hours) + 1 sections along Sapodilla and 1 section along Madeira @ 8 hours each (for overbuild tie-downs and reconstruction) (16 hours) + 1 sections along Spruce and 1 section along Henrietta @ 6 hours (for reconstruction due to foundation impacts)(12 hours) Total = 8 typical sections
5.2.2	Typical Section Details	290	Sheet	3	13	19	<u>Design Phase:</u> 3 details @ 6 hours each (1 detail for back of MSE wall tie-down(under bridge), 1 detail for raised curb protection at piers under bridge and 1 detail for pavement reconstruction at side street drainage improvements)
5.3	General Notes & Summary of Pay Items		Sheet	4	12	12	<u>Design Phase:</u> 8 hours for Gen Notes & 8 hours for Summary
5.6	Profile Sheet		Sheet	6	12	72	<u>Design Phase:</u> 6 sheets @ 12 hours per sheet (4 along Palm Beach Lakes Blvd and 2 along Henrietta and Spruce)
5.7	Plan Sheet		Sheet	8	10	10	<u>Design Phase:</u> 6 sheets @ 12 hours per sheet (4 along Palm Beach Lakes Blvd and 2 along Henrietta and Spruce)
5.8	Special Profile		Sheet	4	8	32	<u>Design Phase:</u> 8 sidewalk PGL sheets with details for landings, drainage scuppers and special grades @ 4 hours each
5.12	Intersection Layout Details		Sheet		12	12	<u>Design Phase:</u> Design for Sapodilla Ave Intersection including curb return profiles
5.16	Cross Sections		EA	3			<u>Design Phase:</u> 1000-ft of roadway / 100-ft section interval / 3 sections per sheet (Palm Beach Lakes) +800-ft of roadway / 100-ft section interval / 3 sections per sheet (Henrietta and Spruce)  CROSS SECTIONS WILL NOT BE PROVIDED OVER BRIDGE
<b>Roadway Plans Technical Subtotal</b>						<b>332</b>	✓
<b>5. Roadway Plans Total</b>						<b>332</b>	✓

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Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
7.1	Utility Kickoff Meeting	LS	1	4	0	Meeting is listed below
7.5	Preliminary Utility Meeting	LS	1	4	0	Meeting is listed below
7.5	Individual/Field Meetings	LS	1	4	0	Meetings are listed below
7.5	Utility Design Meeting	LS	1	4	4	Meeting is listed below
7.11	Utility Coordination/Followup	LS	1	4	4	Expect 4 follow-up discussions with UAOs at 1 hour each
7.15	Additional Utility Services	LS	1	16	16	Develop Utility Conflict Matrix with updates following each milestone submittal. 4 Hours average per submittal for 3 submittals
7.15	Contract Plans to UAO(s)	LS	1	4	4	2 hours to distribute plans to UAOs x 3 Distributions
<b>7. Utilities Total</b>					<b>36</b> ✓	

Technical Meetings	Units	No of Units	Hours/ Unit	Total Hours	Comments	PM Attendance at Meeting Required?	Number
Phase IIB (1st UTL Coordination Meeting)	EA	2	2	4	1 Engineer and PM		0
Phase IIIB (2nd UTL Coordination Meeting)	EA	2	2	4	1 Engineer and PM		0
Phase IVA (Final UTL Coordination Meeting)	EA	2	2	4	1 Engineer and PM		0
<b>Total Meetings</b>				<b>12</b> ✓	<b>Total Project Manager Meetings (carries to Tab 3)</b>		<b>0</b>

Carries to Tab 3

Representing	Print Name	Signature / Date
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Task No.	Task	Units	Design and Production Staffhours				Comments
			No. of Units	Hours per Unit	No. of Sheets	Total	
	<b>General Drawings</b>						
9.1	Key Sheet and Index of Drawings	Sheet	1	11		11	Index sheet for all submittal
9.3	General Notes and Bid Item Notes	Sheet	1	22		22	
9.3	Incorporate Report of Core Borings	Sheet	11	1	11	11	11 borings anticipated
9.6	Standard Plans- Bridges	LS	1	2		7	
9.7	Existing Bridge Plans	LS	1	7		7	
9.8	Summary of Quantities	Sheet	1	18		18	
9.9	Cost Estimate	LS	9	9	9	9	
9.10	Technical Special Provisions and Modified Special Provisions	LS	1	66		66	1) Carbon fiber strengthening, 2) spall repair and crack injection
<b>Structures - Summary and Miscellaneous Tasks and Drawings Subtotal</b>					13	146	✓

Task No.	Task	Units	No. of Units	Hours per Unit	Total	Comments
9.11	Field Reviews	LS	1	32	32	2 engineers x 2 filed reviews x 8 hrs=32 hrs
9.12	Technical Meetings	LS	1	40	40	Meetings are listed below
<b>Structures Nontechnical Subtotal</b>					<b>72</b>	
9.16	Coordination	LS	1	72	72	coordination with geotechnical engineer 8 hrs on bridge, wall, and misc. structures; aesthetic coordination 16 hrs; roadway coordination 32 hrs with multiple TCP phases; railroad coordination 16 hrs total=72 hrs.
<b>9. Structures - Summary and Miscellaneous Tasks and Drawings Nontechnical and Coordination Total</b>					<b>290</b>	✓

Technical Meetings	Units	No of Units	Hours/ Unit	Total Hours	Comments	PM Attendance at Meeting Required?	Number
BDR Coordination/Review	EA	1	4	4			0
90/100% Comment Review	EA	2	4	8			0
Aesthetics Coordination	EA	1	4	4			0
Regulatory Agency	EA	1	4	4			0
Local Governments (cities, counties)	EA	2	4	4			0
Utility Companies	EA	1	4	4			0
Other Meetings	EA	2	4	8			0
<b>Subtotal Technical Meetings</b>				<b>40</b>			<b>0</b>
Progress Meetings (if required by FDOT)	EA	0	0	0	PM attendance at Progress Meetings is manually entered on General Task 3		--
Phase Review Meetings	EA	0	0	0	PM attendance at Phase Review Meetings is manually entered on General Task 3		--
<b>Total Meetings</b>				<b>40</b>			<b>0</b>

Carries to 9.12

Carries to Tab 3

Representing	Print Name	Signature / Date
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HNTB Corporation		

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Task No.	Task	Units	No of Units	Hours/ Unit	No. of Sheets	Total Hours	Comments
<b>General Requirement</b>							
10.1	Bridge Geometry	LS	1	44	LS	44	<i>This staff hour estimate is based on the bridge centered widening concept. The bridge crosses over multiple roads and FEC railway and multiple vertical clearance checks are anticipated</i>
<b>Superstructure Alternatives</b>							
10.4	Short Span Concrete Bridge	EA ALT	3	18		36	<i>2 alternatives anticipated, 1 for FSB, and 1 for CIP flat slab.</i>
10.5	Medium Span Concrete Bridge	EA ALT	3	23		69	<i>3 alternatives anticipated, 1 for FIB, and 1 for AASHTO Type II at 60' span, 1 FIB alternative at 109' span, 3 total</i>
<b>Foundation &amp; Substructure Alternatives</b>							
10.10	Deep Foundations	EA Foundation Evaluated	2	18	2	36	<i>2 alternatives anticipated, 1 for precast and prestressed concrete pile, 1 for drilled shaft.</i>
<b>Movable Span</b>							
<b>Other BDR Issues</b>							
10.24	Aesthetics	LS	1	22		22	<i>Aesthetics is expected for this bridge</i>
10.25	TTCP/Staged Construction Requirements	LS		30		30	<i>2 phase construction is anticipated, which requires working with roadway to develop construction and demolition phasing</i>
10.26	Constructibility Requirements	LS	1	20			<i>Evaluate access, construction methodology, material delivery for intermediate pier and end bents construction, 10 hrs for left widening and 10 hrs for right widening, 20 hrs total.</i>
10.27	Load Rating for widened structures	EA Unit	2	112	2	224	<i>2 units anticipated, 1 for 60' span, and 1 for 109' span, 2 beam LR's (1 at interior beam = 13 hrs/unit); 66 hrs required for first exiting pier analysis under widening with two analyses required, 224 hrs total</i>
10.28	Quantity and Cost Estimates	EA ALT	10	9		90	<i>10 alternatives anticipated, 2 total substructure alternatives (1 for precast and prestressed concrete pile, 1 for drilled shaft x 5 superstructure alternatives.</i>
<b>Report Preparation</b>							
10.31	Exhibits	EA SHEET	3	20		60	<i>Exhibits will only be developed for recommended alternative only</i>
10.33	Report Preparation	LS		79		79	
10.35	BDR Submittal Package	LS		7		7	
<b>10. Structures - Bridge Development Report Total</b>						<b>717</b>	
<b>When ONLY 30% plans are final deliverable, use Task Nos. as shown for applicable bridge types for project Activities 12 thru 16. Staffhours to be negotiated and scaled appropriately.</b>							

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Task No.	Task	Units	No. of Units	Hours/ Unit	No. of Sheets	Total Hours	Comments
<b>General Layout Design and Plans</b>							
12.2	Expansion/Contraction Analysis	290	2	1		6	2 units anticipated, 1- span of 40', 1- span of 50'
12.4	Construction Staging	Sheet	1	18		18	1 sheet consisting of 3 phases at FSB span.
12.5	Approach Slab Plan and Details	Sheet	1	35	2	70	1 sheet/each approach slab x 2 approach slabs =2 sheets; detailing for non-standard slab widening is anticipated.
<b>End Bent Design and Plans</b>							
12.7	End Bent Geometry	EA End Bent	1	18		22	2 end bents - Different heights
12.8	End Bent Structural Design	EA Design	1	35		36	1 design, abutment over multiple piles over cap is anticipated which require structural analysis and pile lateral analysis.
12.9	End Bent Plan and Elevation	Sheet	1	18	2	36	1 sheet/each abutment x2 abutments =2 sheets
12.10	End Bent Details	Sheet	1	18	2	36	1 sheet/each abutment x2 abutments =2 sheets
<b>Prestressed Slab Unit Bridges</b>							
12.22	Prestressed Slab Unit Design	EA Design	4	22		88	4 designs, 2 for 40' span +2 for 50' span = 4 total.
12.23	Prestressed Slab Unit Layout	Sheet	1	13		13	1 typical layout sheet for all 4 span lengths
12.24	Table of Beam Variables & Superstructure Details	Sheet	1	35	3	78	Table of Beam Variables = 1 sheet. Superstructure details = 2 sheets
12.25	Deck Topping Reinforcing Layout	Sheet	1	18		22	4 sheet, 1 for 40' span +1 for 50' span, 1 for span 10 & 1 for span 12 = 4 total
12.26	Superstructure Sections	Sheet	2	22	2	44	2 sheet, 1 for 40' span +1 for 50' span = 2 total.
<b>Reinforcing Bar List</b>							
12.27	Preparation of Reinforcing Bar List	Sheet	1	13	1	13	
<b>Load Rating</b>							
12.28	Load Ratings	EA Unit	8	1		56	4 span lengths
<b>12. Structures - Short Span Concrete Bridge Total</b>					<b>18</b>	<b>567</b>	

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Task No.	Task	Units	No. of Units	Hours/ Unit	No. of Sheets	Total Hours	Comments
<b>General Layout Design and Plans</b>							
13.2	Expansion/Contraction Analysis	EA Unit	3	3		6	2 units anticipated, 1- span of 60', 1- span of 109'
13.3	General Plan and Elevation	290	3	26	3	78	Multiple crossing, urban, 3 sheets anticipated given each sheet covers 400' length of bridge. $1090/400=2.725$
13.4	Construction Staging	Sheet	1	18	1	18	1 sheet consisting of 3 phases at beam span.
13.6	Miscellaneous Details	Sheet	9	9	9	270	1 sheet for build-up & deflection table at beam span, 1 sheet for bearing pad & expansion joint and SIP form, 1 sheet for beam temporary bracing, 3 sheets for bridge strengthening, 2 sheets for bridge repairs, 1 sheets for demolition, 9 total.
<b>Pier Design and Plans</b>							
13.17	Pier Geometry	EA Pier	21	3	3	147	21 Piers are required to match existing bridge.
13.18	Pier Stability Analysis	EA Design	4	18		72	Pile lateral analysis for minimum tip elevation, 4 analyses are anticipated, 1@40' span, 1@ 50' span, 1 @ 60' span, and 1 @109' span.
13.19	Pier Structural Design	EA Design	3	35		210	6 designs are anticipated, 2 designs @40' span, 2 designs @50' span, 1 design @60' span, 1 design @109' span
13.20	Pier Plan and Elevation	Sheet	3	18	3	144	8 sheet anticipated, 2 sheets @40' span, 2 sheets @50' span, 2sheets @60' span, 2 sheets @109' span
13.21	Pier Details	Sheet	3	18	3	54	
<b>Miscellaneous Substructure Design and Plans</b>							
13.22	Foundation Layout	Sheet	3	18	3	54	3 sheet anticipated





Task No.	Task	Units	No. of Units	Hours/ Unit	No. of Sheets	Total Hours	Comments
<b>Superstructure Deck Design and Plans</b>							
13.23	Finish Grade Elevation (FGE) Calculation	LS	1	40		40	including 26 hrs for bridge + 14 hrs for approach slab =40 hrs
13.24	Finish Grade Elevations	Sheet	4	18	4	72	3 sheets for bridge +1 sheet for approach slab= 4 sheets total
13.25	Bridge Deck Design	EA Section	2	20		20	1 design with traditional method is anticipated which is applicable to both 60' span and 109' span
13.26	Bridge Deck Reinforcing and Concrete Quantities	EA Unit	2	9		18	2 units are anticipated. 1 @ 60' span. and 1 @109' span
13.27	Diaphragm Design	EA Section	4	0		0	N/A
13.28	Superstructure Plan	Sheet	2	20	4	52	2 sheets are anticipated. 1 @ 60' span. and 1 @109' span.
13.29	Superstructure Section	Sheet	2	22	2	44	2 sheets are anticipated. 1 @ 60' span. and 1 @109' span.
13.30	Miscellaneous Superstructure Details	Sheet	2	13		18	1 sheet bridge mounted sign/signal (18 hours). 1 sheet for bridge drain/scupper (8 hours)
<b>Reinforcing Bar Lists</b>							
13.31	Preparation of Reinforcing Bar List	Sheet	1	13	1	13	60' and 109' spans together on one sheet
<b>Simple Span Concrete Design</b>							
13.49	Prestressed Beam	EA Design	4	13		40	4 designs. 2 for 60' span. and 2 for 109' span
13.50	Prestressed Beam Schedules	Sheet	1	26		26	
<b>Beam Stability</b>							
13.52	Beam/girder stability	EA Unit	2	13		26	1 designs. ' for 60' span. and ' for 109' span
<b>Load Rating</b>							
13.55	Load Ratings	Per Beam	1	26	1	40	
<b>13. Structures - Medium Span Concrete Bridge Total</b>					<b>39</b>	<b>1474</b>	

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Task No.	Task	Unit	No. of Units	Hours/ Unit	No. of Sheets	Total Hours	Comments
<b>General Requirements</b>							
17.2	Horizontal Wall Geometry	Per Wall	1	4.5		9	2 walls anticipated. 1 at west approach. 2 at east approach
<b>Permanent Proprietary Walls 290</b>							
17.3	Vertical Wall Geometry	Per Wall	1	20	1	20	2 permanent propriety walls anticipated. 1 at west approach, 1 at east approach
17.4	Semi-Standard Drawings	Sheet	1	17	1	17	/
17.5	Wall Plan and Elevations (Control Drawings)	Sheet		20		40	/
17.6	Details	Sheet	0	17	1	9	/
<b>Cast-in-Place Retaining Walls</b>							
17.11	Design	EA Design	2	27.5	2	55	CIP Retaining Walls are used for the effort to design, develop plan and details for crash walls along FEC railway to protect the bridge columns. 2 crash wall custom designs anticipated. 32 hrs for first wall, and 18 hrs for second wall. 35+20=55 hrs total.
17.12	Vertical Wall Geometry	EA Wall	1	4.5	0	9	/
17.13	General Notes	Sheet	1	7	1	17	/
17.14	Wall Plan and Elevations (Control Drawings)	Sheet	1	7	1	17	/
17.15	Sections and Details	Sheet		17		17	/
17.16	Reinforcing Bar List	Sheet	1	7	1	17	/
<b>17. Structures - Retaining Walls Total</b>					<b>7</b>	<b>179</b>	<b>✓</b>

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Task No.	Task	Unit	No. of Units	Hours/Unit	No. of Sheets	Total Hours	Comments
	<b>Mast Arms</b>						
18.9	Mast Arms	EA Design	2	12		24	2 mast arms are revised at Sapodilla Dr.
18.10	Mast Arms Data Table Plan Sheets	Sheet		4	1	4	1/2
		<b>18. Structures - Miscellaneous Total</b>			<b>1</b>	<b>28</b>	



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Task No.	Task	Units	No. of Units	Hours/ Units	Total Hours	Comments
21.5	Reference and Master Signalization Design File	PI	PI	PI	PI	All efforts required per intersection for establishing the signal master design file to include reference files of topo, r/w, roadway, pavement markings, utilities files, etc. Includes the design and layout of proposed signal poles, signal heads, loops, pedestrian signals, conduit, pull boxes, service points, etc. Also includes proposed call outs, pay item numbers, loop detector chart, controller timing chart, signal/ pedestrian head details, sign details, controller notes, signal operating plan, etc.
21.7	Overhead Street Name Sign Design	EA	2	2	2	Evaluate overhead street name sign, lettering, description, street block numbers, and information to develop the layout of a sign. One sign for each approach.
21.8	Pole Elevation Analysis	LS	1	1	1	Includes effort to determine pole elevations at proposed pole locations (3 hours per intersection). <b>Hours for mast arm structural analysis are included under Structures.</b>
21.10	Quantity Computation Book	LG	1	LG	LG	Includes all work required to determine pay items and quantities. Includes creating the Excel summary table through the Quantity Takeoff Manager (QTM), fully populating the tables with the estimated quantities, and delivering the Excel file to the lead consultant firm Engineer of Record (EOR). Add 4 hours when required to include EQ Report with Phase II submittal. Based on 20 hours for first intersection, plus 4 hours for each additional intersection. <b>Includes all work required to determine pay items and quantities. Plans will include a tabulation of quantities. No EQ reports.</b>
21.11	Cost Estimate	LS	1	1	1	Includes preparing an Engineers Estimate and updating as necessary. No LRE. <b>1 estimate @ 8 hours @ 100% submittal only.</b>
<b>Signalization Analysis Technical Subtotal</b>					<b>119</b>	✓
21.14	Field Reviews	LS	1	8	8	1 trip (2 people x 4 hours)
21.15	Technical Meetings	LS	1	10	10	Meetings are listed below
<b>Signalization Analysis Nontechnical Subtotal</b>					<b>18</b>	
<b>21. Signalization Analysis Total</b>					<b>137</b>	✓

Technical Meetings	Units	No of Units	Hours/ Unit	Total Hours	Comments	PM Attendance at Meeting Required?	Number
Palm Beach County Traffic Operations	EA	1	2	3			0
Power Company (service point coordination)	EA	1	2	2			0
Maintaining Agency (cities, counties)	EA	3	1	3	3 meetings x 1 hr per meeting		0
<b>Subtotal Technical Meetings</b>				<b>7</b>		<b>Subtotal Project Manager Meetings</b>	<b>0</b>
Phase Review Meetings	EA	3	1	3	PM attendance at Phase Review Meetings is manually entered on General Task 3		--
<b>Total Meetings</b>	--		--	<b>10</b> ✓	<b>Total Project Manager Meetings (carries to Tab 3)</b>		<b>0</b>

Carries to 21.15

Carries to Tab 3

Representing	Print Name	Signature / Date
Palm Beach County		
HNTB Corporation		

NOTE: Signature Block is optional, per District preference

Task No.	Task	Scale	Units	No of Units	Hours/ Unit	No. of Sheets	Total Hours	Comments
22.1	Key Sheet		Sheet	1	6	1	4	Includes time to develop key sheet.
22.2	General Notes/Pay Item Notes		Sheet	1	12	1		Range (4 to 8 hours) 6 hours to modify the existing general notes and pay item notes as provided by Local Agency. 8 hours for Summary
22.3	Plan Sheet		Sheet	2	8	2	16	1 intersection X 1 sheet/PI X 8 hrs/sheet (Palm Beach Lakes Blvd at Sapodilla Ave). 1 sheet (aerial base sheet at Douglas Ave) for School Flasher (solar panel) replacement with no underground facilities needed/shown.
22.6	Guide Sign Worksheet		EA	1	6	1	4	Includes developing the guide sign worksheet for street name signs and/or importing the guide sign from a program to a plan sheet. 4 signs per sheet x 1 sheet.
22.7	Special Details		Sheet	2	8	2	16	Range (4 to 12 hrs) Includes Ped Pole details, Signal/Sign Attachment details, etc. Lower Range for Standard Details provided by District, Upper Range for project specific details generated by the Consultant. Special details needed for relocating or replacing the existing vehicle detector attached to the strain pole at NW corner.
22.9	Mast Arm/Monotube Tabulation Sheet		PI	1	6		4	Includes incorporating the schedule detail chart for steel mast arms in the plan set.
<b>Signalization Plans Technical Subtotal</b>						<b>6</b>	<b>58</b>	
							4	
<b>22. Signalization Plans Total</b>						<b>6</b>	<b>58</b>	



**K-F GROUP, INC.**  
CONSULTING ENGINEERS

---

September 19, 2022

Mr. Kyle Cheerangie, P.E., Project Manager  
HNTB Corporation  
105 North Narcissus Avenue, Suite 600  
West Palm Beach, FL 33401

Re: Scope of Services  
Palm Beach Lakes Boulevard Over FEC Railroad – Bridge Widening and Rehabilitation  
Palm Beach County Project No. 2017800

Dear Mr. Cheerangie,

**K-F GROUP, INC.** is pleased to provide professional engineering services to HNTB for the widening and rehabilitation of approximately 0.4 miles of Palm Beach Lakes Boulevard over FEC Railroad within the City limits of West Palm Beach in Palm Beach County (PBC), Florida. The services provided include:

- **Drainage Analysis:** Drainage analysis will be in accordance with pre-versus-post analysis for water quality treatment and quantity attenuation. Analysis will be based on ultimate 4 lanes undivided roadway typical section within existing 80' Right-Of-Way and an acquisition of 10' additional Right-Of-Way on both sides. Minimum roadway profile grade will be set in accordance with Palm Beach County Roadway criteria of 25 Year 3 Day peak stage. A preliminary analysis along with Pond Siting Report will be performed and prepared during the Master Plan Phase based on existing ground elevations obtained from available LIDAR, to determine the approximate number of offsite parcels needed. It is anticipated that two (2) dry retention ponds will be necessary for this project, one on each side of the railroad corridor. Four (4) potential pond sites will be evaluated. A matrix will be formed to rank their feasibilities and effectiveness based on cost, wetland impact, utility conflict, and adjacent property impact. Pond Siting Report will be submitted at or prior to 35% for review and pond selection. Detailed drainage analysis of the selected pond sites based on actual field survey will be performed once the sites are selected.
- **Drainage Stormtab:** This proposal also includes the sizing of roadway conveyance pipe system in accordance with FDOT Rational Method. There are several offsite conveyance pipe upgrades necessary in order for the drainage system within the project corridor to function properly. These upgrades may include pipe size upgrade as well as pipe material upgrade from existing Vitrified Clay Pipe (VCP) to current pipe standards. These pipes are located along Henrietta Avenue, Spruce Avenue, and 11<sup>th</sup> Street as shown in attached Exhibit. Stormtab for the conveyance systems will begin at the point of connection to the existing 54", 60", and 66" pipes, and tailwater will assume to be at the top of the pipe.
- **Pavement Drainage:** Pavement drainage on spread will be performed in accordance with FDOT and HEC-22 methodology. The pavement drainage analysis information will be provided to HNTB to be incorporated into the design plans.
- **Offsite Drainage Inflow:** Offsite drainage inflow into each inlet will be delineated using available LIDAR, and incorporated into Stormtab and Spread analysis.

12773 W Forest Hill Blvd., Suite 1217, Wellington, Florida 33414 Phone (561)793-0605 Fax (561)839-5888  
[www.k-fgroup.com](http://www.k-fgroup.com)

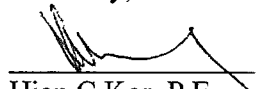
Scope of Services – Palm Beach Lakes Boulevard Over FEC Railroad (PBC 2017800)

September 19, 2022

- **Coordination:** Coordinate with all stakeholders and permitting agencies if necessary. Stakeholders include Palm Beach County, City of West Palm Beach, Community Redevelopment Agency (CRA), and South Florida Water Management District.
- **Drainage Plans:** Drainage Map, Drainage Structure Sheets, Summary of Drainage Structures, Offsite Pond Details, and Pond Typical Sections shall be prepared and submitted at 65%, 96%, and 100% design phases for review and comments. Final submittal shall completely address all comments generated during phase reviews.
- **Permitting:** Coordinate and prepare all necessary drainage permit applications related to *surface water runoff* as required by the governing regulatory agencies. Regulatory agencies include South Florida Water Management District, Florida Department of Transportation (FDOT) Drainage Connection Permit, and City of West Palm Beach. K-F Group, Inc. is not responsible for any environmental issues associated with this project.
- Prepare CADD drawings for Signing and Pavement Markings Sheets. Plans will be prepared on 11"x17" papers at scale 1"=40'. Plans will be submitted at 65%, 96%, 100% and final plans.
- Perform quantity takeoffs for Signing and Pavement Markings.
- Prepare Tabulation of Quantity Sheets for submittals at 96%, 100% and Final plans.
- HNTB shall furnish the following for permitting purposes:  
All information necessary for the analysis and permitting purposes, including but not limited to as-built construction plans and master/site plans, geotechnical investigation, R/W proof of ownership, construction plans and environmental design related drawings, sketches, documentation, calculations and quantities, and permit fees as required to complete the permit application packages.
- **Work Schedule:** **K-F GROUP, INC.** shall submit an evaluation of the storm water management system (Pond Siting) for review at or prior to the 35% design phase submittal. The drainage design data will then be forwarded to HNTB for drawing and inclusion into the 65%, 96%, 100% design phase submittals and final submittal.
- **Drainage Design Documentation:** K-F Group, Inc. will prepare and submit Drainage Design Documentation with design notes, reports, calculations and other related information required to document the drainage design.

**K-F Group, Inc.** fee proposal for the above-described scope of services totaled Lump Sum Fee of \$207,277.27. If you have any questions, please do not hesitate to contact our office. Thank you.

Sincerely,



Hian C Kor, P.E.

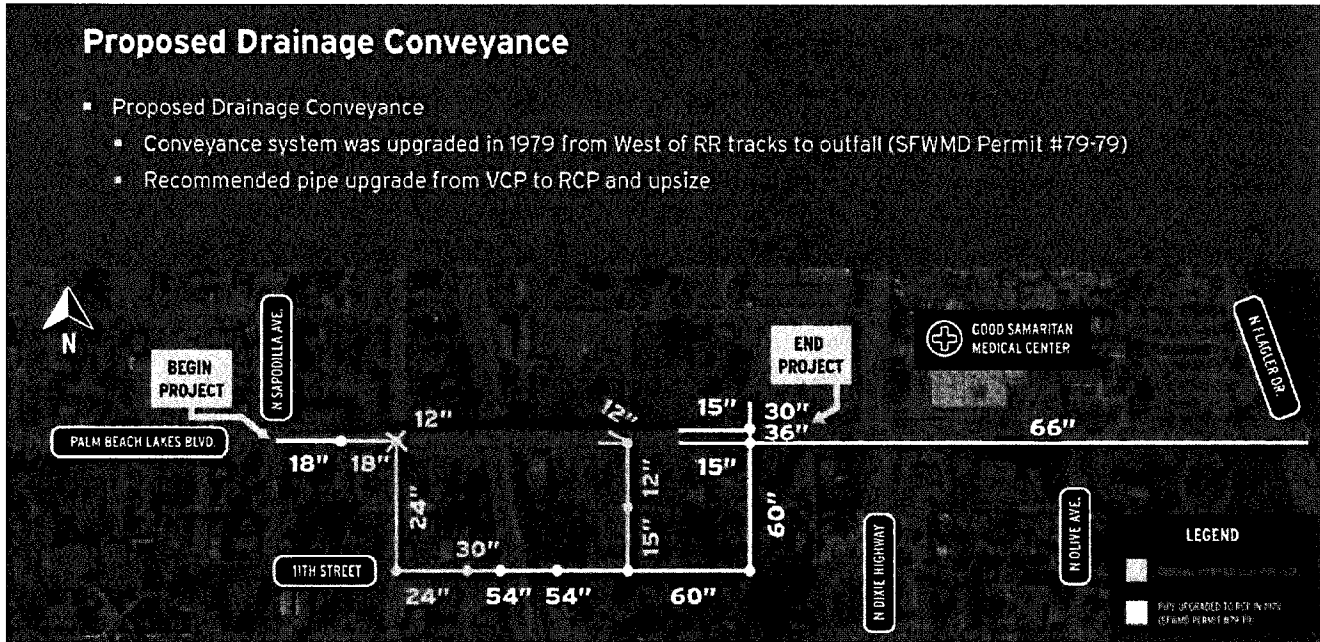
Principal



**EXHIBIT**

**STORM WATER CONVEYANCE**

Existing storm water runoff along the project corridor is collected by roadside inlets. Runoff is then conveyed through a series of pipe network and eventually outfalls into the intracoastal waterway. The pipe network is shown below.



The main trunk line to convey storm water runoff from west of the FEC railroad tracks to the east is along 11<sup>th</sup> Street, south of Palm Beach Lakes Boulevard. There are several off-system drainage pipes along Henrietta Avenue and Spruce Avenue that are vitrified clay pipes. The service life of the clay pipes is long overdue, and replacement of those pipes are strongly recommended.

FEE QUOTATION PROPOSAL (SA 2)

Description : Drainage Design & Signing and Pavement Markings

Project No. 2017800

Project Name: Palm Beach Lakes Boulevard Over FEC Railroad - Bridge Widening and Rehabilitation

No. / Activity	PROJECT MANAGER		SR. PROJECT ENGINEER		PROJECT ENGINEER		CADD TECHNICIAN		Basic Activity Dollar Amount	Manhours By Activity	Average Hourly Rate	Basic x Multiplier
	Man Hour	Hourly Rate	Man Hour	Hourly Rate	Man Hour	Hourly Rate	Man Hour	Hourly Rate				
DRAINAGE MASTER PLAN PHASE	18	\$66.10	66	\$54.09	52	\$44.23	8	\$27.40	\$7,278.90	144	\$50.55	\$21,836.70
DRAINAGE DESIGN PHASE	258	\$66.10	405	\$54.09	263	\$44.23	98	\$27.40	\$53,277.94	1024	\$52.03	\$159,833.82
SIGNING AND PAVEMENT MARKINGS	26	\$66.10	19	\$54.09	58	\$44.23	69	\$27.40	\$7,202.25	172	\$41.87	\$21,606.75
<b>TOTAL MANHOURS</b>	<b>302</b>	<b>\$66.10</b>	<b>490</b>	<b>\$54.09</b>	<b>373</b>	<b>\$44.23</b>	<b>175</b>	<b>\$27.40</b>	<b>\$67,759.09</b>	<b>1340</b>	<b>\$50.57</b>	<b>\$203,277.27</b>

**TOTAL BASIC SERVICES FEE COMPUTATION (K-F GROUP, INC.)**

FEE SUBTOTAL	RAW LABOR	\$67,759.09
Multiplier =	3.00	\$203,277.27
K-F Group, Inc. Basic Services Fee		<u>\$203,277.27</u>
<b>BASIC SERVICES FEE (LUMP SUM)</b>		
K-F Group, Inc.		\$203,277.27
Total Basic Services Fee (Lump Sum)		<u>\$203,277.27</u>
<b>REIMBURSABLE FEE</b>		
K-F Group, Inc. (Permit Fee)		\$4,000.00
Total Reimbursable Fee		<u>\$4,000.00</u>

**TOTAL PROJECT FEE** \$207,277.27

PREPARED BY : HIAN KOR, P.E.

DATE: September 2022

**Project Activity 6a: Drainage Analysis**

(Drainage Master Plan Phase)

Estimator: H. Kor, P.E.

Palm Beach Lakes Boulevard Over FEC Railroad

2017800

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
6a.2	Base Clearance Calculations	Per Location	4	8	8	<b>Master Plan Phase:</b> Base clearance determination (8 hrs)
6a.3	Pond Siting Analysis and Report	Per Basin	4	32	128	<b>Master Plan Phase:</b> Two Offsite Pond Sites are anticipated, one on each side of the railroad track. Four potential pond sites will be analyzed. (4 Pond Matrix - Select 2 Ponds)
<b>Drainage Analysis Technical Subtotal</b>					<b>136</b>	
6a.23	Field Reviews	LS		8	8	<b>Master Plan Phase:</b> 1 Field Visit for Pond Siting Analysis
<b>Drainage Analysis Nontechnical Subtotal</b>					<b>8</b>	
<b>6a. Drainage Analysis Total</b>					<b>144</b>	

**Project Activity 6a: Drainage Analysis**

**(Drainage Design Phase)**

Estimator: H Kor, P.E.

Palm Beach Lakes Boulevard Over FEC Railroad

2017800

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
6a.1	Drainage Map Hydrology	Per Map	1	24	24	<b>Design Phase:</b> Drainage Basin and Drainage Area Delineation, etc
6a.6	Design of Stormwater Management Facility (Offsite or Infield Pond)	EA	1	60	60	<b>Design Phase:</b> Two (2) Offsite Retention/Detention Ponds
6a.9	Design of Storm Drains	EA	59	2.5	148	<b>Design Phase:</b> 28 Drainage Structures (D.S.) along P.B. Lakes Blvd, 20 D.S. along Service Roads adjacent to P.B. Lakes Blvd, 4 D.S. along Henrietta Ave, 4 D.S. along 11th St, and 3 D.S. along Spruce Ave (Total 59 Drainage Structures)
6a.13	Drainage Design Documentation Report	LS	1	60	60	<b>Design Phase:</b> Drainage Report
6a.15	Temporary Drainage Analysis	LS	1	60	60	<b>Design Phase:</b> Temporary Dewatering Analysis (59 Drainage structures and Pipes)
6a.16	Quantities for EQ Report	LS	LS	12	12	<b>Design Phase:</b> First 12 Structures (8 hrs) + Remaining 47 Structures @ 1hr/12 Structures (4 hrs)
6a.19	Hydroplaning Analysis	LS		36	36	<b>Design Phase:</b> Spread analysis along Palm Beach Lakes Boulevard
6a.21	Other Drainage Analysis	LS	LS	72	12	<b>Design Phase:</b> FDOT Drainage Connection Permit 48 Critical Storm Analysis Pre-versus-Post for east and west of Railroad
		LS				
<b>Drainage Analysis Technical Subtotal</b>					<b>600</b>	✓
6a.23	Field Reviews	LS	1	8	8	<b>Design Phase:</b> Field Review
6a.24	Technical Meetings	LS		12	12	<b>Design Phase:</b> Meetings are listed below
		LS				
<b>Drainage Analysis Nontechnical Subtotal</b>					<b>20</b>	
		LS				
<b>6a. Drainage Analysis Total</b>					<b>520</b>	✓

Technical Meetings	Units	No of Units	Hours/ Unit	Total Hours	Comments	PM Attendance at Meeting Required?	Number
Agency (Design Phase: WPB, CRA)	EA	2	3	6			0
Local Governments (cities, counties)	EA		3	3			0
<b>Subtotal Technical Meetings</b>				<b>9</b>			<b>0</b>
Phase Review Meetings	EA	1	3	3	<i>PM attendance at Phase Review Meetings is manually entered on General Task 3</i>		--
<b>Total Meetings</b>				<b>12</b>			<b>0</b>

**6b. Drainage Plans**

(Drainage Design Phase)

Estimator: H Kor, P.E.

Palm Beach Lakes Boulevard Over FEC Railroad

2017800

Task No.	Task	Scale	Units	No. of Units or	Hours/ Unit or Sheet	Total Hours	Comments
6b.1	Drainage Map (Including Interchanges)		Sheet	4	36	36	<u>Design Phase:</u> CADD - 1 sheet @ 36 hrs/sheet Scale 1"=200'H, 1"=5'V
6b.2	Summary of Drainage Structures		Sheet	3	18	24	<u>Design Phase:</u> CADD - 59 Structures (3 sheets @ 18 hrs/sheet) - (54 hrs)
6b.3	Drainage Structures Sheets (Per Structure)		EA	59	2.25	133	<u>Design Phase:</u> CADD - 59 Structures @ 2.25 hrs/structure (133 hrs)
6b.6	Retention/Detention Ponds Detail Sheets		Sheet	2	16	32	<u>Design Phase:</u> CADD - Two Pond Sites
6b.7	Retention Pond Cross Sections		EA	2	0.5		<u>Design Phase:</u> CADD - Two Pond Sites
6b.8	Erosion Control Plan Sheets		Sheet	4	6	24	<u>Design Phase:</u> CADD - Silt Fences, Hay Bales, and Floating Turbidity Barrier (4 sheets @ 6 hrs/sheet) - (24 hrs)
6b.9	SWPPP Sheets		Sheet	2	4	8	<u>Design Phase:</u> CADD - 2 Sheets of SWPPP General Notes with Project Details @ 4 hrs/sheet (8 hrs)
<b>Drainage Plans Technical Subtotal</b>						<b>288</b>	✓
<b>6. Drainage Plans Total</b>						<b>288</b>	✓

**Project Activity 8: Environmental Permits**

(Drainage Design Phase)

Estimator: H Kor, P.E.

Palm Beach Lakes Boulevard Over FEC Railroad

2017800

Task No.	Task	Units	No. of Units	Hours/ Units	Total Hours	Comments
<b>Environmental Permits and Environmental Clearances</b>						
8.1	Preliminary Project Research	LS	1	8	8	<b>Design Phase:</b> Project permit research (8 hrs)
<b>Permits</b>						
8.4	<b>Complete And Submit All Required Permit Applications</b>					
8.4.1	Complete and Submit All Required Wetland Permit Applications	LS	1	120	120	<b>Design Phase:</b> SFWMD ERP Application (Includes surface water RAI) - (80 hrs); SFWMD Temporary Dewatering Permit Application (40 hrs)
8.12	Other Environmental Permits	LS	1	80	80	<b>Design Phase:</b> FDOT Drainage Connection Permit (40 hrs) + City of WPB (40 hrs)
			1			
<b>Environmental Permits and Environmental Clearances/Reevaluations Technical Subtotal</b>					<b>208</b> ✓	
8.17	Technical Meetings	LS		8	1	<b>Design Phase:</b> Meetings are listed below; Permit Pre-Application Meetings (SFWMD, ITID)
<b>Environmental Permits and Environmental Clearances Nontechnical Subtotal</b>					<b>8</b> ✓	
			1			
<b>8. Environmental Permits and Environmental Clearances Total</b>					<b>216</b> ✓	

Technical Meetings	Units	No of Units	Hours/ Unit	Total Hours	Comments	PM Attendance at Meeting Required?	Number
WMD (Pre-Application Meeting)	EA	1	4	4			0
FDOT	EA	1	4	4	Drainage Connection Permit		0
<b>Subtotal Technical Meetings</b>				<b>8</b>	<b>Subtotal Project Manager Meetings</b>		<b>0</b>
<b>Total Meetings</b>				<b>8</b> ✓			<b>0</b>

**Project Activity 19: Signing and Pavement Marking Analysis**

(Design Phase)

Estimator: H Kor, P.E.

Palm Beach Lakes Boulevard Over FEC Railroad

2017800

Task No.	Task	Units	No. of Units	Hours/ Units	Total Hours	Comments
19.3	Signing and Pavement Marking Master Design File	LS	1	82	82	<u>Design Phase:</u> 45 hours for setup + 0.38 miles x 70 hrs/mile (27 hours) + 1 intersection at Sapodilla (10 hours)
19.7	Quantities for EQ Report	LS	6	30	30	<u>Design Phase:</u> 30 hours for all 2,000 ft of project including intersection at Sapodilla
<b>Signing and Pavement Marking Analysis Technical Subtotal</b>					<b>112</b>	
19.12	Technical Meetings	LS	1	4	4	Meetings are listed below
<b>Signing and Pavement Marking Analysis Nontechnical Subtotal</b>					<b>4</b>	
19.16	Coordination Meetings	EA	6	1.00	4	Coordination with HNTB Roadway Division (35%, 65%, 96%, 100%) 4 Meetings x 1 hour/ea + Coordination with HNTB Bridge Division (65% and 96%) 2 Meetings x 1 hour/ea
<b>19. Signing and Pavement Marking Analysis Total</b>					<b>122</b>	

Technical Meetings	Units	No of Units	Hours/ Unit	Total Hours	Comments	PM Attendance at Meeting Required?	Number
<b>Subtotal Technical Meetings</b>				<b>0</b>		<b>Subtotal Project Manager Meetings</b>	<b>0</b>
Phase Review Meetings	EA	1	4	4			--
<b>Total Meetings</b>				<b>4</b>		<b>Total Project Manager Meetings (carries to Tab 3)</b>	<b>0</b>

Project Activity 20: Signing and Pavement Marking Plans

(Design Phase)

Estimator: H Kor, P.E.

Palm Beach Lakes Boulevard Over FEC Railroad  
2017800

Task No.	Task	Scale	Units	No of Units	Hours/ Unit	No. of Sheets	Total Hours	Comments
20.1	Key Sheet		Sheet	4	4		6	
20.2	Tabulation of Quantities Sheets		Sheet		4		6	
20.4	Plan Sheet		Sheet	4	10		40	
				4	4			
<b>Signing and Pavement Marking Plans Technical Subtotal</b>						<b>6</b>	<b>50</b> ✓	
<b>20. Signing and Pavement Marking Plans Total</b>						<b>6</b>	<b>50</b> ✓	



Insert "A3"

## PERMIT APPLICATION FEE SCHEDULE

(Effective 8/7/2016)

### Environmental Resource Permits

**New Individual or Conceptual Permit (excludes Agriculture, Mitigation Bank)**

- Project area < 10 acres; no wetlands or surface waters; no boat slips..... \$ 2,000
- Project area < 10 acres; < 1 acre wetland or surface water; < 10 boat slips..... \$ 3,500 ✓
- Project area < 40 acres; < 3 acres wetlands or surface waters; < 30 boat slips..... \$ 5,500
- Project area < 100 acres; < 10 acres wetlands or surface waters; < 50 boat slips..... \$ 7,500
- Project area < 640 acres; < 50 acres wetlands or surface waters; < 50 boat slips..... \$ 13,125
- Project area > 640 acres; > 50 acres wetlands or surface waters; > 50 boat slips..... \$ 25,000

**New Individual Agriculture or Silviculture Permit**

- Project area < 10 acres; < 1 acre wetland or surface water..... \$ 859
- Project area < 40 acres; < 3 acres wetlands or surface waters..... \$ 2,444
- Project area < 100 acres; < 10 acres wetlands or surface waters..... \$ 4,029
- Project area < 640 acres; < 50 acres wetlands or surface waters..... \$ 5,284
- Project area > 640 acres; > 50 acres wetlands or surface waters..... \$ 6,605

**Individual or Conceptual Permit Major Modification (excludes Agriculture, Mitigation Banks)**

- Project area < 10 acres; no wetlands or surface waters; no boat slips..... \$ 1,200
- Project area < 10 acres; < 1 acre wetland or surface waters; < 10 boat slips..... \$ 2,100
- Project area < 40 acres; < 3 acres wetlands or surface waters; < 30 boat slips..... \$ 3,300
- Project area < 100 acres; < 10 acres wetlands or surface waters; < 50 boat slips..... \$ 4,500
- Project area < 640 acres; < 50 acres wetlands or surface waters; < 50 boat slips..... \$ 7,875
- Project area > 640 acres; > 50 acres wetlands or surface waters; > 50 boat slips..... \$ 15,000

**Individual Agriculture or Silviculture Permit Major Modification**

- Project area < 10 acres; < 1 acre wetland or surface water..... \$ 515
- Project area < 40 acres; < 3 acres wetlands or surface waters..... \$ 1,466
- Project area < 100 acres; < 10 acres wetlands or surface waters..... \$ 2,417
- Project area < 640 acres; < 50 acres wetlands or surface waters..... \$ 3,170
- Project area > 640 acres; > 50 acres wetlands or surface waters..... \$ 3,963

**Individual or Conceptual Permit Minor Modification (includes Mitigation Banks)**

- Time Extension of Permit (not associated with SB/HB)..... \$ 500
- Time Extension of Permit (associated with SB/HB)..... \$ 0
- Minor errors not requiring technical review..... \$ 0
- Transfer of ownership..... \$ 0
- Transfer from construction to operation phase..... \$ 0
- All other minor modifications (Letter Modification)..... \$ 250

**New Individual or Conceptual Permit for a Mitigation Bank**

- Permit area < 100 acres..... \$ 7,500

8/7/2016

### Water Use Permits

**Individual Permit, except Mining/Dewatering**

- Max Month Allocation <= 3 MGM .....\$ 350
- Max Month Allocation > 3 MGM <= 15 MGM ..... \$ 1,000

**Individual Irrigation < 20 years**

- Max Month Allocation > 15 MGM ..... \$ 1,000

**Individual Irrigation >= 20 years**

- Max Month Allocation > 15 MGM <= 30 MGM ..... \$ 1,600
- Max Month Allocation > 30 MGM <= 300 MGM ..... \$ 3,400
- Max Month Allocation > 300 MGM ..... \$ 5,600

**Individual Public Water Supply < 20 years**

- Max Month Allocation > 15 MGM <= 30 MGM ..... \$ 2,700
- Max Month Allocation > 30 MGM <= 300 MGM ..... \$ 5,500
- Max Month Allocation > 300 MGM ..... \$ 7,000

**Individual Public Water Supply >= 20 years**

- Max Month Allocation > 15 MGM <= 30 MGM ..... \$ 4,200
- Max Month Allocation > 30 MGM <= 300 MGM ..... \$ 8,500
- Max Month Allocation > 300 MGM ..... \$11,500

**Individual Mining/Dewatering**

- Standard Individual Permit <= 1 year..... \$ 500 ✓
- Standard Individual Permit > 1 year..... \$ 1,800
- Master Individual Permit ..... \$ 4,000

**Individual Industrial < 20 years**

- Max Month Allocation > 15 MGM <= 30 MGM ..... \$ 1,400
- Max Month Allocation > 30 MGM <= 300 MGM ..... \$ 2,750
- Max Month Allocation > 300 MGM ..... \$ 3,500

**Individual Industrial >= 20 years**

- Max Month Allocation > 15 MGM <= 30 MGM ..... \$ 2,000
- Max Month Allocation > 30 MGM <= 300 MGM ..... \$ 3,650
- Max Month Allocation > 300 MGM ..... \$ 5,600

**Individual Diversion/Impoundment < 20 years**

- Max Month Allocation > 15 MGM <= 30 MGM ..... \$ 1,400
- Max Month Allocation > 30 MGM <= 300 MGM ..... \$ 2,750
- Max Month Allocation > 300 MGM ..... \$ 3,500

**Individual Diversion/Impoundment >= 20 years**

- Max Month Allocation > 15 MGM <= 30 MGM ..... \$ 2,000



January 20, 2022  
Revised June 16, 2022

Mr. Kyle K. Cheerangie, P.E.  
HNTB Corporation  
5900 N. Andrews Avenue, Suite 400  
Fort Lauderdale, FL 33309

**Re: Palm Beach Lakes Blvd. over FEC Railroad Bridge Widening and Rehabilitation  
Palm Beach County Project No. 2017800  
Additional Surveying Services for Storm Water Conveyance Design**

Dear Kyle:

Thank you for the opportunity to provide you with the following services for the subject site. This proposal is based on documentation and information provided by your office and the office of K-F Group. The scope of services is as follows:

**SCOPE OF SERVICES**

We will perform a specific purpose/topographic survey under this project and the survey work will be performed in accordance with the current Standards of Practice and Palm Beach County Roadway Design Procedures dated January 2019, and all Palm Beach County requirements. All survey work done will result in a signed and sealed survey drawing in accordance with all applicable requirements, codes, rules and Statutes governing Surveying and Mapping.

**OFFSITE PIPE UPGRADES**

**I. ROUTE TOPOGRAPHIC SURVEY**

We will update our survey prepared in March 2021 (B&P Project 20-046) to include topographic surveys along Henrietta Avenue, Spruce Avenue, and 11<sup>th</sup> Street in support of offsite pipe upgrades (vitrified clay pipe to RCP). Limits of the survey are cross hatched in green on Attachment 'B'.

The survey will tie in all visible features such as, but not limited to, signs, light poles, guardrails, utilities, walks, edge of pavement, curbing, drainage structures, striping, etc., as well as finished floor elevations of houses. These locations will show all features within the corridor from right of way to right of way extending to 25 feet outside the existing right of way. Cross sections will be done along the route at 100-foot intervals. These cross sections will cover the roadway to the right of way lines and extend to 25 feet outside of the existing right of way. We will attempt to get as-built information on all the pipes leading out of any storm structures found (we anticipate there being a need to obtain additional drainage information outside of the topographic survey limits). We will show invert elevations, pipe sizes and materials for all pipes located including outfall pipes. We will locate Geotech borings. No additional title review is proposed.

**II. BASELINE LAYOUT**

We will lay out the baseline on Henrietta Avenue, Spruce Avenue and 11<sup>th</sup> Street at 100' intervals setting appropriate points at each station. The baseline will be laid out within the limits of the route. These baseline points will be used in the topographic and cross section phase to locate features and facilitate checks.

1860 Old Okeechobee Road • Suite 509 • West Palm Beach, Florida 33409

(561) 615-3988 • Fax (561) 615-3991

M: PROPOSALS BY COMPANY HNTB Palm Beach Lakes Blvd Supplement additional survey for storm water conveyance design and pond sites.doc

Cheerangie  
June 16, 2022  
Page 2

**OFFSITE DRY PONDS (2)**

**I. POND SITES BOUNDARY AND TOPOGRAPHIC SURVEY**

We will perform a boundary and topographic survey for two (2) offsite dry pond sites to handle additional runoff, one on each side of the railroad corridor. The surveys will be prepared in accordance with the Standards of Practice in Rule 5J-17.050 – 0.53, Florida Administrative Code, pursuant to Chapter 472.027 of the Florida Statute. All onsite above ground improvements will be located, and a drawing will be prepared in AutoCAD. The survey will show elevations on an approximate 50' grid throughout the area including shots on pavement, swales, trees (tree survey included for all pond sites) and any existing improvements. We will locate two (2) Geotech borings per pond site. We anticipate the sites to be vacant, and typical lot sized. We will review the title package provided by Palm Beach County.

**OPTIONAL SERVICES**

**I. LEGAL DESCRIPTIONS AND SKETCHES**

We will prepare legal descriptions and sketches if needed for temporary construction easements (TCE) or right-of-way takes. These sketches will be based on record ownership data and record plats provided by Palm Beach County. All sketches will be consistent with the requirements of Palm Beach County and Florida Standards of Practice. We have estimated twenty (20) parcels for this project at \$500.00 each totaling \$10,000.00.

**II. TEST HOLES**

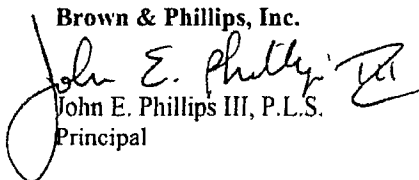
We will perform two (2) test holes to determine the thickness of the asphalt at the 60' and 109' spans, where the existing beams and deck are to remain. The exact test hole locations will be determined by you and will be at the side streets that are under the bridge, Henrietta Avenue and Madeira Court.

**CLOSURE**

A certified signed and sealed Topographic Survey (11" x 17" sheets on a 1" = 40' scale) will be prepared and delivered, to be included with the engineering plans (sheets SURX-SURXX) showing the existing right-of-way and supporting record information in addition to all improvements as outlined. We will also provide a printout of the right-of-way information in hard copy and digital format (CAD and PDF), as part of the approved survey plan submittal, showing labels referencing each document used to plot the right-of-way. We propose to provide HNTB and Palm Beach County Survey Section with 1 set certified, signed & sealed, of the Survey, 1 set in PDF digitally signed and CAD files in the version requested. Any additional work will be done on an hourly basis as approved by you. We will perform the scope of services for a **lump sum fee of \$24,092.05** (\$6,823.59 for the route topographic survey, \$6,368.46 for two pond site boundary & topographic surveys, \$10,000.00 for twenty legal descriptions and sketches at \$500.00 each, and \$900.00 for two pavement test holes at \$450.00 each), see Table 'A' for an hourly breakdown. Please do not hesitate to call me with any questions you might have regarding this proposal. We look forward to working with you on this project.

Sincerely,

**Brown & Phillips, Inc.**



John E. Phillips III, P.L.S.  
Principal

JEP/mb



TABLE 'A' (1 of 2)

**Palm Beach Lakes Blvd. over FEC Railroad Bridge Widening and Rehabilitation  
Palm Beach County Project No. 2017800  
Additional Surveying Services for Storm Water Conveyance Design**

Type of Survey: Topographic  
Date: June 16, 2022

TASK - Offsite Pipe Upgrades Route Topographic Survey Henrietta, Spruce, 11th St.	SURVEY CREW (3 PERSON)	CADD TECHNICIAN	SURVEY TECHNICIAN	PROFESSIONAL LAND SURVEYOR	COMMENTS
Meetings and Coordination				1	
Horizontal Project Network Control	7		1		Find/recover control
Vertical Project Network Control			0.5		Set benchmarks along corridor
Baseline Layout	7	7			Layout baseline at 100' intervals
Horizontal Control Points	3	1	0.5		Set 2 additional horizontal control points and update PNC Sheet
Topography	8		1.5		Locate all above ground features, Geotech borings, trees, house finished floor elevations
Cross Sections	4		0.5	1	At 100' intervals to 25' outside RAW - TIN file
As-builts	6		2		As-built storm structures
Geotech Borings	3	1	1		Locate pavement test holes
Topographic Survey		7	2		Update Topographic Survey
Address Comments	1		3	1	
Total Hours:	28	9	12	3	
Rate/Hour	\$54.17	\$30.12	\$30.12	\$41.75	unloaded rates
Subtotal:	\$1,516.76	\$271.08	\$361.44	\$125.25	
Total Labor Cost (unloaded):					\$2,274.53
Multiplier:					3.00
<b>Total Labor Cost (loaded):</b>					<b>\$6,823.59</b>



TABLE 'A' (2 of 2)

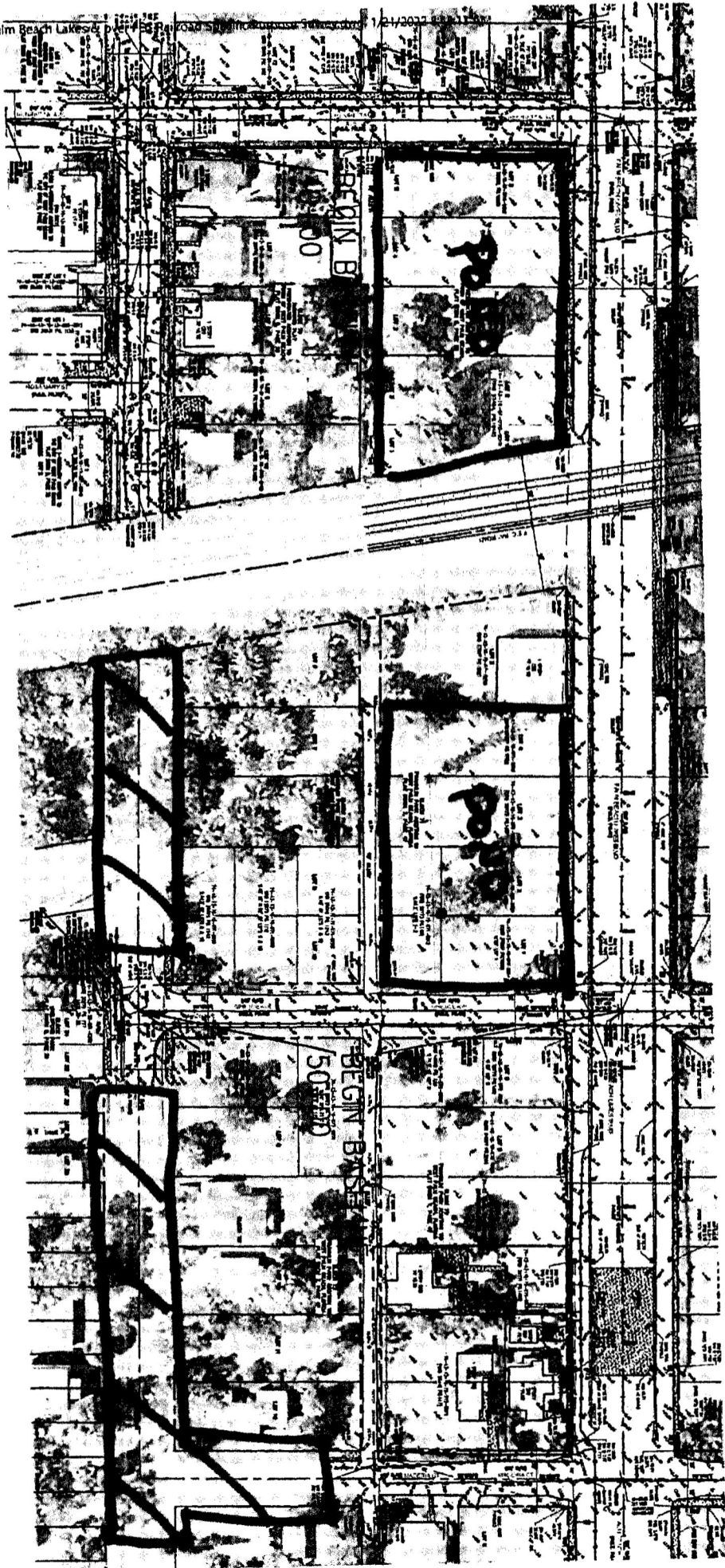
**Palm Beach Lakes Blvd. over FEC Railroad Bridge Widening and Rehabilitation  
Palm Beach County Project No. 2017800  
Additional Surveying Services for Storm Water Conveyance Design**

<b>TASK - Offsite Dry Ponds (2) Boundary &amp; Topo Surveys</b>	<b>SURVEY CREW (3 PERSON)</b>	<b>CADD TECHNICIAN</b>	<b>SURVEY TECHNICIAN</b>	<b>PROFESSIONAL LAND SURVEYOR</b>	<b>COMMENTS</b>
Meetings and Coordination					
Horizontal Project Network Control	1		4	0.5	Review title package. Set control points, work up boundary
Vertical Project Network Control	2		0.5		Establish onsite benchmarks
Section/Boundary Ties	1		1	1	Find and locate existing monumentation
Boundary Monumentation	2		0.5	1	Set property corners
Tie In Improvements and Cross Sections	2				Update above ground features, 50' cross sections & spot elevations, trees and as-builts
Geotech Borings					Locate soil borings (2 per pond site)
Drawing		4	2	1	Prepare boundary and topographic survey
Address Comments			4	1	
<b>Total Hours:</b>	8	4	12	3.5	
<b>Rate/Hour</b>	\$54.17	\$30.12	\$30.12	\$41.75	unloaded rates
<b>Subtotal:</b>	\$433.36	\$120.48	\$361.44	\$146.13	
<b>Total cost per pond site (unloaded):</b>					\$1,061.41
<b>Multiplier:</b>					3.00
<b>Total cost per lot (loaded):</b>					\$3,184.23
<b>Total cost for 2 boundary &amp; topographic surveys</b>					\$6,368.46

<b>Other Direct Costs:</b>	<b>quantity</b>	<b>unit</b>	<b>cost/unit</b>	<b>total</b>
Legal Description & Sketch	20	each	\$500.00	\$10,000.00
Test Holes	2	each	\$450.00	\$900.00 (to determine thickness of asphalt)
<b>Total Other Direct Costs:</b>				\$10,900.00

**TOTAL PRICE Table 'A' - (1 of 2) & (2 of 2) \$24,092.05 ✓**

SA\2020 drawing files\20-046\20-046 Palm Beach Lakes & Park





**Palm Beach Lakes Blvd. over FEC Railroad**  
**Estimated 0.3 Mile, Bridge Widening and Rehabilitation**  
**Palm Beach County Project No. 2017800**  
**Geotechnical Scope of Work (04-27-22)**

The project involves the replacement of the Palm Beach Lakes Boulevard Bridge over the Florida East Coast (FEC) railroad tracks in West Palm Beach, Florida. The limit of this project is from the intersection of North Sapodilla Avenue to North Dixie Highway.

The following geotechnical scope of work was identified as follows:

**Field Work**

1. Visit the project site to observe and photograph existing site conditions and to field mark planned boring locations.
2. Contact Sunshine 811 to request the field location of underground utilities in the area of the borings as per Florida Statutes, and coordinate the clearance of underground utilities at the boring locations for performance of the field activities.
3. Mobilize drilling and testing equipment.
4. Provide Temporary Traffic Control (TTC) during the performance of the field exploration in accordance with FDOT Standard Plans for Road Construction.
5. For the bridge, perform fifteen (15) Standard Penetration Test (SPT) borings to depths of 100 feet below the existing grades. Samples of the soils encountered will be obtained and the depth to the groundwater level will be measured and recorded for each of the borings. Following completion of the drilling and testing, the boreholes will be backfilled with grout. If applicable, asphalt "cold patch" will be placed and compacted within the portion of the hole at least as thick as the surrounding asphalt pavement thickness.
6. For the retaining walls, perform four (4) Standard Penetration Test (SPT) borings to depths of 40 feet below the existing grades. Samples of the soils encountered will be obtained and the depth to the groundwater level will be measured and recorded for each of the borings. Following completion of the drilling and testing, the boreholes will be backfilled with grout. If applicable, asphalt "cold patch" will be placed and compacted within the portion of the hole at least as thick as the surrounding asphalt pavement thickness.
7. For the mast arm at Sapodilla, perform one (1) Standard Penetration Test (SPT) boring to a depth of 25 feet below the existing grades. Samples of the soils encountered will be obtained and the depth to the groundwater level will be measured and recorded for each of the borings. Following completion of the drilling and testing, the boreholes will be backfilled with grout. If applicable, asphalt "cold patch" will be placed and compacted within the portion of the hole at least as thick as the surrounding asphalt pavement thickness.
8. For proposed pond sites, perform four (4) Standard Penetration Test (SPT) borings to depths of 20 feet below the existing grades. Samples of the soils encountered will be obtained and the depth to the groundwater level will be measured and recorded for each of the borings. Following completion of the drilling and testing, the boreholes will be backfilled with grout.
9. For the bridge approaches, obtain pavement core samples from four (4) locations.
10. For corrosion series testing, collect two (2) soil samples.



**Lab Testing**

1. Visually classify the soil samples retrieved from the borings using the Unified Soil Classification System (USCS) in general accordance with the American Society of Testing and Materials (ASTM) test method D 2488 (ASTM D 2488).
2. Perform laboratory testing in accordance with applicable ASTM standards for soil index properties on selected samples to aid in the classification confirmation process
  - a. Natural Moisture Content (2 tests/SPT boring) – 30 tests
  - b. Full Grain Size Analysis (1 test/SPT boring) – 15 tests
  - c. Fines Content Determination (2 tests/SPT boring) – 30 tests
  - d. Organic Content (1 test/SPT boring) – 15 tests
3. Analyze two (2) soil samples for corrosion parameters that include pH, chloride content, sulfate content and resistivity in general accordance with the FDOT Test Designations FM5-550, 5-551, 5-552, and 5-553.
4. Measure the asphalt thickness and density of each asphalt pavement core.

**Engineering Services & Reporting**

1. Review readily available published information including the Soil Survey of Palm Beach County published by the U.S. Department of Agriculture (USDA) and Soil Conservation Service (SCS) and United States Geological Society (USGS) Topographic Quadrangle Maps.
2. Develop Temporary Traffic Control Plans for the field work.
3. Attend technical and coordination meetings.
4. Prepare Geotechnical Engineering Services Report - Pavement Coring and Evaluation
  - a. Develop a detailed coring location plan.
  - b. Identify the thickness and composition of the existing pavement section(s).
  - c. Prepare Draft Pavement Coring and Evaluation Report including the data obtained above.
  - d. Prepare Final Pavement Coring and Evaluation Report.
5. Prepare Geotechnical Engineering Services Report – Pond Sites
  - a. Develop a detailed boring location plan.
  - b. Classify soil samples and develop laboratory testing program.
  - c. Review laboratory data and present data in tables
  - d. Review available data including the DBHYDRO Environmental Database to estimate the seasonal high groundwater level.
  - e. Prepare detail graphical logs of the borings showing the groundwater and soil classifications.
  - f. Discussion of the suitability of the encountered soils for any proposed improvements.
  - g. Prepare site preparation recommendations.
  - h. Prepare pond construction and testing recommendations.
  - i. Prepare Draft Pond Sites Report including the data obtained above.
  - j. Prepare Final Pond Sites Report including the data obtained above.
6. Prepare Geotechnical Engineering Services Report - Structures
  - a. Develop a detailed boring location plan.
  - b. Classify soil samples and develop laboratory testing program.
  - c. Review laboratory data and present data in tables
  - d. Review available data including the DBHYDRO Environmental Database to estimate the seasonal high groundwater level.
  - e. Prepare detail graphical logs of the borings showing the groundwater and soil classifications.
  - f. Identify deep foundation alternatives.
  - g. Provide soil design parameters for minimum pile tip elevation analysis.
  - h. Provide soil design parameters for mastarm foundation analysis.

- i. Provide recommendations for retaining walls
- j. Identify structures of concern in order to develop the Vibration Monitoring Requirements.
- k. Discussion of the suitability of the encountered soils for the support of the bridge improvements.
- l. Prepare site preparation recommendations.
- m. Prepare bridge construction and testing recommendations.
- n. Prepare Draft Structures Report including the data obtained above.
- o. Prepare Final Structures Report including the data obtained above.



**SCOPE/FEE PROPOSAL**  
**Geotechnical Engineering Services**  
**Palm Beach Lakes Blvd. over FEC Railroad**  
**Estimated 0.3 Mile, Bridge Widening and Rehabilitation**  
**Palm Beach County Project Number: 2017800**

	Qty	Unit	Unit Price	Fee Schedule Code	Total	
<b>1.0 FIELD EXPLORATION</b>						
<b>1.1 Pavement Cores (Est. 1 day)</b>						
<u>Maintenance of Traffic</u>						
1.1.1 Attenuator Truck	8	Hour	\$ 143.55	701*	\$ 1,148.40	
1.1.2 MCT Portable Signs - 4 per day	4	Each	\$ 17.27	706*	\$ 69.08	
1.1.3 MCT Arrow Board - 1 per day	1	Each	\$ 47.90	700*	\$ 47.90	
1.1.4 MCT Provide Channelizing Devices Cone - 12 per day	12	Each	\$ 7.62	708*	\$ 91.44	
<u>Pavement Cores (4)</u>						
1.1.5 Coring Machine plus Generator Rental	1	Trip	\$ 400.00	IV.5	\$ 400.00	✓
1.1.6 Asphalt Cores (obtaining core samples)	4	Each	\$ 60.00	IV.1	\$ 240.00	
<b>1.2 Bridge Borings (Est. 18 days)</b>						
<u>Maintenance of Traffic</u>						
1.2.1 MCT Portable Signs - 4 per day	72	Each	\$ 17.27	706*	\$ 1,243.44	✓
1.2.2 MCT Provide Channelizing Devices Cone - 12 per day	216	Each	\$ 7.62	708*	\$ 1,645.92	✓
<u>15 SPT Borings to 100' (Sampling Interval - 2.5' Centers)</u>						
1.2.3 Mobilize Equipment - Drill Rig (Truck-50 Miles)	1	Each	\$ 350.00	VI.8.1	\$ 350.00	
1.2.4 SPT Boring-0' to 50' (Truck-Mounted) LAND	750	Foot	\$ 15.00	VI.3	\$ 11,250.00	
1.2.5 SPT Boring-50' to 100' (Truck-Mounted) LAND	750	Foot	\$ 18.00	VI.3	\$ 13,500.00	
1.2.6 Extra SPT Samples (0-50')	120	Sample	\$ 43.03	427*	\$ 5,163.60	
1.2.7 Extra SPT Samples (50-100')	150	Sample	\$ 48.44	428*	\$ 7,266.00	✓
1.2.8 Casing - 0' to 50' - To keep borehole open in caving soil conditions	750	Foot	\$ 6.50	VI.5	\$ 4,875.00	
1.2.9 Casing - 50' to 100' - To keep borehole open in caving soil conditions	750	Foot	\$ 7.50	VI.5	\$ 5,625.00	
1.2.10 Grout Seal Boreholes - 0' to 50'	750	Foot	\$ 4.25	VI.4	\$ 3,187.50	
1.2.11 Grout Seal Boreholes - 50' to 100'	750	Foot	\$ 5.25	VI.4	\$ 3,937.50	
1.2.12 Collect Corrosion Samples (Sr. Eng. Technician)	4	Hour	\$ 70.00	VIII.5	\$ 280.00	✓
<b>1.3 Retaining Wall Borings (Est. 2 days)</b>						
<u>Maintenance of Traffic</u>						
1.3.1 MCT Portable Signs - 4 per day	8	Each	\$ 17.27	706*	\$ 138.16	
1.3.2 MCT Provide Channelizing Devices Cone - 12 per day	24	Each	\$ 7.62	708*	\$ 182.88	✓
<u>4 SPT Borings to 40'</u>						
1.3.3 Mobilize Equipment - Drill Rig (Truck-50 Miles)	1	Each	\$ 350.00	VI.8.1	\$ 350.00	
1.3.4 SPT Boring-0' to 50' (Truck-Mounted) LAND	160	Foot	\$ 15.00	VI.3	\$ 2,400.00	✓
1.3.5 Casing - 0' to 50' - To keep borehole open in caving soil conditions	160	Foot	\$ 6.50	VI.5	\$ 1,040.00	✓
1.3.6 Grout Seal Boreholes - 0' to 50'	160	Foot	\$ 4.25	VI.4	\$ 680.00	✓
<b>1.4 Mast Arm Boring (Est. 1 day)</b>						
<u>Maintenance of Traffic</u>						
1.4.1 MCT Portable Signs - 4 per day	4	Each	\$ 17.27	706*	\$ 69.08	
1.4.2 MCT Provide Channelizing Devices Cone - 12 per day	12	Each	\$ 7.62	708*	\$ 91.44	✓
<u>1 SPT Boring to 25'</u>						
1.4.3 Mobilize Equipment - Drill Rig (Truck-50 Miles)	1	Each	\$ 350.00	VI.8.1	\$ 350.00	✓
1.4.4 SPT Boring-0' to 50' (Truck-Mounted) LAND	25	Foot	\$ 15.00	VI.3	\$ 375.00	✓
1.4.5 Casing - 0' to 50' - To keep borehole open in caving soil conditions	25	Foot	\$ 6.50	VI.5	\$ 162.50	
1.4.6 Grout Seal Boreholes - 0' to 50'	25	Foot	\$ 4.25	VI.4	\$ 106.25	✓
<b>1.5 Pond Borings (Est. 2 days)</b>						
<u>4 SPT Borings to 20' (Continuous Sampling Intervals)</u>						
1.5.1 Mobilize Equipment - Drill Rig (Truck-50 Miles)	1	Each	\$ 350.00	VI.8.1	\$ 350.00	
1.5.2 SPT Boring-0' to 50' (Truck-Mounted) LAND	80	Foot	\$ 15.00	VI.3	\$ 1,200.00	
1.5.3 Extra SPT Samples (0-50')	12	Sample	\$ 43.03	427*	\$ 516.36	
1.5.4 Casing - 0' to 50' - To keep borehole open in caving soil conditions	80	Foot	\$ 6.50	VI.5	\$ 520.00	
1.5.5 Grout Seal Boreholes - 0' to 50'	80	Foot	\$ 4.25	VI.4	\$ 340.00	
			<b>TOTAL FIELD WORK</b>		<b>\$ 69,192.45</b>	✓
<b>2.0 LABORATORY SERVICES</b>						
2.1 Moisture Test	30	Each	\$ 15.45	I.10	\$ 463.50	
2.2 Full Grain Size Analysis	15	Each	\$ 85.00	III.1.A	\$ 1,275.00	
2.3 Fine Content Determination	24	Each	\$ 47.00	III.1.B	\$ 1,128.00	
2.4 Organic Content Test	16	Each	\$ 46.00	I.7	\$ 736.00	
2.5 Corrosion Series (2 soil)	2	Each	\$ 185.00	I.8	\$ 370.00	
2.6 Asphalt Density and Thickness	4	Each	\$ 35.00	IV.3	\$ 140.00	
			<b>TOTAL LABORATORY SERVICES</b>		<b>\$ 4,112.50</b>	✓
<b>3.0 PROFESSIONAL SERVICES &amp; DELIVERABLES (SEE STAFF HOUR ESTIMATE)</b>						
3.1 Principal Engineer	21	Hour	\$ 185.00	VIII.1	\$ 3,885.00	
3.2 Senior Geotechnical Engineer, PE	63	Hour	\$ 155.00	VIII.2	\$ 9,765.00	
3.3 Engineer, PE	116	Hour	\$ 135.00	VIII.3	\$ 15,660.00	
3.4 Staff Engineer	110	Hour	\$ 105.00	VIII.4	\$ 11,550.00	
3.5 Drafter / CADD	37	Hour	\$ 68.00	VIII.7	\$ 2,516.00	
3.6 Sr. Eng. Technician	4	Hour	\$ 70.00	VIII.5	\$ 280.00	
			<b>TOTAL PROFESSIONAL SERVICES</b>		<b>\$ 43,656.00</b>	✓
			<b>TOTAL AMOUNT</b>		<b>\$ 116,960.95</b>	✓

\*FDOT District 4 Mean Pay Item (See Attached)



**Staff Hour Estimate  
Geotechnical Engineering Services  
Palm Beach Lakes Blvd. over FEC Railroad  
Estimated 0.3 Mile, Bridge Widening and Rehabilitation  
Palm Beach County Project Number: 2017800**

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
<b>Roadway/Pavement/Pond</b>						
35.1	Document Collection and Review	LS	1	4	4	Staff Engineer - 100%
35.2	Develop Detailed Boring Location Plan	LS	1	4	4	Engineer - 100%
35.3	Stake Borings/Utility Clearance	Boring	4	0.4	4	Staff Engineer - 100%
35.4	Muck Probing	Crew Day	4	0	4	
35.5	Coordinate and Develop MOT Plans for Field Investigation	EA	4	4	4	Engineer - 100%
35.6	Drilling Access Permits	Location	4	0	0	
35.7	Property Clearances	EA	4	0	0	
35.8	Groundwater Monitoring	EA	4	0	0	
35.9	LBR/Resilient Modulus Sampling	EA	0	0	0	
35.10	Coordination of Field Work	100 lf of boring	0.8	1	1	Engineer - 100%
35.11	Soil and Rock Classification - Roadway	100 lf of boring	0.8	2	2	Engineer - 100%
35.12	Design LBR	LS	1	0	4	
35.13	Laboratory Data	100 lf of boring	0.8	1	4	Engineer - 100%
35.14	Seasonal High Water Table	Boring	4	0.5	2	Staff Engineer - 100%
35.15	Parameters for Water Retention Areas	EA	4	0	0	
35.16	Delineate Limits of Unsuitable Material	Cross-section	0	0	0	
35.17	Electronic Files for Cross-Sections	100 lf of boring	4	0	2	
35.18	Embankment Settlement and Stability	Embankment Boring	4	0	2	
35.19	Monitor Existing Structures	LS	1	1	0	
35.20	Stormwater Volume Recovery and/or Background Seepage Analysis	EA	0	0	0	
35.21	Geotechnical Recommendations	LS	4	0	0	
35.22	Pavement Condition Survey and Pavement Evaluation Report	LS	1	16	16	Principal Engineer - 10%, Senior Engineer - 20%, Engineer - 30%, Staff Engineer - 30%, Drafter/CADD - 10%
35.23	Preliminary Roadway Report	LS	2	16	16	Principal Engineer - 10%, Senior Engineer - 20%, Engineer - 30%, Staff Engineer - 30%, Drafter/CADD - 10%
35.24	Final Report	EA	4	0	0	
35.25	Auger Boring Drafting	100 lf boring	0	0	2	
35.26	SPT Boring Drafting	100 lf boring	0.75	4	2	
<b>Roadway Geotechnical Subtotal</b>					<b>55</b>	<b>✓</b>
<b>Structures</b>						
35.27	Develop Detailed Boring Location Plan	LS	2	4	4	Engineer - 100%
35.28	Stake Borings/Utility Clearance	Boring	24	0.4	10	Staff Engineer - 100%
35.29	Coordinate and Develop MOT Plans for Field Investigation	EA	1	0	0	Engineer - 100%
35.30	Drilling Access Permits	Location	0	0	0	
35.31	Property Clearances	EA	0	0	0	
35.32	Collection of Corrosion Samples	EA	2	2	4	Sr. Eng. Technician - 100%
35.33	Coordination of Field Work	100 lf of boring	17.3	0.75	16	Engineer - 30%, Staff Engineer - 70%
35.34	Soil and Rock Classification - Structures	100 lf of boring	17.7	1.5	27	Engineer - 20%, Staff Engineer - 80%
35.35	Tabulation of Laboratory Data	100 lf of boring	17.7	0.5	0	Engineer - 100%

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
35.36	Estimate Design Groundwater Level for Structures	EA	19	0.25	5	Senior Engineer - 25%, Engineer - 75%
35.37	Selection of Foundation Alternatives (BDR)	Bridge boring	15	1.5	23	Principal Engineer - 10%, Senior Engineer - 20%, Engineer - 30%, Staff Engineer - 40%
35.38	Detailed Analysis of Selected Foundation Alternate(s)	Bridge boring	45	3	15	Principal Engineer - 10%, Senior Engineer - 20%, Engineer - 30%, Staff Engineer - 40%
35.39	Bridge Construction and Testing Recommendations	Bridge boring	15	0.5	8	Senior Engineer - 50%, Engineer - 50%
35.40	Lateral Load Analysis (Optional)	Bridge boring	0	0	0	Duplicate Effort - Structural Engineer
35.41	Walls	Wall Boring	4	3	12	Principal Engineer - 10%, Senior Engineer - 20%, Engineer - 30%, Staff Engineer - 40%
35.42	Sheet Pile Wall Analysis (Optional)	Wall Boring	0	0	0	
35.43	Design Soil Parameters for Signs, Signals, High Mast Lights, and Strain Poles and Geotechnical Recommendations	Boring	1	2	2	Engineer - 100%
35.44	Box Culvert Analysis	EA	0	3	0	
35.45	Preliminary Report - BDR	EA	1	20	20	Principal Engineer - 10%, Senior Engineer - 20%, Engineer - 30%, Staff Engineer - 40%
35.46	Final Report - Bridge and Associated Walls	EA	4	30	30	Principal Engineer - 10%, Senior Engineer - 20%, Engineer - 30%, Staff Engineer - 40%
35.47	Final Reports - Signs, Signals, Box Culvert, Walls and High Mast Lights	EA	5	0	0	
35.48	SPT Boring Drafting	100 lf of boring	15.8	2	32	Drafter/CADD - 100%
35.49	Other Geotechnical	LS	1	2	0	
<b>Structural Geotechnical Subtotal</b>					<b>248</b> ✓	
<b>Geotechnical Technical Subtotal</b>					<b>303</b> ✓	
35.50	Technical Special Provisions and Modified Special Provisions	EA	0	0	0	
35.51	Field Reviews	LS	1	3	0	Engineer - 100%
35.52	Technical Meetings	LS	1	12	12	Meetings listed below
35.53	Quality Assurance/Quality Control	LS	1	9	0	Senior Engineer - 100%
35.54	Supervision	LS	1	9	9	Principal Engineer - 50%, Senior Engineer - 50%
<b>Geotechnical Nontechnical Subtotal</b>					<b>38</b> ✓	
35.55	Coordination	LS	1	10	30	Engineer - 100%
<b>35. Geotechnical Total</b>					<b>351</b> ✓	

Technical Meetings	Units	No of Units	Hours/ Unit	Total Hours	Comments	PM Attendance at Meeting Required?	Number
Kickoff Meeting	EA	4	4	4	Senior Engineer - 100%		0
Boring Layout Approval	EA	0	0	0			0
Attend in BDR Review Meeting	EA	1	4	4	Senior Engineer - 100%		0
30/60/90% Submittal Review	EA	1	4	4	Senior Engineer - 100%		0
Other Meetings	EA	0	0	0			0
<b>Subtotal Technical Meetings</b>				<b>12</b> ✓			<b>0</b>
Progress Meetings (if required by FDOT)	EA	0	0	0	PM attendance at Progress Meetings is manually entered on General Task 3		--
Phase Review Meetings	EA	0	0	0	PM attendance at Phase Review Meetings is manually entered on General Task 3		--
<b>Total Meetings</b>				<b>12</b> ✓	<b>Total Project Manager Meetings (carries to Tab 3)</b>		<b>0</b>



**Florida Department of Transportation**  
**Consultant Wage Rate Report**  
**(Table 6 Pay Item Averages from Automated Fee Proposal)**  
**For District 4 - Ft Lauderdale**

Pay Item Rate Averages For District 4 - Ft Lauderdale

Job Class Pay Item Name	Actual Rate Percentages			Contract Rate Percentages			Unit
	25th	Mean / Average	75th	25th	Mean / Average	75th	
427-Geo Extra SPT Samples-Truck/Mud Bug 0-50 Ft	\$37.00	\$43.03	\$45.00	\$36.00	\$38.64	\$40.03	Each
428-Geo Extra SPT Samples-Truck/Mud Bug 50-100 Ft	\$40.79	\$48.44	\$52.00	\$40.13	\$43.51	\$45.09	Each
700-MOT Arrow Board	\$40.48	\$47.90	\$55.00	\$37.63	\$38.50	\$41.90	Each
701-MOT Attenuator Truck	\$142.25	\$143.55	\$150.00	\$133.81	\$138.73	\$144.21	Hour
702-MOT Channelizing Devices - Type I, II, VP, Drum (each)	\$0.50	\$0.73	\$1.00	\$0.50	\$0.59	\$0.64	Each
706-MOT Portable Sign	\$1.50	\$17.27	\$43.50	\$1.50	\$7.01	\$11.93	Each
708-MOT Provide Channelizing Devices - Cone	\$0.83	\$7.62	\$2.00	\$0.76	\$11.55	\$1.02	Each

September 19, 2022



SCOPE OF SERVICES

PALM BEACH LAKES BOULEVARD  
OVER FLORIDA EAST COAST (FEC) RAILROAD,  
BRIDGE WIDENING AND REHABILITATION

***PALM BEACH COUNTY PROJECT NO.: 2017800***

Table of Contents

1 BACKGROUND ..... 3  
2 PURPOSE ..... 3  
3 SCOPE ..... 3  
4 LIGHTING ANALYSIS ..... 3  
5 LIGHTING PLANS ..... 4

Scope

PBC PROJECT NO. 2017800



## SCOPE OF SERVICES FOR CONSULTING ENGINEERING SERVICES

### 1 BACKGROUND

This scope of services is part of an agreement between Palm Beach County (PBC) and HNTB Corporation (HNTB) for engineering services relative to Palm Beach Lakes Boulevard over Florida East Coast (FEC) Railroad, bridge widening and rehabilitation.

### 2 PURPOSE

The purpose of this Exhibit is to describe the HBC Engineering Company (HBC) scope of work and the responsibilities of the HBC in connection with lighting analysis and preparation of lighting plans, as necessary, for improvements to the transportation facility described herein.

- Service Provided (Category #): **9.05 - Highway Lighting**

The general objective is for the HBC to prepare a set of documents in accordance with PBC design methodology and Specifications.

### 3 SCOPE

The scope of this project is to remove the existing lighting and provide new Roadway Lighting along Palm Beach Lakes Boulevard bridge over Florida East Coast (FEC) Railroad and Underdeck Lighting at Henrietta Avenue for pedestrian and bicycle activities. Lighting Plans will be provided per the Palm Beach County Roadway Design Procedures (2019) and roadway lighting to meet the Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways (commonly known as the Florida Greenbook) lighting criteria for roadway. The proposed light pole and light fixture type to be used as a basis of design must be coordinated with PBC, City of West Palm Beach (CWPB) and Florida Power & Light (FPL) if is applicable and must be decided on four months prior to the 65% submittal to PBC

Independent horizontal roadway analysis will be provided using the AGi32 Software to accommodate the City's proposed roadway light poles. Light poles to be installed per FDOT Standard Plans (FY 2022-23) Index 521-650 and per Structural Engineer coordination and recommendations.

Light poles shall meet the basic FPL wire clearance for light poles in its permanent location. FPL utility poles and lines to be relocated shall be coordinated by the utility coordinator and final location provided by HNTB.

### 4 LIGHTING ANALYSIS

The HBC shall analyze and document Lighting Tasks in accordance with PBC requirements.

Scope

PBC PROJECT NO. 2017800

**4.1 Lighting Design Analysis and Report (Included)**

**4.2 Reference and Master Design Files (Included)**

The HBC shall prepare the Lighting Photometric Design file to include all necessary design elements and all associated reference files.

**4.3 Other Lighting Analysis (Included)**

**4.4 Field Reviews (Included)**

The HBC shall collect information from the maintaining agencies and conduct a field review.

**4.5 Technical Meetings (Included)**

**5 LIGHTING PLANS**

The HBC shall prepare a set of Lighting Plans in accordance with PBC requirements.

**5.1 Key Sheet (Included)**

**5.2 General Notes & Summary of Pay Items (Included)**

**5.3 Lighting Data (Included)**

**5.4 Project Layout (Included)**

**5.5 Plan Sheet (Included)**

**5.6 Special Details (Included)**

**Work Effort and Cost Estimate**

Name of Project: **Palm Beach Lakes Boulevard over Florida East Coast (FEC) Railroad, bridge widening and rehabilitation**

Consultant Name: **HBC Engineering Company**

PBC Project Number: **2017800**

Consultant Number:

Date: **9/14/2022**

Task Description	Total Staff Hours	Staff Categories				Staff Hours By Activity	Salary Cost By Activity	Average Rate Per Task
		Chief Engineer 1	Senior Electrical Engineer	Electrical Engineer	CADD Technician			
		\$76.95	\$72.12	\$57.69	\$28.00			
<b>BASIC SERVICES</b>								
4 Lighting Analysis	199.0	34.0	44.0	100.0	20.0	198.0	\$12,118.58	61.2
5 Lighting Plans	88.0	34.0	21.0	36.0	18.0	89.0	\$5,172.66	58.12
<b>Total Staff Hours (Basic Services)</b>	<b>287.0</b>	<b>48.0</b>	<b>65.0</b>	<b>136.0</b>	<b>20.0</b>	<b>287.0</b>		<b>60.25</b>
<b>Total Staff Cost (Basic Services)</b>		<b>\$3,693.60</b>	<b>\$4,687.80</b>	<b>\$7,845.84</b>	<b>\$1,064.00</b>		<b>\$17,291.24</b>	

		<b>Basic Services:</b>	
Salary Related Costs:			\$17,291.24
		Contract Multiplier	3.00
		<b>Subtotal Basic Services (Prime Firm):</b>	<b>\$51,873.72</b>
		<b>Basic Services Total:</b>	<b>\$51,873.72</b>
		<b>Grand Total Estimated Fees:</b>	<b>\$51,873.72</b> ✓

## Lighting Analysis

Name of Project: **Palm Beach Lakes Boulevard over Florida East Coast  
(FEC) Railroad, bridge widening and rehabilitation**

Consultant Name: **HBC Engineering Company**

PBC Project Number: **2017800**

Consultant Number:  
Date: **9/14/2022**

Representing	Print Name	Signature / Date
Palm Beach County		
HBC Engineering Company		

Task No.	Task	Units	No. of Units	Hours/ Units	Total Hours	Comments
4.1	Lighting Design Analysis and Report	LS	1	80	80	Provide an LDAR in accordance with the requirements of the FDOT Design Manual. Corridor Lighting: 40-80 hours for proposed corridor lighting. Intersection Lighting: 4-12 hours for each proposed signalized intersection lighting design. <b>Middle Range 60 h + one intersection 8 h = 68</b>
4.2	Reference and Master Design Files	LS	69	68.5	69	Establishing the lighting master design file to include all applicable reference files . This includes all work to create elements showing the alignment in plan view. Includes design and layout of proposed light poles, conductors and conduit runs, load center locations, pull box, service points, electrical service feed, and efforts required for drafting and clean up of reference files . Corridor Lighting (LS - Lower Range: 15 hours for set up, and 40 hours per mile including cross roads; Middle Range: 25 hours for set up, and 90 hours per mile including ramps and cross roads, Upper Range: 35 hours for set up and 140 hours per mile including ramps and cross roads (ranges based on project classifications shown in the guidelines for this section). Per Mile - based on the length of the lighting required to be shown in plan view per the scope of services. Add 8-20 hours for each signalized intersection lighting design. <b>25 h for setup + 90 h x 0.25 Miles + 14 h for intersection lighting =25+22.5+14</b>
4.3	Other Lighting Analysis	LS	1	24	24	<b>Underdeck - Lighting 24 h.</b>
<b>Lighting Analysis Technical Subtotal</b>					<b>173</b> ✓	
4.4	Field Reviews	LS	1	8	8	1 field review 2 people x 4 hours
4.5	Technical Meetings	LS	1	18	18	See below
<b>Lighting Analysis Nontechnical Subtotal</b>					<b>26</b>	
<b>Lighting Analysis Total</b>					<b>199</b>	

Technical Meetings	Units	No of Units	Hours/ Unit	Total Hours	Comments	PM Attendance at Meeting Required?	Number
Power Company (coordination)	EA	2	3	6	Meeting with FPL		0
Maintaining Agency (cities, counties)	EA	4	1	4	Maintaining Agency Coordination		0
Phase Review Meetings	EA	1	8	8	PM attendance at Phase Review Meetings is manually entered on General Task 3		--
<b>Total Meetings</b>				<b>18</b> ✓			<b>0</b>
<b>Total Project Manager Meetings (carries to Tab 3)</b>							<b>0</b>

**Lighting Plan**

Name of Project: Palm Beach Lakes Boulevard over Florida East Coast (FEC) Railroad, bridge widening and rehabilitation

Consultant Name: HBC Engineering Company

PBC Project Number: 2017800

Consultant Number:

Date: 9/14/2022

Representing	Print Name	Signature / Date
Palm Beach County		
HBC Engineering Company		

Task No.	Task	Scale	Units	No. of Units	Hours/ Unit	No. of Sheets	Total Hours	Comments
5.1	Key Sheet		Sheet	1	6	1	6	Develop key sheet. (Hours dependent on if a key map is needed or not)
5.2	General Notes & Summary of Pay Items		Sheet	14	14	1	14	Includes developing general and pay item note sheet(s), using and modifying specific notes and developing specific notes for special design considerations. One sheet 6 h + 8 hours for Summary
5.3	Lighting Data		Sheet	1	20	1	20	Modify general legend description, wind speed, uniformity ratios, develop pole data, pull station and offset of each pole and update pole descriptions. 20 hours for the first sheet
5.4	Project Layout		Sheet	4	4	4	4	Develop Plan Sheet(s) with overview of the entire project may include stations, intersection locations, project limits and plan sheet coverage. One sheet 4 h
5.5	Plan Sheet		Sheet	32	4	4	32	Establish lighting design files including border, scale, proposed call outs, and required text and information per the FDOT Design Manual. If double panel plan sheets are utilized, each panel is considered a plan sheet. 4 sheet x 8 h = 32 h
5.6	Special Details		Sheet	12	12	1	12	Includes decorative lighting, under deck, bridge cross section, plan view, tags, labels, call out identifications, special notes and reference to bridge plans. (Based on complexity of project.) Underdeck lighting at Henrietta Ave, notes for conduits embedded on railings.
						<b>Lighting Plans Technical Subtotal</b>	<b>9</b>	<b>88</b> ✓
						<b>Lighting Plans Total</b>	<b>9</b>	<b>88</b> ✓

**Work Effort and Cost Estimate**

Name of Project: Palm Beach Lakes Boulevard over Florida East Coast (FEC) Railroad, bridge widening and rehabilitation

Consultant Name: HBC Engineering Company

PBC Project Number: 2017800

Consultant Number:

Date: 9/20/2022

Task Description	Total Staff Hours	Staff Categories				Staff Hours By Activity	Salary Cost By Activity	Average Rate Per Task
		Chief Engineer 1	Senior Electrical Engineer	Electrical Engineer	CADD Technician			
		\$76.95	\$72.12	\$57.69	\$28.00			
<b>BASIC SERVICES</b>								
6 Temporary Highway Lighting	66.0	12.0	16.0	24.0	14.0	66.0	\$3,853.88	58.39
<b>Total Staff Hours (Optional Services)</b>	<b>66.0</b>	<b>12.0</b>	<b>16.0</b>	<b>24.0</b>	<b>14.0</b>	<b>66.0</b>		<b>58.39</b>
<b>Total Staff Cost (Optional Services)</b>		<b>\$923.40</b>	<b>\$1,153.92</b>	<b>\$1,384.56</b>	<b>\$392.00</b>		<b>\$3,853.88</b>	

**Optional Services:**

Salary Related Costs:	\$3,853.88
Contract Multiplier	3.00
<b>Subtotal Optional Services (Prime Firm):</b>	<b>\$11,561.64</b>
<b>Optional Services Total:</b>	<b>\$11,561.64</b>
<b>Grand Total Estimated Fees:</b>	<b>\$11,561.64 ✓</b>

**Name of Project:** Palm Beach Lakes Boulevard over Florida East Coast (FEC) Railroad, bridge widening and rehabilitation

**Consultant Name:** HBC Engineering Company

**PBC Project Number:** 2017800

**Consultant Number:**

**Date:** 12/22/2022

Representing	Print Name	Signature / Date
Palm Beach County		
HBC Engineering Company		

Task No.	Task	Scale	Units	No. of Units	Hours/ Unit	No. of Sheets	Total Hours	Comments
6.1	Temporary Highway Lighting Detail Sheets		Sheet	11	66	66	66	Develop a Temporary Highway Lighting design and, when required, a Temporary Highway Lighting design file. The Temporary Highway Lighting design must account for all phases of the TTCP and includes the analysis, calculations, and placement of luminaires, supports, conductors, conduits, pull boxes, and electrical power service. Analysis: 20-60 hours. Design File (when required): 8 hours for setup and 40 hours per mile per phase of Temporary Highway Lighting. (Optional) 66 h, assuming the existing railing can remain and temporary circuits are required for existing and/or temporary light poles mounted on the existing railing until the new light poles are in operation.
<b>Lighting Plans Technical Subtotal</b>						<b>11</b>	<b>66</b>	
<b>Lighting Plans Total</b>						<b>11</b>	<b>66</b> ✓	

**OEBO SCHEDULE 1**

SOLICITATION/PROJECT/BID NAME: Palm Beach Lakes Boulevard over Florida East Coast (FEC) Railroad

SOLICITATION/PROJECT/BID NO.: Project No. 2017800

SOLICITATION OPENING/SUBMITTAL DATE: September 4, 2018

COUNTY DEPARTMENT: Engineering & Public Works

**Section A** PLEASE LIST THE DOLLAR AMOUNT OR PERCENTAGE OF WORK TO BE COMPLETED BY THE PRIME CONTRACTOR/CONSULTANT\* ON THE PROJECT:

NAME OF PRIME RESPONDENT/BIDDER: HNTB Corporation ADDRESS: 161 N.W. 6th Street, Suite 1000, Miami, FL 33136  
 CONTACT PERSON: Kyle Cheerangie, PE PHONE NO.: 786-562-7614 E-MAIL: kcheerangie@hntb.com

PRIME'S DOLLAR AMOUNT OR PERCENTAGE OF WORK: \$705,052.00  
\*S/M/WBE Prime(s) must include their percentage or dollar amount in the Total Participation line under section B

Non-SBE   
  MBE   
  WBE   
  SBE

**Section B** PLEASE LIST THE DOLLAR AMOUNT OR PERCENTAGE OF WORK TO BE COMPLETED BY ALL SUBCONTRACTORS/SUBCONSULTANTS ON THE PROJECT BELOW:

Subcontractor/Sub consultant Name	(Check all Applicable Categories)				DOLLAR AMOUNT OR PERCENTAGE OF WORK					
	Non-SBE	MBE	WBE	SBE	Black	Hispanic	Women	Caucasian	Asian	Other
		Minority Business	Women Business	Small Business						
1 K-F Group Inc.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>					\$207,277.27	
2 Brown & Phillips, Inc.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	\$24,092.05					
3 Radise International, L.C.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					\$116,960.95	
4 HBC Engineering Company	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	\$63,435.36					
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
Total					\$87,527.41				\$320,238.22	\$709,052.00

(Please use additional sheets if necessary)

Total Bid/Offer Price \$ \$1,116,817.63

Total Certified S/M/WBE Participation \$ \$411,765.63

I hereby certify that the above information is accurate to the best of my knowledge: Leonard Becker General Beed Sr. Vice President  
Name of Authorized Signatory Title

- Note:
- The amount listed on this form for a Subcontractor/sub consultant must be supported by price or percentage listed on the properly executed Schedule 2 or attached signed proposal.
  - Only those firms certified by Palm Beach County at the time of solicitation opening or due date are eligible to meet the established OEBO Affirmative Procurement Initiative (API). Please check the applicable box and list the dollar amount or percentage under the appropriate demographic category.
  - Modification of this form is not permitted and will be rejected upon submittal.



**OEBO LETTER OF INTENT – SCHEDULE 2**

A completed Schedule 2 is a binding document between the Prime Contractor/consultant and a Subcontractor/subconsultant (for any tier) and should be treated as such. The Schedule 2 shall contain bolded language indicating that by signing the Schedule 2, both parties recognize this Schedule as a binding document. All Subcontractors/subconsultants, including any tiered Subcontractors/subconsultants, must properly execute this document. Each properly executed Schedule 2 must be submitted with the bid/proposal.

SOLICITATION/PROJECT NUMBER: 2017800

SOLICITATION/PROJECT NAME: Palm Beach Lakes Boulevard over Florida East Coast (FEC) Railroad

Prime Contractor: HNTB Corporation Subcontractor: Brown & Phillips, Inc.

**(Check box(s) that apply)**

SBE  WBE  MBE  M/WBE  Non-S/M/WBE Date of Palm Beach County Certification (if applicable): 1/31/22-1/30/25

The undersigned affirms they are the following (select one from each column if applicable):

<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
<input checked="" type="checkbox"/> Male <input type="checkbox"/> Female	<input checked="" type="checkbox"/> African-American/Black <input type="checkbox"/> Asian American <input type="checkbox"/> Hispanic American <input type="checkbox"/> Native American	<input type="checkbox"/> Caucasian American <input type="checkbox"/> Supplier

**S/M/WBE PARTICIPATION** – S/M/WBE Primes must document all work to be performed by their own work force on this form. Failure to submit a properly executed Schedule 2 for any S/M/WBE participation may result in that participation not being counted. Specify in detail, the scope of work to be performed or items supplied with the dollar amount and/or percentage for each work item. S/M/WBE credit will only be given for the areas in which the S/M/WBE is certified. A detailed proposal may be attached to a properly executed Schedule 2.

Line Item	Item Description	Unit Price	Quantity/ Units	Contingencies/ Allowances	Total Price/Percentage
	Route Topographic Survey	\$6,823.59	1 / LS	-	\$6,823.59
	Pond Sites Boundary and Topographic Survey	\$3,184.23	2 / LS	-	\$6,368.46
	Legal Description and Sketch	\$500.00	20 / EA	-	\$10,000.00
	Test Holes	\$450.00	2 / EA	-	\$900.00
				-	
				-	

The undersigned Subcontractor/subconsultant is prepared to self-perform the above-described work in conjunction with the aforementioned project at the following total price or percentage: \$24,092.05

If the undersigned intends to subcontract any portion of this work to another Subcontractor/subconsultant, please list the business name and the amount below accompanied by a separate properly executed Schedule 2.

- \_\_\_\_\_ Price or Percentage: - \_\_\_\_\_  
 Name of 2<sup>nd</sup>/3<sup>rd</sup> tier Subcontractor/subconsultant

**HNTB Corporation**

Print Name of Prime

By: Leonard Becker  
 Authorized Signature

Leonard Becker

Print Name

Sr Vice President

Title

Date: 1/17/2023

**Brown & Phillips, Inc.**

Print Name of Subcontractor/subconsultant

By: Anthony S. Brown  
 Authorized Signature

Anthony S. Brown

Print Name

CEO

Title

Date: July 25, 2022

**OEBO LETTER OF INTENT – SCHEDULE 2**

A completed Schedule 2 is a binding document between the Prime Contractor/consultant and a Subcontractor/subconsultant (for any tier) and should be treated as such. The Schedule 2 shall contain bolded language indicating that by signing the Schedule 2, both parties recognize this Schedule as a binding document. All Subcontractors/subconsultants, including any tiered Subcontractors/subconsultants, must properly execute this document. Each properly executed Schedule 2 must be submitted with the bid/proposal.

SOLICITATION/PROJECT NUMBER: 2017800

SOLICITATION/PROJECT NAME: Palm Beach Lakes Boulevard over Florida East Coast (FEC) Railroad

Prime Contractor: HNTB Corporation Subcontractor: K-F Group, Inc.

(Check box(s) that apply)

SBE WBE MBE M/WBE Non-S/M/WBE Date of Palm Beach County Certification (if applicable): 2/25/2022 - 2/24/2025

The undersigned affirms they are the following (select one from each column if applicable):

<b>Column 1</b>	<b>Column 2</b>	<b>Column 3</b>
<input checked="" type="checkbox"/> Male <input type="checkbox"/> Female	<input type="checkbox"/> African-American/Black <input checked="" type="checkbox"/> Asian American <input type="checkbox"/> Caucasian American	<input type="checkbox"/> Supplier
	<input type="checkbox"/> Hispanic American <input type="checkbox"/> Native American	

**S/M/WBE PARTICIPATION** – S/M/WBE Primes must document all work to be performed by their own work force on this form. Failure to submit a properly executed Schedule 2 for any S/M/WBE participation may result in that participation not being counted. Specify in detail, the scope of work to be performed or items supplied with the dollar amount and/or percentage for each work item. S/M/WBE credit will only be given for the areas in which the S/M/WBE is certified. A detailed proposal may be attached to a properly executed Schedule 2.


Line Item	Item Description	Unit Price	Quantity/ Units	Contingencies/ Allowances	Total Price/Percentage
1	Drainage Design, Analysis, Permitting and Signing and Pavement Marking				\$207,277.27

The undersigned Subcontractor/subconsultant is prepared to self-perform the above-described work in conjunction with the aforementioned project at the following total price or percentage: \$207,277.27

If the undersigned intends to subcontract any portion of this work to another Subcontractor/subconsultant, please list the business name and the amount below accompanied by a separate properly executed Schedule 2.

Name of 2<sup>nd</sup>/3<sup>rd</sup> tier Subcontractor/subconsultant \_\_\_\_\_ Price or Percentage: \_\_\_\_\_

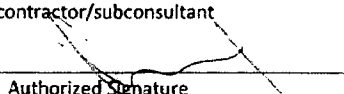
**HNTB Corporation**

Print Name of Prime  
By:   
Authorized Signature  
Leonard Becker

Print Name  
Sr. Vice President

Title  
Date: 1/17/2023

**K-F Group, Inc.**

Print Name of Subcontractor/subconsultant  
By:   
Authorized Signature

Hian C Kor, P.E.  
Print Name  
President

Title  
Date: 12/29/2022

**OEBO LETTER OF INTENT – SCHEDULE 2**

A completed Schedule 2 is a binding document between the Prime Contractor/consultant and a Subcontractor/subconsultant (for any tier) and should be treated as such. The Schedule 2 shall contain bolded language indicating that by signing the Schedule 2, both parties recognize this Schedule as a binding document. All Subcontractors/subconsultants, including any tiered Subcontractors/subconsultants, must properly execute this document. Each properly executed Schedule 2 must be submitted with the bid/proposal.

SOLICITATION/PROJECT NUMBER: 2017800

SOLICITATION/PROJECT NAME: Palm Beach Lakes Boulevard over Florida East Coast (FEC) Railroad

Prime Contractor: HNTB Corporation Subcontractor: RADISE International, L.C.

(Check box(s) that apply)

SBE WBE MBE M/WBE Non-S/M/WBE Date of Palm Beach County Certification (if applicable): 12/13/17-12/12/20

The undersigned affirms they are the following (select one from each column if applicable):

<b>Column 1</b>	<b>Column 2</b>	<b>Column 3</b>
<input checked="" type="checkbox"/> Male <input type="checkbox"/> Female	<input type="checkbox"/> African-American/Black <input checked="" type="checkbox"/> Asian American <input type="checkbox"/> Caucasian American	<input type="checkbox"/> Supplier
	<input type="checkbox"/> Hispanic American <input type="checkbox"/> Native American	


**S/M/WBE PARTICIPATION** – S/M/WBE Primes must document all work to be performed by their own work force on this form. Failure to submit a properly executed Schedule 2 for any S/M/WBE participation may result in that participation not being counted. Specify in detail, the scope of work to be performed or items supplied with the dollar amount and/or percentage for each work item. S/M/WBE credit will only be given for the areas in which the S/M/WBE is certified. A detailed proposal may be attached to a properly executed Schedule 2.

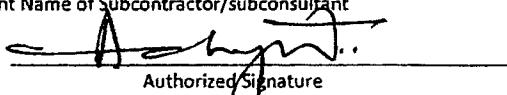
Line Item	Item Description	Unit Price	Quantity/ Units	Contingencies/ Allowances	Total Price/Percentage
	Geotechnical Engineering Services				\$116,960.95

The undersigned Subcontractor/subconsultant is prepared to self-perform the above-described work in conjunction with the aforementioned project at the following total price or percentage: \$116,960.95

If the undersigned intends to subcontract any portion of this work to another Subcontractor/subconsultant, please list the business name and the amount below accompanied by a separate properly executed Schedule 2.

Name of 2<sup>nd</sup>/3<sup>rd</sup> tier Subcontractor/subconsultant \_\_\_\_\_ Price or Percentage: \_\_\_\_\_

HNTB Corporation  
 Print Name of Prime  
 By:   
 Authorized Signature  
 Leonard Becker  
 \_\_\_\_\_  
 Print Name  
 Sr. Vice President  
 \_\_\_\_\_  
 Title  
 Date: 1/17/2023

RADISE International, L.C.  
 Print Name of Subcontractor/subconsultant  
 By:   
 Authorized Signature  
 Kumar Allady  
 \_\_\_\_\_  
 Print Name  
 CEO  
 \_\_\_\_\_  
 Title  
 Date: 08-08-22

OEBO LETTER OF INTENT – SCHEDULE 2

As indicated Schedule 2, the State of Florida has awarded the contract and the contractor and subcontractors are required to submit this schedule to any tiered and should use it as a submittal. The objective of this schedule is to ensure that by signing this Schedule 2, all parties accept the Schedule 2 as a binding document. All Subcontractors/subconsultants, including any tiered Subcontractors/subconsultants, must properly execute this document. Each properly executed Schedule 2 must be submitted with the bid/proposal.

SOLICITATION/PROJECT NUMBER: 2017800

SOLICITATION/PROJECT NAME: Palm Beach Lakes Boulevard over Florida East Coast (FEC) Railroad

Prime Contractor: HNTB Corporation Subcontractor: HBC Engineering Company

(Check box(s) that apply)

SBE  WBE  MBE  M/WBE  Non-S/M/WBE Date of Palm Beach County Certification (if applicable): 5/24/2022 - 5/23/2025

The undersigned affirms they are the following (select one from each column if applicable):

<b>Column 1</b>	<b>Column 2</b>	<b>Column 3</b>
<input checked="" type="checkbox"/> Male <input type="checkbox"/> Female	<input checked="" type="checkbox"/> African-American/Black <input type="checkbox"/> Asian American <input type="checkbox"/> Caucasian American	<input type="checkbox"/> Supplier
	<input type="checkbox"/> Hispanic American <input type="checkbox"/> Native American	

**S/M/WBE PARTICIPATION** – S/M/WBE Primes must document all work to be performed by their own work force on this form. Failure to submit a properly executed Schedule 2 for any S/M/WBE participation may result in that participation not being counted. Specify in detail, the scope of work to be performed or items supplied with the dollar amount and/or percentage for each work item. S/M/WBE credit will only be given for the areas in which the S/M/WBE is certified. A detailed proposal may be attached to a properly executed Schedule 2.

Line Item	Item Description	Unit Price	Quantity/ Units	Contingencies/ Allowances	Total Price/Percentage
9.05	Highway Lighting				\$51,873.72
9.05	Optional Services				\$11,561.64

The undersigned Subcontractor/subconsultant is prepared to self-perform the above-described work in conjunction with the aforementioned project at the following total price or percentage: \$63,435.36

If the undersigned intends to subcontract any portion of this work to another Subcontractor/subconsultant, please list the business name and the amount below accompanied by a separate properly executed Schedule 2.

Name of 2<sup>nd</sup>/3<sup>rd</sup> tier Subcontractor/subconsultant \_\_\_\_\_ Price or Percentage: \_\_\_\_\_

HNTB Corporation

Print Name of Prime

By: Leonard Becker  
Authorized Signature

Leonard Becker

Print Name

Sr. Vice President

Title

Date: 11/17/2023

HBC Engineering Company

Print Name of Subcontractor/subconsultant

By: Adebayo Coker  
Authorized Signature

Adebayo Coker, PE

Print Name

President

Title

Date: 10/14/2022

**PROJECT HISTORY**

<b>Palm Beach Lakes Boulevard over the Florida East Coast (FEC) Railroad</b>					
<b>Project# 2017800</b>					
<b>Authorization</b>	<b>Supplement</b>	<b>Date Approved</b>	<b>Total Amount</b>	<b>SBE Amount</b>	<b>SBE %</b>
BCC	Original Contract	4/7/20	\$ 297,673.02	\$ 108,770.02	36.54%
BCC	Supplement	Pending	\$ 1,116,817.63	\$ 411,765.63	36.86%
<b>Project Totals</b>			<b>\$ 1,414,490.65</b>	<b>\$ 520,535.65</b>	<b>36.80%</b>

